

# SUPPLEMENTARY AGENDA

<b>Meeting</b>	<b>Fire, Resilience and Emergency Planning Committee (Extraordinary)</b>
<b>Date</b>	<b>Wednesday 16 October 2019</b>
<b>Time</b>	<b>11.00 am</b>
<b>Place</b>	<b>Chamber, City Hall, The Queen's Walk, London, SE1 2AA</b>

Copies of the reports and any attachments may be found at [www.london.gov.uk/mayor-assembly/london-assembly/fire-resilience-emergency-planning-committee](http://www.london.gov.uk/mayor-assembly/london-assembly/fire-resilience-emergency-planning-committee)

Most meetings of the London Assembly and its Committees are webcast live at [www.london.gov.uk/mayor-assembly/london-assembly/webcasts](http://www.london.gov.uk/mayor-assembly/london-assembly/webcasts) where you can also view past meetings.

In accordance with section 100(B)(4) of the Local Government Act 1972, the Chair has agreed to accept the attached report as an item of urgent business in order to allow its consideration at the very earliest opportunity.

Ed Williams, Executive Director of Secretariat  
Wednesday 16 October 2019

**4 Grenfell Tower Progress Report: Update from London Fire Commissioner**  
(Pages 1 - 2)

Report of the Executive Director of Secretariat

Contact: Jonathan Baker, [jonathan.baker@london.gov.uk](mailto:jonathan.baker@london.gov.uk); 020 7084 2825

**The Committee is recommended to receive and consider a Grenfell Tower Progress Report update from the London Fire Commissioner.**

# Subject: Grenfell Tower Progress Report: Update from London Fire Commissioner

**Report to: Fire, Resilience and Emergency Planning Committee**

**Report of: Executive Director of Secretariat**

**Date:  
16 October 2019**

**This report will be considered in public**

## 1. Summary

- 1.1 The Committee is invited to receive and consider a Grenfell Tower Progress report update from the London Fire Commissioner now attached at **Appendix 1**.

## 2. Recommendation

- 2.1 **That the Committee receives and consider a Grenfell Tower Progress Report update from the London Fire Commissioner attached at Appendix 1.**

## 3. Issues for Consideration

- 3.1 A copy of the London Fire Brigade Grenfell Tower Improvement Progress Report is attached at Appendix 1 to this report.
- 3.2 Guests in attendance at the meeting include:
- Dany Cotton QFSM, London Fire Commissioner;
  - Dr Fiona Twycross AM, Deputy Mayor for Fire and Resilience; and
  - Andy Bell, Deputy Assistant Commissioner, London Fire Brigade.

## 4. Legal Implications

- 4.1 The Committee has the power to do what is recommended in this report.

## 5. Financial Implications

- 5.1 There are no financial implications to the Greater London Authority arising from this report.

---

**List of appendices to this report:**

Appendix 1 – Letter from the London Fire Commissioner to the Chair – 16 October 2019

Appendix 2 - London Fire Brigade Grenfell Tower Improvement Progress Report

**Local Government (Access to Information) Act 1985**

List of Background Papers:

None

Contact Officer: Jonathan Baker, Committee Officer

Telephone: 020 7084 2825

E-mail: [Jonathan.baker@london.gov.uk](mailto:Jonathan.baker@london.gov.uk)



LONDON FIRE BRIGADE

London Fire Brigade Headquarters  
3rd Floor, 169 Union Street London SE1 0LL  
T 020 8555 1200 x 30000 F 020 7960 3600  
E dany.cotton@london-fire.gov.uk  
www.london-fire.gov.uk

Dany Cotton <sup>OFSM</sup>  
London Fire Commissioner

Andrew Dismore AM  
Chair of the Fire, Resilience and  
Emergency Planning Committee  
City Hall  
The Queen's Walk  
London  
SE1 2AA

The London Fire Commissioner is the  
fire and rescue authority for London

Date: 16 October 2019  
Ref:

Dear Andrew,

I am writing to you in your capacity as Chair of the Fire, Resilience and Emergency Planning committee to submit for scrutiny a progress report on the London Fire Brigade's (LFB) actions since the Grenfell Tower fire. I commissioned the report from the LFB's Grenfell Tower Fire Investigation and Review Team (GTIRT), and it is intended to set out as clearly as possible the changes we have made to protect Londoners since the fire.

The Grenfell Tower fire was the single worst residential fire the LFB has ever been called to. No one could have expected what we saw on that night, and the impact it has had on the individuals involved, the local community and our society as a whole has been profound. We owe it to all those who were directly affected by the fire – particularly to survivors, those who lost loved ones, and the memories of those who died – to examine the events of that night and to do all we can to avoid anything like it from happening again.

To this end, since shortly after the fire, the GTIRT team, led by Assistant Commissioner Andy Bell, has been conducting an in-depth review of all aspects of the Brigade's activities on the night.

A major part of the picture that has emerged shows a collective human tragedy. The records of fire survival guidance calls show in moving detail some of the horror of that tragic night. The people who lost their lives must never be forgotten, and those who lost loved ones or have been scarred forever by those events must remain in all our thoughts.

Another part of the picture shows individual acts of heroism. My control staff provided vital support, information and direction in the most challenging circumstances imaginable, and my firefighters put themselves in grave danger to save the lives of others, many going beyond the call of duty on the night.

They don't expect praise for their work – it's what they do every day – but I want to acknowledge their efforts and offer them, and all my staff, my ongoing support.

But the final part of the picture shows an event so large, catastrophic and unprecedented that my firefighters – a team I consider to be the best of its type in the world – were overwhelmed by the scale and speed of the disaster. The account of the night shows that events were sometimes confusing and chaotic, with residents unsure of what to do and firefighters and control staff unsure of how best to protect them. Despite the expertise and dedication of huge numbers of staff, the conditions of the fire were such that 72 people died, and we all have a duty to understand why.

The Grenfell Tower Inquiry was set up for this purpose. The Phase 1 report is due to be published later this month, and many of the key questions about cause and consequence will be examined in Phase 2. The Brigade will of course consider the recommendations of the Inquiry as soon as we are able to, but I have been clear since the fire that we must make any improvements we can before then.

Since the fire we have invested in new firefighting equipment, improved our training systems, changed our predetermined attendance levels, restructured our 999 control room and overhauled the way we gather and share operational risk information, amongst other improvements detailed in the report.

All of these changes will help to keep Londoners safe, but because of the complex nature of the fire and the lack of Government action in the two and a half years since, I cannot be confident that something similar could not happen again.

For many months now, we have been calling on the Government to make building regulation changes that could have a big impact on the safety of Londoners. Combustible cladding should be completely banned in all buildings, regardless of height or use, and sprinklers should be mandatory in a much wider range of buildings, including all purpose-built blocks of flats. The Government's announcement in the Queen's Speech of new legislation on building safety standards is welcome, but Londoners are no safer because of an announcement – they need real action now.

As a result of what I've seen in the GTIRT report, I have come to the conclusion that this action must include urgent research into instances where buildings fail on fire safety, leaving 'stay put' advice no longer viable.

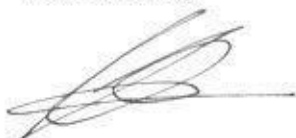
A key issue on the night of the Grenfell Tower fire was one of catastrophic building failure and attendant process for that circumstance. Buildings like Grenfell Tower are designed to contain fire and do not allow for safe simultaneous evacuation, with narrow staircases and no common alarm system. When their fire safety design fails and fire spreads, there is no established process to get people out safely. We are reliant on buildings being properly built and maintained to allow the stay put approach to work, and the Grenfell Tower fire shows that this does not always hold true.

I want to be absolutely clear, however, that stay put does work in most cases – since 2014, there have been more than 5,000 high rise fires in London, and we have not seen anything like Grenfell before or since. Following the fire, we have put in place interim advice for incident commanders to support an emergency evacuation or mass rescue operation in the event of rapid or abnormal fire spread. Londoners should know that our firefighters and control staff are trained to deal with extraordinary situations, and residents should follow their advice if they find themselves in potential danger.

But Londoners will also want to know that we are doing everything we can to protect them, including asking difficult questions both of ourselves and of Government. So today I have written to the Government to call for urgent research into instances where buildings fail on fire safety, leaving stay put advice no longer viable, so that we can develop a national approach to protecting residents in those rare cases where things go so badly wrong.

This report details a range of improvements we have made at the Brigade in response to the fire, and we will continue to do all we can to keep Londoners safe. After 20 years of neglect at a national level on fire safety, it is now time for the Government to step up and take the real action needed to keep people safe. We all have a responsibility to prevent a tragedy like Grenfell from happening again, and I will continue to fight for the changes Londoners need to make this happen.

Yours sincerely

A handwritten signature in black ink, appearing to be 'Dany Cotton', written over a horizontal line.

**Dany Cotton**  
London Fire Commissioner







LONDON FIRE BRIGADE

Report title

---

## Grenfell Tower learning – progress report

---

Report to

Commissioner's Board  
Fire and Resilience Board

Date

9 October 2019  
15 October 2019

---

Report by

Assistant Commissioner  
Grenfell Tower Investigation and Review Team

Report number

LFC-0251

---

Protective marking: **OFFICIAL**

Publication status: Published with redactions

---

### Summary

Immediately after the Grenfell Tower fire the London Fire Commissioner ['the Commissioner'] established the Grenfell Tower Investigation and Review Team ['GTIRT'] to identify lessons to be learnt, review London Fire Brigade's response to the fire and to assist the Grenfell Tower Inquiry and Metropolitan Police Service with their respective investigations.

GTIRT produced a preliminary report, dated 2 April 2019, covering the first seven hours of the incident following the Grenfell Tower Inquiry Phase 1 hearings. The preliminary report made a number of observations across seven themes, and made 13 recommendations in relation to areas that the Brigade should consider.

In September 2019 the Commissioner instructed the Assistant Commissioner GTIRT to produce a progress report on improvement actions taken by the Brigade to ensure recommendations made in the preliminary report are on track and also in preparation for the publication of the Grenfell Tower Inquiry Phase 1 findings. The progress report is attached as Appendix 1.

### Recommended decision

The London Fire Commissioner notes the report.

### Background

1. Grenfell Tower was the single largest residential building fire fought since the Brigade was formed over 150 years ago. It was a major fire on a scale and speed not previously experienced and the Brigade will always remember the 72 lives lost, the bereaved, survivors and residents.
2. Since the fire, officers have reviewed the Brigade's response on the night, produced a preliminary report containing 42 observations with 13 recommendations and made a number of changes to protect the public, based on all new information as it has become available.
3. The preliminary report will be followed by interim and final reports as GTIRT's operational response analysis progresses and is completed following Phase 2 of the Grenfell Tower Inquiry.

4. The observations and recommendations contained within the preliminary report are spread across seven different themes - Observed failures of the building and its safety measures - Operational pre-planning - Command and control - Operations (at the incident) - Brigade control - Communications and Equipment.

### **Purpose of Report**

5. This progress report explains in new detail the structures in place to ensure learning identified since the Grenfell Tower fire is acted upon and this includes a Grenfell Tower Improvement Board (GTIB).
6. The progress report provides the most up-to-date position on changes that were made immediately after the fire, progress of new training and policies either complete or underway, the introduction of new or planned equipment and how the Brigade has been working to influence and change national fire safety policy as the enforcing fire authority for London.
7. The report also sets out how the Brigade is organising, prioritising and assuring Grenfell Tower related improvements are delivered and embedded into the organisation.
8. The report assists in demonstrating the office of the London Fire Commissioner's statutory duty to review the performance of the organisation and ensure all learning from incidents is identified, disseminated, and acted upon where appropriate.

### **Finance Comments**

9. The report attached at Appendix 1 provides an update on the improvement activities being undertaken in response to the learning from the Grenfell Tower fire in June 2017. The financial implications of these items are currently being assessed and will be included for consideration as part of the budget process for future years, once finalised.

### **Workforce comments**

10. No comments have been sought due to the confidential nature of the report at this stage.

### **Legal comments**

11. Under Section 9 of the Policing and Crime Act 2017, the London Fire Commissioner is established as a corporation sole with the Mayor appointing the occupant of that office. Under section 327D of the GLA Act 1999, as amended by the Policing and Crime Act 2017, the Mayor may issue to the Commissioner specific or general directions as to the manner in which the holder of that office is to exercise his or her functions.
12. Section 1 of the Fire and Rescue Services Act 2004 states that the Commissioner is the fire and rescue authority for Greater London.
13. The Commissioner is also a 'best value' authority under the Local Government Act 1999 and must make arrangements to secure continuous improvement in the way in which its functions are exercised, having regard to a combination of economy, efficiency and effectiveness.
14. The Commissioner, along with all employers, is required by the Health and Safety at Work Act 1974 and subsidiary legislation under that Act to protect the health, safety and welfare of their employees and other people who might be affected by their activities.
15. The attached report is produced in accordance with the above legal duties.

## Sustainability implications

16. There are no sustainability implications associated with this report.

## Equalities implications

17. The Public Sector Equality Duty applies to the London Fire Commissioner when it makes decisions. The duty requires it to have regard to the need to:

- a) Eliminate unlawful discrimination, harassment and victimisation and other behaviour prohibited by the Equality Act 2010. In summary, the Act makes discrimination etc. on the grounds of a protected characteristic unlawful.
- b) Advance equality of opportunity between people who share a relevant protected characteristic and those who do not.
- c) Foster good relations between people who share a relevant protected characteristic and those who do not including tackling prejudice and promoting understanding.

18. The protected characteristics are age, disability, gender reassignment, pregnancy and maternity, marriage and civil partnership, race, religion or belief, gender, and sex and sexual orientation. The Act states that 'marriage and civil partnership' is not a relevant protected characteristic for (b) or (c) although it is relevant for (a).

19. The ongoing investigation and review is considering impacts for individuals with a protected characteristic, particularly age and disability. Where appropriate, those considerations will form a part of recommendations to the LFC for improvements.

## List of Appendices

Appendix	Title	Protective Marking
1.	Grenfell Tower Improvement Progress Report and appendices, dated 9 October 2019	Official

## Consultation

Name/role	Method consulted
Kathy Robinson – General Counsel	Circulation of report
Yvonne McKenna – Head of Litigation	Circulation of report
Adrian Bloomfield – Assistant Director of Finance	Circulation of report
Stephen Walsh QC – External Counsel	Circulation of report
Sarah LeFevre – External Counsel	Circulation of report
Assistant Commissioner Jane Philpott	Drafting of report
Glenn Sebright – Assistant Director of Communications	Circulation of report
Steven Adams, Head of Governance	Circulation of report



# Grenfell Tower Improvement Progress

Assistant Commissioner – GTIRT

**OFFICIAL**

10 October 2019

# Contents

<b>Introduction</b> .....	<b>3</b>
<b>Purpose of report</b> .....	<b>3</b>
<b>Internal Safety and Learning Investigation</b> .....	<b>4</b>
Progress of investigation .....	4
<b>Governance of Grenfell Tower related improvements</b> .....	<b>5</b>
Operational Improvement Process .....	6
Grenfell Tower Improvement Board .....	9
<b>Improvement drivers</b> .....	<b>11</b>
Organisational Learning Log .....	11
GTIRT Preliminary Report .....	12
<b>Progress on improvements</b> .....	<b>13</b>
Theme 1 – Observed failures of the building and its fire safety measures .....	14
Theme 2 – Operational Pre-Planning .....	18
Theme 3 – Command and Control .....	22
Theme 4 – Operations .....	29
Theme 5 – Brigade Control .....	34
Theme 6 – Communications .....	37
Theme 7 – Operational Equipment .....	40
<b>Conclusion</b> .....	<b>41</b>
<b>Appendices</b> .....	<b>44</b>

This page is deliberately blank

## Introduction

1 The fire at Grenfell Tower on 14 June 2017 took the lives of 71 people, with a further fatality on 29 January 2018, and left hundreds more with both physical and psychological injuries. Whilst fire and rescue services are trained to respond to fires in residential high rise buildings, the incident on the 14 June 2017 was of a scale and rapidity that was exceptional; preceded and precipitated by an apparent complete failure of the building's fire safety measures to perform effectively. Those failures created a set of conditions not previously experienced by the Brigade and provided a unique challenge for the Brigade and its partner emergency services who responded on the night.

2 The office of the London Fire Commissioner ['LFC'] has a statutory duty to review the performance of the organisation and ensure all learning from incidents is identified, disseminated, and acted upon where appropriate.

3 Like all incidents, large and small, there will be learning to be identified and it is acknowledged that any lessons to be learned and any good practice identified will undoubtedly apply not just to the London Fire Brigade, but nationally and possibly internationally.

## Purpose of report

4 This report has been written in response to a request from the LFC to the Assistant Commissioner – Grenfell Tower Investigation and Review Team ['AC GTIRT'] for a detailed update on the progress of improvement activities being undertaken by the Brigade in response to the learning identified to-date from investigations into the Grenfell Tower fire.

5 It will provide a follow up to the preliminary report presented to the LFC on 2 April 2019 by the AC GTIRT.

6 The preliminary report provided a number of observations arising from the Grenfell Tower Inquiry ['the Inquiry'] Phase 1 evidence and a number of recommendations to the Brigade suggesting it consider various areas of policy, procedure and training. The preliminary report also provided information on the various improvements, related to the observations, which were already underway or completed at the time the preliminary report was presented.

7 This update report will also provide a summary on the current progress of the Brigade's internal safety and learning investigation, the improvement activities arising from this



organisational learning and the governance arrangements for delivering the necessary improvements.

8 Reporting on current improvement activity is categorised into the themes used in the preliminary report and the Organisational Learning Log ['OLL'].

## Internal Safety and Learning Investigation

9 Such was the scale of the incident at Grenfell Tower, a dedicated team within the Brigade, the Grenfell Tower Investigation and Review Team ['GTIRT'], was established to understand the circumstances of the incident and what happened on the night, identify lessons to be learnt, and when all the evidence is available, provide an unfettered and comprehensive evaluation of the Brigade's response to this unprecedented incident.

10 This investigation has and will continue to work alongside the statutory processes being undertaken by the Grenfell Tower Inquiry and Metropolitan Police Service ['MPS'], whilst acknowledging the primacy of those processes.

11 In order to meet its statutory duties under Health and Safety legislation, the Brigade investigates all accidents and near misses (collectively known as safety events) and this duty is being fulfilled through Senior Accident Investigation No. 287 ['SAI 287'].

## Progress of investigation

12 The GTIRT investigation has built a comprehensive understanding from the evidence available up to 08:11 hours and this has been presented in two factual narratives.

13 The first, the Operational Response Report Volume 1 ['ORR Vol 1'] provides a minute by minute account of the incident from the time the fire was first discovered around 00:50hrs to 08:11hrs, the time the last survivor was rescued from the building.

14 The second, the Actions by Brigade Control Report ['Control Report'] provides a minute by minute account of the actions in Brigade Control from the time the first call was received from Grenfell Tower to 08:00hrs. It also provides information on how Control operates and delivers its statutory functions.

15 A further factual narrative will be produced in the future, titled Operational Response Report Volume 2 ['ORR Vol 2'], which will cover the period from 08:11hrs onwards. A review of the available evidence is ongoing and has, at the time of writing, been reviewed up to 13:00hrs on 14 June 2017. The LFC is asked to note that the evidence available after 11:00hrs

begins to become more limited due to the absence of CCTV and other visual imagery and therefore ORR Vol 2 is likely to be less detailed than ORR Vol 1.

16 To identify further organisational learning, GTIRT has now commenced its Operational Response Analysis ['the Analysis'] to identify those areas that do not align with the expectations of policy, national guidance and / or training and determine the immediate and underlying reasons for this, to support improvements and / or avoid a reoccurrence. The analysis will also identify those outcomes that did align with the expectations of policy and guidance despite the unprecedented challenges presented by the Grenfell Tower fire. The Analysis will provide the basis and evidence for AC GTIRT's interim and final reports, likely to be published mid-2020 and the latter half of 2021 respectively.

17 Following its examination of the Breathing Apparatus ['BA'] and telemetry data gathered by GTIRT, it has now been possible to identify the composition of all the BA teams deployed into Grenfell Tower. A more detailed analysis of the data, including a comparison of the effectiveness of Standard Duration Breathing Apparatus ['SDBA'] and Extended Duration Breathing Apparatus ['EDBA'] in such circumstances, has now commenced to identify learning that may inform operational procedures and / or the design of BA equipment in the future.

18 A further work stream to support Module 8 of Phase 2 of the Inquiry has also now commenced which will identify the Brigade's actual and attempted interactions, both physical and remote, with the deceased to support its operational learning and support the Inquiry's intention to address the Coroner's inquest requirements. This work is complex in nature and will take a considerable time but will feed into the Analysis and AC GTIRT interim and final reports.

## Governance of Grenfell Tower related improvements

19 The scale and wide-ranging nature of Grenfell Tower-related improvements has led the Brigade to utilise a blend of existing and new governance arrangements to organise, prioritise and deliver these improvements and these are identified in the following sections.

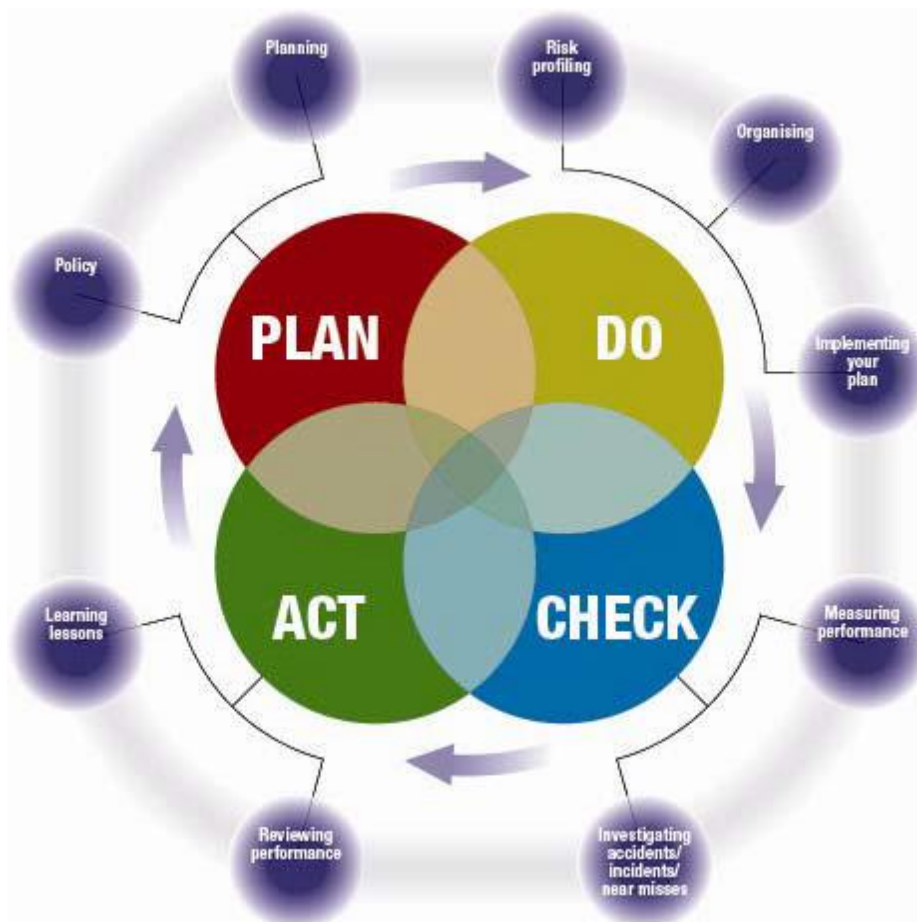
20 As a learning organisation committed to continuous improvement, the Brigade has number of other projects ongoing to deliver improvements to the service it provides to the communities of London, which may in turn contribute to Grenfell Tower-related improvements.

## Operational Improvement Process

21 A number of items of organisational learning have been identified during the review of evidence to inform ORR Vol 1 and the Control report and these have been communicated to the responsible departments through the Brigade's business as usual Operational Improvement Process ['OIP'].

22 The OIP is aligned to the requirements of the Health and Safety Executive Guidance 65 ['HSG 65'] – managing for health and safety by ensuring that operational and training performance is measured against planned objectives and performance standards and by identifying and addressing any shortfalls. HSG 65 recommends four steps to successful health and safety management:

- **Plan** – Determine your policy and plan for implementation.
- **Do** – Identify, assess and record risks and controls. Implement control measures.
- **Check** – Measure performance.
- **Act** – Review performance and act on lessons identified.



## OFFICIAL

23 The OIP is governed by the Operational Professionalism Board ['OPB'], chaired by the Deputy Commissioner – Safety and Assurance. The Board receives reports on a quarterly basis with recommendations for operational improvements and will determine if the recommendations are appropriate.

24 The OPB directs work as appropriate to implement any recommendations and to monitor the progress of work undertaken. The Board will consider the effectiveness of actions taken in support of those recommendations to provide assurance to the LFC that operational improvement has been delivered and embedded into the organisation.

25 To assist in the scrutiny of this information a sub-group of OPB, the Operational Improvement Process Oversight Panel ['OIPOP'] chaired by the Assistant Director – Health and Safety, oversees the management of the whole OIP and provides scrutiny of the reports and recommendations to OPB to ensure there is a co-ordinated response to internal and external drivers for operational improvement.

26 The OIP has a database that records the following information:

- Source and date of recommendation
- Actions identified by Brigade to address recommendations
- Dates action is taken and completed
- Regular monitoring updates against actions
- Person/s responsible for the action.

27 Once agreed by OPB a number of interventions can be used to deliver the required operational improvement and the timescales will vary depending on complexity of the identified solution, they can include:

### **Operational News**

28 Operational News is a communication tool (hard copy and electronic) used to specifically communicate key issues and provide articles on new or amended procedures and equipment. The articles are supported with links to existing training material and /or Computer-Based Training ['CBT'] packages known as the training support pack (presented at the rear of Operational News). These are provided to enhance awareness and facilitate maintenance of skills. Any associated training is completed by station-based staff through the Brigade's Development and Maintenance of Operational Professionalism ['DaMOP'] process and recorded in Brigade Diary (formerly known as Station Diary).

29 Once the Board have selected the topics for Operational News, the Incident Command Policy team will manage the development of the publication and inform relevant teams / individuals, who compile the required article for Operational News. Training relevant to each article is mandatory. The training support pack highlights any new or existing training relevant to the articles published in each issue of Operational News for both station-based staff and senior officers.

### **New and / or amended policy**

30 Where an issue identified by OPB requires a change to or the implementation of a new policy, Incident Command Policy and Assurance will inform the relevant team so the risk assessment and operational policy writing process can commence. This procedure may in turn require the author of the policy to initiate the training commissioning and alteration process ['TCAP'] which is managed by the Training and Professional Development ['T & PD'] department.

### **Big Learning – knowledge centre and computer-based training packages**

31 All training support packages can be accessed via the Big Learning application on any Brigade desktop. Big Learning links to all current packages and training materials related to them. Links to training support packs are referenced at the end of Operational News enabling the end user to navigate the training material and find the appropriate training package relevant to the article they have read.

32 Big Learning hosts both extant training notes/packages and bespoke learning packages to support Watch based training that complements the articles presented in Operational News publications.

33 Commissioning departments are responsible for specifying CBT packages through a TCAP. These are designed and developed by the Brigade's training provider and are hosted on Big Learning. CBT packages are used as an additional tool to reinforce training for a number of key subjects determined by OPB and published within Operational News.

### **Maintenance of skills**

34 Once the chosen solutions have been designed and delivered, DaMOP sets out responsibilities for station-based staff to maintain their professionalism and competence by continually developing their skills, knowledge and understanding to achieve excellence.

## Grenfell Tower Improvement Board

35 The Grenfell Tower Improvement Board ['GTIB'] has been established to provide a formal and scheduled forum for principal officers and other key internal stakeholders to consider and make informed decisions about the organisational learning arising from the Grenfell Tower Inquiry, the MPS investigation ['Operation Northleigh'] and the Brigade's own safety and learning investigation.

36 GTIB is chaired by the LFC and assists in setting the strategic direction of the Brigade in relation to making improvements in the areas of operations, health and safety, policy, training and other issues arising from scrutiny of the Grenfell Tower fire.

37 It does not manage the actual delivery of any strategies and initiatives that are the responsibility of the Brigade's existing governance processes, but will seek assurance that approved improvement actions have been implemented and embedded effectively. This includes seeking assurance that learning already entered into the OIP is being addressed effectively and may include approving additional resources to deliver an action or, if necessary, prioritising the timing of the development and implementation of actions.

38 The terms of reference agreed by GTIB on 11 July 2019 detail its objectives as:

- Receiving products and recommendations
- Considering those products and recommendations, including any further actions that may be required
- Commissioning work to consider further or develop propositions for implementation of those actions that the Board agrees are required
- Receiving feedback relating to all commissioned work.

39 GTIB has adopted a commissioning methodology to organise, prioritise and deliver improvement opportunities. AC GTIRT will provide inputs arising from the Brigade's internal safety and learning investigation and will be the point of contact for the receipt of products from external sources and responsible for interpreting and presenting a summary of the information to GTIB.

40 The AC GTIRT, with the support of the General Counsel's department ['GCD'], will provide any context related to internal or external products.

41 GTIB will consider the internal and external products disseminated by GTIRT and the context provided to them in determining future actions. As the Brigade has a finite budget and resource capacity it is important that the Board fully consider other non-Grenfell Tower-related

activities when making decisions on commissioning and the prioritisation of Grenfell-related improvements.

42 The Board members may choose initially to commission a review or request further information gathering by a thematic Board or Head of Service to inform any final decision on whether to commission an improvement action and / or determine what that action may look like.

43 When GTIB decides to progress an improvement opportunity, the Board commissions activity through the relevant Head of Service who is tasked to provide a summary of the key milestones to deliver the improvement, identify anticipated completion dates for each milestone, identify the risks and dependencies associated with delivering the improvement activity, and identify additional resources that may be required.

44 GTIB monitors the key milestones at a strategic level but more detailed monitoring of the actions that sit behind the milestones are monitored by the relevant thematic board, such as OPB or the Strategic Training Oversight Board ['STOB'], and reported to GTIB periodically.

45 At the time of writing, GTIB has instigated five commissions to deliver improvements in the following areas:

- Commission 1 – To publish information detailing the hazards and associated control measures relating to rapid fire spread in residential high rise buildings
- Commission 2 – To identify the initial costings and considerations including risks and dependencies for training related to Grenfell Tower improvements
- Commission 3 – To identify the proposed scope, milestones, risks and dependencies for improvements in response to organisational learning related to Brigade Control
- Commission 4 – The Assistant Director, Health and Safety to identify the proposed scope, milestones, risks, dependencies and lead departments for improvements related to the impact of the human factors identified as present at the Grenfell Tower fire
- Commission 5 – The Assistant Director, People Services to provide an initial response to the recommendations contained within the independent report, completed by Dr Noreen Tehrani, into the counselling support subsequent to the Grenfell Tower fire.

46 Further details on these commissioned improvement activities are provided in subsequent sections of this report.

## Improvement drivers

47 At the time of writing the Inquiry has not published its Interim Report or any urgent recommendations so the Brigade's improvement activities are based predominately on two internal sources, the OLL which records learning identified during the review of evidence to inform the ORR Vol 1, and the GTIRT Preliminary Report, dated 2 April 2019, presented to the Commissioner's Board following the conclusion of the Inquiry's Phase 1 hearings.

48 Further detail on both sources of information are provided in the following sections.

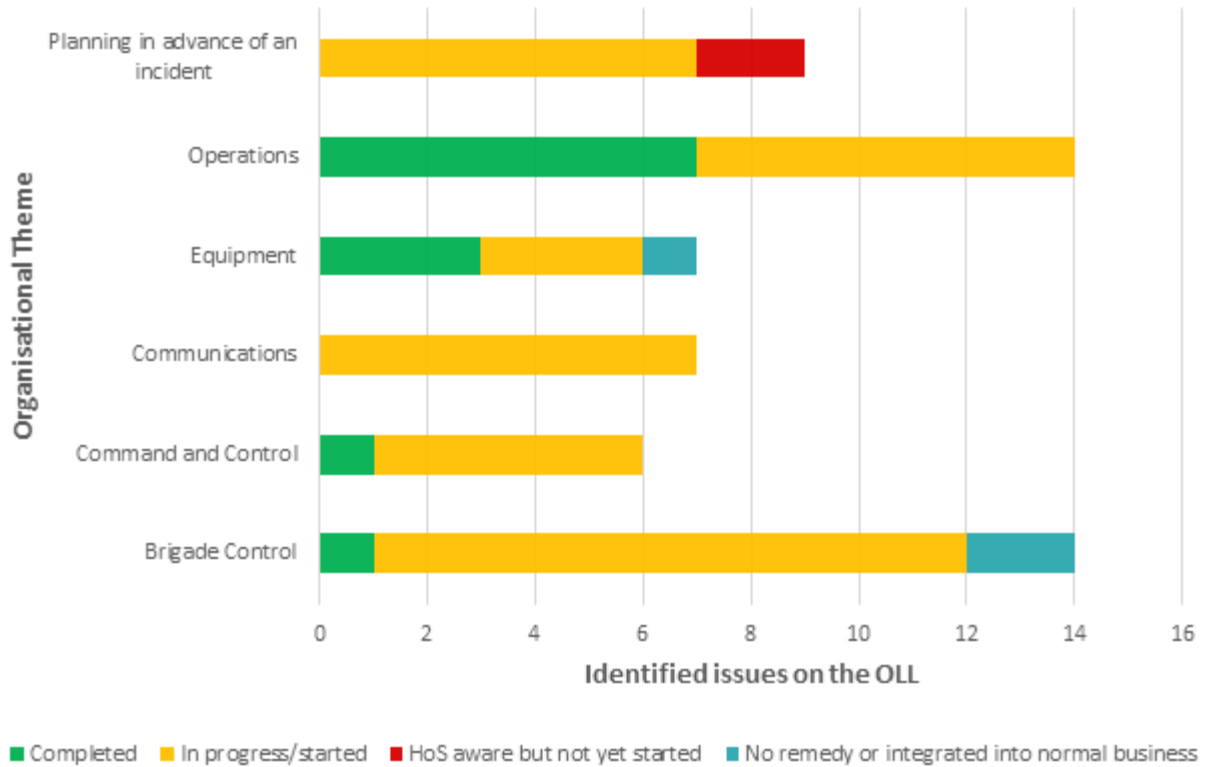
## Organisational Learning Log

49 Specific items of learning identified during the production of the two factual narratives have been recorded in an organisational learning log, maintained by the GTIRT. There are currently 57 items of learning recorded and these are broken down into six organisational themes; Brigade Control, Command and Control, Communications, Equipment, Operations and Pre-planning.

50 The OLL is a live document, which records organisational learning arising from the Grenfell Tower investigation. It is also used by GTIRT to monitor the progress of actions to address the organisational learning to ensure there is no duplication of issues communicated into the OIP. A summary of the progress of those items of organisational learning is provided below.

51 Each of the 57 identified issues on the OLL has been detailed on a single pro-forma that have been uploaded onto the OIP database, the net result of this has actually created 64 individual issues, the reason for this was that the BA issues were amalgamated into one issue on the OLL but subsequently separated onto individual pro-formas. Two of the issues do not appear in the OIP as there was no requirement for them to go to the OIPOP.





The two issues that have not yet been started are;

- Options for transporting Relief Crews to and from incidents (OPA)
- The inability to identify individual firefighters and officers on the incident ground (Technical and Commercial)

52 GTIB monitors the progress of actions to address items recorded in the OLL through periodic reporting to it by the Chair of OPB. It should be noted that there is some natural duplication of issues captured within the OLL and the commissions instigated by GTIB.

### GTIRT Preliminary Report

53 The preliminary report, attached as Annex A, is an output of the Brigade's internal investigation and review, produced following the conclusion of the Inquiry's Phase 1 hearings but was identified as a preliminary output only as there is a need for the Brigade and others to conduct further investigations during Phase 2 of the Inquiry's work, in order to achieve the fullest understanding and enable findings and conclusions to be presented.

54 The report predominantly covered the first seven hours of the incident up to 08:11hrs; the period of life saving activity and the focus of the Inquiry during its Phase 1 proceedings. The report also noted historical actions that were considered relevant or provided context to the actions / decisions taken on the night of the fire. In addition, observations that did not

directly relate to the response on the night of the fire, but are relevant when the Brigade is considering improvement measures, were included to support continuous improvement.

55 Forty-two key observations were presented in the report and themed into seven areas, broadly aligned to the categories in the OLL, following a review of the evidence held by the Brigade and that provided during the Phase 1 proceedings of the Inquiry. A summary of the key observations is contained in Chapter 4 of the Preliminary Report (pages 94–97 refer).

56 Each key observation is followed by the rationale for its inclusion in the report, together with any context provided by Brigade or national policy positions, together with relevant historical actions.

57 The actions the Brigade had completed or were progressing in response to the learning identified at the time of writing of the report were also presented at the conclusion of each key observation or at the end of the themed section.

58 Thirteen recommendations that pointed to matters that the Brigade may wish to consider following the Phase 1 evidence were also provided to support its decision making. A summary of the recommendations is contained in Chapter 5 of the Preliminary Report (pages 98–99 refer).

## Progress on improvements

59 Reporting on the scope and status of the Brigade's improvement activities in response to the current identified learning from the Grenfell Tower fire is presented below in seven categories, aligned to the themes used in the OLL and GTIRT Preliminary Report, to assist in cross-referencing to the contents of those documents.

60 Where relevant, the reporting below notes the various factors that are relevant to and may influence the delivery of improvements. These may include factors such as the need to comply with health and safety legislation, the requirement to consult with Representative Bodies on health and safety and contractual matters, the requirement to comply with procurement law, and lead times for procurement of equipment and vehicles. These factors together with others such as budgetary constraints and the resources required to deliver multiple change initiatives that, on occasion, can lead to the need to prioritise the delivery of improvement actions.

61 The Brigade currently has a number of projects not directly related to Grenfell Tower learning identified within its corporate portfolio although it is recognised that a number may give rise to improvements relevant to Grenfell Tower-related improvement opportunities.

62 This report will not repeat information related to improvement actions already presented in the Preliminary Report; save where there is a relevant progress update relating to those identified actions. The report will focus on new or additional actions that have been instigated or identified since 2 April 2019.

## **Theme 1 – Observed failures of the building and its fire safety measures**

63 High-rise residential buildings such as Grenfell Tower are subject to an extensive regulatory regime that governs the way in which they are designed, constructed and maintained. Fire safety is a crucial element of the building design process that dictates the way in which fire services are expected to carry out fire and rescue operations. Buildings such as Grenfell Tower were expressly designed to contain any fire in its compartment of origin for sufficient time to allow the fire and rescue service to extinguish it before it has the chance to spread. Accordingly, the building design is not intended to facilitate simultaneous evacuation or the mass rescue of all residents, especially at the same time as firefighting. At Grenfell Tower, there was no common fire alarm provided for that purpose, nor is there any regulatory requirement to install one, and the sole means of escape was by way of a single stairwell.

64 The impact of the non-compliant cladding installed on the exterior of Grenfell Tower and the apparent failure of the active and passive fire safety provisions within the building has been well documented by the Inquiry's expert witnesses. Why the building became so vulnerable to events that transpired on the 14 June 2017 is not yet fully understood and is to be fully investigated in Phase 2 of the Inquiry.

65 However, there was sufficient understanding and concern to result in Government instigating an independent review of building regulations and fire safety, headed by Dame Judith Hackitt. The review published an interim report in December 2017 describing how the regulatory regime covering high rise and complex buildings was not fit for purpose. Dame Hackitt's final report, published in July 2018, sets out a proposed new regulatory framework focussed on creating and maintaining safer buildings.

66 The Brigade continues to work with all stakeholders to identify and deliver improvements to the regulatory regime (Preliminary Report Recommendation 1). The following paragraphs provide a summary of the Brigade's support for the Hackitt review and the Ministry of Housing, Communities and Local Government ['MHCLG'] building safety programme.

67 The Brigade believes Dame Judith Hackitt's Independent review of building regulations and fire safety ['the Independent Review'] report was a positive first step towards a system

## OFFICIAL

which puts public safety first and which provides a framework for meaningful reform. In its consultation response to the Government's response to the Independent Review, the Brigade says that the proposals for reform are a start, but much more detail is needed before we are satisfied that the necessary fundamental changes have been delivered. The Brigade continue to support improvement work in the following areas:

- Parameters and principles of a new regulatory framework
- Design, construction and refurbishment
- Occupation and maintenance
- Residents' voice – increasing the role of residents through fire safety engagement and training.
- Competence of fire risk assessors
- Guidance and monitoring to support building safety
- A review of the testing regime for compliance of products used during the building process

68 Brigade officers are supporting the building safety programme by ensuring that MHCLG and the Home Office are informed and updated on any new developments as a result of our ongoing inspection plan or any significant fires which may be relevant to matters being considered by the Expert Panel / MHCLG. Officers continue to provide technical fire service expertise to the Building Regulations Advisory Committee through their workshops focussed around the review of Approved Document B.

69 Brigade officers seconded to the National Fire Chiefs Council ['NFCC'] are leading the national response to key consultations to ensure that any new regime improves the current system whilst ensuring that it is suitable and practical.

70 In the week after the Grenfell Tower fire, the Brigade's Fire Safety ['FS'] department established a High-Rise Task Force ['HRTF'] to review the risks associated with high-rise residential buildings within the Brigade's area. To date this team has conducted in excess of 1,500 activities for high-rise related work, including providing reassurance at residents meetings, co-ordinated visits with fire station based staff and the completion of 1,238 visits to high-rise residential buildings. These visits include second visits to buildings where Aluminium Composite Material ['ACM'] cladding material has been identified.

## OFFICIAL

71 The HRTF audits were thorough inspections of the relevant (non-domestic) parts of premises and the management arrangements. HRTF audits incorporated sample intrusive audits and sought to establish so far as possible that compartmentation was not compromised. Emphasis was placed, for example, on understanding how building services enter and leave service risers and individual dwellings, which in turn required access into ducts and voids, and above false ceilings. Fire doors were subject to higher sampling rates and checks were carried out on the operation of firefighting lifts and ventilation systems and on the availability of other firefighting facilities.

72 Since the Grenfell Tower fire, the Brigade's officers have also consistently engaged with local councils via the London Councils Fire Safety Group forum. This has enabled the Brigade to share information, advice and good practice on a range of issues such as ACM cladding, fire doors and building fire safety. This engagement has enabled a consistent fire safety message and helped to maintain links between local councils and the Brigade's Fire Safety teams and Borough Commanders. The relationship between the Housing Act, the Housing Health and Safety Rating System ['HHSRS'] and the Fire Safety Order has also been discussed at this forum, as have topics such as Person-Centred Fire Risk Assessments and Personal Emergency Evacuation Plans.

73 A number of additional FS posts have been established as a result of the funding secured from the Mayor of London, following the Grenfell Tower fire, to enhance the Brigade's audit regime. This has included development officers, quality assurance officers and the re-engagement, on a temporary basis, of previously retired Fire Safety Investigation Officers ['FSIOs'] to create a new 'Specific Projects Group'. This new group was tasked to focus on high-risk property types and complete a more intrusive audit as a result of the learning from the HRTF inspections.

74 Training of all station-based staff has begun, allowing them to integrate fire safety work into their core operational work. Babcock Training Services are delivering a half day briefing on fire safety in high-rise premises including elements of construction, compartmentation, firefighting facilities, evacuation strategies and ventilation systems. A computer-based training package and one day face-to-face training session covering fire safety in commercial premises is scheduled to take place in the financial year 20/21. It is anticipated that additional modules for other types of premises will be added following the initial training being embedded. Although this training will focus on specific premises types there is generic fire safety knowledge throughout which will support crews in fire safety and firefighting tactics in all types of premises with the outcome of improving public and firefighter safety. The Brigade are

exploring the introduction of fire safety during the Firefighter Development programme in the form of pre-course learning, initial development training and post-development training workshops.

75 The Brigade has, as previously reported, provided significant input into the NFCC publication '*Guidance: To support a temporary change to simultaneous evacuation strategy in purpose-built blocks of flats*' (1 May 2018). This guidance was published in May 2018 and superseded an earlier version published in October 2017. The guidance is for owners and persons / organisations responsible for buildings where a 'stay put' strategy was part of the original design, but is no longer considered appropriate owing to significant risk issues such as combustible external facades, specifically those fitted with ACM cladding. Following the publication of the NFCC guidance the Brigade has adopted a proactive approach to ensuring the Responsible Person complies with the guidance, by completing inspections and repeat visits as necessary.

76 However, the Brigade and the NFCC are of a shared view that the measures contained with the aforementioned guidance must not be seen as a long-term solution for 'at risk' buildings and do not negate the need for urgent remediation of the building by Responsible Persons.

77 On 5 July 2019, the LFC and the NFCC sent a joint letter to the MHCLG and to the Home Office setting out their joint concerns at the slow pace of change to improve building safety in high rise residential premises following the Grenfell Tower fire. Within that letter it is stated:

*"We must reiterate our professional opinion, that if buildings are not designed, constructed and maintained in a safe condition, fire and rescue services cannot accurately predict the development or lessen the impact of a fire in circumstances similar to those at Grenfell Tower fire. This leads to the very real risk of another incident involving a similarly large loss of life."*

78 The letter also addressed concerns about the arrangements for 'waking watches' being in place in some buildings for over two years and cautioned the Government against them being regarded as a long-term solution for buildings that were deemed to be 'at risk'. The letter points to the expectation that when developing the NFCC guidance those responsible for the buildings would remove the non-compliant cladding as soon as possible. The letter states:

*"The only wholly effective means to reduce the risk to residents, is the remediation of the building and responsible persons maintaining the active and passive fire safety measures in the building adequately."*

79 The letter also stresses and reinforces the fire sector's professional view that the use of automatic fire suppression systems (for example sprinklers) in buildings should be expanded, building on the longstanding, proactive campaigning by the Brigade and the wider fire sector, for example during National Sprinkler Week in May 2019 (Preliminary Report Recommendation 2).

80 The NFCC has subsequently written again to Government in regard to the fire and rescue sector's inability to identify clear and evidenced guidance on how an Incident Commander should manage the change from a building's 'stay put' strategy to an emergency evacuation or mass rescue in a residential high rise building where compartmentation is failing and a simultaneous evacuation has not been undertaken prior to the arrival of first responders.

81 The sector, including the Brigade recognises that any guidance would need to reflect that fire and rescue services cannot communicate with every individual, cannot readily check whether everyone has left their flat and the building without placing firefighters at significant risk; and will be dealing with both firefighting activity, to protect access and egress routes, and mass emergency evacuation via a means of escape not designed to facilitate the immediate evacuation of all residents.

82 The NFCC has proposed that Government establish a proper research programme to address the issues described above. It is suggested that the programme involves the fire sector, the Local Government Association ['LGA'], industry experts and the Health and Safety Executive. The Brigade, given the complexity of the built environment it operates within, fully supports the establishment of such a research programme and will utilise the operational learning identified from the Grenfell Tower fire to support it.

83 The Brigade has already contributed significantly to the revisions to National Operational Guidance to reflect the potential for unexpected compartment breach and unusual or rapid fire spread using its operational learning from the Grenfell Tower fire. It is anticipated that the Brigade will be a significant contributor to any evacuation research programme, reflecting the high proportion of residential high-rise buildings located in London.

## **Theme 2 – Operational Pre-Planning**

### **Operational Risk Information**

84 The Brigade has recognised that improvements need to be made in the way it gathers, records and disseminates operational risk information and assures the accuracy of that information (GTIRT Preliminary Report Observations 2.2 and 2.3 refers). It noted the evidence

in Phase 1 of the Inquiry and the observations contained in the GTIRT Preliminary Report that there was an inconsistent level of understanding of 7(2)d visits amongst staff and that relevant policies and training packages were inconsistent in the guidance provided (Observation 2.5 and Recommendation 3 refers).

85 The Preliminary Report also noted that the Inquiry heard evidence at Phase 1 that the Brigade was fixed with information about the potential hazard of rapid external fire spread in high-rise buildings but this had not been shared organisationally (Observation 2.1 refers). It was also noted the Lakanal House Incident Assurance Review report, appended as Appendix D to the Preliminary Report, found that the Brigade had not fulfilled its intention to undertake premises risk assessments on all residential high-rise premises

86 These issues are all now elements of a new corporate project, involving a number of departments, known as the Operational Risk Information ['ORI'] project, which commenced in April 2018.

87 In advance of the ORI project, the Brigade used its Operational News 34 publication, issued in February 2018, to provide guidance to operational staff to support the effective identification and recording of operational risk information on buildings identified with ACM cladding systems that have failed combustibility tests and do not meet the requirements of building regulations.

88 The ORI project is reviewing and, where necessary will improve the system for the gathering, recording and dissemination of operational risk information. The objectives for the project are identified as:

- Review and rationalise current risk information systems to evaluate the current entries and carry out the necessary interventions to increase the underpinning knowledge and understanding of staff with these systems;
- To create a policy that encompasses understanding and identifying risk and provides a uniform approach to gathering, recording, prioritising and sharing of operational risk information;
- The relevant risk information will be easily available to the right people at the right time in a form that is easy to understand and use;
- Staff will have a better understanding of their role whilst assessing risks with regards to reducing the risks to firefighters and the risks to the public;
- To ensure staff have a better knowledge and understanding of risk and their responsibilities of ensuring the data collected and entered is relevant and accurate.



89 The project is also:

- Co-ordinating the review of the Brigade's policy for the 'Management of Operational Risk Information' ['PN 800'];
- Ensuring that any changes are integrated with the outcomes from the 'Fire Safety Checks' initiative;
- Identifying and planning for any new training requirements; and
- Ensuring that any system related implications are integrated into the current and planned Brigade IT upgrade programmes.

90 The outcomes of the ORI review and any resulting enhanced workflows will be pivotal to the design principles of the next phase of data system refreshes. The Brigade has committed to developing a data infrastructure that will streamline the sharing of critical risk information across the various strands of the organisation, so that operational crews and FSIOs will naturally achieve a shared view of the risks across London (Preliminary Report Recommendation 4).

91 The proposal for a 'One Risk' solution for building risk information to replace the existing fire safety systems (Farynor, HFSV), the Operational Risk Database ['ORD'] and other smaller systems was approved by Commissioner's Board on 31 July 2019. As a minimum, the 'One Risk' solution will hold data related to:

Operational risk

- Station based 72d visits,
- Electronic Premises Information Plate ['ePIP'],
- Premises Risk Assessment ['PRA'] outcomes,
- Residential high rise visits (effectively targeted 72d visit)
- Contingency plan

Regulatory fire safety

- Audits
- Enforcement actions
- Consultations, including building control
- Petroleum
- Fire engineering
- Sub-surface railways

Community safety

- Home fire safety visits
- Safe and well visits

92 The 'One Risk' solution will also seek to identify and include external data to provide the Brigade with a richer picture of a building's risk profile. This external data may also assist the Brigade in identifying buildings we should know about but currently do not.

93 The anticipated completion date for the 'One Risk' solution is estimated as the end of the 2023/24 financial period and it is proposed to transfer funding previously agreed for other individual IT refreshes, for example Farynor, etc., to this new initiative.

94 At the beginning of the ORI project the following areas were identified as priorities:

- i. Ensuring every residential high-rise premises has an ePIP and, where applicable, a Tactical Plan.
- ii. Reviewing the current PRA and ORD entries to ensure the information recorded is correct, relevant and fit for purpose.
- iii. Rewriting PN800 with the longer term aim of providing a smarter way of inputting information using the forthcoming 'Appliance Workload App' with additional support to staff completing the PRA and ORD processes.

95 At the commencement of the project April 2019, the Brigade's iMapping software identified 5822 residential high rise premises of which 1893 had ePIPs equating to 32.5% of the total number identified and 2218 had PRAs completed, equating to 38% of the total. Exemplars of three different ORD entries were communicated to stations and Borough Commanders by the Central Operations team to enhance the completion and accuracy of PRAs.

96 At the end of August 2019 the completion rate had increased to 2308 residential high-rise premises with ePIPs (39.6%) and 2660 with PRAs (45%), a 7.1% and 7% increase respectively. Progress will continue to be monitored by the project team.

97 All Boroughs have provided a projection of when they anticipate all residential high-rise premises (>18 m or >5 floors) within their boundaries (as identified on iMapping) will have a PRA, ePIP provided and, if required, a Tactical Plan recorded on ORD. It is anticipated that this work, Brigade wide, will be completed by the end of February 2021.

98 All stations have confirmed their review of existing ORD entries, as identified in para 94 (ii), has been completed.

99 The review of PN 800 and necessary revisions to the PRA process is complex and will take some time to complete. The review of PN 800 and associated policies within the ORI project will inform the gathering, recording and dissemination of operational risk information and the focus and format of 7.2(d) visits undertaken by station based staff. Once complete, station based staff will receive training on any changes implemented as a result of the ORI project outcomes (Preliminary Report Recommendation 3).

## **Theme 3 – Command and Control**

### **Human Factors**

100 The Preliminary Report identified in Observation 3.1 that the scale and rapidity of the Grenfell Tower fire, combined with human factors such as acute stress, impacted on the ability of responders to maintain situational awareness.

101 This work is necessarily broad in scope and naturally complex because of the variability of individual human behaviours. As such, the work is broken down into elements to be delivered by three Heads of Service.

102 The Assistant Director – People Services will consider recruitment and selection processes to identify factors that may improve or enhance health and safety, e.g. personal resilience, emotional intelligence, decision-making ability, and the ability to provide clear and effective instruction.

103 The Assistant Commissioner – Operational Policy and Assurance will consider the design and format of operational policy / procedures and assess the extant suite of policies to ensure they adequately cover the concepts of risk perception, risk appetite, personal responsibility and the moral imperative. The work will also include a training gap analysis for staff who draft, edit and authorise operational policy and procedures to ensure they have the necessary knowledge to draft policies and procedures that present clear and unambiguous safe systems of work. In addition, the current operational assurance processes will be reviewed to ensure they adequately address the observation and recording of safety behaviours and behavioural performance so this can be included and considered as part of the operational improvement process.

104 Assistant Director – Training and Professional Development will undertake a confirmation exercise to assess to what extent the principles of operational competence by rank / role are delivered within the Brigade's existing suite of training solutions. In addition the exercise will

assess to what extent risk perception and personal responsibility is embedded within the Brigade's training provision.

### **Incident Command**

105 The Brigade has an established portfolio of training for Level 1 and Level 2 incident commanders that includes development and maintenance of skills training. A number of CBT packages are also available on 'Big Learning' to support maintenance of competence.

106 To support officers to deliver safe and effective incident command at incidents, the current Level 1 and Level 2 incident command training courses are being reviewed to ensure all relevant learning from the Grenfell Tower fire is incorporated. This work is expected to be completed by April 2020. A new command team exercise has also been added to the Brigade's training portfolio which addresses high-rise incidents and demonstrates the structures required to manage fire, lobby and search sectors.

107 The Brigade has noted that the provision of training for Level 3 and Level 4 incident commanders is less comprehensive and is in the process of enhancing the training provided for these levels of incident commander.

108 A Level 3 advanced incident command course is currently being developed incorporating the feedback from the six Level 3 incident command confirmation courses delivered in 2018/19 to Deputy Assistant Commissioners ['DAC'] and those Group Managers ['GM'] eligible to undertake duties on the DAC operational rota. This course will be implemented during the financial year 2020/21.

109 The implementation of the Level 3 course will be followed by the introduction of a Level 4 strategic command course to complement the multi-agency strategic courses already attended by Assistant Commissioners ['AC'] and DACs, such as the Multi-Agency Gold Incident Command ['MAGIC'] course, delivered by the College of Policing, and the Chemical, Biological, Radiological and Nuclear ['CBRN'] Strategic Commanders course, delivered by the multi-agency National CBRN Centre.

110 The improvements to incident command training identified above have been prioritised by GTIB within Commission 1 and progress is being monitored through the GTIB governance arrangements.

111 Since the fire, the Brigade has utilised its Operational News publication to reinforce its policies and procedures relating to the delivery of effective incident command. Operational News 36, published in February 2019 reinforced the requirements relating to the provision of

effective briefings at incidents and the use of the Decision Making Model ['DMM'] as the framework to construct and deliver those briefings. This edition also reminded operational staff of the criticality of effective communications at incidents, particularly the use of correctly formatted and timely messages to ensure situational awareness amongst those attending or monitoring the incident.

112 Operational News 37, published in August 2019 contained a number of articles relevant to incident command and fires in residential high rise buildings. It reinforced the importance of the role of the Senior Fire Safety Officer within the incident command team to provide advice and assistance to the incident commander to support the development and implementation of an effective tactical plan appropriate to the building.

113 This edition also provided guidance on the application and recording of 'operational discretion' by incident commanders at incidents that are extremely unusual, not reasonably foreseeable and where professional judgement might need to be applied because strictly following an operational procedure would be a barrier to resolving an incident. The article directs staff to undertake mandatory training in relation to the Brigade's 'Recording decisions at incidents' policy ['PN 828'] in response to Preliminary Report Recommendation 7.

114 The guidance related to 'operational discretion' provided in Operational News 37 is particularly pertinent following the Grenfell Tower fire when strict adherence to the Brigade's policies and procedures would have prevented the deployment of firefighters into the building to undertake firefighting and search and rescue, due to the established policy position of not deploying firefighters into fire situations without adequate firefighting media; a circumstance that occurred due to the limited capacity of the dry rising main within the premises.

115 Operational News 37 also addressed the issue of rapid or abnormal fire spread, as experienced at Grenfell Tower, and provides advice and guidance to incident commanders on undertaking emergency evacuation or mass rescue, if the circumstances of the incident dictate such a course of action may be necessary. The guidance is interim, pending the publication of a revised Brigade high-rise firefighting policy ['PN 633'] and any outcomes of evacuation research programme proposed by NFCC to Government last month. The article also provides incident commanders with advice on tackling rapid external fire spread and highlights the hazards and risks present during such operations.

116 Finally, Operational News 37 reinforces to operational staff, including incident commanders, those current agreed procedures for dealing with incidents involving FSG calls. The article provides guidance if the incident involves multiple FSG calls and the actions arising

if the incident commander identifies a requirement to undertake a emergency evacuation of the building or a mass rescue operation. This guidance is also interim, pending the publication of a revised FSG policy ['PN 790'] following a number of exercises undertaken by the Brigade to develop and test improvements to FSG procedures.

117 The revisions to the Brigade's high-rise firefighting, fire survival guidance and associated policies and implementation of any required training intervention are captured within the previously mentioned Commission 1 and progress is being monitored by the GTIB.

### **Independent Review of Training**

118 Following the Grenfell Tower fire and as the Brigade's outsourced training arrangements have been in place for a number of years, the LFC commissioned an independent review of training by Ribband Star Consultancy Limited, which commenced on 25 February 2019. A final report was presented to Commissioner's Board on 9 October 2019, attached as Annex D, and includes a number of observations and recommendations to improve or enhance the provision of training; a number of which relate to incident command training. The report notes that a number of areas identified as improvement opportunities are already being considered or addressed by the Brigade.

119 In relation to incident command training, the report notes that Level 1 and Level 2 commanders receive incident command training from the Brigade's training provider, Babcock Training Limited ['BTL'] using a system known as X-VR to simulate an operational incident. It is reported that this training receives positive feedback from candidates but it has been noted that there can be some delay in delivering the training to newly promoted officers or those acting up into a new role. All individuals acting up into the CM role are risk assessed by their WM to ensure their suitability to undertake the role and this is quality assured by the relevant SM. It has been agreed after a review of the Schedule of Training Requirements (SOTR) that training capacity will be freed up to accommodate additional Level 1 and 2 Incident Command beginning on the 11<sup>th</sup> November 2019. This schedule will ensure all of those identified as requiring training will attend the required course before the end of the financial year 19/20.

120 The training review also notes that, historically, ad hoc training has been undertaken by the four senior officer operational rota groups, often involving officers coming together during duty weekends to train as a team. Naturally, as senior officers, this training often focusses directly or indirectly on incident command knowledge and skills and is seen as beneficial by the report author. However, the report rightly notes that the training is not centrally co-ordinated, structured, or consistently coordinated and therefore difficult to evidence.

## DaMOP

121 The independent training report acknowledges that as part of its improvements to the DaMOP system for station based staff the Brigade has decided to expand the system to include senior officers, which will address the aforementioned point and provide further formality and structure to their maintenance of competence requirements.

122 Phase 1 of the DaMOP project was implemented in July 2019 and provides all station-based staff with a new competency framework that identifies the knowledge and skills required for to maintain their role related competence. This includes incident command skills for Level 1 incident commanders.

123 Phase 2 of the project, which includes the competency framework for senior officers, is due to be implemented in mid-2020. The DaMOP system for senior officers, like the system for station-based staff, is based on the principle of training modules being assigned to an officer's diary. Officers will have access to the relevant training materials to carry out this training and will have the flexibility to complete each module within a specified date range. On completion of each module, the officer's Individual Training Record ['ITR'] will be automatically updated to reflect the progress made and ensure comprehensive and accurate records are available for assurance or external scrutiny purposes.

124 The training review report recommends that the Brigade does not ignore the fact that group training is hugely beneficial and suggests the existing ad hoc group training taking place could be supported by the development of consolidation exercises to compliment the theoretical input covered in the senior officer DaMOP modules. It further suggests the group training could be improved by designating one officer per rota group as a 'Training Lead' to ensure that exercises take place in line with direction set by the Training and Professional Development department. Preliminary discussions have taken place with internal stakeholders around the implementation of "Training Leads" and the possible consolidation of theoretical knowledge and experience in to exercises for senior officers.

## Incident Command Revalidation

125 The training review notes, and the Brigade has already acknowledged, the importance of ensuring incident commanders have the time and opportunity to engage in incident command 'practice and development' and the importance for the Brigade to be able to assure incident command competence.

126 The first stage of the Brigade's incident command revalidation project, focussing on Level 1 incident commanders, will be implemented in quarter 4 of 2019/20, and require attendance

## OFFICIAL

on a command revalidation course every two years. Revalidation courses for incident command levels 2, 3 and 4 are also under development and will be implemented in the 2020/21 financial year.

127 The process of incident command revalidation will:

- Ensure that consistent standards of maintenance of competence are applied to all incident commanders;
- Provide assurance that officers are performing incident command at the required level;
- Provide an auditable trail of incident command skills and development; and
- Encourage continuous improvement through the provision of professional development opportunities.

128 In preparation for the implementation of the incident command revalidation project, the Brigade launched the 'Incident Command Log' system in June 2019. The electronic system enables senior officers to log the number of hours spent performing an incident command role each month.

129 Officers will be able to log both real life operational incidents and exercise simulations and record the type of role carried out during the event being recorded. In addition, the logs provide a repository for documents relating to other continuous professional development ['CPD'] activities, creating a portfolio of evidence related to command competence.

130 In September 2017, the Brigade and the London region of the Fire Brigades Union reached an agreement to change from a role based to a rank based structure. This agreement brings with it many changes that will impact on all areas of the Brigade, most notably the operational side of the organisation. It will deliver a better station-based structure which ensures more officer availability, better stability of officers on Watches and increased appliance availability at key times during each shift.

131 The implementation of the Brigade's 'Role-to-Rank' ['R2R'] project in October 2019 will deliver access to development and training courses for Level 1 commanders before promotion, mitigating the risk identified in paragraph 119 and ensuring officers are adequately prepared to take on additional incident command responsibilities or assume them for the first time in their careers.

132 The project outcomes will also provide enhanced incident command training for Leading Firefighters (currently known as Crew Managers) and Station Officers (currently Watch Manager B). Leading Firefighters will be able to attend the Sub-Officer two-day Level 1 incident command booster course to enable acting up into the Sub-Officer rank.



133 The R2R project will also formalise minimum timescales before becoming eligible for promotion to the next rank, requiring Level 1 commanders to undertake nine months in a development phase with 12 months application of knowledge and skills in their substantive rank prior to any further promotion application.

134 The R2R project will also introduce Station Officers, formerly Watch Manager B, undertaking the monitoring officer function at four-pump fires, and consequently reduce the attendance time for a monitoring officer from 17 minutes to six minutes on average for this scale of incident. In addition, a Station Manager will be mobilised to carry out assurance of the incident unless required to undertake the monitoring officer role or take over as the incident commander.

### **Situational Awareness**

135 The Brigade is continuing with its drone trial and its use at a number of recent large incidents has assisted with providing incident commanders with effective situational awareness. In total, the drone capability has been deployed to 85 incidents, at the time of writing, ranging from fires to special service incidents such as floods.

136 At a 25-pump fire in Walthamstow the operations commander used the images to identify where to deploy crews to intercept the fire as it spread through the roof of the shopping centre. It is believed that the information the drone provided along with the resulting tactical plan may have significantly contributed to saving the Asda supermarket. At a 15-pump fire on Westbourne Grove in August 2019 a drone was used extensively to identify fire spread in voids using its thermal imagery camera. The images from the camera enabled officers to identify where to direct jets on the outside of the building as well as priority areas for the on-site 'Cold Cut Cobra' crew to deploy using the cold cutting lance technology.

137 The Brigade is also currently investigating and reviewing the '999 Eye' system, offered by Capita, which provides 'on scene eyes' for Control room staff and other responding or monitoring officers by enabling a caller with a smart phone to stream live footage from the incident direct from their phone's camera to enhance the situational awareness of emergency responders. The system also assists with situational awareness by identifying the callers location through GPS coordinates. The system maintains an open audio link whilst streaming images offering significant insight into a callers situation when receiving fire survival guidance.

138 Adoption of the '999 Eye' system would complement the increased situational awareness already provided in Brigade Control through the installation of the National Police Air Service ['NPAS'] 'heli-tele' downlink facility installed at the Stratford fall back control room following

the Grenfell Tower fire as part of measures to ensure that the facilities at Stratford replicate those provided at the primary control room at Merton.

139 Brigade Control is also now utilising the 'what3words' application to help pinpoint the location of individuals involved in or reporting incidents, thereby increasing their situational awareness and enabling resources to be mobilised to the correct location.

## Theme 4 – Operations

### External firefighting

140 As stated in the GTIRT Preliminary Report (paragraphs 210, 211 refers), the Brigade made an interim change to its Pre Determined Attendance ['PDA'] for high-rise buildings on 22 June 2017 in response to the increased risk presented by high-rise buildings identified following the Grenfell Tower fire, particularly those buildings clad in ACM and other materials that fail to meet the requirements of building regulations. This change incorporated an increase to five fire engines, one aerial appliance and the standard officer complement for a five-pump fire to any high-rise fire related incident.

141 The Brigade made a further interim revision on 10 August 2017. From this date when Brigade Control receives multiple calls (four calls or more) to a residential high-rise premise the PDA now includes eight fire engines and one aerial appliance. Where the fire is reported to Brigade Control as involving the outside of a clad building the PDA is further increased to ten fire engines and one aerial appliance (if the aerial appliance has not already been despatched). When this increase in resources is made, the standard officer complement for an eight and ten-pump fire is also mobilised.

142 The interim changes identified above continue to remain in place as the Brigade considers that the risk related to high-rise buildings and their residents remains significant due to the slow pace of remediation of 'at risk' buildings. The LFC in conjunction with the NFCC have communicated their concerns around the pace of change to improve building safety and the risk presented to residents in a letter to the Secretaries of State for the Home Office and the Ministry of Housing, Communities and Local Government on 5 July 2019.

143 The Preliminary Report also detailed the Brigade's replacement of its aerial appliance fleet and the inclusion of three 64-metre extended height turntable ladders to complement the new state of the art 32-metre articulating head turntable ladders.

144 In December 2018, Commissioner's Board approved a report (LFC-0093) recommending that the 11 aerial appliances locations remained unchanged and approving the inclusion of

three extended height appliances to the fleet. The extended height aerials are planned to be located at Dagenham, Old Kent Road and Wimbledon fire stations.

145 The delivery of these new appliances remains on course to begin in January 2020 for the 32-metre variant and July 2020 for the 64-metre model. Once the appliances begin to be received into the Brigade, training on the new vehicles and their enhanced capabilities can commence.

146 In advance of any policy or procedural changes contained within ongoing review of PN 633, the Brigade has provided interim guidance for operational staff on external firefighting in its Operational News 37 publication, issued in August 2019. The article on Rapid or Abnormal Fire Spread provides clarification on the capabilities of existing Brigade equipment that could be utilised to attack any external fire spread and reinforces existing guidance on the hazards present when tackling external fires.

#### **Internal firefighting, search and rescue**

147 Observation 4.2 of the Preliminary Report noted that extensive breaches of compartmentation at Grenfell Tower resulted in simultaneous serious fires on multiple floors from the fourth to the 23<sup>rd</sup> floor. Observation 4.3 noted that the extensive nature of the compartmentation failure and the resulting fire spread internally was beyond the experience of the Brigade and any other UK fire and rescue service.

148 Recommendation 9 within the Preliminary Report suggests that the Brigade considers to what extent recognition that a building is behaving unpredictably is addressed in policy and training. Since shortly after the Grenfell Tower fire, the Brigade has been reviewing PN 633 and the associated policies and progress is now being monitored by GTIB through Commission 1. The revised PN 633 has been through Heads of Service consultation and is expected to be published in April 2020. A training solution will be developed and implemented to coincide with the publication of the revised PN 633 and associated policies.

149 The Operational News 37 article on Rapid or Abnormal Fire Spread, previously described in paragraph 146 provides interim guidance for operational staff, ahead of the publication of the revised PN 633. It particularly provides advice on actions to be considered if emergency evacuation or mass rescue is to be undertaken, such as methods to alert residents of the need to evacuate, protection of the escape route, the use of Fire Escape Hoods to protect occupants and the use of a systematic approach to clearing the building.

150 The Preliminary Report noted that the Brigade was undertaking research into the practical water pressures and flow rates that can be achieved at the maximum height of dry rising mains, particularly those premises built when dry risers were permissible up to 60 metres. That research has now been completed and demonstrated that whilst there is some loss of capacity, there remains an adequate pressure and volume of water to effectively deploy two main jets in accordance with policy requirements for compartment firefighting up to heights of 60 metres.

151 However, this does not negate the issue arising when situations such as that experienced at Grenfell Tower, when multiple floors were involved in fire, requiring the deployment of more firefighting jets than the capacity of a dry rising main can deliver. The capacity of a dry rising main as articulated in building regulations is predicated on the expectation of a single flat fire.

152 The impact of the compartmentation failures and the resulting fire spread on Grenfell Tower's single means of escape was noted in Observation 4.4 and described the challenging conditions these circumstances created for anyone seeking to evacuate from the building and for the operational crews attempting to effect rescues.

153 Shortly after the Grenfell Tower fire, the Brigade began investigating the use of Fire Escape Hoods to mitigate the risk of smoke inhalation for occupants attempting to escape or being rescued via means of escape that may become or is compromised by the products of combustion. The hoods were introduced in November 2018, following extensive research, and provide up to 15 minutes protection for the wearer from the four main fire gases.

154 The hoods, which are attached to every BA set, have now been used to assist in the rescue of 25 members of the public at the time of writing. The Brigade is now investigating whether additional fire escape hoods could be provided in designated grab packs on frontline appliances and taken into the building by those teams tasked to protect the stairwell to be used on occupants in the event an evacuation was triggered or persons were self evacuating in advance of any formal declaration of emergency evacuation.

### **Fire Survival Guidance**

155 Preliminary Report Observation 4.5 noted that the volume of FSG information significantly exceeded the expectations of Brigade policy and training. The report advised that the Brigade was reviewing its FSG policy ['PN 790'] and this work is continuing and is being monitored by GTIB through Commission 1.

156 Six exercises have been undertaken to test the interface between Control, the Command Unit and the Bridgehead and the transfer of information. The outcomes of the exercises are being evaluated to identify what improvements to extant processes can be made and these will be captured within revisions to PN 790, due to be published in April 2020.

157 It is envisaged that the Brigade's Command Unit replacement project may offer further improvements by utilising new technology. Following a project board in June 2019, the Brigade has decided to separate the procurement of the vehicles and the command support operating software. The Brigade will procure the command support software and this procurement process will commence before the end of 2019 with the contract awarded in 2020. The Brigade's vehicle and equipment partner, Babcock Critical Services Limited ['BCS'] will undertake the procurement of the vehicles. This process commenced in August 2019 and it is anticipated that orders will be placed by April 2020.

158 In advance of the improvements identified above, the Brigade has reinforced the current processes and provided interim advice in Operational News 37, published in August 2019. This article covers maintaining communications with Control to provide timely updates, the use of Control Information Forms to ensure accurate recording and dissemination of FSG information. The article also addresses the actions that operational staff should take if approached with FSG information at the incident ground, an issue described in Observation 4.6 within the Preliminary Report.

159 The Level 1 and 2 Incident Command course portfolio previously referenced in this report now includes an element that reinforces knowledge and understanding of the FSG Coordinator role, and reinforces the relationship between the Search Co-ordinator, Control and the Incident Commander.

160 Observation 4.7 highlighted that a lack of visible markings to identify floors caused difficulties for crews deployed for firefighting, and search and rescue operations. The Brigade and the fire sector is continuing to request that the government address this issue through revisions to building regulations, principally Approved Document B.

### **Breathing Apparatus**

161 The final observation in the 'Operations' section of the Preliminary Report noted that some elements of BA operations were not fully aligned to the Brigade's operational procedures as set out in its operational BA policy ['PN 466'].

162 As previously reported, the Brigades internal investigation team has engaged extensively with the National Operational Learning [NOL] Secretariat to reinforce its own understanding and to support the identification of the degradation factors that may cause existing control measures not to perform as expected. The resulting NOL report containing 42 recommendations, including 29 specifically related to National Operational Guidance for BA have been submitted, considered and approved by NOL User Group ['NOLUG']. Revisions to the National Operational Guidance for BA are expected to be published during October 2019 and will be considered by the Brigade in relation to any necessary changes to PN 466.

163 The Brigade has recently replaced its bi-annual two day BA course and the bi-annual half day confirmation of BA skills course. From April 2019 it has been delivering a new annual two day firefighting course; designed to increase firefighter awareness and understanding of tactical ventilation, scene survey, weight of attack and the importance of correct BA procedures.

164 The first year of delivery of the course will focus on teaching advanced firefighting skills. In the second year from April 2020, courses will be delivered at venues which will enable staff to practically apply the techniques introduced in the 2019/20 training period.

165 The Level 1 and 2 Incident Command course portfolio previously referenced in this report now includes an element addressing the management of a functional BA sector, including the effective resourcing and management of BA logistics to support the operational requirements of an incident.

166 The NOL report highlighted that many of the control measures that did not perform as expected, did so because of human factors, rather than ineffective guidance, operational policy and procedures. During the barrier failure analysis process and the identification of degradation factors, there was one degradation factor which was more prominent than any other, this being high moral pressure.

167 As previously stated in this report GTIB has commissioned work from three Heads of Service related to human factors and the operational learning identified above will inform that work to reduce the chance of a reoccurrence.

168 The GTIRT analysis of BA and telemetry data continues and a more detailed analysis of the effectiveness of extended duration breathing apparatus ['EDBA'] in a multi-storey high-rise fire has commenced recently. Initial findings, to be verified, suggest that the use of EDBA did not offer significant advantage in terms of working duration compared with standard duration

breathing apparatus ['SDBA'] at Grenfell Tower due the additional physiological burden associated with the heavier equipment, which is exacerbated by the action of climbing stairs.

169 This appears to bear out the findings of the Building Disaster Advisory Group research<sup>1</sup> undertaken in 2004 for the Office of the Deputy Prime Minister which concluded the following for the trials involving committing EDBA wearers into high rise buildings:

*"As well as feeling hot and fatigued by the time they reached the 28th floor, the physiological data indicated that the lead team would not be fit to commit to the fire compartment."*

170 The outcomes of this analysis will be shared with the NFCC Respiratory Protective Equipment ['RPE'] Group and manufacturers to inform the development of operational procedures and BA equipment in the future.

171 The Brigade's SAI 287 into the safety events at Grenfell Tower is also investigating a number of events related to BA operations including the removal of personal facemasks to provide air to residents seeking to evacuate the building via the compromised stairwell, leading to exposure of the products of combustion.

172 The Brigade has worked extensively with Imperial College to establish an independent long term respiratory health study for staff who attended the Grenfell Tower incident. This study is being funded by the COLT Foundation, has been approved by the NHS Ethics Committee and has the support of the Fire Brigades Union.

173 The study, the largest of its kind to date, into the potential long-term effects of firefighting is due to start this autumn. All staff who attended the fire, will be invited to take part and a control group made up of staff who did not attend the fire will be recruited for comparison purposes. Staff who agree to participate will be invited to attend an appointment at the Royal Brompton Hospital in South Kensington, to take part in a detailed confidential health survey that will include a full check of their heart and lungs. These tests will be far more in-depth than those undertaken during routine periodic medicals.

## Theme 5 – Brigade Control

174 As previously noted in paragraph 138 the Brigade has completed actions to upgrade the facilities at Stratford so they replicate those provided in the London Operations Centre at Merton including the installation of an NPAS helicopter downlink receiver and ensuring the

---

<sup>1</sup> Physiological Assessment of Firefighting, Search and Rescue in the Built Environment, ODPM, December 2004

## OFFICIAL

electronic Dynamic Cover Tool application is also available at Stratford in response to learning identified from the Grenfell Tower fire.

175 The GTIRT Preliminary Report observed from the Inquiry Phase 1 evidence and its own investigations that Brigade Control and its policies and procedures were overwhelmed by the scale and rapidity of the Grenfell Tower incident. This resulted in FSG information not always being gathered and shared in accordance with Appendix 3 of the Brigade's Emergency Call Management policy ['PN 539'] and a loss of situational awareness within the Control room, compounded by a lack of updates from the incident ground.

176 The scale of the Grenfell Tower incident also challenged the existing mutual aid arrangements between fire and rescue service control rooms, leading in an inability to exchange information effectively.

177 The incident also revealed some technical issues not previously encountered by the Brigade including the potential for 'call collection forms' to be overwritten, no automated system to link NICE voice records to Vision call records and system limitations in locating telephone numbers, in the case of a large number of duplicate calls, to enable control operators to re-contact callers.

178 At the beginning of July 2019 the Brigade restructured the management of Brigade Control, removing the Principal Operations Manager role and appointing a new Assistant Commissioner ['AC'] to head its Control and Mobilising function and provide a greater level of operational understanding within the senior management team.

179 The new AC is in the process of developing a Brigade Control Improvement Plan to deliver more effective leadership, robust governance and performance management, a culture of excellence and new training and competency framework with the overarching aim of producing an effective and high performing Control and Mobilising department which serves as an exemplar across the fire and rescue service.

180 Many of the structural and cultural improvements identified as required are inextricably linked to the operational learning related to the Grenfell Tower fire, in particular the issues around training and competency and the need for the Control and Mobilising function to be more closely aligned to the corporate centre of the Brigade, rather than separate and distinct as it has become over time.

181 Whilst the Control Improvement Plan will deliver genuine change and improvement over the medium and longer term, GTIB has prioritised a number of Control-related issues arising



from the Grenfell Tower fire operational learning and has directed the AC Control and Mobilising to progress those immediate improvements within Commission 3.

182 Predominately, those immediate improvements relate to training and include a review of all training materials, continuing to support the revisions to the Brigade's FSG procedures, and effectively delivering and recording FSG training once the revised PN 790 is published. An Operations Manager has been seconded into People Services to progress the competency framework for all levels of Control staff and will enable Control to be incorporated into Phase 2 of the DaMOP roll-out in the latter half of 2020.

183 Incorporating Control into DaMOP will not only deliver a more effective competency framework but will support the more effective recording of training; an issue identified during the Brigade's Lakanal House Incident Assurance Review and recorded in the resulting report, dated 7 August 2018. DaMOP training will be scheduled and recorded centrally in Brigade Diary, replacing the interim measure instigated in late 2018 for Control following the aforementioned Lakanal House Incident Assurance Review report.

184 Brigade Control senior managers are and will continue to work with colleagues in NFCC to develop national protocols for receiving and passing FSG call information between fire service and other emergency service control rooms. It is envisaged that these protocols will be captured within the foundation guidance for Control rooms being developed by the National Operational Guidance team in the NFCC Central Programme Office.

185 In respect of the technical issues identified from the Grenfell Tower operational learning, some issues are being addressed, such as the recording of the 'critical line' in the future, which has been completed. However, some issues can only be fully addressed during the scheduled replacement of the Brigade's mobilising system. The project to identify the user requirements and technical specifications for the new mobilising system has commenced and this learning will inform this work to ensure these issues are incorporated in the final technical specifications as far as is feasible.

186 The GTIRT Preliminary Report also observed the immediate and ongoing psychological impact on Control staff resulting from the Grenfell Tower fire. This was also noted in the independent review of the Brigade's counselling and wellbeing provision during and after the incident by Dr Noreen Tehrani, who commented specifically on the level of trauma observed in Control room staff on duty that night.

187 Within GTIB Commission 3, Brigade Control senior managers will be identifying what training and personal development opportunities can be offered to Control staff to increase

their personal resilience. This will also be addressed in a broader context within GTIB Commission 4; examining the extent to which human factors are addressed in policy and training across the Brigade and Commission 5 which is addressing the specific recommendations made in Dr Tehrani's report including for example, consideration for the greater use of mandatory 'treat and screen' following major incidents.

## **Theme 6 – Communications**

### **Radio communications**

188 Like all incidents, large or small, effective communications are key to controlling an incident and bringing it to safe resolution. Observation 6.1 within the Preliminary Report notes that as the incident escalated the volume of radio traffic exceeded the capacity of the radio channels in use at the incident, notably Channel 1 and Channel 6.

189 This issue has occurred previously and the Coroner following the Lakanal House Inquest recommended that the Brigade considered whether it would be beneficial to consider the use of additional BA and personal radio channels at major incidents. The Brigade concluded at that time that the risks associated with using more than one BA radio channel during an incident would outweigh the benefits that this operational practice would afford and maintains a similar position at this time.

190 The Brigade has conducted testing at Grenfell Tower since the fire, which indicated that BA communications issues were predominately caused by the volume of radio traffic but accepts that the tests confirmed some very limited signal propagation issues associated with Channel 6, used for BA communications.

191 As part of the scheduled incident ground and BA radio replacement, the project team are currently considering whether the removal of the intrinsic safety requirement for BA radios is required given the other control measures in place. Removing the requirement for intrinsic safety would increase the output of those radios and reduce the potential for the loss of signal and any impact on BA communications.

192 The Preliminary Report also noted in Observation 6.2 that there was evidence of a lack of knowledge and understanding of the tactics and associated equipment that may have mitigated some of the communication issues. As noted in the report, the Brigade issued two mandatory communications training packages via Operational News 36 in February 2019 to address this issue. A level two evaluation to confirm understanding follows the publication of

all Operational News editions and the results of the Operational News 36 evaluation is expected to be reported to the Operational Professionalism Board in December 2019.

193 The report also noted that a number of senior officers were unable to book in attendance at the Grenfell Tower incident due to the unprecedented volume of traffic being communicated via the Airwave main scheme radio channel in use. The Brigade has confirmed that officers' handheld Airwave radios have the functionality to book in via a data message and Capita continue to scope the work and costs to add this capability to the Brigades' mobilising system.

### **Communication of FSG information**

194 Observation 6.4 of the Preliminary Report noted that there was a lack of information provided to Brigade Control from the incident ground, particularly in relation to progress with FSG calls, leading to a lack of situational awareness in Control.

195 This issue forms part of the Brigade's ongoing activities to deliver improvements to its FSG policies and procedures, which are expected to deliver a revised PN 790 and associated training solution by the end of 2019. As previously stated in this report, progress in delivering this outcome is being monitored by GTIB through Commission 1.

196 Similarly, the issues noted in Observation 6.5 relating to the dissemination of FSG information across the incident ground are being addressed in the revisions to PN 790 and monitored by GTIB accordingly. Interim guidance regarding the transfer of FSG information and the use of Control Information Forms to support this activity has been communicated in Operational News 37 and operational staff are mandated to complete the training associated with this article.

### **Communication with residents**

197 A key line of enquiry during Phase 1 of the Inquiry proceedings was the initiation of a full evacuation of the building. A key element within that line of enquiry was the ability of the Brigade to communicate effectively with residents trapped within the building to precipitate an emergency evacuation when the premises does not, nor is required by building regulations, to provide a central alarm system or other integrated communications systems.

198 The Brigade maintains that this is not an issue that it can resolve unilaterally as the challenge of overcoming the fundamental design principles of the buildings constructed with a 'stay put' strategy in mind are considerable.

199 In advance of the publication of the revised PN 633, the Brigade has provided interim advice in Operational News 37 which identifies a number of methods of communicating with residents to initiate an emergency evacuation and reinforces the need to appraise Brigade Control of the situation immediately to ensure appropriate advice is given to callers. The methods identified all have their limitations as most, with the exception of physically knocking on doors and Control communicating with callers, do not enable two-way communication to confirm understanding of the instructions provided.

200 It is for this reason the NFCC have called upon the Government to instigate a research programme to consider and develop procedures to support an emergency evacuation or a mass rescue from a residential high-rise building whilst not placing firefighters and / or members of the public at an intolerable level of risk.

201 In the interim, the Brigade continues to support Responsible Persons to implement the NFCC simultaneous evacuation guidance in buildings identified as 'at risk' and monitor those buildings to ensure 'waking watches' and other interim control measures are maintained effectively until the building is remediated. As identified in paragraphs 75–77, the Brigade in conjunction with NFCC has expressed its concerns to Government about the slow pace of change with regard to building safety and the use of interim measures such as the NFCC simultaneous evacuation guidance as a long term solution or alternative to the remediation of buildings fitted with ACM or similar cladding.

### **Firefighter Emergency**

202 Recommendation 12 in the Preliminary Report in response to Observation 6.7 stated the Brigade should consider whether any improvement measures were required in relation to communicating a 'Firefighter Emergency' in accordance with PN 496. The scheduled three-yearly review was completed and the policy republished on the 27 September 2019. The operational learning from the Grenfell Tower fire was considered and the policy was considered to be currently sufficient but it will stay under review, pending Inquiry Phase 1 and Phase 2 outcomes.

### **Transfer and recording of FSG information from Control**

203 Observation 6.8 of the Preliminary Report noted that from 02:06hrs FSG information was passed from Control to the incident via a mobile phone to mobile phone link resulting in a lack of evidence to support the Brigade's post-incident investigation. Operational News 37, published in August 2019, reinforces the need to communicate FSG information via the main

scheme radio, potentially using main scheme channel 1 (M2FH FLON-OPS-01) as an alternative to keep the main scheme channel in use clear for other messages.

## **Theme 7 – Operational Equipment**

### **Command Support System**

204 The Brigade accepts the evidence adduced during Phase 1 of the Inquiry that the Command Support Software ['CSS'] provided on Command Units did not work adequately on the night of the Grenfell Tower fire and further accepts that there have been issues historically with the system.

205 The Brigade is currently in the process of installing new servers on all Command Units, following an extensive research and testing programme, enabling the installation of a later version of the CSS software and providing for 4G connectivity, as the current 3G connectivity is acknowledged as a key factor in the historical issues associated with CSS. The hardware and software refresh to the Command Unit fleet is scheduled to be completed in March 2020.

206 As detailed in the Preliminary Report, the Brigade installed two Windows 10 laptops with 4G connectivity on each Command Unit in January 2019 as an interim measure pending the completion of the Command Units hardware refresh project. These laptops will remain on the Command Units post-March 2020 to provide additional resilience and enable the CSS system to be operated remotely from the Command Unit if required.

207 As previously referenced in this report, the Command Unit replacement project is underway and will deliver a new fleet of Command Units utilising the latest technology to support its command, control and communication functions at operational incidents.

### **Positive Pressure Ventilation capability**

208 As reported in the Preliminary Report, the Brigade has implemented a mobilising protocol for the existing Positive Pressure Ventilation ['PPV'] capability. In regard to recommendation 13 and the need to consider making the organisation more aware of the Brigade's current PPV capability, this recommendation will be addressed as part of the PPV project instigated by the Brigade which will initially roll out a PPV capability at ten strategic locations across the Brigade as a pilot to a potential wider use of PPV within the Brigade more generally.

### **Recording of BA tests**

209 Observation 7.3 noted that there were some difficulties during the post incident investigation attributing what BA set had been worn during the incident and by whom. It was

noted during this investigation that, on occasion, some BA logbooks had not been completed correctly and a small number had not been completed at all.

210 In 2018, the Brigade introduced an enhanced operational assurance function with compliance against Service Standards being assured by newly instigated Operational Assurance Officers. These officers visit stations and provide assurance against Service Standard 6, which addresses the systems required to achieve operational readiness. Assurance activities around operational readiness include checks that records including BA logbooks are being completed in accordance with Brigade requirements.

### **Thermal image cameras**

211 The Preliminary Report noted as Observation 7.4 that there were a number of inconsistencies with the timestamps of images saved on the Thermal Image Cameras and there is no automatic update facility on the equipment so the time has to be changed manually. The timestamp is currently checked once a year during the scheduled annual service of the equipment by Babcock Critical Services.

212 It was previously reported that the issue had been communicated to the Brigade's FLEET department and Babcock Critical Services for a resolution. Engagement between those parties and the equipment manufacturers has concluded that there is no immediate solution for the current equipment.

213 The current equipment employed by the Brigade is due for a scheduled replacement in 2020 and therefore the technical specification being developed for the replacement Thermal Image Cameras will seek to avoid this issue in the future.

## **Conclusion**

214 The Brigade has recognised from the outset the scale and breadth of the organisational learning opportunities that would arise from the Grenfell Tower incident, as demonstrated by the instigation of a dedicated team by the LFC immediately after the fire and the ongoing organisational support for that team.

215 The LFC also recognised that the team would need to work independently of the Brigade's usual governance to assist in effectively identifying all available organisational learning and provide an unfettered evaluation of the Brigade's response to the fire.

216 Like all organisations, the Brigade has finite resources and does not have an unlimited capacity to develop and implement changes to policies, procedures, equipment and training.

## OFFICIAL

This is particularly so when one considers the potential scale of improvement opportunities arising from an event such as Grenfell Tower fire and other events such as the terrorist attacks in 2017, in addition to what might be termed business as usual improvements and enhancements to the service the Brigade provides to London.

217 Recognising this, the Brigade has implemented effective governance through the establishment of GTIB, chaired by the LFC, which ensures improvements are organised, prioritised and delivered effectively and receive assurance that the improvements are delivered in a sustainable manner and embedded across the organisation. That Board has been effective since its inception in prioritising areas of improvements and allocating sufficient resources to progress and ultimately deliver those improvements.

218 It is noted that the Inquiry has yet to publish its report at the time of writing and the report and any urgent recommendations contained therein will have to be considered and may influence previous GTIB prioritisation decisions and/or any requirement to allocate or fund additional resources to address these matters.

219 The outcomes of the GTIRT operational response analysis and SAI 287 will inevitably provide further organisational learning and as such the role of GTIB will become ever more crucial as these work streams develop and report their findings.

220 There is an understandable interest from many parties in the improvements the Brigade has and will make going forward but the timing of these, particularly changes to operational policies and procedures, should be seen in the context of the significant, and as yet not fully explored, challenges presented by a building fire on the scale of, and in a similar building to Grenfell Tower.

221 It would be simplistic to say that the Brigade could immediately revise its high-rise firefighting and fire survival guidance policies and procedures to address the challenges presented by the fire at Grenfell Tower. To do so fails to recognise the significant challenge of overcoming the design principles of such buildings whilst maintaining the safety of firefighters to a tolerable level.

222 For example, the challenges of firefighting on multiple floors when the firefighting facilities are limited on the expectation of a single dwelling fire are not simple to overcome. The challenge of communicating with residents to alert them of the need to evacuate is considerable without integrated communication systems, operated automatically or otherwise, and to do so almost inevitably requires firefighters to be deployed above the fire, potentially

without firefighting media due to the aforementioned limitations of the building's firefighting facilities.

223 Similarly, the challenge of tackling external fire spread on high-rise buildings, rapid or otherwise, is hugely problematic and for this very reason, the building regulations state the exterior walls of high-rise buildings must adequately resist the spread of fire across the exterior surface.

224 These and other challenges are complex and no single service has yet been able to comprehensively address such matters hence the NFCC has requested the Government to establish a research programme to address these operational challenges, involving fire and rescue services nationally, industry experts, representative bodies and the Health and Safety Executive in recognition of fire and rescue services' obligations under health and safety legislation.

225 This work must sit alongside the Government's building safety programme, implemented after Dame Judith Hackitt's review to address the shortcomings of a regulatory regime designed to keep occupiers of residential high-rise buildings and emergency service responders safe in the event of an outbreak of fire.

226 It is noted that some of the changes being implemented by the Brigade are interim in nature, particularly those related to evacuation, and have been provided through guidance in Operational News publications rather than embedded in policy changes. However, it is recognised this is due to the complexity of the issues articulated in the previous paragraphs and the implications for firefighter safety in trying to overcome the failures in the active and passive fire safety measures in buildings.

227 In respect of the GTIRT Preliminary Report, the vast majority of the observations and recommendations contained therein have or are being addressed (Annex C refers) and it is notable that the Brigade has been able to achieve this whilst continuing to provide significant assistance to the Grenfell Tower Inquiry and the MPS investigation, in addition to delivering as other significant organisational changes such as the R2R project.

228 Urgent recommendations directed at the Brigade, if made by the Inquiry Chair, will place further pressures on the Brigade's resources and the Brigade may not be able to deliver all required improvements within existing budgets. However, I am confident that it has the governance arrangements in place to effectively address such matters, if it feels they are appropriate and are not already being progressed.



## Appendices

- Annex A GTIRT Preliminary Report including appendices, dated 2 April 2019.
- Annex B LFB Report 'Actions since the Grenfell Tower fire', dated 24 October 2018.
- Annex C Table cross referencing improvement activities instigated against Preliminary Report observations and recommendations.
- Annex D Independent Review of Training – Final Report, dated 11 September 2019.



# Grenfell Tower Fire

Preliminary Report

Head of Grenfell Tower Investigation and Review  
Team

**OFFICIAL**

2<sup>nd</sup> April 2019

This page is left deliberately blank

<b>Chapter 1 – Introduction</b>	3
Background to Brigade's investigation and team	3
Grenfell Tower Investigation and Review Team: Terms of reference	4
Investigation methodology	6
Scope of preliminary report	7
<b>Chapter 2 – Summary timeline of events</b>	9
<b>Chapter 3 – Preliminary observations</b>	12
Theme 1 – Observed failures of the building and its fire safety measures	12
Theme 2 – Operational pre-planning	21
Theme 3 – Command and control	31
Theme 4 – Operations	41
Theme 5 – Brigade Control	62
Theme 6 – Communications	78
Theme 7 – Operational equipment	89
<b>Chapter 4 – Summary of key observations</b>	94
<b>Chapter 5 – Summary of recommendations</b>	98
<b>Chapter 6 – Appendices</b>	100

## Chapter 1 – Introduction

### Background to the Brigade's investigation and review

- 1 The fire at Grenfell Tower on 14<sup>th</sup> June 2017 took the lives of 71 people, with a further fatality on 29<sup>th</sup> January 2018, and left hundreds more with both physical and psychological injuries. Whilst fire and rescue services are trained to respond to fires in residential high rise buildings, the incident on the 14<sup>th</sup> June 2017 was of a scale and rapidity that was exceptional; preceded and precipitated by a complete failure of the building's fire safety measures to perform effectively. Those failures created a set of conditions not previously experienced by the Brigade and provided a unique challenge for the Brigade and its partner emergency services who responded on the night.
- 2 There is much to be commended in the multi-agency emergency response, and many emergency service personnel demonstrated bravery and selflessness during the night in the pursuance of preserving life. There can be little doubt that every member of the Brigade and those from the other agencies who attended, did so with the express aim of saving life and protecting property.
- 3 The courage of the residents, who, on the night had to endure punishing and terrifying conditions to escape the building as it became engulfed in fire is recognised and cannot fail to be admired by all. Similarly, the ongoing fortitude of the families and friends of those residents who were unable to escape and perished during or shortly after the fire is to be commended.
- 4 Like all incidents, large and small, there will be learning to be identified and it is acknowledged that any lessons to be learned and any good practice identified will undoubtedly apply not just to the London Fire Brigade, but nationally and possibly internationally.
- 5 The office of the London Fire Commissioner has a statutory duty to review the performance of the organisation and ensure all learning from incidents is identified, disseminated, and acted upon where appropriate.
- 6 This report is a product of the Brigade's investigation and review but should be considered a preliminary output only as there is a need for the Brigade and others to conduct further investigations, in order to achieve a full understanding and reach conclusions.
- 7 Such was the scale of the incident at Grenfell Tower, a dedicated team within the Brigade, the Grenfell Tower Investigation and Review Team (GTIRT), was established to understand the circumstances of the incident and what happened on the night, identify lessons to be learnt, and

## OFFICIAL

when all the evidence is available, provide an unfettered and comprehensive evaluation of the Brigade's response to this unprecedented incident. This investigation has and will continue to work alongside the statutory processes being undertaken by the Grenfell Tower Inquiry and Metropolitan Police Service (MPS), whilst acknowledging the primacy of those processes.

- 8 GTIRT reserves the right to amend any information contained within this report if further evidence becomes available.
- 9 The Brigade has sought to support the aim of the Inquiry and MPS in placing the bereaved, survivors, and residents at the heart of their investigations through the provision of relevant information, including the products of its own investigations, to ensure the fullest understanding of the events of the night is achieved for those most directly affected. The internal investigation team also recognises the traumatic experiences of the Brigade's staff and their need to understand the events of the night, and has sought to ensure its own activities and that of other statutory processes have due regard to the wellbeing of staff.
- 10 Eighty-three Brigade staff and five staff from other fire and rescue services provided oral evidence during the Inquiry's Phase 1 hearings and more than 650 staff have provided voluntary witness statements to the MPS.

### **Grenfell Tower Investigation and Review Team: Terms of reference**

- 11 This section sets out the terms of reference and investigation methodology already known to Brigade's principal officers to reflect the likely wider interest in the Brigade's internal investigation and its outputs.

#### Aim

- 12 Develop the fullest possible understanding of the circumstances of the Grenfell Tower fire to support the identification of lessons to be learnt, and evaluate the adequacy and effectiveness of the Brigade's emergency response on the 14<sup>th</sup> June 2017.

#### Rationale

- 13 In order to meet its statutory duties under Health and Safety legislation, the Brigade investigates all accidents and near misses (collectively known as safety events). The fire at Grenfell Tower on 14<sup>th</sup> June 2017 was unique in its scale, rapidity and loss of life and as such justified the formation of a dedicated team to ensure these duties were carried out effectively and efficiently, and support the Inquiry and MPS investigations.

## 14 Objectives

- To set-up robust systems to capture all relevant information (documents, witness statements, emails, images, etc.) and any physical evidence associated with Grenfell Tower and Brigade's response to the fire.
- To develop and implement a storage and indexing solution for all the information relating to the Grenfell Tower investigation.
- In conjunction with the General Counsel's Department support the Brigade's participation in the Inquiry and establish a 'disclosure' management protocol to support the evidence submissions.
- To analyse all relevant and available information to develop a clear understanding of the Brigade's involvement with Grenfell Tower prior to the major fire that occurred on 14 June 2017.
- To investigate and establish the most likely cause of the fire and the factors that influenced the rapid fire spread in conjunction with external advisors.
- To undertake a comprehensive review of the Brigade's operational response to the incident including all the relevant aspects of the operational support and strategic co-ordination arrangements.
- To undertake a comprehensive review of Brigade Control's response to the incident.
- To undertake an assurance review covering all the actions taken by the Brigade in responding to the Lakanal House fire which occurred on 3 July 2009, including those instigated in response to the Rule 43 recommendations arising from the Coroner's Inquest.
- To carry out and maintain effective governance and relationships with all relevant external partners and agencies through the use of Memorandums of Understanding and Working Protocols.
- To work closely with all appropriate Brigade departments to develop an organisational action plan relating to any lessons learnt arising from the investigation or from recommendations delivered by the Inquiry

N.B. The report addressing the objective to undertake an assurance review of the actions taken by the Brigade in response to the Lakanal House fire has been completed and is appended to this report.

### Out of scope

15 The investigation or its outputs will not seek to examine or reach conclusions in relation to the following:



## OFFICIAL

- The cause of death of the people who died and any question of the potential survivability from the injuries of those who died.
- Any matters in relation to civil or criminal liability.
- Why the building became so vulnerable to the fire that occurred on 14<sup>th</sup> June 2017, save to use the conclusions reached by the Inquiry's experts where they provide context to actions or decisions taken by the Brigade on the 14<sup>th</sup> June 2017.
- The activities or response of other agencies, save where they impact on the Brigade's response.

### Relationship with formal statutory processes

16 The Brigade's internal investigation is being undertaken whilst the Inquiry and MPS investigations are ongoing. In addition, the Coroner has opened and adjourned inquests into the deaths resulting from the fire and it is anticipated that the Inquiry will attempt to address the matters normally dealt with by the Coroner in the course of the Inquiry's proceedings.

17 The Brigade has engaged extensively to ensure its actions do not in any way undermine or prejudice the other statutory processes. In respect of the MPS investigations, ways of working have been formalised through a Memorandum of Understanding and an Information Sharing Protocol. The Inquiry has published a number of documents setting out how its terms of reference will be delivered and as a Core Participant, the Brigade is bound by and adheres to these protocols.

### **Investigation methodology**

18 The Brigade's internal 'safety and learning' investigation is being carried out in three stages;

19 Stage one is being carried out in two parts, the first being the gathering of information which has included the copying, recording and referencing of information relating to the incident. The second part is the use of the Sequential Time Event Plotting (STEP) process to record a timeline of the actions undertaken at the incident and remotely at Brigade Control.

20 The second stage of the investigation is running concurrently with stage one, and involves the investigation team building an understanding of what happened at the incident and how it happened. This understanding of the first seven hours of the incident has developed into the factual narratives presented in the 'Operational Response Report Volume 1' and the 'Actions by Brigade Control Report'. Both documents are appended to this report.

- 21 The third stage is an analysis to identify those areas that do not align with the expectations of policy, national guidance and / or training and determine the immediate and underlying reasons for this, to support improvements and / or avoid a reoccurrence. It is intended to undertake the majority of stage three of the investigation prior to and during phase 2 of the Inquiry and present internal findings on the adequacy and effectiveness of the Brigade's response at the end of the Inquiry proceedings, once all evidence is available.
- 22 However, as the internal investigation progresses, where a significant issue or concern is identified and verified which impacts on public or firefighter safety, and in the opinion of the investigation team requires action that cannot reasonably wait until the publication of reports, then these are communicated to the responsible department for consideration. The Brigade tracks and records any resulting actions taken through its Operational Improvement Process.
- 23 It is noted that the Brigade has also implemented a Grenfell Tower Fire Improvement Board to corporately consider operational learning identified by its internal investigation and recommendations arising from the Inquiry. The Board will direct the implementation of any improvement actions and assure the effective delivery and embedding of those actions.

### **Scope of this preliminary report**

- 24 This preliminary report predominantly covers the first seven hours of the incident up to 08:00hrs; the period of life saving activity and the focus of the Inquiry during its Phase 1 proceedings. The report also notes historical actions that are considered relevant or provide context to the actions / decisions taken on the night of the fire. In addition, observations that do not directly relate to the response on the night of the fire, but may be relevant when the Brigade is considering improvement measures, have been included to support continuous improvement.
- 25 The analysis to identify those actions or decisions or outcomes which are not aligned to the expectations of policy, national guidance and will take some time to complete. It will identify key lines of enquiry to be investigated to determine the immediate and underlying reasons for such discrepancies.
- 26 It follows that much of the work to identify, in particular, underlying reasons will lean heavily on examining the broader issues of policy and training, and identifying and understanding the systems and processes used by the Brigade to deliver its statutory functions.
- 27 In addition, there is a requirement to understand the events that led to Grenfell Tower becoming so vulnerable to the building wide fire that occurred on the 14<sup>th</sup> June 2017 in order to provide the

## OFFICIAL

context for the actions and decisions of those who responded to this incident. These are areas that the Inquiry will examine during its Phase 2 proceedings and the MPS will also examine as part of its own ongoing investigation.

- 28 However, there is learning that can and has been identified, acknowledged, and acted upon from the evidence available to date, even without fully identifying or understanding the underlying reason.
- 29 This report identifies those areas of operational learning within themes and are presented to the London Fire Commissioner and the Grenfell Tower Fire Improvement Board so that the Brigade can consider and implement any agreed corrective measures, if it has not already done so.
- 30 Recommendations that point to matters that the Brigade may wish to consider are provided to support its decision making have been included in this report.

## Chapter 2 - Summary timeline of events

31 This chapter provides a timeline of key events in the first seven hours of the incident. A minute by minute factual narrative of the events between 00:54:29hrs and 08:11:00hrs provided in the Operational Response Report Volume One and the Actions by Brigade Control reports (attached as Appendices A and B respectively). The entries presented below in italics denote messages.

- 00:54:29 Initial call to fire in flat 16, Grenfell Tower received
- 00:59:24 First appliance (G272) books 'in attendance' at Grenfell Tower
- 00:59:28 Second appliance (G271) books 'in attendance' at Grenfell Tower and Watch Manager (WM) Dowden assumes role as Incident Commander (IC 1)
- 01:00:28 H41S paged as Remote Monitoring Officer
- 01:07:21 Breathing Apparatus (BA) team One make first entry into flat 16 on fourth floor
- 01:08:06 Fire begins to break out of the kitchen window of flat 16 on east elevation
- 01:12:59 *Make Pumps 6, 1 Hydraulic Platform (amended to 1 Aerial at 01:13:41)*
- 01:14:21 *From G272, residential block of flats of 20 floors, 25 metres x 25 metres, five roomed flat on fourth floor, 75 per cent alight, high rise procedure implemented MDT in use, tactical mode Oscar*
- 01:16:05 G272 designated Initial Command Pump (ICP)
- 01:19:08 *Make pumps 8*
- 01:21:15 BA team One confirm fire is extinguished in flat 16
- 01:21:21 Fire has spread up external cladding to eleventh floor
- 01:21:24 First 999 call received from a resident inside Grenfell Tower (flat 195, 22<sup>nd</sup> floor)
- 01:24:09 *Make pumps 10*
- 01:24:33 *From G271, can we request attendance of the police for crowd control*
- 01:27:26 *Make pumps 15, Aerial Ladder Platforms 2*
- 01:28:12 *From G271, this is a persons reported fire*

## OFFICIAL

- 01:29:11 *Make pumps 20, Fire Rescue Units 2*
- 01:30 Fire in external cladding reaches top of the building and begins to spread laterally
- 01:30:48 First Command Unit (CU8) books 'in attendance'
- 01:31:30 *Make pumps 25*
- 01:32:08 First Station Manager (SM) (G22S) books 'in attendance'
- 01:33 G22S meets with IC 1 and takes over management of Fire Survival Guidance calls
- 01:36 First aerial appliance (A213) arrives on scene
- 01:40 H41S arrives at Grenfell Tower and takes over as IC 2 at around 01:50
- 01:54:30 First Deputy Assistant Commissioner (DAC) (E6) arrives at Grenfell Tower and takes over as IC 3 from H41S around 01:59
- 01:57:21 First Group Manager (GM) (E109) books 'in attendance' and proceeds to CU8 where he is informed he is the senior officer on scene and assumes command
- 02:03:13 *Make pumps 40*
- 02:06:03 *Major incident declared by Brigade*
- 02:11 IC 3 moves to CU8 and appoints E109 as Fire Sector Commander
- 02:15:49 *Make Fire Rescue Units 10*
- 02:34:03 40<sup>th</sup> pumping appliance now in attendance
- 02:35 Brigade Control Senior Operations Manager informs Control Room Operators (CRO) to begin advising callers to leave the building.
- 02:39:17 *From CU8, fire on all floors, from 2<sup>nd</sup> to 27<sup>th</sup> floor. Large number of persons involved. FSG calls being dealt with. Major incident declared. High rise procedure implemented, TL, ALP, EDDBA, Main control, FSG, ground monitor, five jets, safety cordon in place. Tactical mode Oscar.*
- 02:43:51 First Assistant Commissioner (AC) (BM8) on scene assumes command as IC 4.
- 02:47 Decision to alter FSG advice from 'stay put' to 'get out' recorded in decision log.

## OFFICIAL

- 02:50:48 London Fire Commissioner (BM 1) books 'in attendance' as Monitoring Officer.
- 03:08 Bridgehead relocated to ground floor lobby due to deteriorating conditions.
- 04:03 External flame fronts converge at the south west corner of the building, totalling engulfing the building.
- 08:11 Last surviving resident (Mr Bonifacio) located in the Grenfell Tower is rescued from the 11<sup>th</sup> floor.

## Chapter 3 - Preliminary observations

- 32 This chapter presents observations themed into seven key areas following a review of the evidence held by the Brigade and that provided during the Phase 1 proceedings of the Inquiry. Each key observation is followed by the rationale for its inclusion in this report, together with any context provided by policy positions or historical actions.
- 33 The actions the Brigade has completed or are progressing in response to the learning identified to date are also presented at the conclusion of each key observation or at the end of the section.
- 34 Recommendations that point to matters that the Brigade may wish to consider are provided to support its decision making.

### Theme 1 – Observed failures of the building and its fire safety measures

- 35 This section of the report provides a summary of what GTIRT currently understands about Grenfell Tower, the fire safety provisions within the premises, the apparent failure of those provisions, and their impact on the residents and the Brigade's operational response.
- 36 It draws heavily on the Inquiry's expert witness reports, particularly that of Dr Barbara Lane, all of whom have undertaken a significant amount of work to identify how the building impacted on the events of the 14<sup>th</sup> June 2017. The expert witness reports provide significant context to the Brigade's operational response and the challenges it faced to deliver its key aims to save life, protect property, and protect the environment.
- 37 This report provides only a summary of those expert findings. The investigation will consider all the expert reports in detail during its analysis of the Brigade's operational response.
- 38 Grenfell Tower was a 25 storey (including basement and plant room) residential premises built in the 1970's. The premises is located on the Lancaster West estate within the Royal Borough of Kensington and Chelsea. The block originally contained 120 flats over 20 floors with the Ground and first three levels assigned to non-residential purposes.
- 39 During the refurbishment undertaken between 2012 and 2016, an additional nine flats were added within levels one to three, bringing the total number of residential units to 129. This refurbishment also included the installation of an external rain screen cladding system and works to the gas supply within the building.

40 There is also evidence that lift replacement works were undertaken in 2005 and a flat front door replacement programme was completed between 2011 and 2012.

41 On the 14<sup>th</sup> June 2017, the fire started in the kitchen of flat 16, on the fourth floor of Grenfell Tower. The flat is located on the north east corner with the kitchen window projecting onto the east elevation of the building.

42 The fire was discovered by the resident of the flat, Mr Behailu Kebede, in the corner of the kitchen adjacent to the east facing window. A fridge freezer was located in this area and the Brigade's fire investigation officers believe the fire most likely started in this appliance.

**Key observation 1.1 : The external cladding system installed on Grenfell Tower was not compliant with Regulation B4(1), contributing to the observed failure of the fire safety measures provided within the premises.**

Rain screen cladding system

43 Dr Barbara Lane states in her report, dated 5<sup>th</sup> November 2018 that '*The rain screen system, installed during the refurbishment in 2012 – 2016, was non-compliant with the functional requirement of the Building Regulations.*'

44 Dr Lane further states in her report that '*the rain screen cladding assembly together with the insulation fitted to the existing external wall and the missing or defective barriers became part of successful combustion process. This created a condition (in the event of an internal fire, cavity fire or external fire) which connected every flat on a storey; and every storey from level three to the roof, which supported the spread of external fire back into the building , through windows, and created a series of internal fire events*'.

45 She concludes in her report '*I do not consider it reasonable that in the event of the installation of a combustible rain screen on a high rise building, the fire brigade should be expected to fully mitigate any resulting fire event. That is particularly so in circumstances where the fire brigade had never been informed that a combustible rain screen system had been installed in the first place.*'

46 Dr Lane noted in her report that she had found no evidence that the Brigade had been informed that a combustible rain screen cladding system had been fitted to Grenfell Tower and therefore had not had the opportunity to consider the appropriateness of its operational procedures in the event of a fire at the Tower.



Fire safety measures

47 Grenfell Tower was provided with a number of active and passive fire safety measures which were intended to create a layered safety system. They were intended to provide the means for early internal firefighting. This is achieved by providing the means to limit fire and smoke spread from a dwelling fire and create the high degree of compartmentation necessary to support the building owner's/Responsible Person's 'Stay Put' strategy, which was designated for this particular high rise residential premises.

48 Dr Lane in her report, dated 5<sup>th</sup> November 2018, states '*The high degree of compartmentation had suffered its primary failure, caused by the fire spreading through the rain screen system*'. She goes on to state '*The remaining active and passive fire protection measures within the Tower were required to mitigate the effects of the resulting fire and smoke spread from that rain screen system fire. These measures were required to mitigate those effects on many floors.*'

Evacuation strategy

49 The current statutory guidance does not require a residential high rise premises to be provided with an interlinked fire alarm system, as the guidance assumes that any fire will be confined to one flat. The guidance is Approved Document B 2013 states: "*The provisions for the means of escape for flats are based on the assumption that:*

- a. *the fire is generally in a flat;*
- b. *there is no reliance on external rescue;*
- c. *measures in Section 8 (B3) provide a high degree of compartmentation and therefore a low probability of fire spread beyond the flat of origin, so that simultaneous evacuation of the building is likely to be necessary; and*
- d. *although fire may occur in the common parts of the building, the materials and construction used there should prevent the fabric from being involved beyond the immediate vicinity (although in some cases communal facilities exist which require additional measures to be taken)."*

50 The definition of 'stay put' from BS 9991:2015 assumes the same; '*when a fire occurs in a flat or maisonette, the occupants of that dwelling evacuate, but occupants of all other dwellings can safely remain in their dwellings unless affected by heat or smoke or directed to leave by the fire and rescue service.*'

## OFFICIAL

51 Dr Lane concludes that the guidance in the UK does not require there to be any system or process to either automatically sound a fire alarm in every flat or to sound an alarm in the common lobbies outside each flat. Therefore, unless a resident communicates with the emergency services by calling '999', there is no other automatic or expedient means for operational staff attending an emergency incident to communicate with residents within the building.

### Protected lobbies and stair

52 The means of escape to the final exit at Grenfell Tower was a single staircase provided with a protected lobby at every storey. A smoke control system, an active fire safety measure, was provided to protect each lobby and in doing so protect the single escape stair.

53 Professor Torero notes in his report, dated 23<sup>rd</sup> May 2018; *'In the Building Regulations and guidelines applicable to Grenfell Tower there is **no** requirement for provisions that allow the occupants of more than the flat of fire origin to evacuate (Section 5.1.7[1]'*

54 The evidence from witnesses and the Inquiry's experts indicate that the lobbies and stairwell failed to perform on the night of the fire and became compromised by heat and smoke from some time between 01:21 and 01:40hrs. This created challenging conditions for firefighters and the residents seeking to self evacuate from the building.

55 There is evidence that heat conditions above 150 degrees centigrade were present in the stairwell between floors 13 – 16, probably some time around 02:00 – 02:30hrs. This is likely to have caused a physical and psychological barrier for those above 11<sup>th</sup> floor to escape around these times. It is conceivable that these heat conditions were, in part, a consequence of the lack of firefighting due to the finite limitations of the dry rising main (DRM) capacity. This may have enabled the fire to spread internally unchecked by firefighting activities that would be undertaken at a high rise incident that didn't involve this level of rapid fire spread.

56 Evidence available to date indicates there is a close correlation between the progress of the vertical fire spread and the presence of smoke in lobbies. Smoke is reported in 13 of 20 lobbies between 01:19 and 01:38hrs, increasing to 15 out of 20 lobbies by 01:58hrs. By 02:38hrs, smoke is reported in 19 out of 20 lobbies with severe temperatures on floors six to 10.

57 The failure of the protected lobbies is attributed by Dr Lane to flat front doors failing to control the spread of fire and smoke from flats into the lobbies and vice versa. This is attributed to a lack of performance, initially identified by a fire resistance test undertaken by BRE Global, on behalf of the MPS, on a sample door of the type fitted to the majority of flats within Grenfell Tower.

- 58 Flat entrance front doors are considered an important element of the lobby enclosure as they provide protection to the lobby acting as a means of escape to occupants from a fire in an adjacent flat. All flat entrance doors are required to be fitted with self closing devices to ensure the door is closed after a person leaves their flat. Dr Lane was unable to confirm whether these devices performed as intended, but many witnesses stated in oral evidence that the self closer fitted to their flat did not work or was missing.
- 59 In regard to the protected stairs, Dr Lane has noted in her report, dated 5<sup>th</sup> November 2018, the following function described in BS9991:2015 *'Whilst a simultaneous evacuation is normally not necessary, there will be some occasions where operational conditions are such that the fire and rescue service decide to evacuate the building. In these situations, the occupants of the building will need to use the common stair, sometimes whilst firefighting is in progress. As such, the measures in this British Standard for the protection of common stair are designed to ensure that they are available for use over an extended period.'*
- 60 Dr Lane further noted in her report in relation to the stair doors; *'I observed no fire damage in the stairs consistent with the total failure of a stair door, allowing fire spread onto the stairs' but does note 'the non-compliances I have identified would have contributed to the failure to prevent the spread of smoke to the stair'.*

#### Mechanical Smoke Control system

- 61 A replacement mechanical smoke control system was installed in Grenfell Tower during the 2012-2016 refurbishment, its purpose being to control the amount of smoke entering a lobby and therefore reducing the risk of smoke spread to the protected stair.
- 62 The smoke control system was intended to operate on one floor only, as per the requirements of Approved Document B, and was not expected or designed to operate on multiple floors simultaneously.
- 63 A smoke detector was present outside flat 16, the fire compartment of origin, and this detector should have activated the smoke control system on the fourth floor. There are no reports of smoke in any other lobby at this time. Evidence from residents report thick black smoke entering the stairs from the lobby on the fourth floor around 01:20hrs indicating the smoke control system was not operating as designed.
- 64 The smoke control system was installed with an override control located in the ground floor lobby. The control panel enabled the system to shut down or the floor on which the system was

## OFFICIAL

operating could be controlled. Photographic evidence indicates that the override switch had been turned from 'Auto' to 'On', enabling manual control of the system.

65 The smoke control system could also be operated on each floor using a key switch located in each lobby, enabling the system to operate on that floor. There is no evidence at the time of writing that any of the lobby key switches were operated successfully during the fire.

### Fire lifts

66 Evidence available to date indicates the lifts provided with Grenfell Tower were consistent with the requirements of a 'fire lift' as described in the original design guidance at the time of construction, rather than a 'firefighting lift' as described in Approved Document B.

67 A 'fire control switch' was provided at ground level and CCTV footage confirms that Brigade personnel attempted to secure the lift using this fire control switch but the switch failed to engage. This resulted in the lifts continuing to operate as normal lifts but not under Brigade control.

### Dry rising main

68 Grenfell Tower was provided with a DRM to support internal firefighting operations. It is noted that this does not comply with the current guidance which includes for the provision of a Wet Rising Main in buildings over 50 metres. Prior to 2006, only buildings above 60 metres were required to have a wet rising main.

69 Dr Lane has stated in her report, dated 5<sup>th</sup> November 2018, that she believes the DRM was non-compliant with the original design guidance due to the building height of 67.30 metres. It is believed the original guidance allowing for a DRM in buildings under 60 metres measured the height of a building from the DRM inlet to the top of the building. There were no dry rising outlets on the second and third floors but these were added during the refurbishment when residential units were added to these levels.

70 However, Dr Lane notes that to comply with the guidance available (Approved Document B) at the time of the refurbishment, Grenfell Tower would have required the provision of a wet rising main. In her report, she notes the mechanical and electrical sub contractors stated in correspondence to RBKC; *'We are not increasing the high [sic] of the existing riser but we are adding two additional floors at low level which were previously walkways. We understand the existing riser is above the current permitted height of 50m, we would therefore need to discuss*

*the proposed modification and what measures we need to take to gain approval for the new system'.*

71 RBKC Building Control responded by advising; *'Essentially the building regulations cannot require you to improve the existing floors above 50 metres. The regulations only apply to the work being carried out and additionally you must not adversely affect the existing building'.*

72 Dr Lane, therefore, concludes that no works were undertaken as part of the refurbishment to upgrade the rising main from a dry system to a wet system.

73 Evidence to date indicates that the DRM failed to provide a sufficient number of firefighting jets to combat the fires present across multiple floors, and the jets established failed to provide sufficient pressure and flow, presumably because the number of jets connected to the dry rising main exceeded the capacity of the main.

74 Professor Jose Torero in his expert report, dated 23<sup>rd</sup> May 2018, states *'Firefighting protocols for response to high rise building fires are intimately linked to a single floor fire. Furthermore, for residential buildings, the firefighters should find, on arrival, a single unit fire'.* Professor Torero goes on to state *'Fighting provisions, such as water supply, are also dimensioned under the expectation of a certain magnitude event. If vertical flame spread occurs this will require the drastic modification of firefighting protocols and advance planning'.*

75 Further investigation of the non-compliances identified within Grenfell Tower by the Inquiry's experts and the impact they had on the spread of fire and the operational response will be undertaken by the Inquiry's expert witnesses in phase 2.

### Sprinklers

76 Grenfell Tower was not provided with any fire suppression system such as sprinklers but it is recognised that there is currently no regulatory requirement for such provision in a building of this type and age.

**Recommendation 1** - The Brigade should continue to work with all stakeholders to identify and deliver improvements to the regulatory regime to prevent a re-occurrence of the Grenfell Tower fire and increase the safety of the public and firefighters.

**Recommendation 2** - The Brigade should continue to campaign vigorously for the provision of sprinklers in residential high rise and other types of buildings in order to improve public safety.

### **Actions by the Brigade since the fire**

- 77 In the week after the Grenfell Tower fire the Brigade's Fire Safety Regulation (FSR) department established a High Rise Task Force (HRTF) to review the risks associated with high rise residential premises within the Brigade's area.
- 78 The Brigade's FSR department has responsibility for both the delivery of the regulatory fire safety function and community safety activities.
- 79 Through an on-going proactive programme of prevention activity targeting and supporting the most vulnerable members of society, it leads the Brigade's aim to continue reducing the number of people who are injured or die in fires.
- 80 The department's Fire Safety Inspecting Officers (FSIO) carry out risk based, targeted audits and inspections of premises under the Regulatory Reform (Fire Safety) Order 2005. Where non-compliance by the person responsible for the premises is identified appropriate enforcement action can be taken to ensure any fire safety deficiencies are addressed.
- 81 FSIOs also respond to consultations from building control bodies under the Building Regulations. They also provide general fire safety advice as required under the Fire and Rescue Services Act 2004.
- 82 This team has conducted in excess of 1,500 activities related to residential high rise premises, including providing reassurance at residents meetings, co-ordinated visits with fire station based staff and the completion of over 1,100 premises visits.
- 83 Since the fire, the Brigade's officers have also consistently engaged with local councils via the London Councils Fire Safety Group forum. This has enabled the Brigade to share information, advice and good practice on a range of issues such as Aluminium Composite Material (ACM) cladding, fire doors and buildings designed on the basis of a 'Stay Put' strategy. This engagement has enabled a consistent fire safety message and helped to maintain links between local councils and the Brigade's Fire Safety Teams and Borough Commanders. In addition it has helped the Brigade to provide community re-assurance, particularly to those people living in residential high rise buildings. The relationship between the Housing Act, the Housing Health and Safety Rating System (HHSRS) and the Regulatory Reform (Fire Safety) Order 2005 (RRO) have also been discussed at this forum, as have topics such as Person Centred Fire Risk Assessments and Personal Emergency Evacuation Plans.

84 A number of additional FSR posts have been established as a result of the funding secured from the Mayor of London, following the Grenfell Tower fire, to enhance the Brigade's inspection regime. This has included development officers, quality assurance officers and the re-engagement of previously retired Inspecting Officers to create a new 'Specific Projects Group'. This new group is tasked to focus on high risk property types and complete a more thorough inspection as a result of the learning from the HRTF inspections.

85 The Brigade's FSR department has also undertaken the following:

- led on assisting the Ministry for Housing, Communities and Local Government (MHCLG) in producing guidance for buildings that have partial cladding;
- provided subject matter expertise to assist Home Office and MHCLG in implementing the Dame Judith Hackitt recommendations. The Brigade's officers hold prominent positions on all the working groups established to deliver the Hackitt recommendations;
- designated a Brigade officer to lead the work on reviewing the competency of Brigade's Fire Safety Enforcing Officers;
- embedded a Brigade officer as a part of the Ministerial task force dealing with remediation of private tower blocks;
- provided, through the FSR Fire Engineering team, assistance to several other fire and rescue services to help them deal with ACM clad buildings (peer review);
- provided, and are continuing to offer, expertise to Home Office, MHCLG, the Expert Panel and the Dame Judith Hackitt review workstreams. This includes the additional engagement following the concerns raised over fire doors since it was reported that a door from the Grenfell Tower block failed the fire spread test;
- providing advice and support to London local authorities through regular monthly meetings of the London Councils Fire Safety sub group. One of the outcomes for which has been a proposal with the Local Government Association (LGA) and London Councils for a joint inspection team to deal with uncooperative landlords.

## **Theme 2 – Operational pre-planning**

### Identification of risks

86 A range of legislation, including the Health and Safety at Work etc Act 1974 and the regulations made under that Act, place responsibilities on employers to ensure the health and safety of staff and others and involves obligations to identify and assess risks arising from work activities and to take all reasonably practicable measures to manage them.

## OFFICIAL

- 87 The Fire and Rescue Service Act 2004 places a duty on the Fire Authority (in London the Fire Authority is the London Fire Commissioner) to make arrangements for obtaining information to make provision in respect of firefighting, road traffic accidents and other emergencies.
- 88 The Fire and Rescue National Framework for England places a duty on fire and rescue authorities to identify and assess the full range of foreseeable fire and rescue related risks their areas face, make provision for prevention and protection activities and respond to incidents appropriately.
- 89 The Framework does not provide any further definition to 'foreseeable' but directs authorities to consider its Local Resilience Forum Community Risk Register and any other local analyses to ensure all foreseeable fire and rescue related risks are identified and included in their integrated risk management plan. The Brigade delivers its responsibilities for an integrated risk management plan through the publication of its London Safety Plan.
- 90 To determine the foreseeability of an event, it is necessary, as described in the National Framework, for a fire and rescue service to identify the risks in its local area and assess the likelihood of those identified risks materialising and the severity of the consequences. Those events which are deemed to be reasonably foreseeable are those which the fire and rescue service must adequately plan, train and equip to respond to.
- 91 Having identified a range of risks, the assessment of likelihood invariably involves considering the regulatory controls undertaken or administered by others which impact on the scale and likelihood of any event occurring. Building regulations are an effective example of this in regard to buildings, whether in the context of fire or any other matter which may impact on their safety. Similarly, Department of Transport regulatory rules are provided to control the safety of the country's transport network and these serve to reduce the risk of an incident or limit the scale of an incident.
- 92 One of the key factors which fire and rescue services must consider when assessing and identifying risk in the built environment is the extent to which statutory controls are already in place to regulate the risk. Fire and rescue services necessarily rely on the existence of such controls when making provision for the carrying out of their functions<sup>1</sup>.

---

<sup>1</sup> Part 2 of the Fire and Rescue Services Act 2004 ss 6-20



**Key observation 2.1 : Any knowledge concerning the risks associated with cladding systems may not been recognised and communicated effectively across the Brigade.**

- 93 Evidence adduced in Phase 1 of the Grenfell Tower Inquiry, such as that contained in the 'Tall Buildings' presentation<sup>2</sup> suggests that the knowledge cladding systems may have presented a risk was fixed, if not completely understood, within some sections of the Brigade.
- 94 The risks identified in the presentations were not solely focussed on the combustibility of cladding systems but also addressed the impact that such systems might have on fire behaviour, including elongation of flames behind rain screen systems and / or unseen fire spread in any cavities behind or within the cladding system. Similar information is contained within the BRE Global publication 'BR 135', issued in March 2013, which also discusses the fire performance of external thermal insulation for walls in multi-storey buildings.
- 95 The knowledge contained within the 'Tall Buildings' presentation was developed and used within the Brigade to educate Fire Safety Inspecting Officers, Fire Engineering staff and operational Senior Fire Safety Officers (SFSOs).
- 96 Fire Safety Inspecting officers are responsible for the Brigade's fire safety enforcement duties, primarily in respect of the Regulatory Reform (Fire Safety) Order 2005 (RRO), seeking guidance when necessary. They carry out fire safety inspections/re-inspections and audits of all premises types to assess the risks and the adequacy of their fire precautionary arrangements.
- 97 LFB Fire Engineers undertake casework on projects where fire engineering has been utilised as either part of the design for new/refurbished buildings or existing solutions for a building. Their primary role is to review fire engineering design submissions received as part of the Building Regulations consultation process. Through this role they provide technical support to area fire safety teams, Fire Engineering Liaison Officers (FELOs) and act as subject matter experts at internal and external meetings. They may provide representation of technical opinion through committee representation for fire safety engineering technical documents such as new and revised British Standards, Approved Documents, Industry guidance and Codes of Practice.
- 98 SFSOs provide an emergency response role. They are mobilised in line with Policy Note (PN) 412 Mobilising policy. Their role includes a range of advice and support to Incident Commanders

---

<sup>2</sup> LFB00003521

## OFFICIAL

during the response phase of an incident. They can advise on what passive and active fire safety facilities might be in a building and how these may assist with operations.

- 99 It is clear from evidence provided to the Inquiry by Brigade witnesses and the Brigade's internal investigation that information such as that contained within the 'Tall Buildings' presentation and BR 135 was not communicated effectively to those concerned with the development of operational policy and training.
- 100 Cladding is mentioned in both the 2014 and the earlier 2008 version of Generic Risk Assessment (GRA) 3.2 'Firefighting in high rise buildings' which informed the Brigade's local high rise firefighting policy, PN 633, and in both documents, cladding is mentioned in the 'Planning' section, as an example of a building construction feature that should be included as part of the information a fire and rescue should gather about high rise buildings.
- 101 The Brigade had a significant role in reviewing GRA 3.2 as it had identified and was in the process of implementing a number of lessons learnt from the high rise fire which had occurred at Lakanal House in July 2009. This incident had led to a significant loss of life and a range of learning had been identified through the Coroner's Inquest and the internal investigations which had preceded it. The Brigade's learning from this fire was incorporated into the Lakanal House Case Study, which was implemented as mandatory training for all operational staff in 2014.
- 102 The Brigade's recent report<sup>3</sup> into national guidance and local policy for high rise firefighting, commissioned by the Operational Policy and Assurance (OPA) department following the Grenfell Tower fire states the use of the phrase 'such as' in 2014 version was intentional and indicative of the fact that the building features listed were not meant to be either definitive or prescriptive, but were offered as a guide to the kind of information fire and rescue services should consider gathering about high rise buildings.
- 103 The report noted that cladding is not identified as a specific hazard in the 'Hazard and risk' section of either version of GRA 3.2 and reflects on the fact that no reference was made to cladding in the responses that were made by any of the consultees who offered feedback regarding the development of the 2014 version of GRA 3.2. The report details that cladding was included within 'Planning' because, as an outer layer on one or more faces of a high rise building, it was understood that the use of this material would create a void which had the potential to promote an abnormal degree of external spread of fire or smoke, as referenced in BRE 135 and

---

<sup>3</sup> GTIRT19-000737

## OFFICIAL

the 'Tall Buildings' presentation. As such, cladding was noted alongside timber-framing, surface-mounted trunking and voids as an example of a building construction feature that should be recorded within the information to be gathered by fire and rescue services in relation to high rise premises.

- 104 The Brigade's PN 633, reviewed in 2015 following the publication of the 2014 version of the GRA, does not include cladding as one of the eight examples of building construction features that may be found in a high rise building but it is noted that neither GRA 3.2 or PN 633 purported to list all of the building construction features that may be found in a high rise building and may be relevant to high rise firefighting.
- 105 More recently, the Brigade responded to a fire at Shepherd's Court in Shepherds Bush in August 2016 which originated in a two bedroom flat located on the seventh floor of the 20 storey purpose built block. The fire was of particular interest to the Inquiry due to the external fire spread which spread vertically from the seventh floor, after breaching a window, to the 12<sup>th</sup> floor and penetrated back into the building. It is noted, however, that the characteristics of the building were significantly different to Grenfell Tower. It did not have a rain screen cladding system fitted and the compartmentation within the building was maintained to a satisfactory standard, enabling the Brigade to deploy resources to contain and extinguish the fire on each floor.
- 106 The Brigade's fire investigation into Shepherd's Court determined that the external fire spread involved external panels fitted directly under and above the windows. Further investigation identified the panels were constructed with a plywood backing and an 1mm metal face, sandwiching a polystyrene foam. The investigation concluded that the fire attack on the panels, arising from flames breaching the window initially, was likely to have assisted the fire in spreading up the outside of the building.
- 107 It is noted that the result of this investigation was communicated to Hammersmith & Fulham Council and raised by letter with other borough councils and registered landlords to inform them of the potential risk and request that they include consideration of that risk in their fire risk assessment for premises within their respective property portfolios.
- 108 At this time, there is no evidence that the issue with the infill panels identified by the Shepherd's Court fire was communicated to those departments responsible for operational policy or training.

Other UK fires involving cladding

109 There have been other fires in the United Kingdom such as the fire at Garnock Court in Scotland in 1999, which led to the introduction of the Building (Scotland) Regulations 2004 which came into force on 1 May 2005. It contains the mandatory regulation: *'Every building must be designed and constructed in such a way that in the event of an outbreak of fire within the building, or from an external source, the spread of fire on the external walls of the building is inhibited.'*

110 At Westminster, the Select Committee on Environment, Transport and Regional Affairs examined the issue of fire spread in buildings via external cladding systems following the Garnock Court fire and concluded in December 1999; *'The evidence we have received during this inquiry does not suggest that the majority of the external cladding systems currently in use in the UK poses a serious threat to life or property in the event of fire. There have been few recorded incidents involving external cladding, and, although in our view any loss of life in incidents such as these should be prevented if at all possible, neither have there been many deaths (indeed, it is uncertain whether any of the deaths in the fires of which we have been informed can be directly attributed to excessive fire spread via the external cladding). Furthermore, the responsible attitude taken by the major cladding manufacturers towards minimising the risks of excessive fire spread has been impressed upon us throughout this inquiry.'*<sup>4</sup>

111 Historically, fire and rescue services have been provided with national guidance, in addition to the Generic Risk Assessments, through the following publications:

- Fire Service Circulars, issued by HM Government and replaced by Fire and Rescue Bulletins from August 2010
- Dear Chief Officer Letters, issued by HM Inspectorate of Fire Services up to June 2004
- Fire Service Manuals, issued by HM Government
- Manuals of Firemanship, issued by Home Office and replaced by the aforementioned Fire Service Manuals

112 The information provided by these publications was broad in scope, ranging from operational guidance, training requirements to notification of events or lessons learned that may impact on fire service operations or the safety of personnel, both nationally and internationally. It is noted

---

<sup>4</sup> <https://publications.parliament.uk/pa/cm199900/cmselect/cmenvtra/109/10907.htm>

that the different regulatory environments that exist in other countries often impact on the usefulness of any analysis of international fire events.

113 Since 2018, the function of capturing operational learning from UK fire and rescue services and the wider international fire and rescue sector has been undertaken by the National Operational Learning (NOL) secretariat. Learning events are collated and analysed by the NOL secretariat, in partnership with experts across the fire sector and academia to check it against the guidance framework of hazards, control measures, strategic and tactical actions. The secretariat propose any recommended changes to guidance to the National Operational Learning User Group (NOLUG) who decide on the required actions.

114 NOLUG is a national group formed of strategic leads from across UK fire services, multi agency partners and representative bodies. It is the decision making body of national learning and sits within the National Operational Effectiveness Working Group.

#### Operational Risk Information

115 The Brigade's PN 800 'Management of operational risk information' provides the policy framework and guidance for personnel on the Brigade's risk based approach to identifying, gathering and disseminating operationally important site risk information and recording it on the Operational Risk Database (ORD).

116 In April 2012, the Department for Communities and Local Government (DCLG) and the Chief Fire and Rescue Advisor's Unit (CFRAU) published the Fire and Rescue Service Operational Guidance - Operational Risk Information. The purpose of the guidance is explained as "*...robust yet flexible guidance on developing and maintaining a consistent approach to managing, processing and using strategic and tactical operational risk information that can be adapted to the nature, scale and requirements of the individual Fire and Rescue Service.*" and "*... to provide consistency of approach that forms the basis for common operational practices, supporting interoperability between Fire and Rescue Services and other emergency responders ... to support safe systems of work ... and enhance national resilience.*"

117 Following publication of this national guidance, the Brigade's Strategy and Risk department undertook a gap analysis to determine the extent to which the Brigade was compliant with the published guidance. The outcomes were presented to the Corporate Management Board on 6<sup>th</sup>

March 2013<sup>5</sup> and noted that the Brigade's system was robust and largely compliant with national guidance.

118 The Brigade's ORD replaced the previous Central Risk Register (CRR) in April 2011 and is the main database which holds location-based operational risk information. The primary purpose of the ORD is to record significant hazards and risks, including any less obvious hazards and any unique control measures in place, as well as any particular tactical plans or command and control procedures required. Appropriate information and a tactical plan, when required, is added to the ORD by station personnel via the Station Diary application and assured by Station Commanders.

119 The information held in the ORD is made available to crews via icons on maps displayed on appliance Mobile Data Terminals (MDTs) and can also be accessed by the subsequent ICs through the systems available on the CUs.

***Key observation 2.2 : The Operational Risk Database entry for Grenfell Tower was not populated in accordance with PN 800.***

120 Evidence provided during Phase 1 of the Inquiry indicated that the ORD entry for Grenfell Tower did not provide all of the information that may have been relevant to the premises, and provided some information that was inaccurate. This included the absence of an electronic Premises Information Plate (ePIP) which may have provided information to assist crews including dimensions and the basic layout of the premises, number of floors, details of available hydrants and the rising main, together with the locations of lifts.

***Key observation 2.3 : There is a lack of consistency in the standard of premises risk information held on the Operational Risk Database.***

121 Further investigations by GTIRT and the Operations Directorate have ascertained the lack of quality identified in the Grenfell Tower risk information is an issue replicated more widely in the location-based operational risk information held by the Brigade. This can include but is not limited to inaccurate information, incomplete tactical plans, and the absence of an ePIP for the premises.

---

<sup>5</sup> 13-CMB043 Operational risk information – LFB response to national operational guidance

***Key observation 2.4: The Brigade has not undertaken Premises Risk Assessments for all residential high rise premises to determine the level of risk associated with these premises.***

- 122 The Lakanal House Incident Assurance Review report (Appendix D) identified the Brigade's intention, following the Lakanal House incident, to undertake a premises risk assessment (PRA) on all residential high rise premises to determine the level of risk associated with those premises.
- 123 A PRA is normally carried out by the operational staff in whose area the premises is located. In almost every case a site visit is required and the template provided in PN 800 'Management of operational risk information' assists in this process by identifying potential hazards and applying a score to that hazard. The template also identifies controls that reduce the risk such as the presence of a dry or wet rising main.
- 124 Using the identified areas of hazard on the PRA template, the visiting operational staff apply a risk assessment to the hazards and in conjunction with the local SM decide the level of risk within the premises and the resulting action to be taken.
- 125 The level of risk is applied to a risk grading matrix, which determines how often the premises should be visited, whether it requires an on site exercise, and whether hazard information or a full tactical plan needs to be recorded. It is noted that premises will not all meet the risk threshold to justify inclusion on the ORD, due to the absence of any premises based risks that may impact on a safe and effective operational response.
- 126 There are approximately 6900 residential high rise premises in London and it is noted that some boroughs have a disproportionately high number of high rise residential buildings and other premises that may require inclusion on the ORD. It is recognised that this presents a challenge for the Brigade to balance fulfilling the gathering of operational risk information in these areas with ongoing activities undertaken by crews in relation to community safety and training, in addition to providing a response to operational incidents.
- 127 Premises which meet the risk threshold to require inclusion on the ORD are then subject to a requirement for periodic 7(2)d visits, at a frequency determined by the risk rating applied to the premises as indicated by the PRA. The primary aim of 7(2)d visits is to assist crews to remain familiar with any specific risks associated with the premises and any unusual control measures not generally covered in policy and update or confirm any existing risk information. They are not the primary mechanism to initially identify the level of risk associated with a premises.

**Key observation 2.5 : There is an inconsistent level of knowledge and understanding amongst operational staff in relation to undertaking 7(2)d visits.**

128 A number of Brigade witnesses provided oral evidence to the Inquiry that demonstrated a good knowledge of the ORD and the purpose of 7(2)d visits, however this was not replicated by all witnesses suggesting there is an inconsistent level of knowledge and understanding amongst staff, despite the current training and guidance available.

129 Section 7(2)d of the Fire and Rescue Services Act 2004 places a responsibility on the Fire and Rescue Authority to make arrangements for obtaining information needed for the purpose of extinguishing fires in its area, protecting life and property in the event of fires in its area, rescuing and protecting people in the event of a road traffic accident, and rescuing and protecting people in the event of emergencies.

130 A Watch based training package on conducting 7(2)d visits was included as mandatory training in Operational News 24, issued in March 2013 and has been refreshed through station based training periodically. Operational risk information and 7(2)d visits are also addressed in the Lakanal House Case Study, issued as mandatory training for all operational staff in 2014.

131 In addition, there are a number of documents available on the Brigade's intranet providing guidance to staff on outside duties, including 7(2)d visits, and the ORD, together with advice for SMs on quality assuring ORD entries.

132 However, it has been observed that the information provided in the Brigade's policies and associated training packages in relation to undertaking 7(2)d visits is not completely aligned. PN 800 directs operational staff to pay particular attention to nine areas, whilst PN 633 Appendix 1 provides a list of 22 items for crews to consider and ensure they are familiar with.

133 The Fire and Rescue Service Operational Guidance – Operational risk information, provides no practical guidance on undertaking 7(2)d visits and focusses on the process for identifying premises which may become subject to 7(2)d visits.

**Recommendation 3** – The Brigade should consider reviewing its policies and training packages relevant to 7(2)d visits to ensure consistent guidance is provided to operational personnel.



**Key observation 2.6 : There is no established means for crews providing an emergency response to premises outside of their own station areas to be aware of any fire safety deficiencies that may have been identified.**

134 The Brigade has an established process to ensure that local crews are notified when a premises in their own station area has been issued with a Notice of Deficiencies or an Enforcement Notice following a fire safety audit or notification of an Alleged Fire Risk<sup>6</sup>. This is to ensure crews are aware of any issues that may impact on firefighting operations and / or increase the risk to firefighters or members of the public.

135 During further investigation into the area of operational risk information, it is noted that the Brigade, necessarily, has a pan London approach to fire cover which on occasion may lead to non-local crews being the first attendance to a fire or other incident type. Currently there is no system to ensure information about any identified deficiencies in the fire safety provisions in a premises are available to all operational crews that may be required to provide an operational response.

**Recommendation 4** – The Brigade should consider how to ensure information relating to identified fire safety deficiencies in a premises is available to all operational crews.

#### **Actions by the Brigade since the fire**

136 The Brigade has instigated a corporate project to review and, where necessary, improve its system for the gathering, recording and dissemination of operational risk information. The objectives for the project are identified as:

- Review and rationalise current risk information systems to evaluate the current entries and carry out the necessary interventions to increase the underpinning knowledge and understanding of staff with these systems.
- To create a policy that encompasses understanding and identifying risk and provides a uniform approach to gathering, recording, prioritising and sharing of operational risk information.
- The relevant risk information will be easily available to the right people at the right time in a form that is easy to understand and use.
- Staff will have a better understanding of their role whilst assessing risks with regards to reducing the risks to firefighters and the risks to the public.

---

<sup>6</sup> An Alleged Fire Risk (AFR) is a notification from an individual to the Brigade reporting their concerns about the fire safety arrangements at a particular premises.

- To ensure staff have a better knowledge and understanding of risk and their responsibilities of ensuring the data collected and entered is relevant and accurate.

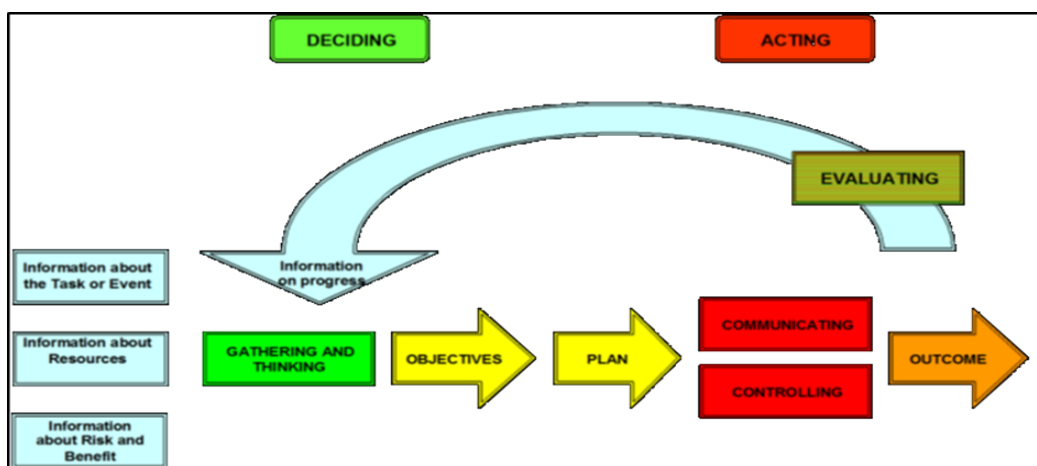
137 The project will link to and complement planned Information Technology (IT) system rebuilds, which aim to provide the data management framework and portal for an integrated approach to risk recording and notification across all the areas of service delivery.

### Theme 3 – Command and Control

#### Incident Command

138 The Brigade sets out its incident command framework through a series of policies owned by the OPA department. Those policies are broadly but not fully aligned to National Operational Guidance (NOG). The key difference is the Brigade currently continues to operate the Decision Making Model (DMM) it has used successfully for many years and has not adopted the Decision Control Process (DCP) included within NOG – Incident Command, published in 2016.

139 The DMM was included in the '*Incident Command, Fire and Rescue Service Manual*'<sup>7</sup> to support commanders during their operational decision making. The model is a simple flow diagram which guides users through the decision making process in an organised way. The process aims to reduce the potential for information to be missed and requires objectives to be set and implemented. The DMM provides the framework to support Incident Commanders (IC) to manage operational incidents effectively and bring them to a safe satisfactory conclusion. A diagram is provided below for illustrative purposes.



<sup>7</sup> HM Government publication superseded by National Operational Guidance – Incident Command in January 2016

140 The DMM is formed around two main activities, Deciding and Acting. Each stage identified in the model falls into one of these activities.

- *Deciding* - gathering and thinking about all available information; identifying appropriate objectives; defining a plan; and considering the results of evaluations.
- *Acting* - communicating the objectives and tactical plan; controlling the activity; and evaluating the outcome of the plan.

141 The model also serves as a golden thread through the Brigade's operational review and debriefing framework, including the Performance Review of Command (PRC) process.

**Recommendation 5** - It is recommended that the Brigade determines whether to retain the DMM or move to the DCP. It is acknowledged the Brigade needs to consider the challenges and benefits of implementing such a wider ranging and fundamental change to its incident command framework, at a time of significant organisational change and other improvement programmes.

#### Human factors impacting on command and control

142 The following paragraphs provide a summary of information set out within NOG in relation to the impact of human factors on incident command and their relationship to the events observed during the Grenfell Tower fire. It notes that the influence of human factors on behaviour and performance at incidents should not be underestimated or overlooked when evaluating performance or effectiveness.

143 Human behaviour will influence individual activities in the operational environment of an incident in complex and significant ways. Whilst characteristics such as personality are fixed, others such as competence, skills, attitudes and beliefs can be enhanced, influenced and changed.

144 The guidance states that although personality, situation, and environment play an important role in behaviour, an individual level of risk acceptance dictates what this behaviour will be. Individuals subconsciously accept the level of risk they are comfortable with. In the operational environment of an incident, individual influences on behaviour will include issues such as personality, their attitude to safety and their risk perception.

145 NOG observes that stress will also adversely affect an individual's behaviour. Acute stress is a reaction to sudden, unexpected events such as those that may be experienced when working in a dynamic, high-risk environment when commanding an incident. Such stress will involve

significant physiological and psychological effects akin to the fight, flight or freeze responses observed in animals.

146 There can be little doubt the personnel who attended the Grenfell Tower fire would have experienced acute stress to a greater or lesser degree, particularly those making risk critical decisions and those who entered the building to undertake firefighting, search and rescue operations. Many of those who attended the incident required counselling support afterwards and for some that support is ongoing, demonstrating the stress and trauma experienced on the night.

147 The guidance states that acute stress can adversely impact on incident command in a number of ways. It can impair situational awareness and decision making leading to a decline in individual and team performance.

148 Stress and anxiety take up part of a person's mental processing capacity and can distract attention from the situation and reduce available capacity to focus on and understand information. Failing to recognise important information or not processing it properly may lead to an inaccurate mental picture of the situation.

**Recommendation 6** - The Brigade should consider the extent to which human factors affecting command and control are addressed in policy and training.

***Key Observation 3.1 : The scale and rapidity of the incident, combined with human factors, impacted on the ability to maintain situational awareness.***

149 From approximately 01:20hrs on the night of the fire, as the incident began to develop rapidly, situational awareness amongst those in command roles became reduced in relation to what was happening within the building in regard to internal fires and the resulting conditions. From around this time, the situation escalated with a rapidity and scale not previously experienced by the Brigade, placing those in key roles under stress.

150 Brigade witnesses who performed command roles describe in their evidence the difficulties of gaining a clear understanding of the developing situation within the building. Around this time, it is evident that radio communications started to become problematic as discussed later in this chapter (Theme 6 refers). In addition, fire survival guidance (FSG) calls started to be received from 01:21hrs by Brigade Control and a large volume of information had to be transferred to and processed on the incident ground.

- 151 The rapidly developing situation and the resulting human factors identified in the preceding paragraphs may have contributed to challenges in maintaining effective situational awareness. It is necessary to gather further information and review that evidence to develop a fuller understanding and reach a conclusion.
- 152 It is clear that reduced situational awareness can have a number of potential impacts on the command and control of an incident. The ability to identify and prioritise objectives and develop a tactical plan can be compromised by reduced situational awareness.
- 153 Effective incident command, particularly at large and complex incidents, requires the delegation of responsibility and authority through the process of sectorisation to limit the spans of control of one individual. NOG notes that excessive spans of control have the potential to adversely impact on the ability of an individual to manage an area of responsibility effectively.
- 154 Officers tasked with managing an operational or functional sector must be briefed so they fully understand their objectives, how these objectives fit into the tactical plan, and the parameters of their responsibility and authority. The evidence from many witnesses suggests that briefings included minimal information about the developing situation, hazards, risks, objectives, and priorities. It is likely those providing the briefings did not have the time or sufficient situational awareness to conduct a detailed briefing and therefore officers nominated for command and functional roles were often reliant on building their understanding on arrival at their respective scene of operations.
- 155 During the Grenfell Tower fire, the breadth and volume of information, even in the early stages, that needed to be understood by commanders to gain and maintain situational awareness was considerable. It included rapid external fire spread, fire penetration back into the building, the effectiveness of the internal compartmentation and its effect on internal fire spread, the ongoing self evacuation by residents and the FSG call information relating to those still located within the premises.
- 156 The scale of this challenge should not be underestimated, particularly in the context of an incident that was unprecedented in the experience of those attending the incident and it is also necessary to acknowledge the human factors described earlier.
- 157 NOG observes that human perceptual and memory systems are not infallible. A strong focus on one part of the situation, or element of the environment, can lead to other sources of information being neglected or missed resulting in reduced situational awareness. Impaired communication

resulting from stress is likely to affect teamwork, leading to a lack of shared understanding about the situation, objectives and plan.

#### Task focus

158 Analysis of the evidence suggests that many officers became, understandably, task focussed at stages during the incident. Becoming task focussed can lead to becoming unduly fixed on some elements of an incident, rather than looking at the incident or their area of operations as a whole.

159 In evidence many officers stated that they had often made assumptions that processes were working effectively and information was being communicated to those that needed to be updated. A number of witnesses described not having the time to assure themselves that things were being done effectively and stated they trusted subordinates were undertaking their roles and any actions effectively.

#### Extended period undertaking tasks

160 A number of supervisory officers also provided evidence that they were overwhelmed by the scale of the tasks for which they were responsible. In some cases, these supervisory officers were not provided with further support or assistance and were often performing those roles for many hours.

161 In addition to welfare concerns related to undertaking an extended period in a dynamic and stressful role, NOG notes that ICs should be aware of the effects of fatigue on themselves and others, and ensure people are relieved appropriately. It also states that actions should be taken before fatigue begins to reduce performance.

### **Actions by the Brigade since the fire**

#### Briefings

162 The Brigade has included an article on briefings at incidents in its latest Operational News publication (Ops News, Issue 36), published in February 2019. The article highlights the DMM (PN 341 refers) as the preferred tool to inform effective briefings.

163 Operational News is a six monthly publication provided to all operational LFB staff. It is one of Brigade's key mechanisms to raise awareness of good practice and areas for development, and are supported by links to training materials. The training that is attached to each subject area is categorised as either; mandatory for all operational staff, mandatory for specific staff groups, or to be delivered at the discretion of the WM dependant on current development needs. The training

is completed by staff in accordance with the categorisation of the training intervention and recorded in the Station Diary<sup>8</sup>.

New technology to support situational awareness

- 164 The Brigade has recognised that drones may provide officers on the incident ground a range of new capabilities that have the potential to improve situational awareness and decision-making at incidents. It commenced an operational trial in October 2018 to evaluate two different drones for a six month period. Each drone is operated by a minimum of two operational staff, one who pilots the drone and one who operates its on-board cameras. The two members of staff will operate from a Brigade vehicle in a safe area and will cordon off a small area to operate the equipment.
- 165 The drone team will attend a range of different incident types during the trial to establish exactly how drones can best serve the Brigade in future. The trial will assist to answer a number of questions, such as many drones are required to provide pan-London cover, call out times, which incidents to deploy them to, and many other practical considerations.
- 166 In addition to improving firefighter safety, the obvious benefit is that drones will provide an aerial view of an incident without reliance on imagery from an partner agency such as NPAS whose assets may be employed at another location.
- 167 The Brigade anticipates drones to be more useful at some incidents than others, such as large warehouse fires when observation by firefighters at ground level or from aerials is difficult or hazardous, or grass fires over a large area that may develop spontaneously in new locations.
- 168 The trial will evaluate the usefulness and effectiveness of the drones at residential high rise fires during the six month period but it is anticipated they will provide a useful tactical option in both the response and recovery phases. The Brigade has received permission from the Civil Aviation Authority to fly a drone throughout most of London at low altitudes and close to buildings.
- 169 The drone can remain in flight for up to one hour and has two cameras, a heat-sensitive camera that can 'see' through thick smoke and detect hot spots, such as the seat of a fire and members of the public who may be trapped by a developing fire. The second camera has 30x magnification and can read a number plate from some distance away, up to half a kilometre. The drones can

---

<sup>8</sup> Station Diary is a software application provided to enable the effective management and recording of the activities of station based staff.

also fly up to seven kilometres from the pilot, although it is noted that tall buildings may limit the distance in practice.

170 The footage shot by each camera is stored on a memory card that can be removed and the footage stored after each incident to assist with any post incident review.

**Key observation 3.2 : The rapid escalation of the incident impacted to a limited extent on command handovers.**

171 It is noted that the initial IC, a WM, was in charge of the incident from 01:00hrs until approx. 01:50hrs when the role was taken over by one of the two SMs mobilised at 01:15hrs on receipt of the 'make pumps six' message. Further SMs were mobilised to perform the roles of Press Liaison Officer (PLO) and SFSO, together with a GM. These mobilisations were all in accordance with the requirements of the Brigade's mobilising policy, PN 412.

172 Additional officers, including a DAC, were mobilised in accordance with PN 412 at 01:20hrs and 01:26hrs following the 'make pumps eight' and 'make pumps 10' assistance messages. This was followed by further officers, including an AC, following 'make pumps 15'.

173 The attendance times following mobilisation for all officers assigned to Grenfell Tower was broadly compliant with Brigade expectations i.e. SM on scene in 20 minutes after mobilisation, GM on scene in 30 minutes and DACs and above on scene in 60 minutes after mobilisation. The exception was the GM first mobilised, who was off duty, and had been mobilised in error and therefore understandably did not respond to his pager. The failure to respond by contacting Brigade Control was not noted by Control staff who were, at that time, inundated by emergency calls and did not follow up the 'failure to respond' or mobilise a replacement GM.

174 In the context of the rapid escalation of the incident from the predetermined (PDA) to 'make pumps 25' in less than 30 minutes, it is not surprising that a WM remained as the IC during this period and beyond.

175 There was an opportunity at around 01:40hrs for the first SM on scene to take over the incident but this was jointly rejected in favour of the SM taking over the coordination of the FSG calls being received, knowing that a second SM was en route and would arrive shortly. This decision suggests both officers considered that the FSG calls represented the greatest opportunity to save life.

176 The rapidity and scale of the incident also created a situation that led to two officers simultaneously performing the IC role for a short period, one located by the Tower and the



second officer located in CU 8. This situation developed due to their different arrival points at the incident, with the first having to pass the current IC located on the south east corner of the Tower and leading him to immediately taking command of the incident. The second officer approached from a different direction and passed CU 8 and was informed he was the most senior officer in attendance and therefore took command. There is no evidence at this stage that this inadvertent situation had any adverse consequences on the command and control of the incident.

177 It is noted that the process of command handovers is often challenging during incidents that escalate very quickly, as identified by Her Honour Frances Kirkham during the Lakanal House Inquest. Following the Inquest, a Rule 43 recommendation was directed at the Brigade noting '*It is recommended that the Brigade review its policy and procedures concerning incident command, having regard to whether it is effective for the choice of IC to be tied closely to the number or type of appliances attending an incident and the effectiveness of a policy which may result in rapid and frequent changes of IC*'.

178 In response, the Brigade implemented changes to its incident command thresholds to reduce the number of handovers required, as part of series of measures to improve the delivery of effective incident command.

***Key observation 3.3 : Effective early information gathering enabled the 'on arrival' tactics and actions identified in PN 633 to be implemented effectively by the crews who formed the pre-determined attendance for the incident.***

179 Information was gathered effectively by the initial IC in the early stages of the incident and used to select and implement a safe system of work to deliver the 'on arrival' tactics and actions detailed in the Brigade's high rise firefighting policy. Experts have surmised that these actions resulted in the extinguishment of the fire in the kitchen of flat 16 within 21 minutes of arrival on scene, but not before the fire had breached the window and ignited materials contained within the combustible rain screen cladding system fitted to the exterior of the building.

180 It is recognised that crews had to overcome a number of issues in delivering the 'on arrival' actions including accessing the building and the failure of the lift to respond to the fire control switch.

***Key observation 3.4 : There was effective early recognition of resourcing requirements by incident commanders.***

181 There was a necessary and effective focus on identifying resource requirements as the fire breached the kitchen window of flat 16 and ignited materials in the cladding system, particularly by the initial IC who sent a number of 'assistance' messages up to 'make pumps 25'. This escalation of resources was reinforced by subsequent ICs who ordered further pumping and specialist appliances resulting in the attendance of:

- 40 pumping appliances
- 14 Fire Rescue Units
- 4 aerial appliances
- 7 Command Units
- 6 Operational Support Units
- 24 senior operational officers.

***Key observation 3.5 : Recording of decisions, rationale, objectives and tactical plans were in some regards ineffective.***

182 A number of witnesses discussed their objectives and tactical planning during their evidence to the Inquiry. One Brigade witness described in oral evidence their thinking around the evacuation of the building. The witness described his thoughts as prioritising those making FSG calls and those residents located in the immediate vicinity of the fire, followed by a systematic search beginning on the upper floors of the building.

183 However, there is little evidence that decisions and the rationale for them, objectives and tactical plans were effectively recorded during the incident. The recording of 'key decisions' such as the application of operational discretion is discussed in more detail below (Key observation 3.7 refers).

184 The recording of objectives and tactical plans are crucial to support effective communication with others within the command team to achieve a shared understanding and to enable the command team to control the incident through sectorisation and clear, visible lines of command. In addition, the recording of such information facilitates effective post incident review, whether by internal debrief processes or wider external scrutiny, such as that currently being undertaken by the Grenfell Tower Inquiry.

185 It is noted that the Grenfell Tower fire was beyond the experience of those who attended the incident. Such was the extremely dynamic nature of the incident, it is likely this impacted on the recording of decisions, objectives and the tactical plan that might ordinarily be expected at an incident. In addition, the reported inoperability of the Command Support System (CSS) during the incident may have been an additional factor in the absence of effective recording.

**Recommendation 7** - The Brigade should consider how it can most effectively raise awareness of and reinforce the requirements of PN 828 'Recording decisions at incidents'.

***Key observation 3.6 : Difficulty in confirming who was being rescued or self evacuating from the building and from where created difficulty in maintaining accurate records to inform the search and rescue operation.***

186 Many witnesses working at the Bridgehead described in evidence the challenge of accurately gathering information about persons self evacuating or being rescued from Grenfell Tower. A number of factors appear to have impacted on the ability to gather this information, including casualties suffering physical or psychological trauma and communication issues.

187 Lack of information about where a casualty had been rescued or self evacuated from impacts on maintaining a search and rescue plan that reflects the changing circumstances and priorities of the incident. Similarly it can impact on wider situational awareness and the ability to evaluate progress of search and rescue operations and subsequent reporting on progress to others.

188 At the Grenfell Tower fire, it is observed that these challenges, combined with the movement of residents within the building, created circumstances that made it extremely difficult to ascertain which flats identified in FSG calls were actually clear of occupants because either, the occupants had self evacuated, had moved to a different location or had been rescued from elsewhere in the building. These challenges could have potentially led to taskings to individual flats being duplicated, impacting on resource utilisation or crews not being tasked to a flat because inaccurate information suggested the occupants had been rescued or self evacuated.

### **Actions by the Brigade since the fire**

189 It is noted that the Brigade has been reviewing PN 790 'Fire survival guidance' and other associated policies and evaluating procedures with Brigade Control and operational staff to deliver effective service improvements in this area. Further details of this work are provided in paragraphs 275 – 277.

**Recommendation 8** – Whilst it is recognised that the volume of FSG calls experienced during the Grenfell Tower fire and the information associated with those calls was unprecedented, it is recommended the Brigade considers the issues carefully to ascertain if any measures can be implemented to address this matter.

**Key observation 3.7 : Operational Discretion was adopted for the incident but it was not formally recorded in accordance with Brigade policy.**

190 Due to the fast-moving and varied nature of fire service operations, it is not possible for the Brigade to provide explicit guidance that will satisfactorily cover all situations. On the rare occasion that operational guidance does not meet the needs of the incident, ICs can adapt or move away from an operational policy where this is necessary and justifiable in terms of risk versus benefit. The decision to move away from operational policy is known as 'operational discretion' and should be based on 'professional judgement' enabling the IC to make calculated decisions about the course of action appropriate in the circumstances.

191 The use of operational discretion must be recorded as soon as practicable as stated in PN 828 – 'Recording decisions at incidents'. The policy states that where a decision is made to carry out actions that amend or change a current operational procedure, this needs to be recorded in a Key Decision Log (KDL) and a risk assessment of the proposed activity needs to be undertaken and recorded. The risk assessment must show the additional hazards and the associated risks that have been identified and that appropriate control measures are being implemented before any action is taken. This can be recorded on either the CSS or, if not available, on a KDL pad which are provided on all CUs.

192 Two training packages covering 'Recording decisions at incidents' are available on the London Fire Brigade / Babcock Training 'Big Learning' portal. One is aimed at station based personnel and the other at senior officers.

193 The dynamic nature of some incidents may mean that it is not possible for a decision log to be started immediately. However, key decisions are to be recorded as soon as reasonably practicable using the KDL form, or on the logging facility within CSS.

194 As discussed under key observation 3.5 there was no decision log started for the incident until 02:47hrs although the incident was necessarily operating outside of the Brigade's policy framework, an example being crews deployed above a known fire situation without firefighting media.

195 Once the decision log is started it records a number of decisions that move outside of policy but there is no evidence, at the time of writing, that a risk assessment identifying the additional hazards and associated risks or the appropriate control measures is recorded.

196 See recommendation 7.

#### **Theme 4 – Operations**

##### ***Key observation 4.1: The Brigade had limited means to fight an external façade fire resulting from the non compliance of the installed external cladding system with the requirements of Regulation B4(1).***

197 The response to fires in high rise premises is predicated on internal firefighting and supported by building regulations which provide for firefighting facilities within such buildings, including protected shafts, firefighting lifts, dry rising mains and internal compartmentation.

198 In his expert report for the Inquiry, dated March 2018, Mr Colin Todd noted that building regulations state *'the external walls of a building shall adequately resist the spread of fire over the walls and from one building to another, having regard to its height, use and position of the building'*. Mr Todd goes on to observe *'that whilst the dynamics of fire, can potentially, result in the external spread of fire from one flat to the flat immediately above, fire spread significant beyond such an extent would demonstrate a failure to comply with Requirement B4(1) of Approved Document B'*.

199 In respect of external firefighting capability, the Brigade has 11 frontline aerial appliances, which consist of three different types of vehicle: All three vehicle types have varying functions / capabilities and achieve a range of heights from 22 to 32 metres. In optimum conditions the turntable ladder has the maximum height reach of 32 metres, which is equivalent to the 10th floor of a typical high rise premises and it is likely, in most circumstances, that a firefighting jet can be applied as high as the 14<sup>th</sup> floor.

200 These vehicles were originally chosen, taking in to account factors such as the technology available at the time of purchase, the ability to locate the vehicles within the Brigade's fire station estate, their operational capability and vehicular access in London's streets.

201 In advance of the arrival of an aerial appliance or if there is insufficient access to deploy an aerial appliance, handheld jets and / or ground monitors can be deployed to provide an external

## OFFICIAL

firefighting capability. However the reach of any such firefighting jet is limited by a number of factors, including but not limited to water flow, pressure, proximity to the fire.

202 Grenfell Tower did not have an aerial appliance included on the PDA for the premises at the time of the fire. The nearest aerial appliance to Grenfell Tower is located at Paddington fire station and it is noted this was the appliance (A213) mobilised in response to the first request for an aerial appliance.

203 Having examined the incident log and noted a travel time of 12 minutes from Paddington to Grenfell Tower and assumed a minimum of 15 minutes to get the appliance sited and working, it is likely that even if A213 had been mobilised at 00:55hrs as part of the PDA for the premises, the external fire would have been near if not past the reach of the appliance's water monitor.

204 It is notable that access issues meant that no aerial appliance was able to operate on the north or west elevations of Grenfell Tower. Operations on the south elevation were restricted by the Grenfell walkway and the grassed area on the east elevation was not identified as suitable for positioning a large aerial appliance albeit a aerial appliance was set up on this area after the crew risk assessed that the recent period of hot weather had resulted in the ground being firm enough to support the weight of the aerial appliance.

205 It is clear from documentary evidence that a water jet was directed intermittently at the east elevation of Grenfell Tower between 01:15 and 01:25hrs before the crew ceased this activity and returned to their appliance to rig in BA sets at around 01:28hrs. Attempts at external firefighting were also made from the kitchen window of flat 16 once the original fire had been extinguished. This was undertaken at significant risk by crews leaning out of the window space and directing the jet at the flames above. Ultimately this initial external firefighting was not successful and flames had reached the 23<sup>rd</sup> floor by 01:30hrs. Dr Lane concluded that it was not possible for any handheld jet to reach beyond the 7<sup>th</sup> floor.

206 Further external firefighting was carried out on the east elevation from around 01:43hrs by a ground monitor and by a turntable ladder, A213, until 02:07hrs when it was housed and re-located due to falling debris. It was re-pitched and recommenced firefighting operations until 02:18hrs when it was again housed and moved under the Grenfell walkway due to falling and burning debris.

207 Whilst external firefighting operations were improvised on all four elevations of Grenfell Tower and Dr Lane noted there is a strong correlation between the floors to which water was applied and the lack of external fire damage to these floors, it is recognised that the Brigade did not have

the capability to apply water effectively to the exterior of the building above the 14<sup>th</sup> floor. It is also noted that due to access restrictions, an aerial was unable to operate on the north and west elevations and therefore water could only be applied up to the seventh floor on these elevations.

208 Dr Lane provided an opinion in her 5<sup>th</sup> November 2018 report that *'it is not acceptable to expect the fire and rescue service to mitigate the risk posed by combustibile external wall construction in high rise residential buildings, as there are so many reasons why that is not feasible'*.

## **Actions by the Brigade since the fire**

### Aerial appliances

209 At the time of the fire, the Brigade was finalising the procurement of 15 state of the art articulating head 32m turntable ladders to replace its existing aerial fleet. Partially in response to the Grenfell Tower fire and the new risk presented by clad buildings, the Brigade modified its procurement plan to incorporate three 64 metre turntable ladders. These extended reach aerial appliances will be strategically located across London to complement the standard aerial fleet. Deliveries of new fleet of aerial appliances, built by Emergency One Limited, are scheduled to commence in January 2020 for the 32 metre variant and in July 2020 in respect of the 64 metre model.

### Pre Determined Attendance (PDA)

210 As a result of the Grenfell Tower fire, and whilst awaiting the outcome of the MHCLG work into cladding on high rise buildings, the Brigade implemented an interim change to the PDA to all high rise buildings. This revision took effect from 22<sup>nd</sup> June 2017 with five fire engines, one aerial appliance and the standard officer complement for a five pump fire being mobilised to any high rise fire related incident.

211 In addition to the above, and as a result of the findings from the Government's series of fire safety tests of cladding and insulation combinations undertaken by the Building Research Establishment, the Brigade made a further interim revision to the high rise PDA starting from 10<sup>th</sup> August 2017. From this date when Brigade Control receives multiple calls (four calls or more) to a residential high rise premise the PDA now includes eight fire engines and one aerial appliance. Where the fire is reported to Brigade Control as involving the outside of a clad building the PDA is further increased to ten fire engines and one aerial appliance (if the aerial appliance hasn't

already been despatched). When this increase in resources is made the standard officer complement for an eight and ten pump fire is also mobilised.

***Key observation 4.2 : Extensive breaches of compartmentation resulted in simultaneous serious fires on multiple floors, impacting on the Brigade's operational response.***

212 The external fire experienced at Grenfell Tower was significant in terms of its scale and by the rapidity of the spread and precipitated fires internally on multiple floors.

213 The premises was provided with a number of active and passive fire safety measures which were intended to create a layered safety system intended to provide the means for an early internal firefighting intervention. This is achieved by providing the means to limit fire and smoke spread from a dwelling fire and create the high degree of compartmentation necessary to support the 'Stay Put' strategy in a high rise residential premises.

214 Once the fire was established within the rain screen cladding system the fire safety measures provided within Grenfell Tower were required to perform during an event not considered by Building Regulations – a multi storey fire.

215 Dr Lane in her report, dated 5<sup>th</sup> November 2018, concluded that '*The high degree of compartmentation had suffered its primary failure, caused by the fire spreading through the rain screen system*'.

216 Professor Jose Torero in his expert report, dated 23<sup>rd</sup> May 2018, states '*Firefighting protocols for response to high rise building fires are intimately linked to a single floor fire. Furthermore, for residential buildings, the firefighters should find, on arrival, a single unit fire*'.

217 In practical terms, the failure of the compartmentation resulted in the Brigade facing and being required to mitigate a number of significant and linked fire events, spread across multiple floors. As described by Professor Torero, the firefighting provisions do not anticipate fire spread affecting multiple floors and as such the water supply provided through the dry rising main is predicated on a single unit fire event and, and as such, is only required to provide two or three firefighting jets.

218 The impact of this was that the Brigade was unable to undertake simultaneous firefighting on multiple floors to extinguish or control the fires. The deteriorating conditions within the lobbies and stairwell resulting from these fires affected the ability of residents to self evacuate from the building and hindered the Brigade's attempts to effect rescues.



## OFFICIAL

219 In order to progress the search and rescue operations, it was necessary to deviate from Brigade's operational policy and commit firefighters above fire situations and into hazardous environments without firefighting media.

220 Compliance with the Brigade's operational policy would have resulted in a limited or no search and rescue operation above the fourth floor, so commanders took what must have been a difficult decision to continue operations by applying operational discretion.

### **Actions by the Brigade since the fire**

#### Provision of water

221 The Brigade is currently reviewing existing solutions and undertaking further research into the practical water pressures and flow rates that can be achieved at the maximum height of dry rising mains, particularly those premises built when dry rising mains were permissible up to 60 metres. This work is aimed at identifying if the Brigade's current hose equipment and pumping capabilities are able to provide optimum fire fighting jets at the maximum height of a dry rising main. This research will involve practical testing at a number of residential high rise premises with similar characteristics to Grenfell Tower.

#### High rise firefighting policy (PN 633)

222 PN 633 'High rise firefighting' and the associated training materials have been the subject of an extensive review by the Brigade's OPA department. The revised policy is currently out for consultation with the Brigade's Heads of Service. It is also being extensively consulted on with the two main Representative Bodies; the Fire Brigades Union (FBU) and Fire Officers Association (FOA).

#### National Operational Guidance

223 The Brigade is also supporting the development of NOG for high rise fire fighting following the Grenfell Tower fire. Two immediate issues were identified by the Grenfell Tower fire 'safety and learning' investigation;

- rapid fire spread taking place at the early stages of an incident and well before the expectation of when compartmentation of a building would normally be compromised, and
- how Fire Survival Guidance (FSG) calls are managed nationally when this type of call is passed to another fire and rescue Control.

224 Both issues have been communicated to the Fire Central Programme Office, where the Brigade have worked closely with the NOL Secretariat. This has produced a series of recommendations.

#### NOLUG

225 These recommendations have resulted in a number of national 'Action Notes' being published through the NOLUG forum. These include:

- An Action Note sent to 'Skills for Justice' (the sector skills council for the fire and rescue service) with a recommendation for the review of the National Occupational Standards (NOS), with a purpose of ensuring relevant knowledge and understanding of building construction, fixed installations, fire science and fire engineered solutions that complement NOG – 'Fires in buildings';
- An Action Note to all fire and rescue services in the UK highlighting the existing requirements under the NOG control measures: 'Produce a risk management plan' and 'Site Specific Risk Information (SSRI)', in reference to high-rise premises designed or constructed in a way that may result in rapid fire spread. The note states that the National Fire Chiefs Council (NFCC) support the approach of fire and rescue services determining their PDA for specific incident types on the basis of their own operational risk assessment (ORA). Each ORA will be cognisant of the need to achieve the appropriate speed and weight of attack;
- An Action Note to NOG recommending a number of hazard and control measures relating to rapid fire spread and appropriate provision for fire survival guidance has also been issued.

#### NFCC Simultaneous evacuation guidance

226 The Brigade also provided significant support to produce the NFCC publication '*Guidance: To support a temporary change to simultaneous evacuation strategy in purpose-built blocks of flats*'<sup>9</sup> for owners and persons / organisations responsible for buildings fitted with Aluminium Composite Material cladding. This guidance was published in May 2018 and superseded an earlier version published in October 2017. The guidance has been appended to this report as Appendix F.

---

<sup>9</sup> <https://www.nationalfirechiefs.org.uk/Simultaneous-evacuation-guidance>

**Key observation 4.3 : The building behaved in an unpredictable manner beyond the experience of the Brigade.**

227 The fire at Grenfell Tower originated in flat 16 on the fourth floor having started in an electrical appliance. The evidence of the Inquiry experts identified that the building owners, Royal Borough of Kensington and Chelsea (RBKC), had declared a 'stay put' strategy for the building which was confirmed in its most recent fire risk assessment.

228 The 'stay put' strategy documented in guidance has been a principle of building design since the 1960s and works on the assumption that residents are safe to stay in their flats unless directly affected by fire, heat or smoke whilst the fire service extinguishes the fire. That principle is founded on the building being constructed to provide a series of fire resistant compartments (the flats), one or more protected means of escape, and fire safety measures to support internal firefighting to ensure the fire in the compartment of origin can be extinguished before it spreads beyond that compartment.

Behaviour of the external fire

229 The fire in the compartment of origin was extinguished at 01:21hrs but had breached the kitchen window on the east elevation of Grenfell Tower. This, in itself, is not an usual event and the Brigade and its operational personnel have experience of this situation. More unusually, the fire emanating from the window ignited materials within the rain screen cladding system installed on the original external walls of the premises and proceeded to spread vertically.

230 The Inquiry expert, Mr Colin Todd states in his report, dated March 2018 '*whilst the dynamics of fire, can potentially, result in the external spread of fire from one flat to the flat immediately above, fire spread significant beyond such an extent would demonstrate a failure to comply with Requirement B4(1) of Approved Document B*'.

231 The resulting fire continued to spread vertically, reaching the top of the building by 01:30hrs. The fire then proceeded to spread laterally in both directions, assisted by the presence of an architectural crown, whilst causing burning droplets to create further fires within the cladding below, resulting in what appeared to be a diagonal fire front burning laterally in both directions on the east elevation.

232 At 01:42hrs, the fire had reached the north east corner of the building and proceeded to continue to spread laterally across the north elevation. At 02:25hrs, the second flame front had reached the south elevation and continued to spread. At 02:51hrs the first flame front had

reached the west elevation and by 04:44hrs, all four elevations of the building were fully involved in the external fire.

#### Training on high rise external fires

233 A number of Brigade witnesses stated they had no specific training on fires in cladding. Many witnesses explained that it was their expectation that exterior of a building could not burn in the way experienced at Grenfell Tower but did demonstrate an understanding of the 'coanda' effect referenced in GRA 3.2 and PN 633.

234 A number of witnesses provided evidence that their experience and expectations of external fires on high rise buildings involved fires in netting provided for safety purposes on scaffolding around buildings under construction or refurbishment, or involved fires on the balconies of such premises .

#### Penetration of the fire internally

235 Internal penetration of the fire through open or failing windows subsequently caused internal fires on multiple floors which in turn spread further as a result of compartmentation issues.

236 Evidence from witnesses suggested that the extent of any internal fires was not clear to command officers until some time after 02:15hrs, although some witnesses acknowledged the likely presence of smoke within the building as indicated by the FSG calls.

#### GRA 3.2 and PN 633

237 Following the Lakanal House fire and a number of other significant fires in high rise premises, GRA 3.2 was reviewed and 15 new hazards were incorporated and others were enhanced with additional information in the 2014 version. The new hazards included make explicit reference to the fact that fire and smoke can spread in an upward, downward and horizontal direction and in ways that can be less predictable than in other building types. A new hazard was identified with regard to the risk of fires occurring simultaneously on multiple floors and explicit reference is made to the fact that falling debris has the potential to cut hose lines and interrupt water supplies during firefighting.

238 The Brigade's PN 633 was reviewed following the publication of the revised GRA 3.2 and generally reflects the information contained within the GRA. Notably PN 633 makes reference to the fact that fire and smoke can travel in any direction and the downward travel, in particular, can

have an adverse impact on fire service operations. It also notes the potential for fires on more than one floor.

239 A full explanation of the development of both documents, their relationship and any differences is set out in the Brigade report '*National guidance and London Fire Brigade operational policy for fighting fires in high rise buildings*' is appended to this report as Appendix E.

240 The Brigade has previously addressed unusual fire spread in two training interventions, specifically, the Lakanal House case study in 2014 and the High Street, Barkingside case study in 2012, completion of which were mandatory for all operational personnel. Additionally, unusual fire spread was addressed in two issues of Operational News, issues 20 and 28, dated November 2011 and December 2014 respectively.

241 The extent to which, and when, the Brigade's officers recognised the significance of and the potential consequences of the external fire and the unexpected fire and smoke spread within the building will be a key area of investigation in Phase 2 of the Inquiry.

242 An effective recognition of both matters was inextricably linked to any consideration of the requirement for a full simultaneous evacuation of the building.

### **Actions by the Brigade since the fire**

243 It is noted that the Brigade has commissioned a comprehensive review of its training provision following the major incidents that the Brigade responded to in 2017. It is being undertaken by an independent consultancy company, Ribband Star Limited, and is expected to take six months to complete.

244 The purpose of the review is to provide an objective baseline of organisational awareness of operational training including Control training and support key organisational priorities and provide an evidence base for continuous improvement.

245 The review will examine four key areas:

- Acquisition of Skills/Knowledge
  - An assessment of the effectiveness of all operational training provided by the Brigade's third party contractor, Babcock Training Limited.

## OFFICIAL

- An assessment of the effectiveness of Brigade Control training provided by the Brigade's Control training team.
- Maintenance of Skills
  - To review systems in place – and those proposed for Developing and Maintaining Operational Professionalism (DAMOP) – to ensure that maintenance of skills activities are undertaken at all operational levels including Control training and that assurance mechanisms are in place to evidence that the service is maintaining an operational readiness to an appropriate professional standard.
- Routine testing/quality assurance
  - To provide an assessment of quality assurance processes in place within the Brigade and Babcock Training Limited ensuring that assurance processes are fit for purpose.
- Future proofing
  - To analyse whether the current training provision (acquisition and maintenance) is risk based and is adaptive to future demands.

**Recommendation 9** - The Brigade should consider to what extent recognition that a building is behaving unpredictably in fire is addressed in policy and training.

***Key observation 4.4 : The building's single escape route was significantly compromised by the products of combustion from an early stage of the incident.***

### Protected lobbies and stairs

246 The means of escape to the final exit at Grenfell Tower was a single staircase provided with a protected lobby at every storey. A smoke control system, an active measure, was provided to protect each lobby and in doing so protect the single escape stair.

247 The evidence from witnesses and the Inquiry's experts indicate that the active and passive fire protection measures in the lobbies and stairwell failed to perform adequately on the night of the fire and became compromised by heat and smoke from some time between 01:21 and 01:40hrs.

248 The failure of the protected lobbies is attributed by Dr Lane to flat front doors failing to control the spread of fire and smoke from flats into the lobbies and vice versa. This is attributed to a lack

of performance, initially identified by a fire resistance test undertaken by BRE Global, on behalf of the MPS, on a sample door of the type fitted to the majority of flats within Grenfell Tower.

249 Evidence available to date indicates there is a close correlation between the progress of the vertical fire spread and the presence of smoke in lobbies. For example, smoke is reported in 13 of 20 lobbies between 01:19 and 01:38hrs, increasing to 15 out of 20 lobbies by 01:58hrs. By 02:38hrs, smoke is reported in 19 out of 20 lobbies with severe temperatures on floors six to 10.

250 British Standard 9991:2015 states *'Whilst a simultaneous evacuation is normally not necessary, there will be some occasions where operational conditions are such that the fire and rescue service decide to evacuate the building. In these situations, the occupants of the building will need to use the common stair, sometimes whilst firefighting is in progress. As such, the measures in this British Standard for the protection of common stair are designed to ensure that they are available for use over an extended period.'*

251 Dr Lane has further noted in her report in relation to the stair doors *'I observed no fire damage in the stairs consistent with the total failure of a stair door, allowing fire spread onto the stairs'* but does note *'the non-compliances I have identified would have contributed to the failure to prevent the spread of smoke to the stair'*.

#### Mechanical smoke control system

252 A replacement mechanical smoke control system was installed in Grenfell Tower during the 2012-2016 refurbishment, its purpose being to control the amount of smoke entering a lobby and therefore reducing the risk of smoke spread to the protected stair. The smoke control system was intended to operate on one floor only, as per the requirements of Approved Document B, and was not expected or designed to operate on multiple floors simultaneously.

253 A smoke detector was present outside flat 16, the fire compartment of origin, and this detector should have activated the smoke control system on the fourth floor. There are no reports of smoke in any other lobby at this time. Evidence from residents report thick black smoke entering the stairs from the lobby on the fourth floor, indicating the smoke control system was not operating as designed.

254 As detailed in paragraph 249, the failure of the mechanical smoke control system to operate as designed contributed to the extensive spread of smoke into a number of lobbies and the protected stair as the fire developed.

### Positive Pressure Ventilation

255 The Brigade has a limited Positive Pressure Ventilation (PPV) capability incorporated within its Special Operations capabilities but it is not, at present, a frontline capability. PPV can be utilised to undertake the planned and systematic removal of heat and smoke from the structure on fire, and their replacement with a supply of fresher air in order to facilitate other firefighting priorities and is used extensively by other UK fire and rescue services.

256 The IC requested PPV at 02:57hrs and it arrived on scene at around 04:00hrs. An attempt to use the PPV at around 05:00hrs to improve conditions in the ground floor lobby was unsuccessful and actually worsens the conditions, so its use was discontinued.

### Challenges presented by the conditions

257 The circumstances described above created challenging conditions for anyone seeking to evacuate from the building and for firefighters attempting to rescue those trapped within the building. In some instances firefighters were forced to make decisions, having reached a resident/s, as to the viability of moving a person through conditions that may have been considered untenable in terms of saving life and were often changing second by second.

258 In some cases, firefighters opted to leave residents in situ or move them to safer areas to avoid the risks presented by the untenable conditions. On one occasion around 02:00hrs, a crew utilised spare firefighter BA sets, obtained from the bridgehead, to rescue a mother and daughter from ninth floor. This improvised method of rescue was not replicated during the remainder of the incident but remains a commendable example of the ingenuity of firefighters.

259 Those conditions described above may have impacted on the feasibility and potential success of any full evacuation from the building, owing the very real but unquantified danger that those evacuating may have been overcome by the conditions encountered in the lobbies and stairwell, assuming that residents could have been contacted to advise on evacuation. It is noted that there was no central alarm system fitted to Grenfell Tower, nor was there any regulatory requirement for such a system.

### **Actions by the Brigade since the fire**

260 Recognising the challenges that Brigade officers faced in respect to the catastrophic failure of the Grenfell Tower building, in particular that associated with the protected single staircase which became compromised by heat, smoke and fire at a very early stage of the incident, the Brigade



has undertaken research and procured fire escape hoods (also commonly referred to as smoke hoods).

#### Fire escape hoods

261 Fire escape hoods are designed to be used easily by members of the public where they need rescuing through smoke filled environments, such as those experienced at Grenfell Tower. They provide members of the public with up to 15 minutes of protection from four of the main fire gases and can be worn by conscious and unconscious persons. If more than 15 minutes of protection is required then another hood can be given to each wearer. Firefighters will be able to offer a hood to those being rescued and they can also be used to protect those who are not able to escape easily, such as the elderly or those with limited mobility.

262 The fire escape hoods have been issued to all frontline appliances across the Brigade and are carried on the Brigade's standard and extended duration BA sets. This provides a total of 649 hoods on frontline appliances and gives firefighters and officers a new tactical option should a similar building failure occur in the future.

263 Since their introduction and at the time of writing, the fire escape hoods have been used on 8 occasions to protect 16 members of the public from hazardous conditions created by the products of combustion.

#### PPV and PN 833 – Tactical ventilation

264 The Brigade has extensively reviewed PN 883, Tactical Ventilation as of the 4 April 2018, reiterating that the PPV equipment and capability is currently under evaluation. They have also added Appendix 1 to PN 883, which explains the functionality and capabilities of PPV.

265 In addition, the OPA department has recently initiated a PPV project group. The aim of this group is to deliver level 1, defensive ventilation, which is carried out away from the fire, or after the fire is extinguished, to remove heat and smoke, particularly to improve access and escape routes in areas of the building not directly affected by fire. The aspiration in phase one of the project is to place 10 PPV into operational service at 10 strategic locations to provide the Brigade with a defensive ventilation operational capability. The Brigade has allocated £350k to evaluate and deliver this part of the project.

266 The Brigade still retains two sets of PPV reserved specifically for its Special Operations capabilities and this equipment is now available on two specialist vehicles; one for responding to terrorist incidents and the other on a vehicle carrying an ultra high pressure lance used to

suppress fire conditions, particularly in situations when it not possible to enter a compartment on fire.

Future firefighting technology

267 The Brigade is also evaluating the introduction of other new firefighting technologies for frontline appliances including the ultra high pressure lance and misting systems. Both have identifiable benefits for firefighter and public safety in many operational scenarios.

***Key observation 4.5 : Number of FSG calls and the resulting volume of information significantly exceeded the expectations of Brigade policy and training.***

268 Following the Lakanal House fire in 2009, the Brigade reviewed its procedures for managing fire survival guidance calls and introduced PN 790. In addition, it introduced Forward Information Boards to record key information at a range of different incident types and PN 820 to support their use. At the Lakanal House fire, crews recorded FSG information on walls at the Bridgehead and it was identified that this risk critical information could be lost if the Bridgehead was forced to relocate due to deteriorating conditions.

269 The first of 152 calls from persons located within Grenfell Tower was received by Brigade Control at 01:21hrs and the volume increased exponentially to an extent that British Telecom began transferring calls to other fire and rescue service Control rooms, namely North West Fire Control, Essex FRS, Merseyside FRS, Surrey FRS, and Kent FRS. There is also evidence that calls were received by other agencies during the course of the night including the MPS and London Ambulance Service (LAS). The last call received from someone inside Grenfell Tower was received at 04:33hrs.

270 The evidence adduced in Phase 1 of the Inquiry suggests that there were a number of communication channels for FSG information established from Brigade Control to the incident ground during the first two hours of the incident.

271 On the incident ground as the volume of FSG calls intensified, the process of transferring information to the Bridgehead became more complex as additional officers and communication systems were introduced incrementally into the system. Evidence from witnesses indicated that various elements were working independently without knowledge of the other.

272 Around 02:00hrs, an FSG coordinator was appointed to manage the information and allocated CU7 for this purpose. All FSG information held on CU8 was transferred to CU7. Once CU7 was

## OFFICIAL

set up and established, a message was sent to Brigade Control at 02:22hrs advising that all FSG information should be passed to CU7.

273 In the fire sector, crews, as they had at the Lakanal House fire, resorted to recording FSG information on walls in all three locations where the Bridgehead was set up. It is not clear if the use of multiple Forward Information Boards (FIB) was considered to manage the volume of information. Information was photographed on a mobile phone when the Bridgehead was relocated to ensure it was captured and re-recorded in the new Bridgehead location.

274 It is clear that the Brigade's policies and training did not anticipate the volume of the FSG information and the rapidity with which it was received. Evidence from witnesses suggest that incidents or exercises involving more than three or four FSG calls are extremely rare.

### **Actions by the Brigade since the fire**

275 The Brigade's OPA department is currently reviewing PN 790 and the extant processes used to manage FSG calls to identify improvement. To date, five exercises have been conducted with Brigade Control to identify any resourcing difficulties and the interface between Brigade Control, CU, and the Bridgehead. The exercise used was based on a high rise incident with FSG phone calls into Brigade Control from members of the public (role played by firefighters).

276 Any identified improvements arising from an evaluation of these exercises will necessitate further testing and consultation with Representative Bodies before they can be incorporated into policy and training solutions identified and implemented. This is likely to take some months and no clear outcomes are expected before the end of the summer 2019.

277 The Brigade's CU replacement programme may also offer a longer term technical solution which delivers further improvements.

### ***Key observation 4.6 : Operational personnel were required by circumstances to provide fire survival guidance to residents, a task not anticipated by policy or training.***

278 During the course of the Grenfell Tower fire, firefighters were required to provide fire survival guidance to members of the public in a number of ways.

279 There are a number of instances where BA crews, having reached the location they were tasked to, had to make calculated decisions on the tenability of conditions within the building that were often changing by the second, to determine whether it was feasible to evacuate the persons trapped. Crews would have had minimal situational awareness of conditions away from their

## OFFICIAL

immediate location and radio communications issues meant they could not seek information on conditions from others. Similarly, issues with radio communications resulted in crews being unable to seek advice or support from others on the most effective course of action.

280 When crews determined the risk arising from an attempted evacuation was too great, they were then required to provide instructions and advice to keep residents safe until a subsequent rescue attempt could be made.

281 Outside Grenfell Tower, there were a number of occasions where firefighters and officers were required to talk to trapped residents directly on the phone or indirectly through family or friends. On some occasions, residents were encouraged to ring 999 to ensure their information was recorded accurately and transferred effectively.

282 On other occasions, firefighters felt a moral duty to help and engaged to provide advice and support directly to residents on the phone. In one instance, a firefighter stayed on the phone for a considerable length of time until the call dropped out when the resident is likely to have become overcome by smoke.

283 The issues described above are not anticipated by policy and firefighters and officers have received no specific training in relation to this situation, other than the more general knowledge and understanding of fire survival guidance and the 'stay put' strategy.

### **Actions by the Brigade since the fire**

284 The Brigade's OPA department are considering this issue within its wider review work around PN 790 and the systems and processes related to FSG calls, as detailed in paragraphs 275 – 277.

### ***Key observation 4.7 : Operational crews had problems physically identifying floor numbers in the stairwell.***

285 Many Brigade witnesses involved in the search and rescue operation noted that it was difficult to establish what floor they were on due to the lack of suitably visible markings in the stairwell indicating the floor number. This may have created delays to the search and rescue operations as crews had to periodically enter lobbies to identify on which floor they were located by checking numbers of flat front doors.

286 In addition to potential delays in getting to the floor or flat that they had been tasked to, this issue resulted in crews having to enter lobbies unnecessarily, in order to identify which floor they were on. Often, these lobbies were significantly involved in fire and / or heavily smoke logged

and many of those crews did not have firefighting media available to them, owing to water supply issues arising from the capacity of the DRM. This placed them at greater risk than was entirely necessary.

### **Actions by the Brigade since the fire**

287 The Brigade has suggested the requirement for adequate markings within buildings to indicate floor levels should be more effectively addressed in building regulations as part of its comprehensive response to the government's consultation on the technical review of Approved Document B (ADB).

### ***Key observation 4.8 : Some elements of the BA operations during the Grenfell Tower fire were not fully aligned to the Brigade's operational procedures set out in PN 466.***

288 The Brigade's BA operations are governed by a procedural framework set out in PN 466 '*Respiratory protective equipment (RPE) – BA operational procedures*'. This PN is supported by nine additional PNs addressing technical specifications, BA operations for specific incident types, ancillary equipment, personal protective equipment and radio communications equipment.

289 The purpose of BA and associated control procedures is to reduce the risk of respiratory discomfort or injury to personnel and provide safe systems of work when BA is used. It is important that personnel who may be required to wear BA or undertake entry control duties understand and properly implement these procedures at all times.

290 At any incident, the IC is responsible for ensuring that RPE is worn whenever there is a risk of personnel suffering respiratory discomfort or injury. Where any doubt exists as to the presence of a respiratory risk, the IC will give instructions for RPE to be used. BA is the default level of respiratory protection for fires and other incidents presenting an acute respiratory hazard.

291 PN 466 has been produced with regard to the following RPE legislation and approved codes of practice as well as other health and safety legislation:

- National Operational Guidance Programme – Foundation for Breathing Apparatus.
- National Operational Guidance – Breathing Apparatus Training Specification.
- Control of Substances Hazardous to Health Regulations: 2002.
- Ionising Radiations Regulations: 1999.
- Control of Lead at Work Regulations: 2002.
- Control of Asbestos Regulations: 2012.

## OFFICIAL

- Dangerous Substances and Explosive Atmospheres Regulations: 2002.
- Confined Spaces Regulations: 1997.
- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations: 2013.

292 BA operations are identified as a core skill for firefighters and as such wearers are subject to regular maintenance of competence checks undertaken on station, known as 'Best Practice Assessments'.

293 In addition, firefighters have to complete BA refresher training provided by Babcock Training annually at one of its Centres of Excellence.

294 The Babcock Training / London Fire Brigade learning portal also provides seven online training packages covering all elements of BA equipment and operations.

295 It is not intended to cover each occurrence in full within this preliminary report as investigations are ongoing but a summary of each issue is provided below, together with information, where appropriate, for the Brigade to reflect on when determining its response to this operational learning.

296 The Health and Safety Executive (HSE) has acknowledged in its publication '**Striking the Balance**' that the application of health and safety law is challenging for fire and rescue services in relation to some operational activities. It notes the following points which are considered relevant and should be reflected on by the Brigade:

- they have to send firefighters into dangerous situations in order to save lives when anyone else would be seeking to get away from the danger;
- there is often an unrealistic public expectation that firefighters will put themselves at risk even when such risks outweigh any potential benefits to be gained;
- many incidents firefighters face can develop at speed, some can develop in unexpected ways – and firefighters may, from time to time, be confronted with situations outside their experience;
- they have to prepare individual employees to be able to make decisions in dangerous, fast-moving, emotionally charged and pressurised situations, even when there may sometimes be incomplete or inaccurate information about the incident;

## OFFICIAL

- they have to respond to dangerous situations which are not of their own making - this is different to most other sectors where it is the employer's own business that creates the hazards; and
- they may not be able to control or mitigate some aspects of the working environment.

297 No BA emergency teams were formally established as detailed in PN 466 but the Brigade should consider this in the context of the large number of BA wearers who were rigged and ready for deployment in Grenfell Tower throughout the incident.

298 PN 466 states that wearers must withdraw from the hazard if both radio communications and telemetry are lost between the Entry Control Point (ECP) and the BA team. Whilst there is evidence that there were sustained radio communications issues and sporadic telemetry signal issues, it is not clear at the time of writing if and when this occurred simultaneously and investigations are ongoing. From the available evidence it is known that no personnel were withdrawn from the hazard area by commanders as a result of radio and telemetry issues and no BA team elected to withdraw for this reason.

299 A relatively small number of personnel were recommitted to the incident when there were additional firefighters on scene who had not previously worn and were available for deployment. It is not clear at the time of writing if those previously recommitted into the hazard area had the sufficient rest and recovery periods detailed in PN 466. The policy states that rest and recovery periods will only be shortened in exceptional circumstances i.e. to save a saveable life when no fresh wearers are available.

300 Whilst it is apparent that fresh wearers were available, the dynamic nature of the incident, the need to save life, and the individual responsibilities of personnel should be taken into account by the Brigade when considering their response to this operational learning.

301 It has been identified that the maximum number of wearers for one Entry Control Board (ECB) was exceeded during the early stages of the incident, meaning appropriate entry control procedures and the recording of briefs, locations and actions, alongside the use of telemetry were not always achieved.

302 Following the revision to the maximum number of wearers permitted under Stage 1 entry control procedures to six wearers, this will increase the likelihood of exceeding the facilities of one ECB and resources that will be required to establish Stage 2 entry control procedures earlier in an incident where higher number of BA wearers are required.

## OFFICIAL

- 303 A number of firefighters booked into the ECP in accordance with PN 466 but did not don their facemasks and 'go under air' until they reached a point in the hazard area that respiratory protection became an absolute necessity. PN 466 makes clear that all personnel passing through the ECP must be 'under air'.
- 304 Despite BA Main Control being established, the majority of the BA teams that exited the building did not return to BA Main Control for further instruction. The Brigade's policy requires the role of BA Main Control Officer, now a BA Sector Commander under the revised policy, to be undertaken by a minimum role of a SM. The training requirements for the role of a BA Sector Commander are not identified in any training framework for the role of a SM or above.
- 305 A number of firefighters exited the hazard zone past their 'time of whistle' and therefore without the required safety margin of air remaining in their cylinders. There is one instance of a firefighter leaving the hazard zone without his BA facemask and helmet, having abandoned both after completely exhausting his air supply during his attempts to rescue a casualty from the building.
- 306 There is no evidence that emergency exchange of air procedures were adopted to support firefighters who were low on air whilst still in the hazard area.
- 307 Evidence has identified that there were occasions where briefs and debriefs lacked detail, which led to areas of the building being searched on more than one occasion. Information such as, areas that had been searched and numbers of people rescued from specific flats were not accurately relayed. This was also compounded by residents and occupants of the building moving to different flats and floors or attempting to self-evacuate following fire survival guidance.
- 308 A clear degradation factor that contributed to a lack of detail for some briefings was the amount of information that was being communicated under high pressure conditions, which led to some key information not being recorded appropriately, leading to tasks that were allocated to subsequent BA teams being less effective. Accurate recording of briefs and debriefing would have assisted subsequent allocation of tasks and identification of hazards. The Brigade had previously published an article and associated training in its Operational News publication in January 2012 covering the briefing and debriefing of BA teams.
- 309 A dedicated BA Comms Operative was not established until 04:00hrs although sufficient resources were available. It is suggested that the Brigade reflect that there were radio communications issues, most likely as a result of demand exceeding capacity, and therefore the



## OFFICIAL

ability for BA teams to communicate with the ECP was limited in any event. This is addressed in more detail in Theme 6 – Communications.

310 ECB tripods were not used until approx. 06:00hrs. It is known that placing the ECB in the provided tripod stand increases telemetry signal propagation.

311 A number of BA log books had been completed incorrectly on station and are illegible, impacting on the post incident review. This issue is described more fully under key observation 7.3.

312 Evidence has identified that the deployment of working radio repeater and telemetry repeaters was unsuccessful. The ultimate reason cannot be confirmed as to why they did not perform as expected but it is evident that personnel's knowledge and understanding of their deployment is inconsistent. Currently only extended duration BA wearers are trained in the deployment of radio repeaters, which is delivered on refresher training courses only.

**Recommendation 10** - It is suggested the Brigade considers the extent to which policy, training and human factors played a role in the control measure degradation identified in the preceding paragraphs.

### **Actions by the Brigade since the fire**

#### Data retrieval and analysis

313 Immediately following the fire, the Brigade downloaded the data from over 1200 BA sets and 100 telemetry boards to ensure it had captured all data that might be relevant to the incident. A number of telemetry boards suffered extensive heat and water damage and were returned to the manufacturer who were able to retrieve the required data.

314 The only data believed to have been lost is that where the electronic memory of a board was overwritten due to insufficient capacity. This learning was communicated to the manufacturer who has now increased the memory capacity of its telemetry boards to prevent a reoccurrence.

315 The data retrieved from both the BA sets and telemetry boards is complex and not easily understood without the correct knowledge. The Deputy Head of the PEG has been seconded to GTIRT since June 2017 to ensure all data is collated and analysed effectively to support the internal investigation and assist external investigations by the Inquiry and the MPS.

National Operational Guidance

316 The Brigade has engaged extensively with NOL Secretariat to reinforce its own understanding of the observations identified above and to support the identification of degradation factors which may cause control measures not to perform as expected. A report by the Secretariat outlining findings and making recommendations for revisions to the Foundation for BA guidance has been finalised and will be presented to NOLUG for consideration.

Respiratory health monitoring

317 The Brigade is currently working with University College Hospital to scope an independent long term respiratory health study for staff who attended the incident to support those staff and build a greater understanding of the long term impact of firefighting operations on respiratory health.

**Theme 5 – Brigade Control**

***Key observation 5.1 : The facilities at the Brigade's fallback Control, located in Stratford, did not fully replicate those at the primary Control in Merton.***

318 The Brigade's primary Control is located at Merton and it operates a secondary or fallback Control, located at Stratford fire station to provide resilience to its control and mobilising function.

319 The Stratford facility is generally used during planned maintenance to the systems at the primary location but can be stood up at short notice if the primary site is not able to operate for any reason. The Brigade has established and well practiced procedures to fall back to the secondary Control when required.

320 On the 14<sup>th</sup> June 2017, Brigade Control was operating at Stratford due to planned maintenance at the Merton site. The secondary Control at Stratford is smaller than the primary site and images illustrating the difference are contained within the report appended as Appendix B.

321 In general, the facilities at Stratford replicate those at Merton with the same integrated mobilising and communications systems provided at both locations. On the night of the Grenfell Tower fire the main differences were that the Stratford site did not have the facility to access the Brigade's Dynamic Cover Tool (DCT) or access the National Police Air Service (NPAS) downlink imagery via the 'heli tele' system.

322 The DCT is a computer software application designed to assist Brigade Control to manage the movement of appliances between locations during large incidents or periods of peak demand, in

## OFFICIAL

order to maintain operational cover across the geographical area the Brigade is responsible for. The non-availability of the DCT on the night of the fire required an Assistant Operations Manager (AOM) to manually manage the movement of appliances to maintain pan London fire cover. This was a complex task, given the number of appliance movements required as the incident at Grenfell Tower escalated, and it is testament to the knowledge and experience of the AOM responsible that operational cover was maintained effectively.

323 The Brigade is unique in having a fixed 'heli tele' downlink and this is a legacy of its relationship with the MPS Air Support Unit before it transitioned to NPAS. The fixed downlink is provided to increase situational awareness and is available at the primary Control, Brigade Headquarters, and on the CUs.

324 Whilst the facility was not provided at Stratford, it is noted from evidence, during Phase 1 of the Inquiry, that on the night of the fire, the downlink had been withdrawn from external agencies by NPAS and so CROs would have been unable to view in any event.

### **Actions by the Brigade since the fire**

#### DCT and Heli-Tele

325 The DCT software application has now been installed at the Stratford site and is fully functioning to assist staff to manage operational cover requirements when Brigade Control is operating from the secondary facility. The heli – tele downlink is also now available at the Stratford site.

326 As referenced in paragraph 164, the Brigade is also undertaking an operational trial of drone technology to increase situational awareness during and reduce its reliance on support from external partners such as NPAS.

### **Key observation 5.2 : FSG call information was not gathered and communicated in accordance with PN 539, Appendix 3.**

327 PN 539 states '*The Brigade defines a Fire Survival Guidance (FSG) call as being a call to Brigade Control where the caller believes that they are unable to leave their premises due to the effects of fire, and where the Control Room Operator (CRO) remains on the line providing appropriate advice until either the caller is able to leave by their own means, is rescued by the Brigade, or the line is cleared*'.

## OFFICIAL

328 There is specific guidance for CROs to follow when taking calls to fire situations in domestic accommodation, where callers have indicated they are unable to leave their premises. This guidance follows national guidance and employs the principles of Escape, Assist, Protect and Rescue.

329 The following text is the relevant extract from Appendix 3 of PN 539:

*Brigade Control advise callers to 'Get out and Stay out', however if a call is received from a High rise building where Fire, Heat and Smoke are not affecting the caller, LFB would advise that:*

*You are usually safest to remain in your premises unless affected by fire, heat or smoke. If the situation changes, you should leave your premises and dial 999, if you need further assistance.'*

*Should the caller be unable to escape, a RIF<sup>10</sup> containing prompts are in place on the computer-aided mobilising system to assist the CRO in:*

- *Providing guidance to assist the caller to safety.*
- *Provide timely and relevant information to the attending resources.*
- *Provide reassurance to the caller that help and assistance is forthcoming.*

*The CRO will ascertain through initial questioning, the type of premises the caller is in and use the link on the Reference Information File to take them to the appropriate area of information to use, to assist the caller.*

*CROs will always use the four principles of Escape, Assess, Protect and Rescue to provide guidance to these callers. Firstly by assisting the caller to help identify a safe, alternative ESCAPE route for them to leave their premises. If this is not possible, then CROs are directed to ASSESS the situation by asking the caller direct questions: Example questions are:*

- *Do you know where the fire is?*
- *What room are you in?*
- *Is anyone with you?*

*CROs will begin to PROTECT the caller by providing current fire safety advice to attempt to keep the caller safe. They are directed to reassure the caller and REASSESS the callers situation:*

*Example questions are:*

---

<sup>10</sup> Reference Information File

## OFFICIAL

- *Has that stopped the smoke coming in?*
- *Let me know if the smoke gets thicker?*
- *What's happening now?*

*CROs will remain on the telephone with the caller and assist with RESCUE.*

*Other CROs and supervisory staff will assist the CRO carrying out the Fire Survival Guidance call by ensuring all relevant information regarding the caller's situation is passed via both the airwave radio and via telephone when a CU is in attendance. Relevant information to be passed to the incident ground includes:*

- *Number of persons involved*
- *Names if known (by telephone only, not by radio)*
- *Condition of their location i.e. heavy smoke, thick smoke*
- *Location of caller within premises*
- *Callers proximity to fire*
- *Latest FSG advice given by Control*
- *Time of FSG call*

330 From the evidence adduced in Phase 1 of the Inquiry, it is apparent that during a number of FSG calls arising from the Grenfell Tower fire there were no proactive attempts to identify a safe alternative escape route with the caller. During questioning on this matter by Counsel to the Inquiry, one witness explained they would be expect persons living in residential high rise blocks with a single stair would be familiar with their escape route. Another witness described the volume of calls as being a factor and the need to prevent a queue of calls from building.

331 Counsel to the Inquiry also asked Brigade Control witnesses about efforts to assist callers with assessing the situation. Those witnesses explained that their own situational awareness is limited as they are remote from the incident and the callers themselves are generally best placed to assess the conditions affecting them.

332 Witnesses also provided oral evidence that expressed the difficulties and risks associated with directing those trapped to follow particular instructions like opening doors to check escape routes, which may only serve to further deteriorate conditions in the location where persons are sheltering.

333 It is noted that many residents expressed a reluctance to leave their properties even when instructed to do so, because of the conditions outside of their flats. Control witnesses said that in

## OFFICIAL

those circumstances you have to believe the caller, who is best placed to observe the conditions they are experiencing and assess the conditions they face if they attempt to leave their place of relative safety.

- 334 This is reinforced by the evidence of one resident ultimately rescued by the Brigade but who had earlier resisted all attempts by CROs to persuade him to evacuate the building. When questioned by the Inquiry on why he had ignored the instructions from the Brigade, the witness stated *"Well ... I would have assessed again if I was in the condition to go out. But obviously she would've taken a big responsibility to do so on her behalf, because she wouldn't know how bad the conditions outside were. I knew, she didn't. She wouldn't know"*.
- 335 He went on to state *"Now let's say I would be convinced by this person to go out, and if something had happened to me, how would that person feel if I had not made it out, basically? So that's why I said, you know, I don't want to think of someone thinking, "Oh, because I gave him that advice, look what happened to him". How would that person then live for the rest of their life?"*
- 336 This graphically illustrates the dilemma which CROs face in circumstances such as those experienced at Grenfell Tower that even if they seek to explore with a caller the conditions immediately outside their flats, they cannot know what the conditions may be beyond the immediate vicinity when considering whether to advise residents to leave their flats. There always remains a risk that they will be directing them into dangerous and potentially lethal conditions. There were numerous examples in the evidence of rapidly changing conditions within the building, by which smoke, toxicity and visibility changed minute by minute and often, second by second.
- 337 There, of course, may come a time when the situation has deteriorated to such an extent that escape remains the only viable option, whatever the risks involved. In those circumstances, it is necessary for CROs to make every effort to encourage or even coerce callers into attempting to escape. Evidence adduced in Phase 1 established that one CRO, during a particular FSG call, very forcefully sought to persuade the caller to leave their flat, even graphically describing the potential consequences if they did not.
- 338 It is noted from evidence that PN 539 directs CROs to stay on the line with callers until they are rescued by the Brigade. Such was the volume of calls related to Grenfell Tower, CROs felt unable to stay on the line in most instances due to the need to reduce the number of calls queuing in the system, many of whom would have also been from residents trapped in the Tower.

- 339 There are exceptions when CROs stayed on the call until the call dropped out which included one call which lasted just under an hour and these calls proved to be particularly harrowing for the CROs concerned. This is discussed in more detail under key observation 5.8.
- 340 Evidence from witnesses during Phase 1 demonstrated that the way CROs handled FSG calls and provided advice to callers was predicated on the assumption that they would be rescued. The Lakanal House fire in 2009 tragically demonstrated this is not always the case and prompted the need for CROs to engage more fully in active listening to build a more complete picture of the circumstances facing the caller.
- 341 A number of calls were received by Brigade Control in the early stages of the incident where the callers, located on the upper floors of Grenfell Tower state there is smoke in their flats and / or fire at the window. However the significance of this information is not recognised by the CROs and with limited situational awareness, they did not reconcile the information to their understanding of the incident.
- 342 One Brigade witness gave oral evidence to the Inquiry describing how they were unable to comprehend that a caller from an upper floor was describing smoke, and even fire, in their vicinity, when the fire was on the fourth floor.
- 343 The RIF details the information that should be recorded and communicated to the incident ground. One notable omission from nearly all FSG information received by the incident ground is the time the FSG call was received. This information is significant, particularly in circumstances where the IC or responsible officer may need to prioritise the individual calls.
- 344 There were also limited examples where other important information, such as the caller's name, the conditions i.e. heavy or thick smoke, the location of the caller within the premises, their proximity to the fire and the latest FSG advice given by Control to the caller, was communicated to the incident.
- 345 The Lakanal House Incident Assurance Review commissioned by GTIRT to support its investigation noted in its report, dated 7<sup>th</sup> August 2018, that training records show that fire survival guidance refresher training has not been completed by all Control staff on an annual basis in accordance with national guidance (Fire Service Circular 10/1993 '*Training of Fire Control Staff*' and Brigade expectations as set out in its pre-Inquest actions (identified as Action 12 of the Pre-Inquest actions within the report) following the Lakanal House fire.

346 As part of the refresher training referred to above, the Brigade identified an action (Action 8 of Pre-Inquest Actions) following the Lakanal House fire to include an input from Fire Safety Officers in Control FSG training to comply with the requirements of Fire Service Circular 10/93. The Lakanal House Incident Assurance Review report notes that *'Whilst Fire Safety Officers were involved in developing the building structure / fire safety issues content for the fire survival guidance training and they have delivered the content on initial training, they have not consistently delivered that content in refresher training'*.

347 It is appropriate to acknowledge the extraordinary challenge that handling FSG calls presents in normal circumstances, let alone in the extreme situation presented by the Grenfell Tower fire, in that they are required to provide appropriate advice to persons, who are often in danger and acute distress. This has to be undertaken from a remote position and with limited situational awareness. The circumstances of the Grenfell Tower fire increased those challenges exponentially.

348 It should also be noted that PN 539 anticipates that a CRO handling a FSG call will be supported and assisted by supervisors and other CROs. The circumstances of the Grenfell Tower fire meant that such support was not available due to the volume of calls being received.

### **Actions by the Brigade since the fire**

349 All Brigade Control staff have undertaken FSG refresher training during 2018 and further training will be undertaken this year once the revisions to PN 790 are published. At the time of writing, five of the six Brigade Control Watches have taken part in the exercises that are informing the revision of PN 790 and the associated procedures with the sixth Watch due to participate in the final exercise shortly.

350 A competency framework for all levels of Brigade Control staff identifying core skills and frequency of training to support maintenance of competence is currently being developed.

351 A new IT solution was implemented towards the end of 2018 to support the planning, delivery and recording of Brigade Control training. The new solution ensures that training activities are automatically recorded within Individual Training Records.

352 A facilitated discussion with Control staff around the challenges presented by the Grenfell Tower fire has been led by Control senior managers, supported by the Operational Support Team (OST) to ensure that all staff are aware of the ad hoc actions taken on the night where these were considered effective. Where actions taken on the night were identified as not being effective,



staff are discussing the situation which precipitated the original action and seeking to agree possible improvements. It is recognised this training is an interim measure prior to the implementation of revised policies, technological and training solutions that will be associated with the updated PN 790.

***Key observation 5.3 : There was no established or tested method to maintain an overview of the FSG call information being received by Brigade.***

353 Brigade Control received a total of 408 '999' calls from 0054hrs up to 0800hrs related to Grenfell Tower, and also handled 212 similarly related admin calls in this period. This volume is completely unprecedented in the collective memory of the Brigade and does not include calls related to other incidents ongoing in London during this period. On duty staff were also dealing with the large volume of appliance mobilisations and notification protocols associated with the fire, whilst attempting to manage the incoming calls and the transfer of risk critical information to the incident.

354 The first of 152 calls from persons located within Grenfell Tower was received by Brigade Control at 01:21hrs and the volume increased exponentially to an extent that British Telecom began transferring calls to other fire and rescue service Control rooms, namely North West Fire Control, Essex FRS, Surrey FRS, and Kent FRS. There is also evidence that calls were received by other agencies during the course of the night such as the MPS and LAS.

355 Such was the intensity of the calls being received by Brigade Control, a queue quickly built up within the system, impacting on the ability to maintain an adequate degree of situational awareness in regard to the rapidly developing situation at Grenfell Tower. This situation was alleviated to an extent by the arrival of the Brigade Control Duty Senior Manager who arrived at Stratford at approx. 02:15hrs.

356 A white board system was then implemented to display FSG call information to provide shared situational awareness in the room and enable CROs to correlate information, should any further calls come in from the same flats or floors. The white board system was not a recognised or tested procedure but an ad hoc measure established to ensure information was immediately available and could be utilised by CROs handling calls and providing advice to callers. The information was also available to the Brigade Coordination Centre (BCC) which had been set up at Stratford in response to the major incident.

### **Actions by the Brigade since the fire**

357 A large wall screen has been fitted at the primary Control facility at Merton to increase shared situational awareness amongst Control staff. The screen is able to display the DCT, the heli-tele downlink feed, and information sourced from the Vision mobilising system including incidents in progress. In addition, the screen is able to display television broadcasts. As yet there are no plans to provide a similar system at the fall back location in Stratford although it is noted that all such information is available at individual CRO work stations.

**Recommendation 11** - It is suggested the Brigade considers how shared situational awareness within the Control room might be achieved in similar circumstances and whether a more sophisticated system than the whiteboards used on the 14<sup>th</sup> June should be developed and implemented as an established Control protocol.

**Key observation 5.4 : The 'Vision' mobilising system does not support the identification of telephone numbers to enable call backs, and the Brigade does not have a clear policy position on re-contacting callers.**

358 PN 539 and the associated RIF requires that CROs maintain contact with callers being provided with fire survival guidance until they are rescued or are able to self evacuate. As detailed earlier in this report, the volume of calls and the rapidity with which they were received resulted in CROs not keeping calls open with those located in the building, in order to reduce the queue that had built up in the system.

359 The Brigade does not have a policy regarding re-contacting callers as the requirement to re-contact was not envisaged. Callers on 14<sup>th</sup> June were provided with guidance and advised to call '999' again if the situation changed or deteriorated and the CRO ended the call in order to answer the next call. CROs had no means to know, before answering, if calls queuing in the system were from residents at risk in the building or from those reporting the fire from outside and not in danger.

360 Evidence demonstrates that callers did re-contact Brigade Control on many occasions during the course of the night and some residents made a number of '999' calls as conditions deteriorated and their situation got worse. It is unlikely that residents making repeat calls would have spoken with the same CRO.

## OFFICIAL

- 361 For those residents who called '999' after the decision to advise all persons to leave the building whatever the dangers they faced, CROs were able to provide instructions to evacuate the building using wet towels to protect themselves.
- 362 For residents who did not or could not call after this time, this presented a serious situation, in that the Brigade had no means to advise them to leave their flat unless an individual made a further emergency call.
- 363 When questioned by Counsel to the Inquiry on this subject, one Brigade witness explained that such a situation was beyond the experience of the Brigade and described how it would have been very difficult to recontact callers as Brigade Control was inundated with emergency calls at that time, with many calls held in a queue. The witness went on to describe how it would have been very time consuming to search through call records to find the correct telephone number to recontact the caller.
- 364 When asked how previous FSG callers would know that the advice had changed, the witness reiterated that it was very difficult situation and such were the circumstances on the night that there was a reliance on those trapped calling '999' again, in which case they would be provided with the appropriate advice.
- 365 In addition to the resourcing issues associated with attempting to recontact callers, it is noted that the Vision mobilising system does not have a facility that makes the identification of previous callers and their phone numbers easy or timely. This is, perhaps, not unsurprising as it was not anticipated that such a situation would occur and such a facility would be required. As a result, this was not included in the technical specification for the current mobilising system.

### **Actions by the Brigade since the fire**

- 366 The Brigade's OPA department have been asked to consider this issue in the review of PN 790 and FSG procedures. However, it is noted that any changes to the current mobilising system in this respect are probably not achievable and would have to be included in the specification for any future replacement mobilising system.

**Key observation 5.5 : There are no national standards for passing and receiving FSG call information between Fire and Rescue Service Control rooms handling calls related to the same incident.**

367 The Brigade, like all emergency services have established mutual aid arrangements in place with other Control rooms to answer and handle '999' calls including FSG calls should its own capacity be exceeded as a result of a major incident or spate conditions such as widespread flooding.

368 On the 14<sup>th</sup> June 2017, five fire and rescue service Controls, North West, Essex, Surrey, Merseyside and Kent provided mutual aid support to the Brigade by handling overflow calls, many of which were Grenfell Tower FSG calls. All fire and rescue services use the Escape, Assess, Protect and Rescue protocol for handling FSG calls so callers directed to these supporting Controls received fire survival guidance based on the same principles used by Brigade Control.

369 However, it is noted that the sharing of information in a timely and effective manner between the supporting Controls and Brigade Control was problematic. The sharing of FSG information being received by the supporting Controls was affected by the volume of calls being received in Brigade Control resulting in limited capacity to answer calls from the supporting Controls. Similarly Brigade Control found it challenging, in resource terms, to pass information to the supporting Controls to ensure shared situational awareness.

370 It is observed that there are no national standards for passing and receiving information between Control rooms handling FSG calls arising from the same incident to support the existing mutual aid arrangements.

371 It is further noted that much of the specific guidance available to fire and rescue services is historic. Fire Service Circular 10/1993 'Training of Fire Control Staff' is a relevant example of this. NOG provides information on control and mobilising functions across its suite of guidance, however there is no specific 'one stop' guidance provided for fire and rescue services addressing the delivery of the relevant statutory duties required under the Fire and Rescue Service Act 2004.

### **Actions by the Brigade since the fire**

372 Brigade Control senior managers are engaging with the NFCC Mobilising Officers Group (MOG) to discuss how to improve the communication of information between Controls involved in taking overflow calls under the established mutual aid arrangements.

373 The group is carefully considering the Grenfell Tower fire and the challenges presented by a number of Controls simultaneously handling calls relating to the same incident. The group considers the establishment of a dedicated national Airwave talk group for Fire Controls could enable the affected Control to simultaneously broadcast information to all Controls handling overflow calls and ensure supporting Controls can communicate information to the affected Control.

374 This proposal, if confirmed by the NFCC MOG, will need to be presented to the NFCC Operations Committee for approval.

375 The NOL Secretariat has also been contacted regarding this issue and is examining the issue to identify improvements which could be made to national guidance.

***Key observation 5.6 : There is no automated system to link NICE voice records to Vision call records, impacting on any post incident review.***

376 The Brigade's call management system is made of four key components, one of which is the NICE<sup>11</sup> voice recording system. The recording system for all incoming '999' calls and the administration lines is stand alone and does not create a unique reference that aligns to the Vision mobilising system call records or the BOSS desk top incident viewer<sup>12</sup>.

377 When a 999 call is connected to the call handling system by the BT operator, the system immediately starts to record and includes the period whilst the call is waiting to be answered by Brigade Control. Once answered, the recording continues until the CRO ends the call, the caller hangs up or the call drops out because of a loss of signal or a malfunction.

378 The system captures all voice interaction on the line which includes the BT operator passing the call to the CRO. If the caller drops off the line or the call is cut off before being answered the recording will continue, this allows for the capture of any conversation with the BT Operator.

379 This system is not linked to other components in the system and as a result, when collating call data for review the voice records have to be manually cross referenced against the incident records on the BOSS desk top viewer application.

---

<sup>11</sup> NICE is the name of the company that make the software package installed on a stand alone computer.

<sup>12</sup> BOSS is a software application used to present incident information to Brigade personnel without the need to access the Vision mobilising system.

380 It was identified that times presented in the BOSS desktop viewer do not align with the call times associated with the audio recording because the BOSS application includes the ring time before the call is answered. The BOSS application also uses the 'created time' as the call time which is subject to variation depending on the call handling time and the selection of the 'create record' action.

381 During the exercise to gather information for the Actions by Brigade Control report, appended as Appendix B, voice recordings were found to be referenced against the wrong incident record i.e. the phone number did not correspond to the NICE record, effectively meaning that call information was held against the record of another call. There were also examples of voice call records not allocated to a incident record at all resulting in new records being created several months after the event.

382 Whilst these issues did not impact on the night, the reconciliation of call data presented a significant challenge for GTIRT who worked collaboratively with the Inquiry and MPS to ensure an accurate record of all calls related to the Grenfell Tower fire was adduced into evidence.

### **Actions by the Brigade since the fire**

383 It is acknowledged that overcoming these issues requires a significant change to the Brigade's communications and mobilising systems and it not feasible until the future replacement of those systems.

384 These issues will also be captured as learning in a future guidance document to be produced as an appendix to PN 920 'Major incidents investigation' to ensure future investigations are sighted on the issues identified during the Grenfell Tower safety and learning investigation. A new working group will convene in April 2019 to scope out work required to produce effective guidance to support future investigations.

### ***Key observation 5.7 : The 'Vision' mobilising system 'call collection form' can be overwritten if a new call is taken before it is added to the incident log.***

385 During the collation of call data it became apparent that audio records of 999 calls had been captured on the NICE recording system that were not recorded against an incident record.

386 When a CRO answers a '999' call on the Integrated Control and Communications System (ICCS), a 'call collection form' automatically opens on the Vision mobilising system. Some details of the call are automatically populated and the CRO is required to gather and enter other data

## OFFICIAL

manually by asking the caller questions. When the CRO has reached the point that they are satisfied they have gathered all relevant information, an incident record is created and, where appropriate, the required resources are mobilised.

387 When large numbers of calls are received to the same incident the mobilising system provides the facility to 'duplicate' calls when a CRO determines the incident being reported is the same as an incident already being attended by the Brigade. In this event, a copy of the incident record is created and becomes a duplicate. The duplicate has a separate incident number but is linked to the original record created for the incident. This process assists the Brigade in managing call volumes and avoids unnecessary mobilisation of resources.

388 During the Brigade's investigation a review of the NICE recording system was undertaken to ensure all audio records had been captured. It was identified that several '999' call records were captured which were not assigned to an incident record. It was also observed that in some cases two phone numbers were captured in the same incident record. On further investigation it was apparent that it is possible to answer a '999' call through the ICCS system with the previous call collection form still open, resulting in the new call number becoming embedded in the previous incident record.

389 Following any incident the collation of call data forms an important part of the evidence required to provide assurance to the organisation. The issue identified as key observation 5.6 results in investigators having to listen to the audio file for each call and manually cross reference these to incident logs to ensure all evidence is captured and is accurate.

390 While the issues identified above did not impact on the night of the fire, it did result in considerable delay in identifying all incident records to support the post incident investigation and review activities related to the Grenfell Tower fire.

### **Actions by the Brigade since the fire**

391 This issue has been communicated to Brigade Control senior managers and has been addressed during the facilitated discussions (paragraph 352 refers) to ensure Control staff are fully aware of the issue and take active measures to prevent a re-occurrence during future incidents involving large numbers of incoming calls.

***Key observation 5.8 : There is potential for Brigade Control personnel to experience secondary trauma following a traumatic incident.***

392 Following the Grenfell Tower fire there were a significant number of counselling referrals from Brigade Control staff and high levels of sickness absence were recorded, mostly related to stress, anxiety and depression (SAD).

393 Sickness arising from participating in the Grenfell Tower fire response and the public inquiry continues to contribute to sickness absence. The increasing number of episodes of sickness absence due to SAD, combined with the fact that episodes of SAD absence usually last longer than other causes of sickness absence, continues to drive up headline absence rates. The Brigade's target for sickness absence for Brigade Control staff is 4.7% of working days lost, but has remained consistently above this figure since the Grenfell Tower fire and peaked at 9.06%.

394 On the night of the fire the Counselling and Welfare Services (CWS) duty counsellor was contacted by Brigade Control at approximately 03:00hrs on the day of the fire. A request was made to provide a counsellor to go to Brigade Control at Stratford to support CROs and managers. The Head of CWS was notified of this request and decided to go to Stratford as she was the nearest counsellor and arrived at Brigade Control approximately two hours after the initial call.

395 In Brigade Control, the Head of CWS met with managers and all the No. 2 Watch CROs involved in dealing with the calls from residents and other people close to the Grenfell Tower. At the end of their shift the CROs were provided with psychological first aid and support prior to them leaving to go home.

396 It is noted that one month after the fire, 19% of Brigade Control staff involved in the incident had been referred to CWS, this compares with 20% of firefighters involved in rescue operations.

**Actions by the Brigade since the fire**

397 The Head of GTIRT recently commissioned an independent study of the Brigade's counselling and trauma service provision during and following the Grenfell Tower fire by Dr Noreen Tehrani, Past Chair of the Crisis, Disaster and Trauma Section of the British Psychological Society and a member of the Crisis, Disaster and Trauma Standing Committee for the European Federation of Psychological Associations.

398 Dr Tehrani made the following recommendations in her report in March 2019:



## OFFICIAL

- Firefighters and others in high risk roles such as Brigade Control staff should be submitted to regular psychological surveillance, to manage the risk of psychological health in the same way that physical health is managed.
- Following a major incident, the use of 'screen and treat' for all involved personnel would help to identify those likely to develop trauma related conditions.

399 Dr Tehrani also suggested the following changes be considered by the Brigade:

- Introduction of trained peer trauma support volunteers
- Increased mandatory/routine psychological screening of those involved
- Additional psychosocial support for Brigade Control personnel
- Increased support for senior officers

400 The report will be considered by the Brigade in April 2019 to determine its response to Dr Tehrani's recommendations.

### Theme 6 – Communications

#### ***Key observation 6.1: The volume of hand held radio traffic exceeded the capacity of both the breathing apparatus and command channel.***

401 A number of witnesses stated in oral evidence that they had difficulty in communicating on the fire ground using their hand held radios and in the building using BARIE<sup>13</sup> sets. Other witnesses said that the hand held radios were not working. The Brigade employs two main forms of communication equipment. A digital national radio system, 'Airwave' for wide area communications (Brigade Control to appliances) and a system of personal issue analogue 'fireground' radios for local use at incidents.

402 The Brigade's hand held radios (Entel HX-480/1) are issued to all operational staff and are programmed with 10 separate channels. These are detailed below:

- Channels 1 and 2 - General Incident and Command channels
- Channel 3 - Used under direction of the IC / sector commander for firefighter communications during specific tasks
- Channel 4 - To be used only under direction of the duty radio officer

---

<sup>13</sup> Breathing Apparatus Radio Interface Equipment

## OFFICIAL

- Channel 5 - For communications (including BA) where a leaky feeder or base station equipment is installed
- Channel 6 - BA
- Channel 7 - To be used only under the direction of the duty radio officer
- Channel 8 - For communications in specific buildings where leaky feeder or appropriate base station equipment is installed
- Channel 10 - For use by the CU staff

403 An intrinsically safe variant, the Entel HT981 is used within the BARIE system (PN 592 refers). Intrinsic safety is achieved by capping output at one watt.

404 It should be noted that channels 2, 5 and 8 are duplex<sup>14</sup> and will only work in conjunction with a repeater set available when a CU is in attendance or a base station is fitted in the premises, e.g. London Underground stations.

405 Channel 1 is reserved for all initial incident command communications. It remains the primary command channel until the circumstances of the incident dictate or the IC decides that additional command and control radio capacity is required.

406 Once a CU is in attendance the CU communications operator will advise the IC that channel 2 is available to be introduced as the command channel if required.

407 Channel 6 is the default channel for BA communications unless the premises involved has a base station and leaky feeder installed, such as London Underground stations. In this case Channel 5 will be used for BA Communications. During the Grenfell Tower fire only Channel 1 was utilised for command communications and Channel 6 was primarily used for BA communications.

408 In the aftermath of the fire the Brigade undertook a number of controlled radio signal propagation tests in and around Grenfell Tower testing both the hand held radios, BARIE system, and telemetry equipment. Tests on all floors and throughout the inner stair case on Channels 6 and 2 utilised a standard HX480 radio at the BA control board locations and BARIE variant at remote locations within the building.

---

<sup>14</sup> Duplex channel radio systems describe the use of two frequency channels, usually in the same band spectrum, which allows simultaneous communication between two stations.

## OFFICIAL

409 It is noted that when these tests were undertaken the fabric of the building was substantially altered from the night of the fire. The results of the tests are detailed below:

**TEST 1. - Channel 1 within inner cordon.** Channel 1 transmissions and reception were clear during all tests. Within all areas of the inner cordon and the atrium of Grenfell Tower radio messages were clearly audible without signal loss.

**TEST 2. Channel 1 at original CU location.** Channel 1 transmission and reception clear during all test calls. Within all areas of the inner cordon and the atrium of Grenfell Tower it was possible to transmit to and receive messages from a radio placed at the original CU location.

With the Channel 2 repeater deployed at the original CU location Tests 1 and 2 were repeated.

Channel 2 transmissions and reception were clear during all tests. From the original CU location to all areas of the inner cordon and atrium test messages were clearly audible without signal loss.

**TEST 3. Channel 1 at Bridge Head locations to and from all floors.** Channel 1 transmissions on all floors from all bridgehead locations (floors 0,2,3 and 7) clearly audible without signal loss with the following exceptions:

- Floor 7 (bridgehead at floor 0) - Slight background noise within lift lobby, but message still audible and understood.
- Floor 10 (Bridgehead at floor 0) - missed number during test count, repeated clearly received.
- Floor 23 (bridgehead at floor 0) - slight clipping of received signal, message audible when repeated.
- Roof level (bridgehead at floor 0) - transmission from West side of roof area broken and inaudible when receiving at floor 0 (atrium).

Channel 6 BA radio test. Bridge Head BA entry control locations to and from BA wearers on all floors.

- Channel 6 BA transmissions on all floors from all bridge head locations (floors 0,2,4,7) clearly audible without signal loss with the following exceptions.
- Floor 13 (bridgehead at floor 0) - 1-2 second loss on transmission from BA wearer within lobby area.
- Floor 16 (bridgehead at floor 0) - slight signal loss within flat 1 regained clear transmission from lobby.
- Roof level - Not tested by BA wearers.

Channel 2 (repeater at original CU location) to and from all floors.

- Channel 2 transmission and reception was intermittent when leaving the atrium and proceeding within the central stairwell of the building up until reaching floor 3. From floor 3 communication was possible from within flats but broken within the central stair core of the building.
- From floor 7 communication on channel 2 improved but was still breaking at times.
- On floor 17 difficulties were experienced with interference. It was found that when transmitting on Channel 6 a whine was experienced on equipment monitoring channel 2 rendering reception of the test message inaudible.

410 Recognising the potential for signals to be reflected from surrounding buildings back into Grenfell Tower a further test was carried out within the central core of the building on upper floors to assist in ruling out the scenario. A radio operator on channel 1 was placed at floor 11 (above the level of any surrounding buildings) and test calls were then made to a radio operator ascending the building floors 12 to roof. Test messages were clearly received on all floors from 12 to roof level.

411 The Grenfell Tower fire was one of the largest and most complex incident communication challenges the Brigade has ever experienced. At the height of the response phase of the fire there was in excess of over 300 hand held radios available and potentially in use at the incident.

412 Given this fact and taking into consideration the radio propagation test results the most likely cause of the radio communication issues is the sheer volume of radio traffic being generated. This situation would have also been exacerbated by the unprecedented volume of BA crews deployed to undertake search, rescue and firefighting operations during this incident.

### **Actions by the Brigade since the fire**

413 The Brigade is reviewing its handheld radio capability and is in the process of tendering for a replacement radio handset. The Brigade officers involved in the radio replacement project have been made aware of the issues experienced at the Grenfell Tower fire and will, if the technology exists, select a replacement hand held radio that may mitigate some of these capacity challenges. It is anticipated that the replacement of the BARIE and the standard handheld radios will be completed in the 2019/20 financial period.

414 In addition to replacing the hand held radios the Brigade's OPA department are reviewing the current guidance that is available to staff in respect to radio protocol. It is acknowledged that at

large scale and complex incidents where a significant number of hand held radios could be potentially used that operational staff may need to exercise more radio discipline in terms of generating radio traffic so as not too overrun the capacity of the available radio channels.

**Key observation 6.2: There is evidence of a lack of knowledge and understanding of the potential tactics and associated equipment that may have mitigated radio communication issues.**

415 Evidence from Brigade staff points to a lack of knowledge and understanding of the equipment available to potentially mitigate the radio communication issues experienced during the incident. As can be seen in the findings detailed above, the requirement to deploy the Brigade's radio repeater and leaky feeder capability probably wasn't required at this incident as the radio communication issues experienced at the Grenfell Tower fire were primarily caused by the sheer volume of radio traffic being generated.

#### **Actions by the Brigade since the fire**

416 To address the knowledge and understanding issue, two mandatory communications training packages, one of which specifically covers the capability and deployment of the Brigade's radio repeater and leaky feeder equipment have been made available to all operational staff as part of the Operational News publication (Ops News 36, February 2019).

**Key observation 6.3: Senior officers were unable to book in attendance at the incident due to the high volume of radio traffic on the Airwave main scheme radio.**

417 In reviewing the available data from the 'Vision' mobilising log it has been identified that a number of officers (and appliances) did not book in attendance with Brigade Control when they arrived at the incident as required by PN 238<sup>15</sup> and PN 162<sup>16</sup>. Booking in attendance with Brigade Control is required to confirm that the asset has arrived safely at the incident they were mobilised to.

418 Booking in attendance provides a date and time stamp, which is used to measure attendance times for pumping appliances, which is one of the Brigade's key performance indicators. This date and time stamp data can also be used for post incident review and investigation and greatly assists in producing a detailed timeline of incident, if required.

---

<sup>15</sup> Incident command procedures

<sup>16</sup> Officer responsibilities at incidents

419 In producing the STEP timeline of activities the GTIRT has overcome this issue by cross referencing other data sources and the available Global Positioning System (GPS) information, mobile phone footage and CCTV imagery. This has enabled GTIRT to place officers and other resources at the incident with a reasonable degree of accuracy.

**Actions by the Brigade since the fire**

420 In an attempt to overcome this issue the Brigade has reviewed the capability of the 'Airwave' hand held radios to establish if the equipment will allow an officer to book in attendance with Brigade Control without recourse to sending an oral message, i.e. will the equipment and the mobilising system allow for a data message to be sent and acknowledged.

421 This review confirmed that while the 'Airwave' hand held radios have this functionality the Brigade's mobilising system is not currently set up to process text data received from the 'Airwave' handset. Capita, the company that supplied and maintains the Brigade's mobilising system, is currently scoping the work and associated costs involved in adding this capability to the Brigade's mobilising system.

***Key observation 6.4: There was a lack of information provided to Brigade Control on progress with search and rescue operations.***

422 As previously covered in this report (Theme 5 refers) the sheer scale and unprecedented number of calls, both emergency and FSG, overwhelmed the capacity of the CROs who, understandably, were trying to answer as many of the '999' calls as possible.

423 At the incident the same problem occurred as the command structure, the Fire Sector and FSG CU in particular, became overwhelmed with the volume of information that they had to process and disseminate. This led to a lack of situational awareness in Brigade Control who were advising residents and providing fire survival guidance to callers over a protracted period.

424 PN 790 states that once a FSG Coordinator is appointed at the incident this officer should make contact with a supervisor in Brigade Control. This contact is to keep Brigade Control apprised of developments and progress relating to the search and rescue of those residents involved in FSG calls.

425 The evidence shows that the sheer volume of information coming into the FSG CU left them little, if any, opportunity to contact a supervisor in Brigade Control. It is also clear that all the supervisory managers in Brigade Control were fully engaged in call handling and mobilising

activities for an extended period of time so no-one would have been available to communicate with the FSG Coordinator, even had this officer attempted to make contact with Brigade Control.

**Actions by the Brigade since the fire**

426 As a result of these findings the Brigade has initiated a comprehensive review of its FSG policy and procedures which has included undertaking a range of exercises to establish at what point, in terms of the number of FSG calls, does Brigade Control and the FSG CU functions, as detailed in current policy become overwhelmed. The findings from these exercises will be incorporated into updated FSG procedures.

***Key observation 6.5: Dissemination of FSG call information between the CU and the Bridgehead was delivered via multiple communication channels as the volume and sources of information increased.***

427 There is evidence that multiple information exchange processes were established at the incident for the dissemination of FSG call information between the FSG CU and the Bridgehead. Some information was passed by hand held radio communications while at other times 'runners' were used. These communication channels were implemented incrementally as the volume of FSG calls and information increased.

428 It is also evident that as the incident developed, and the various FSG call communications channels were implemented, there was minimal shared situational awareness of the process for disseminating and exchanging this information.

429 There is also evidence that the officers deployed on the FSG CU did not consistently use the 'Control Information' forms, which are available on all front line fire engines. These forms are carbonated so that the casualty information can be shared at the incident with one copy being retained by the CU staff for post incident analysis. There is evidence that other forms of paper records were used to pass some FSG call information and at times this was passed via a number of officers before it reached the Bridgehead.

**Actions by the Brigade since the fire**

430 Improvements to this area form part of the review work currently being undertaken to update the Brigade's FSG policy, which will be published later this year.

***Key observations 6.6: There was limited practical means to communicate with all the residents in the building to provide advice and/or instruct an evacuation.***

431 During Phase 1 of the Inquiry there has been a considerable focus on why the Brigade did not initiate a full evacuation of the Grenfell Tower during the early stages of the incident when it was first recognised that the fire was spreading rapidly beyond the flat of origin. While this is an understandable line of enquiry the Brigade has repeatedly, both in oral evidence and in its 'Opening' and 'Closing' statements, explained that the full evacuation of a residential high rise premises, with the building design of Grenfell Tower, is a complex challenge.

432 As stated earlier in this report, Grenfell Tower was not fitted with a building wide communications system that could have been utilised by the Brigade to alert residents to evacuate the building.

433 Without any integral communications systems, the Brigade is left with very limited options to initiate an effective and efficient full evacuation of this type of premises during a major fire. In a single staircase residential high rise building, such as Grenfell Tower, this problem is further exacerbated as a full evacuation would greatly impact on the fire and rescue service undertaking its firefighting, search and rescue operations. This could place residents at additional risk especially when the fire is spreading rapidly and the Brigade is hampered in its firefighting operation.

434 The Brigade does have some limited capability, such as loudhailers, that can be used to communicate with residents from a distance. However, while there is evidence that loudhailers were employed to a limited extent by Brigade at the Grenfell Tower fire it is unlikely to be an effective way of communicating with residents located on the upper floors of a residential high rise building.

435 As such, the only way that the Brigade can fully evacuate a building is to commit large numbers of firefighters in BA into the building to knock and potentially force entry to every flat. This is both very arduous, due to the poor conditions in the staircase and lobbies, and inefficient in terms of being able to evacuate the whole block quickly. Such a decision would require the IC to operate outside of agreed operational policy as it would require firefighters to go above the known fire floors without any firefighting media, placing firefighters in significant danger.



**Actions by the Brigade since the fire**

436 The Brigade recognises the importance of evacuation procedures and the means to implement such procedures is to the bereaved, survivors and residents but it also believes it is not something the Brigade can resolve on its own. Grenfell Tower was not originally designed to support a full evacuation of residents and as such the building did not contain the means with which to alert residents or coordinate a full evacuation.

437 The Brigade will continue to work with all stakeholders to identify and deliver improvements to the regulatory regime to prevent a re-occurrence of the Grenfell Tower fire and increase the safety of the public and firefighters.

438 The Brigade's OPA department also continues to review PN 633 and work with other fire and rescue services to identify solutions to mitigate the issues described above, until changes to the regulatory regime, such as those recommended by the Hackitt Review, are implemented. However the challenge of identifying workable and safe procedures to overcome the fundamental design principles of buildings described above is significant and practically difficult.

439 For those buildings identified as being fitted with ACM cladding similar to that installed at Grenfell Tower and until the cladding is removed, the NFCC simultaneous evacuation guidance should be applied by the responsible person and requires, either, the installation of a central alarm system or the provision of a waking watch to alert residents to a fire and initiate an evacuation.

***Key observation 6.7: There was no declaration of a 'Firefighter Emergency' to Brigade Control in accordance with Policy Note 496.***

440 From reviewing the Brigade's witness statements it has been identified that there were three Firefighter Emergency (FFE) events during the incident that were not formally declared in a message to Brigade Control, as required by PN 496<sup>17</sup>. In policy the term FFE applies whenever operational staff, or persons working under the control of the Brigade, are unaccounted for and/or in need of rescue.

441 If it is established or there is strong evidence to suggest that one or more firefighters or personnel working under the control of the Brigade are unaccounted for and/or in need of rescue the IC will immediately send the following priority message:

---

<sup>17</sup> Tactical withdrawal, emergency evacuation and firefighter emergency

## OFFICIAL

*"From (Name of IC) at (address of incident), Firefighter Emergency, Tactical Mode Oscar".*

442 The FFE message will prompt Brigade Control to mobilise the following resources:

- Six Pumping appliances
- Two Fire Rescue Units
- Fire Investigation Unit
- Command Unit
- An ambulance
- Press Liaison Officer
- Senior Fire Safety Officer
- Three Station Manager
- Group Manager
- Deputy Assistant Commissioner
- Senior Accident Investigator (SAI).

443 PN 496 directs that this attendance will be mobilised in full, regardless of the resources in attendance or en route. If the size of the incident is subsequently increased, the mobilising system will not include the resources ordered for 'FFE' when calculating the additional attendance required.

444 Through further investigation of this issue it has been confirmed that while the FFE messages were not sent to Brigade Control, the Brigade did respond appropriately to these safety events by diverting resources to deal with the situation as a priority.

445 It has also been established that a conscious decision was made not to initiate the FFE message as they were aware that Brigade Control were already dealing with an unprecedented number of 999 and FSG calls and the further mobilisations required by the policy would create additional pressure and work for Brigade Control.

446 Evidence provided by witnesses also suggest the situation was assessed and it was determined the Brigade had sufficient resources in attendance at the time the events occurred to respond effectively to each FFE and the automatic mobilisation of the FFE PDA would further deplete the Brigade available operational resources.

**Recommendation 12** - The Brigade should consider whether any improvement measures are necessary in relation to policy and training, noting the context provided in the preceding paragraphs.

***Key Observation 6.8: From 02:06hrs FSG call information was passed from Brigade Control to the incident by a mobile phone to a mobile phone link resulting in a lack of evidence to support the post incident review and investigation.***

447 Evidence provided during Phase 1 of the Inquiry illustrates the transfer of FSG call information from Brigade Control to the incident did not follow the guidance contained in policy. PN 790 states that if there are a large number of FSG calls in progress and Brigade Control has sufficient resources then main scheme channel 1<sup>18</sup> can be used to avoid impacting on the main scheme radio channel in use.

448 Brigade Control also has a 'CU critical' phone line which has a higher priority than calls to the Officer of the Watch (OOV), which is the role normally undertaken by the on duty OM in Brigade Control. This number is programmed into CU phones and is used for passing life critical information securely. Both of these systems for passing FSG information are recorded.

449 During the Grenfell Tower fire mobile phones were used to pass FSG information from Brigade Control to the incident. The evidence suggests that this was done as a result of the high volume of FSG calls being taken and to keep the main scheme radio channel clear to send and receive 'Assistance' and 'Informative' messages relating to the Grenfell Tower fire and other incidents and enable CROs to focus on answering emergency calls.

450 The main issue arising from this situation is that the Brigade has no voice recordings relating to the FSG call information sent by this method. This has made tracking the FSG call information as part of the safety and learning investigation more difficult.

**Actions by the Brigade since the fire**

451 This issue is currently being considered as part of the review of the Brigade's FSG policy and procedures being undertaken by the Brigade's OPA department, who have been working closely with GTIRT to fully understand the challenges and issues that arose during the Grenfell Tower fire in respect to the handling and management of FSG calls. The lessons learnt from the incident will be captured and reflected in the revised FSG policy guidance and the associated training solution(s) that will be developed.

---

<sup>18</sup> M2FH FLON-OPS-01

## Theme 7 – Operational Equipment

### **Key Observations 7.1: The Command Support System was unreliable during the incident.**

452 On the night of the Grenfell Tower fire it was stated in evidence by several CU operatives that the CSS did not work.

453 A Brigade witness when asked about the CSS on CU8 stated in oral evidence that on arrival at the incident around 02:20hrs that the CSS failed to start up, despite repeated attempts. The decision log maintained on CU8 after 02:47hrs notes at 04:03hrs that '*Command Support System has gone down*'.

454 However, another Brigade witness when questioned about whether there were any problems with the CSS on CU8 that night responded by stating that he could not remember any issues with the system but further noted that he had little involvement with the CSS during the night. This is supported by another witness who noted in his voluntary police statement that the CSS was working when he arrived on CU8 just before 04:00hrs and even took a photo of the command structure illustrated on the system.

455 Historically the problems with CSS at incidents are well documented and these issues were referred to a number of times in oral and written evidence. In these circumstances, officers and CU staff use alternative equipment provided on the CUs to manually record the same information that would ordinarily be populated on the CSS. This alternative equipment includes blank whiteboards and the 'headline board'<sup>19</sup> provided to record the incident command structure.

456 The CSS can provide a useful overview of the incident structure and as identified earlier in the report be used to record key decisions.

457 It is noted that whilst there are acknowledged issues with the reliability of the CSS, the Brigade has tried and tested methods to adapt and overcome these issues at operational incidents.

### **Actions by the Brigade since the fire**

458 The Brigade is currently in the process of delivering the CU replacement vehicle project, which aims to incorporate the latest technology to support its command, control and communications functions to support operational incidents.

---

<sup>19</sup> Board incorporating a template which can be annotated with information to illustrate the command structure being employed at the incident.

459 The commencement of this project pre-dates the Grenfell Tower fire and demonstrates that the Brigade had already recognised the need to continually improve the functions delivered by CSS and actively review the new equipment and software technologies now available.

460 In January 2019, and ahead of the delivery of the CU replacement project, scheduled for 2020, the Brigade has rolled out two Windows 10, 4G enabled laptops to all seven CUs. This is to build resilience in the systems and to ensure that even if the main computer on the CUs aren't working effectively or if a CU is unable to attend an incident the Brigade is still able to utilise the CSS remotely. As part of the rollout of this new equipment the CSS software has been updated from Version 1.0 to Version 1.7, which provides a more stable platform and is compatible with the latest versions of the Windows 10 operating system.

461 The new software was tested for three months in the last quarter of the calendar year on various CUs and training was provided for CU operatives. The CUs are currently being further upgraded with new IT hardware which will allow the CSS to be used as originally intended on the Units, i.e., on a large, dedicated display terminal. Once the upgrade is complete the laptops will remain on the CUs to provide further resilience.

***Key Observation 7.2: There was no mobilising protocol for the Brigade's limited Positive Pressure Ventilation capability.***

462 The Brigade only had a limited PPV capability at the time of the Grenfell Tower fire. It was not well known throughout the Brigade that this capability was under evaluation and available, as its primary purpose is to assist the Brigade's response to a Marauding Terrorist Firearms Attack (MTFA) where fire may have been used as part of the deliberate attack.

463 Evidence shows that at 02:57hrs the Brigade's IC requests, via the Duty DAC, the attendance of Positive Pressure Ventilation (PPV). This request is made via a mobile phone call to Brigade Control.

464 The Brigade has an established method of mobilising the majority of equipment/resources to incidents, which is covered in PN 412<sup>20</sup>. However, as the PPV equipment currently only forms part of a specialist response capability to a specific incident type it is not in general use. This is why these vehicles and associated PPV equipment do not appear on the Pre Determined Attendances (PDAs) on the 'Vision' mobilising system.

---

<sup>20</sup> Mobilising policy

465 This resulted in the PPV equipment, when requested, needed to be mobilised manually. This was done by a SM who was located at the BCC, who instructed a WM, also at the BCC, to collect the specialist vehicle carrying the two sets of PPV from the Brigade's headquarters. The PPV capability arrived on scene just after 04:00hrs and is seen at 05:03:20hrs being brought into the Grenfell Tower ground floor lobby.

### **Actions by the Brigade since the fire**

466 The Brigade has introduced a new mobilising protocol for the existing Special Operations PPV equipment, which is now identified as an 'attribute' on the 'Vision' mobilising system. In March 2018 a new RIF was produced to support PPV mobilisations. These system changes enable PPV to be mobilised either by the Duty National Interagency Liaison Officer (NILO) or in response to a request from an incident. When PPV is requested from a routine fire incident the mobilisation must be sanctioned by the Duty NILO and the Duty AC.

**Recommendation 13** - It is suggested that the Brigade considers whether it needs to make operational staff more aware of the currently available PPV capability and its uses.

**Key Observation 7.3: A number of Breathing Apparatus sets were used more than once by different wearers and there was no means to record the test or subsequent wearer.**

467 Traditionally when firefighters report for duty they are required to do a test of their BA sets. This is normally done at the beginning of the shift. Once the test is complete, whether the BA set has passed or failed the firefighter will, as soon as practicably possible, fill out the corresponding BA log book.

468 These BA log books are kept at the home station, enabling supervisory officers to check and confirm all BA sets have been allocated and tested. To support the Brigade's investigation and the identification of BA teams, all log books were scanned to record their contents. This exercise identified that some log books were not completed correctly and a small number had not completed at all.

469 The log books remain on the station all the time the BA set is allocated to that station. The only time the BA log book should be removed is when the equipment is sent to PEG for periodic testing or when the equipment is defective. The log books are not carried on appliances with their respective BA sets.

## OFFICIAL

- 470 At the Grenfell Tower fire between 01:04hrs and 08:11hrs there were 217 BA sets used by firefighters. Between 08:11hrs and 20:00hrs, a further 169 BA sets were worn.
- 471 The Brigade still have 58 BA sets that are known to have been used during the fire after 08:00hrs which have not been attributed to an individual firefighter, i.e. the Brigade has been able to confirm that the set was used during the fire, but is unable to identify by whom.
- 472 When firefighters exited Grenfell Tower some returned to their fire engine and performed a fire ground 'A' Test. This is a basic test of the set to ensure it is safe to be used again. As the incident escalated a specific area was established to service the sets and enable BA wearers to rest and recover. There was no facility at this area to record the testing of sets as all BA log books were at their respective fire stations.
- 473 The RPE Logistics Officers (RPELO) carry temporary log sheets that can be utilised on scene. The duty RPELO arrived on scene at 04:45hrs and the temporary log sheets were utilised from 10:30hrs. Reserve Extended Duration BA sets were mobilised to the incident from PEG with the accompanying log books but these were not used to record acceptance or fireground 'A' tests.
- 474 Whilst there was no impact on the availability or usability of BA sets on the night of the Grenfell Tower fire. The poor records in BA log books made it difficult to identify wearers, the sets those wearers used and how those wearers were organised into teams when they entered the hazard area.

### **Actions by the Brigade since the fire**

- 475 The issues described above have been communicated to the RPE policy team and PEG for consideration.

### ***Key Observations 7.4: Time stamp on the Thermal Image Cameras were not aligned to Greenwich Mean Time.***

- 476 As part of the Brigade's investigation and evidence gathering in the recovery phase of the incident, the Brigade's Fire Investigation (FI) officers undertook the task of identifying all of the Thermal Image Cameras (TICs) used during the fire. The FI officers reviewed the footage captured by the TICs as part of their own investigation as to the likely cause of the fire and downloaded approximately 60 hours of footage from 22 cameras. This footage was uploaded onto the Brigade's Grenfell Tower image library.

## OFFICIAL

477 The footage was reviewed by GTIRT to identify which TIC belonged to which station, who recorded the images and at what time, to corroborate the actions of firefighters, fire spread, smoke movement and identification of residents inside Grenfell Tower.

478 It was observed that there were a number of inconsistencies with time stamps on the images reviewed. Further investigation revealed that the TIC's do not have an auto update feature which automatically updates the time on the equipment to align with Greenwich Mean Time (GMT) and British Summer Time (BST) as this requirement was not included in the procurement specification.

479 The TICs do not provide a time indication whilst the equipment is being operated so any inaccuracies are not apparent to the equipment user. As there is no automatic update facility on this equipment the time has to be changed manually, which is normally only done once a year by an external contractor during the equipment's scheduled service. As a consequence it is highly probable the time stored within the Brigade's TICs will often be inaccurate.

480 All the TICs were subsequently examined by the Brigade and a retrospective calculation was used to establish the time difference against the GMT. From this, GTIRT were able to establish an approximate time for the majority of the TIC footage reviewed, which has been used to inform its timeline and associated reports.

### **Actions by the Brigade since the fire**

481 The issue described above was communicated to the TIC manufacturer and supplier in July 2017 by the Brigade's Technical and Commercial department to enable a solution to overcome the time stamp issue to be identified. The development of an approved solution is still being progressed.



## Chapter 4 - Summary of key observations

### Theme 1 - Observed failures of the building and its fire safety measures

Key observation 1.1 : The external cladding system installed on Grenfell Tower was not compliant with Regulation B4(1), contributing to the observed failure of the fire safety measures provided within the premises.

### Theme 2 – Operational pre-planning

Key observation 2.1 : Any knowledge concerning the risks associated with cladding systems may not been recognised and communicated effectively across the Brigade.

Key observation 2.2 : The Operational Risk Database entry for Grenfell Tower was not populated in accordance with PN 800.

Key observation 2.3 : There is a lack of consistency in the standard of premises risk information held on the Operational Risk Database.

Key observation 2.4: The Brigade has not undertaken Premises Risk Assessments for all residential high rise premises to determine the level of risk associated with these premises.

Key observation 2.5 : There may be an inconsistent level of knowledge and understanding amongst operational staff in relation to 7(2)d visits.

Key observation 2.6 : There is no established means for crews providing an emergency response to premises outside of their own station areas to be aware of any fire safety deficiencies that may have been identified.

### Theme 3 – Command and Control

Key Observation 3.1 : The scale and rapidity of the incident, combined with human factors, impacted on the ability to maintain situational awareness.

Key observation 3.2 : The rapid escalation of the incident impacted to a limited extent on command handovers.

Key observation 3.3 : Effective early information gathering enabled the 'on arrival' tactics and actions identified in PN 633 to be implemented effectively by the crews who formed the pre-determined attendance for the incident.

## OFFICIAL

Key observation 3.4 : There was effective early recognition of resourcing requirements by ICs.

Key observation 3.5 : Recording of decisions, rationale, objectives and tactical plans was in some regards ineffective.

Key observation 3.6 : Difficulty in confirming who was being rescued or self evacuating from the building and from where created difficulty in maintaining accurate records to inform the search and rescue operation.

Key observation 3.7 : Operational Discretion was adopted for the incident but it was not formally recorded in accordance with Brigade policy.

### **Theme 4 – Operations**

Key observation 4.1: The Brigade had limited means to fight an external façade fire resulting from the non compliance of the installed external cladding system with the requirements of Regulation B4(1).

Key observation 4. 2 : Extensive breaches of compartmentation resulted in simultaneous serious fires on multiple floors.

Key observation 4.3 : The building behaved in an unpredictable manner beyond the experience of the Brigade.

Key observation 4.4 : The building's single escape route was significantly compromised by the products of combustion from an early stage of the incident.

Key observation 4.5 : Number of FSG calls and the resulting volume of information significantly exceeded the expectations of Brigade policy and training.

Key observation 4.6 : Operational personnel were required by circumstances to provide fire survival guidance to residents, a task not anticipated by policy or training.

Key observation 4.7 : Operational crews had problems physically identifying floor numbers in the stairwell.

Key observation 4.8 : Some elements of the BA operations during the Grenfell Tower fire were not fully aligned to the Brigade's operational procedures set out in PN 466.

## **Theme 5 – Brigade Control**

Key observation 5.1 : The facilities at the Brigade's fallback Control, located in Stratford, did not fully replicate those at the primary Control in Merton.

Key observation 5.2 : FSG call information was not gathered and communicated in accordance with PN 539, Appendix 3.

Key observation 5.3 : There was no established or tested method to maintain an overview of the FSG call information being received by Brigade.

Key observation 5.4 : The 'Vision' mobilising system does not support the identification of telephone numbers to enable call backs, and the Brigade does not have a clear policy position on re-contacting callers.

Key observation 5.5 : There are no national standards for passing and receiving FSG call information between Fire and Rescue Service Control rooms handling calls related to the same incident.

Key observation 5.6 : There is no automated system to link NICE voice records to Vision call records, impacting on any post incident review.

Key observation 5.7 : The 'Vision' mobilising system 'call collection form' can be overwritten if a new call is taken before it is added to the incident log.

Key observation 5.8 : There is potential for Brigade Control personnel to experience secondary trauma following a traumatic incident.

## **Theme 6 - Communications**

Key observation 6.1 : The volume of radio traffic exceeded the capacity of both the BA and command channels.

Key observation 6.2 : There is evidence of a lack of knowledge and understanding of the potential tactics and associated equipment that may have mitigated radio communication issues.

Key observation 6.3: Senior officers were unable to book in attendance at the incident due to the high volume of radio traffic on the Airwave main scheme radio.

Key observation 6.4 : There was a lack of information provided to Brigade Control on progress with search and rescue operations.

## OFFICIAL

Key observation 6.5 : Dissemination of FSG information between the CU and the Bridgehead was delivered via multiple channels as the volume and sources of information increased.

Key observation 6.6 : There was limited practical means to communicate with all residents in the building to provide advice and / or support.

Key observation 6.7 : There was no declaration of a Firefighter Emergency to Brigade Control in accordance with Policy Note 496.

Key observation 6.8 : From 0300hrs, FSG information was passed from Brigade Control to the incident by a mobile to mobile communication link, resulting in a lack of evidence to support a post incident review.

### **Theme 7 - Equipment**

Key observation 7.1 : The Command Support System was unreliable during the incident.

Key observation 7.2 : There was no mobilising protocol for the Brigade's limited Positive Pressure Ventilation capability.

Key observation 7.3 : A number of BA sets were used more than once by different wearers and there was no means to record the test or the subsequent wearer.

Key observation 7.4 : Time stamp on Thermal Image Cameras is not aligned to Greenwich Mean Time.

## Chapter 5 – Summary of recommendations

**Recommendation 1** - The Brigade should continue to work with all stakeholders to identify and deliver improvements to the regulatory regime to prevent a re-occurrence of the Grenfell Tower fire and increase the safety of the public and firefighters.

**Recommendation 2** - The Brigade should continue to campaign vigorously for the provision of sprinklers in residential high rise and other types of buildings in order to improve public safety.

**Recommendation 3** – The Brigade should consider reviewing its policies and training packages relevant to 7(2)d visits to ensure consistent guidance is provided to operational personnel.

**Recommendation 4** – The Brigade should consider how to ensure information relating to identified fire safety deficiencies in a premises is available to all operational crews.

**Recommendation 5** - It is recommended that the Brigade determines whether to retain the DMM or move to the DCP. It is acknowledged the Brigade needs to consider the challenges and benefits of implementing such a wider ranging and fundamental change to its incident command framework, at a time of significant organisational change and other improvement programmes.

**Recommendation 6** - The Brigade should consider the extent to which human factors affecting command and control are addressed in policy and training.

**Recommendation 7** - The Brigade should consider how it can most effectively raise awareness of and reinforce the requirements of PN 828 'Recording decision at incidents'.

**Recommendation 8** – Whilst it is recognised that the volume of FSG calls experienced during the Grenfell Tower fire and the information associated with those calls was unprecedented, it is recommended the Brigade considers the issues carefully to ascertain if any measures can be implemented to address this matter.

**Recommendation 9** - The Brigade should consider to what extent recognition that a building is behaving unpredictably in fire is addressed in policy and training.

**Recommendation 10** - It is suggested the Brigade considers the extent to which policy, training and human factors played a role in the control measure degradation identified.

**Recommendation 11** - It is suggested the Brigade considers how shared situational awareness within the Control room might be achieved in similar circumstances and whether a more

## OFFICIAL

sophisticated system than the whiteboards used on the 14<sup>th</sup> June should be developed and implemented as an established Control protocol.

**Recommendation 12** - The Brigade should consider whether any improvement measures are necessary in relation to FFE policy and / or training.

**Recommendation 13** - It is suggested that the Brigade considers whether it needs to make operational staff more aware of the current available PPV capability and its uses.

## **Chapter 6 - Appendices**

### **Appendix A – Operational Response Report Volume One**

Brigade reference: GTIRT19-00152

Inquiry reference: LFB 00032988

### **Appendix B – Actions by Brigade Control**

Brigade reference: GTIRT18-03448

Inquiry reference: LFB 00004790

### **Appendix C – Organisational Overview**

Brigade reference: GTIRT18-02288

Inquiry reference: LFB 00001905

### **Appendix D – Lakanal House Incident Assurance Review, August 2018**

Brigade reference: GTIRT18\_03758

Inquiry reference: Not applicable

### **Appendix E - National guidance and London Fire Brigade operational policy for fighting fires in high rise buildings**

Brigade reference: GTIRT19-00737

Inquiry reference: Not applicable

### **Appendix F – NFCC 'Guidance to support a temporary change to a simultaneous evacuation strategy in purpose-built block of flats'**

Brigade reference: GTIRT18-02260

Inquiry reference: LFB 00024392 or HOM 00045969





# London Fire Brigade Operational Response to Grenfell Tower

Version 0.7

00:50 08:11:16

OFFICIAL

07 February 2019

Contents

<b>1</b>	<b>Introduction .....</b>	<b>2</b>
<b>2</b>	<b>Grenfell Tower Fire .....</b>	<b>2</b>
<b>3</b>	<b>The Brigade's 'Safety and Learning' Review .....</b>	<b>2</b>
<b>4</b>	<b>Scope of Report .....</b>	<b>3</b>
<b>5</b>	<b>Methodology and Presentation of Information.....</b>	<b>3</b>
<b>6</b>	<b>Data Sources .....</b>	<b>4</b>
<b>7</b>	<b>Grenfell Tower Fire: Chronology of Events .....</b>	<b>6</b>
7.1	14/06/17 – 00:50 to 08:11:16.....	6
<b>8</b>	<b>Appendix 1: Glossary .....</b>	<b>480</b>
8.1	Glossary of abbreviations .....	480
8.2	Glossary of terms with descriptions and images.....	484
<b>9</b>	<b>Appendix 2: Source Data .....</b>	<b>517</b>
<b>10</b>	<b>Appendix 3: Media References .....</b>	<b>520</b>
<b>11</b>	<b>Appendix 4: GTIRT References.....</b>	<b>521</b>
<b>12</b>	<b>Appendix 5: Document amendments from 00:50hrs to 07:00hrs .....</b>	<b>547</b>

## 1 Introduction

The purpose of this 'Operational Response' report is to detail the key activities and actions undertaken by the London Fire Brigade (LFB) in responding to the Grenfell Tower fire, which occurred on the 14 June 2017. The report forms a key component of the wider 'Safety and Learning' review that has been initiated by the Brigade as part of its statutory duty under the Fire and Rescue Services Act 2004.

The Brigade is a learning organisation and one that is committed to fully understanding the facts relating to its response to the Grenfell Tower fire. In order to fulfil this commitment the Brigade needs to understand all the activities and actions that its personnel took during the fire. The information detailed in this report is therefore a key part of achieving this understanding and will also help to shape on-going improvements to the services that the Brigade provides to Londoners while taking every opportunity to enhance the safety of firefighters.

The Brigade's key activities and actions during the fire are presented in chronological order starting with the time the Brigade received the first 999 Emergency Call reporting a fire at Grenfell Tower. In preparing this report the Brigade appreciates that not all readers will be familiar with the fire service's operational procedures, equipment and language. Therefore, a glossary of abbreviations and commonly used fire service terminology, along with pictures of some of the fire service's operational equipment that is regularly referenced throughout the report, is appended as Appendix 1.

## 2 Grenfell Tower Fire

The Brigade received the first of a large number of 999 Emergency Calls to the Grenfell Tower at 00:54hrs on Wednesday 14<sup>th</sup> June 2017. The fire started in flat 16 located on the 4<sup>th</sup> floor and subsequently affected all 24-floors of the building. The fire was declared a Major Incident by the Brigade and saw in excess of 140 fire engines and 720 firefighters attending up to 20:00:00 on the 14th June, with the Brigade remaining in attendance for a further two weeks. The Metropolitan Police Service (MPS) confirmed that 71 people tragically died as a result of the fire.

## 3 The Brigade's 'Safety and Learning' Review

In the immediate aftermath of the fire the Brigade established a dedicated team called the 'Grenfell Tower Investigation and Review Team' (GTIRT), which has been given full responsibility for undertaking all the work relating to the Brigade's 'safety and learning' review. One of key elements of this wider review is understanding the key facts associated with the Brigade's operational response to the fire. This has involved reviewing and analysing a huge volume of data and information in order to verify the actions taken by the operational crews who attended the fire, the Brigade Control staff who were responsible for handling the 999 Emergency Calls and providing Fire Survival Guidance (FSG) to the Grenfell residents and all other Brigade personnel who were directly or indirectly involved. This is a significant, challenging and very time consuming

task, which requires the information to be drawn together and presented in a series of reports. When this work is completed it will provide a comprehensive factual narrative of the Brigade's operational response to the fire from receipt of the first 999 Emergency Call to Grenfell Tower at 00:54:29 through to 08:11:16 on the 14 June 2017. This timescale has been adopted for this particular report as it covers the period of the Brigade's main life saving and firefighting activities.

## 4 Scope of Report

This seventh version of the report (version 0.7) covers the period from when the Brigade received the first call to the Grenfell Tower fire up to 08:11:16 on 14 June 2017. Over the coming months it is planned that there will be a number of further versions of this report published in the same format. This will culminate in a final report (volume1.0) that will cover the period from the first call to the fire at 00:54:29 to 08:11:16 on the 14 June 2017.

Please note that after further investigation and in receipt of feedback from the firefighters that attended the incident we have made several amendments to version 0.1, version 0.2 ,version 0.3a, version 0.4, version 0.5 and version 0.6 which are listed at the end of the report under 'Document Amendments'.

## 5 Methodology and Presentation of Information

In order to establish the Brigade's key operational response activities and avoid any potential for introducing unconscious bias in to the report the GTIRT have used, where available, two or more sources of information to corroborate each activity. This information will be written in standard type face. Other Brigade activities that have only one data source are designated as uncorroborated evidence and this information will be written in italics.

In relation to the time shown for each activity this is formatted in hours, minutes and seconds (00:00:00) and has been classified as either 'hard' or 'soft'. Where seconds cannot be confirmed they will not appear. All 'hard' times have been derived from an accurate and verified 'time stamped' data source and are written in standard type face. All 'soft' times have been captured from data sources that are time stamped, but which cannot be verified as accurate. These times will be written in italics and marked with an asterisk (\*). With regard to the timings taken from the Close Circuit Television (CCTV) these have been adjusted by the MPS, but are still shown as unverified and have therefore been represented as 'soft' times in this report. Details of the CCTV camera locations for Grenfell Tower are shown in Appendix 3.

It should be noted that activities can be a combination of the following:

- 'hard' time - corroborated activity
- '*soft*' time - corroborated activity
- 'hard' time - *uncorroborated activity*
- '*soft*' time\* - *uncorroborated activity*

## OFFICIAL

In addition to the above there are a number of Brigade activities described in the report that have no specific 'hard' or 'soft' time recorded. These activities have been positioned in the chronology within the most likely time period that they occurred based upon the evidence and information currently available to the GTIRT. A full list of all the source material used in the production of this report, including a short description of what the source data is and whether it produces 'hard' or 'soft' times, has been appended to this report at Appendix 2.

To further assist in the understanding of some of the Brigade activities a number of images have been embedded within the report. The report also refers to video clips which can be viewed by opening the relevant media files located in Appendix 3. Each media file should be viewed when referred to within the report. This visual imagery is primarily used to show the rapid fire development and conditions at Grenfell Tower.

For each activity and action the report includes a reference to the source data that was used to identify the activity and its associated time. This reference information appears in brackets under each activity description. Many of these references use a 'GTIRT' number, which is the internal references used by the Brigade to store and index all the relevant Brigade owned information. The majority of the GTIRT referenced information has already been disclosed to both the Grenfell Tower Inquiry (GTI) and the MPS's criminal investigation team (Operation Northleigh). An index of all the GTIRT reference numbers and the detail of the source information they each relate to is appended to this report at Appendix 4.

## 6 Data Sources

For each activity and action the report includes a reference to the source data that was used to identify the activity and its associated time. This reference information appears in brackets under each activity description. Many of these references use a 'GTIRT' number, which is the internal references used by the Brigade to store and index all the relevant Brigade owned information. The majority of the GTIRT referenced information has already been disclosed to both the Grenfell Tower Inquiry (GTI) and the MPS's criminal investigation team (Operation Northleigh).

As can be seen from the information supplied in Appendix 2 the Brigade does not own all of the information used in the production of this report. As such, the Brigade has been heavily reliant on Operation Northleigh releasing evidence that is relevant to the Brigade's 'safety and learning' review. At the time of writing this current version of the report the Brigade has only seen one witness statement taken from the Bereaved, Survivors and Residents (BSR) of Grenfell Tower. It is anticipated that some of the other BSR witness statements are likely to contain important and relevant information that will assist to verify more of the Brigade's activities and their associated timings. The information may also help the Brigade to upgrade some of the uncorroborated activities to corroborated evidence. It is therefore likely that future versions of this report, which currently only covers the first four hours of the Brigade's operational response to the fire, will include updates and revisions to this time period.

It should also be noted that another key element of the Brigade's 'safety and learning' review involves the detailed analysis of all the activities undertaken by the Brigade's Control Centre (known as Brigade Control).

## **OFFICIAL**

This is the part of the Brigade that has responsibility for handling all 999 Emergency Calls, mobilising fire engines, senior officers and other Brigade assets, maintaining operational emergency cover across the whole of London and providing FSG to residents trapped by fire and smoke. While some elements of Brigade Control's activities are detailed in this 'Operational Response' report information such as the full transcripts of the fire survival guidance calls between Control staff and a number of the Grenfell Tower residents is only contained in the Brigade Control report. It therefore may be helpful to readers to review both reports.

## 7 Grenfell Tower Fire: Chronology of Events

### 7.1 14/06/17 – 00:50 to 08:11:16

- 00:50\*** *The resident of flat 16, Grenfell Tower, Mr Behailu Kebede is 'woken by the sound of a smoke alarm actuating'. He gets up and walks from the living room and goes to the kitchen via the kitchen door. On entering the kitchen he observes light coloured smoke in the area next to the fridge/freezer and window. The window is open about 10 inches (Source: BSR Witness Statement: GTIRT17-01573, GTIRT17-01574).*
- 00:51\*** *Mr Kebede leaves the kitchen and returns to the living room to dress and retrieve his mobile phone (Source: BSR Witness Statement: GTIRT17-01573, GTIRT17-01574).*
- 00:52\*** *Mr Kebede wakes his two lodgers, Almaz Kinfu (flat 16, fourth floor) and Elsa Afewaorki (flat 16, fourth floor) by knocking on their two bedroom doors and warning them about the fire (Source: BSR Witness Statement: GTIRT17-01573, GTIRT17-01574).*
- 00:53\*** *Mr Kebede leaves the flat, leaving his keys inside but turning off the electricity at the 'fire box' (believed to be the electric fuse board) by the front door. He alerts his neighbours on the fourth floor by knocking on doors and shouting "fire" (Source: BSR Witness Statement GTIRT17-01573, GTIRT17-01574).*
- 00:54:29** Control Room Operator (CRO) Pamela Jones, working in the London Fire Brigade Control Room, takes a call from Mr Behailu Kebede reporting a fire at Grenfell Tower, Lancaster West Estate, London, W11 1TG. He sounds panicked and explains that his fridge is alight in the kitchen. CRO Jones confirms the address and asks how many floors there are in the building to which Mr Kebede replies four. CRO Jones then asks if he is out of the flat and Mr Kebede says that he is. A smoke alarm is audible in the background and he can be heard speaking to other people in a language that does not seem like English. Mr Kebede then confirms once again that he is out of the flat and CRO Jones states that the Brigade is on their way and ends the call. Incident Number 076029. Call duration one minute 37 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00470).
- 00:55:14** Whilst on the telephone to Mr Kebede, CRO Jones enters the relevant details that she is receiving from the caller onto a call collection form on 'Vision' and the Pre-Determined Attendance (PDA) is automatically selected for a fire in a residential dwelling. This is known as an 'A1 Fire in a Residential Dwelling Mobilisation' and the 'Vision' system identifies and selects three fire engines as being the nearest available through the Automatic Vehicle Location. These are Golf 272, North Kensington's Pump (P), Golf 271, North Kensington's Pump Ladder (PL) and Golf 331, Kensington's PL (Source: 'Vision': GTIRT17-02791).

Pre Determined Attendance for A1 Fire in a Residential Dwelling Mobilisation
<ul style="list-style-type: none"> <li>• Three Fire Engines</li> </ul>

Operational Response to the incident
<ul style="list-style-type: none"> <li>• Golf 272, North Kensington's Pump</li> <li>• Golf 271, North Kensington's PL</li> <li>• Golf 331, Kensington's PL</li> </ul>

- 00:56\*** *Mr Kebede, along with residents from flat 16 and some of the other flats on the fourth floor, leave the fourth floor and enter the stairwell (Source: BSR Witness Statement: GTIRT17-01573, GTIRT17-01574).*
- 00:56:46** Golf 331, Kensington's PL book status 2, mobile to Grenfell Tower. Golf 331 is riding with six firefighters: Watch Manager (WM) Brien O'Keeffe, Crew Manager (CM) Jamal Stern, Firefighter Benjamin Broderick, Firefighter Charles Cornelius, Firefighter Richard Hippel and Firefighter Desmond Murphy (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 00:56:52** Golf 272, North Kensington's Pump book status 2, mobile to Grenfell Tower. Golf 272 is riding with five firefighters: CM Christopher Secrett, Firefighter Thomas Abell, Firefighter Alex De St Aubin, Firefighter Christopher Dorgu and Firefighter Justin O'Beirne (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 00:56:55** Mr Manuel Miguel Alves and Mrs Alves (flat 105, 13<sup>th</sup> floor) exit the building via the main entrance (Source: CCTV: Camera 4).
- 00:57:44** CRO Christine Howson at Brigade Control takes a call from a remote monitoring company called 'Tunstall Response'. The Tunstall Operator confirms that the main fire alarm panel at Grenfell Tower is showing that there has been an actuation of an Automatic Fire Alarm (AFA). CRO Howson explains that the Brigade has already received a call from a member of the public to this address and that they are attending. The caller starts to give information about how to access the premises but is stopped by CRO Howson who states that the Brigade "will be forcing an entry". CRO Howson proceeds by giving the Tunstall Response Operator the original Brigade call number (076029) for their records. Incident number 76032, Call Duration one minute 26 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00515).
- 00:58:26** Assistant Operations Manager (AOM) Deborah Real at Brigade Control takes a call from a Member of the Public who is outside Grenfell Tower and confirms the Brigade is on their way. Incident number 76033, Call duration 37 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00472).
- 00:58:48** The Radio Operator at Brigade Control contacts Golf 271, North Kensington's PL.



## OFFICIAL

"Golf 271, can you confirm Status 2 to Grenfell Tower. Over"

(Source: NICE, Radio Message Audio file: GTIRT18-00240).

**00:58:53** The PDA is updated on 'Vision' by AOM Peter May (Source: 'Vision': GTIRT17-02791, MPS Witness Statement: GTIRT17-02934).

**00:58:54** AOM Peter May at Brigade Control sees the incident on the 'Vision' screen at his work station and observes that the caller has given the address as a Tower. He makes a decision to "Google" the name Grenfell Tower and the result comes back describing a high rise building with at least 20 floors. He amends the incident type code to a fire in a high rise building (A1HR) which triggers an additional fire engine as part of the PDA. 'Vision' assigns Golf 362, Hammersmith's Pump, to the incident to complete the high rise attendance (Source: 'Vision': GTIRT17-02791, MPS Witness Statement: GTIRT17-02934).

**00:58:55** Golf 271, North Kensington's PL, is booked Status 2, mobile to Grenfell Tower by Brigade Control. Golf 271 is riding with five crew members: WM Michael Dowden, CM Charles Batterbee, Firefighter David Badillo, Firefighter Daniel Bills and Firefighter Daniel Brown. The reason for the delayed status change is not known at present but Global Positioning Systems (GPS) data confirms Golf 271 and Golf 272 mobilise and arrive on scene together (Source: 'Vision': GTIRT17-02791, MPS Witness Statement: GTIRT17-02934, ORF Register: GTIRT17-02567).

**00:59:01** Mr Kebede and Ms Afewaorki (flat 16, fourth floor), exit the building via the main entrance (Source: CCTV: Camera 4).

**00:59:01** The Radio Operator at Brigade Control responds to Golf 271.

"Further traffic, this is a high rise we're, err, attend-, err, put in additional appliance. Over"

(Source: NICE, Radio Message Audio file: GTIRT18-00242, 'Vision': GTIRT17-02791, MPS Witness Statement: GTIRT17-02934).

**00:59:08** Golf 271, North Kensington's PL, acknowledge receipt of this information

"FN Golf 271, err, all received."

(Source: NICE, Radio Message Audio file: GTIRT18-00243, 'Vision': GTIRT17-02791, MPS Witness Statement: GTIRT17-02934).

**00:59:12** The Radio Operator at Brigade Control sends "further traffic" back to Golf 271.

"There's also further calls being received to this incident. Over"

## OFFICIAL

(Source: NICE, Radio Message Audio file: GTIRT18-00242, 'Vision': GTIRT17-02791, MPS Witness Statement: GTIRT17-02934).

**00:59:12\*** *WM Dowden intercepts the radio message that there have been further calls to Grenfell Tower. He relays this information to his crew, looks through the operational risk information for Grenfell Tower on the Mobile Data Terminal (MDT) and prints off the tactical plan (Source: 'Vision': GTIRT17-02791, Contemporaneous Notes: GTIRT17-00293, GTIRT17-01215, MPS Witness Statement: GTIRT18-01065).*

<b>Pre Determined Attendance for A1 HR Fire in a High Rise Premise</b>
<ul style="list-style-type: none"><li>• Four Fire Engines</li></ul>

<b>Operational Response to the incident</b>
<ul style="list-style-type: none"><li>• Golf 272, North Kensington's Pump</li><li>• Golf 271, North Kensington's PL</li><li>• Golf 331, Kensington's PL</li><li>• Golf 362, Hammersmith's Pump</li></ul>

**00:59:24** Golf 272, North Kensington's Pump book status 3, in attendance, at Grenfell Tower. This is the first fire engine to book in attendance (Source: MPS Witness Statement: GTIRT18-00072 (JOB/1), 'Vision': GTIRT17-02791, CCTV: Camera 4).

**00:59:28** Golf 271, North Kensington's PL book status 3, in attendance, at Grenfell Tower. This is the second fire engine to book in attendance (Source: 'Vision': GTIRT17-02791).

**00:59:36** Zak Mahamed, being carried by Mahad Egal, enters the main lobby. They are both from flat 15 on the fourth floor, they exit the building via the main entrance (Source: CCTV: Camera 2).

**00:59:43** Jamie Murray and Vega-Lily Mahamed, also from flat 15 on the fourth floor, exit the building via the main entrance (Source: CCTV: Camera 4).

**01:00:00** Golf 272, North Kensington's Pump, arrives under the covered walkway outside the South elevation (Source: CCTV: Camera 4).

**01:00** Firefighter O'Beirne states that Golf 272 parks behind Golf 271 under the covered area, opposite the main entrance at the South elevation (Source: MPS Witness Statement: GTIRT18-00072, 'Vision': GTIRT17-02791, CCTV: Camera 4).

**01:00** On arrival, WM Dowden is the first WM in attendance and he becomes the Incident Commander (IC) as he is the highest ranking officer in attendance. He is identified by an IC surcoat. Firefighter

## OFFICIAL

D Brown, Firefighter Bills, Firefighter O'Beirne and CM Secrett all state that they see the fire on the fourth floor but it appears to be contained (Source: Contemporaneous Notes: GTIRT17-01215, GTIRT17-00293, GTIRT17-00460, GTIRT17-00010, GTIRT17-00013, MPS Witness Statement: GTIRT18-00072).

- 01:00** WM Dowden meets Mr Kebede, from flat 16 at ground floor level, outside the South elevation. Mr Kebede explains the fire is on the fourth floor and when asked what is on fire, he states he thinks it is his fridge/freezer. WM Dowden asks if there is anyone in the flat, Mr Kebede says "no, everyone is out" (Source: Contemporaneous Notes: GTIRT17-01215 and GTIRT17-00293, MPS Witness Statement: GTIRT18-01065, CCTV: Camera 4, BSR MPS Witness Statement: GTIRT17-01573, GTIRT17-01574).
- 01:00\*** *Firefighter Abell locates the nearest hydrant (to secure a water supply) and starts to plug fire hose into Golf 271, North Kensington's PL, from the hydrant using two lengths of 70 millimetre (mm) fire hose (Source: MPS Witness Statement: GTIRT18-01065, Contemporaneous Notes: GTIRT17-00010).*
- 01:00\*** *Firefighter Bills starts to plug fire hose into the Dry Riser Main (DRM) inlet on the South elevation from Golf 271. This is completed at 01:06:47 (Source: CCTV: Camera 4, Contemporaneous Notes: GTIRT17-00010, GTIRT17-00014, MPS Witness Statement: GTIRT18-00043).*
- 01:00\*** *WM Dowden briefs CM Secrett to set up the bridgehead on the second floor. When the bridgehead is set up and there is a confirmed water supply CM Secrett is to commit a Breathing Apparatus (BA) team into the flat (Source: Contemporaneous Notes: GTIRT17-00013, GTIRT17-01215, GTIRT17-00293, MPS Witness Statement: GTIRT18-01065, GTIRT17-01551).*
- 01:00:07** Maryam Adam, Abdulwahab Abdulhamid and Moses Mohammed (flat 14, fourth floor) descend the stairs to the stair lobby and leave the building via the side door in the stair lobby (Source: CCTV: Camera 2).
- 01:00:09** Jalal Chentite and Ishmael Boaitey, who are visiting Grenfell Tower, enter the building via the main entrance (Source: CCTV: Camera 4).
- 01:00:22** Mrs Alves (flat 105, 13<sup>th</sup> floor) exits the building via the main entrance and talks to firefighters (Source: CCTV: Camera 4).
- 01:00:28** Hotel 41 Sierra, Station Manager (SM) Andrew Walton is paged by Brigade Control and informed about the fire at Grenfell Tower as the closest officer at this rank who is on duty to the incident address. This is a prescribed "notification action" for a high rise fire PDA (Source: 'Vision': GTIRT17-02791, Paging Logs: GTIRT18-02098, MPS Witness Statement: GTIRT18-01000).
- At the time of paging he is located at his 'callout base' at Fulham fire station, which is approximately 3.5 miles from Grenfell Tower (Source: 'Vision': GTIRT17-02791, Google Maps,*

## OFFICIAL

Contemporaneous Notes: GTIRT17-00004, GTIRT17-00278, GTIRT17-01137, GTIRT17-01138 and GTIRT17-01139, MPS Witness Statement: GTIRT18-01000).

- 01:00:52** CM Secrett gains access to Grenfell Tower with assistance from a member of the public. Once inside he tries the door to the ground floor lift lobby but he requires a key fob to open the internal door (all internal and external doors on the ground floor of Grenfell Tower require a key fob). He leaves the building and gets a resident (now known to be Mrs Alves) to assist him in opening the lift lobby door (Source: CCTV: Cameras 4 and 5).
- 01:01:12** Firefighter Badillo, carrying an Entry Control Board (ECB), and WM Dowden enter the building via the main entrance, followed by BA Team One: CM Batterbee, Firefighter D Brown; Firefighter De St Aubin and Firefighter Dorgu (Source: CCTV: Camera 4).
- 01:01:12\*** *Mrs Alves (flat 105, 13<sup>th</sup> floor) is in the main lobby. CM Batterbee states that Mrs Alves asks him whether it is safe to go back to her flat on the 13th floor. CM Batterbee states he tells her that it is probably better to stay down stairs for now. Mrs Alves asks him about a relative (now known to be her children). CM Batterbee states he believes she is enquiring about her son. The information confirmed to CM Batterbee at this time is that a fridge is alight in flat 16 on the fourth floor, so he advises Mrs Alves that the best thing to do for now is to tell her relative to stay inside and close the windows (Source: Contemporaneous Notes: GTIRT17-00012, GTIRT17-00458).*
- 01:01:16** Golf 362, Hammersmith's Pump book status 2, mobile to Grenfell Tower. Golf 362 is riding with four firefighters, CM David Davies, Firefighter Wayne Archer, Firefighter Nicholas Barton and Firefighter John O'Hanlon (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 01:01:26** CM Secrett enters the ground floor lift lobby with CM Batterbee, Firefighter D Brown, Firefighter Badillo, Firefighter De St Aubin and Firefighter Dorgu. CM Batterbee is wearing BA and carrying a length of 45 mm fire hose, Firefighter D Brown is wearing BA and carrying a length of 45 mm fire hose, Firefighter Badillo is carrying an ECB, Firefighter De St Aubin is carrying a Thermal Image Camera (TIC) and breaking in tools and Firefighter Dorgu is carrying a length of 45 mm fire hose (Source: CCTV: Camera 5, Contemporaneous Notes: GTIRT17-00012, GTIRT17-00458, GTIRT17-00460, GTIRT17-00011, GTIRT17-00009, GTIRT17-00431, GTIRT17-00015, GTIRT17-00017, GTIRT17-00013, MPS Witness Statements: GTIRT17-01551, GTIRT18-01837, GTIRT17-01434, GTIRT18-01411, GTIRT18-00917, GTIRT18-01136, GTIRT18-00641).

*The first lift on the left is a fire lift, which can be operated by a firefighter with an appropriate lift key*



The fire lift is on the left as you face them. Camera C18, CCTV, inside the fire lift (Source: MPS GT Plan: GTIRT18-00274).

**01:02:00** The photograph below is taken by Mr Kebede on his mobile phone outside the East elevation of Grenfell Tower. Smoke and possibly flames can be seen emitting from the kitchen window.

BA Team One has not entered flat 16 at this time (Source: Mr Kebede's mobile phone, BA Data: GTIRT17-02820, TIC imagery).



**01:02:08** Salah Yusuf (flat 21, fifth floor) and Mrs Alves (flat 105, fourth floor) exit the building via the main entrance (Source: CCTV: Camera 4).

**01:02:15** CM Secrett, CM Batterbee, Firefighter D Brown, Firefighter Dorgu and Firefighter Badillo enter the lift carrying the equipment they have brought into the building (Source: CCTV: Cameras 5

## OFFICIAL

and C18, Contemporaneous Notes: GTIRT17-00013, GTIRT17-00012, GTIRT17-00458, GTIRT17-00460, GTIRT17-0001, GTIRT17-00017, GTIRT17-00009, GTIRT17-00431, MPS Witness Statement: GTIRT17-01551, GTIRT18-01837, GTIRT17-01434, GTIRT18-00641, GTIRT18-01411, GTIRT18-00917).

- 01:02:31** Firefighter De St Aubin goes to exit the ground floor lift lobby as there is not enough room for him in the lift. He opens the lift lobby door and Firefighter O'Beirne enters carrying the Immediate Emergency Care (IEC) pack (a large first aid kit) and a firefighting branch. Firefighter O'Beirne goes to the lift and hands a firefighting branch to Firefighter Dorgu in the lift (Source: CCTV: Cameras 5 and 18).
- 01:02:43** CM Secrett and his team travel from the ground floor to second floor in the lift (Source: CCTV: Camera C18).
- 01:02:43** SM Walton responds to the pager message and calls Brigade Control on his mobile phone. He speaks to CRO Adams and she confirms Golf 271, North Kensington's PL, Golf 272, North Kensington's Pump, Golf 331, Kensington's PL and Golf 362, Hammersmith's Pump, are in attendance. CRO Adams also confirms it is a high rise premises and that WM Dowden is in charge. CRO Adams confirms there have been three calls received. SM Walton asks what the callers have said and CRO Adams says she doesn't know as she didn't take any of the calls. None of the information about the call from Mr Kebede is passed to SM Walton. SM Walton states that he will remotely monitor his 'Airwave' radio and listen for the first informative message (Source: 'Vision': GTIRT17-02791, GTIRT18-00255, Contemporaneous Notes: GTIRT17-00004, GTIRT17-00278, GTIRT17-01137, GTIRT17-01138, GTIRT17-01139, MPS Witness Statement: GTIRT18-01000).
- 01:02:54** Mohamed Hariri (Flat 21, fifth floor) exits the building via the main entrance (Source: CCTV: Camera 4).
- 01:02:55** Mrs Alves (flat 105, 13<sup>th</sup> floor), lets Firefighter O'Beirne and Firefighter De St Aubin through the door to the stair lobby using her key fob. Both firefighters ascend the stairs to the second floor followed by Mrs Alves (Source: CCTV: Cameras 2, 3 and 4).
- 01:03:00** Firefighter Bills and Firefighter Abell are outside the South elevation running a fire hose out to the DRM inlet. (This is where the fire hose is plugged from the fire engine into the DRM inlet on the side of the building, to supply water into the building) (Source: CCTV: Camera 4, Contemporaneous Notes: GTIRT17-00010, GTIRT17-00014, GTIRT17-01197, GTIRT17-00054, MPS Witness Statement: GTIRT18-00043).
- 01:03\*** *The bridgehead is set up on the second floor. Firefighter De St Aubin (BAECO) sets up the Breathing Apparatus Entry Control Point (BAECP) which includes the ECB and IEC pack (Source: Contemporaneous Notes: GTIRT17-00015, MPS Witness Statement: GTIRT18-01136).*

## OFFICIAL

- 01:04:00** Mr Kebede and WM Dowden walk at pace along the South elevation to the South East corner of the building. Ms Kinfu (flat 16, fourth floor) is sitting on the stairs outside the Boxing Club with a large silver suitcase behind her (Source: CCTV: Camera 1 & Boxing Club).
- 01:04\*** *Firefighter Dorgu, Firefighter O'Beirne and Firefighter Badillo go to the fourth floor, with no BA on, and set up the fire hose on the fourth floor. The DRM outlet is positioned outside flat 13. This is for BA Team One to use to fight the fire in flat 16 (Source: Contemporaneous Notes: GTIRT17-01215, GTIRT17-00293, GTIRT17-00009, GTIRT17-0043, GTIRT17-00016, MPS Witness Statement: GTIRT18-00641, GTIRT18-01411, GTIRT18-00917, GTIRT18-00072, Senior Accident Investigator (SAI) Transcript: GTIRT18-00568, GTIRT18-00562, GTIRT18-00577).*
- 01:04:11** BA Team One: CM Batterbee and Firefighter D Brown put their facemasks on, start breathing from their BA sets and remove their BA tallies (Source: BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00012, GTIRT17-00458, GTIRT17-00460, GTIRT17-00011).
- 01:04:36** Mrs Alves (flat 105, 13<sup>th</sup> floor) takes Firefighter Abell to the ground floor lift lobby. Once this has been done they both leave the building at 01:07:04 (Source: CCTV: Cameras 1, 3, 4 and 5).
- 01:04:55** Mrs Alves, Ines Alves and Tiago Alves (flat 105, 13<sup>th</sup> floor) leave the building via the main entrance (Source: CCTV: Camera 4).
- 01:05\*** *WM Dowden uses his fire ground radio to inform the oncoming fire engines, Golf 331, Kensington's PL and Golf 362, Hammersmith's Pump, that their firefighters will need BA on arrival. WM O'Keeffe (Golf 331, Kensington's PL) and CM Davies (Golf 362, Hammersmith's P) acknowledge the request via their handheld radios (Source: Contemporaneous Notes: GTIRT17-00018, GTIRT17-01522, GTIRT17-01215, GTIRT17-00293, GTIRT17-00026, MPS Witness Statement: GTIRT17-01252, GTIRT17-02357, GTIRT18-01065, GTIRT18-00972).*
- 01:05** WM O'Keeffe (Golf 331, Kensington's PL) calls up WM Dowden on his handheld radio prior to arrival to establish the location of the fire and confirm what resources are required from Golf 331, Kensington's PL. He is told by WM Dowden that the fire is on the fourth floor and that two BA wearers are required (Source: Contemporaneous Notes: GTIRT17-00018, GTIRT17-01522, GTIRT17-01215, GTIRT17-00293, MPS Witness Statement: GTIRT17-01252, GTIRT17-02357, GTIRT18-01065).
- 01:05:26** WM Dowden is at the South elevation walking to the DRM inlet (Source: CCTV: Camera 4).

## OFFICIAL

**01:05:36** Video footage from Mr Kebede's (flat 16, fourth floor) mobile phone shows flames at the kitchen window of flat 16. A fire engine can be heard in pumping mode (meaning the fire engine is ready to pump water or is already pumping water). A firefighter talking over a radio can also be heard talking about a covering jet. Fire and smoke can be seen coming out of the window. This could be because the window, according to Mr Kebede, was open ten inches. BA Team One have not yet entered flat 16 (Source: BSR Witness Statement: GTIRT17-01573, GTIRT17-01574).

**Please play Video '20170614\_010536' in Appendix 3.**

**01:05:55** WM Dowden walks back towards the East elevation away from the DRM inlet (Source: CCTV: Camera 4).

**01:06:47** The fire hose leading to the DRM inlet can be seen filling with water (Source: CCTV: Camera 4).

**01:06:47** *CM Secrett is informed via radio that the DRM has been set into and water is available (Source: Contemporaneous Notes: GTIRT17-00013).*

**01:06:47\*** *WM Dowden notes from his position at ground floor level that the fire has breached the window of flat 16 and he wants to put a covering jet onto it. CM Secrett advises him not to at this point due to the risk to BA Team One who are about to enter the flat (Source: Contemporaneous Notes: GTIRT17-00013, GTIRT17-01215, GTIRT17-00293, MPS Witness Statement: GTIRT18-01065, GTIRT17-01551).*

**01:06:47\*** *Firefighter O'Beirne plugs the 45 mm fire hose into the fourth floor DRM outlet and waits for it to fill with water. Firefighter Dorgu and Firefighter Badillo assist him (Source: Contemporaneous Notes: GTIRT17-00017, GTIRT17-00009, GTIRT17-00431, MPS Witness Statement: GTIRT18-01411, GTIRT18-00917, GTIRT18-00641).*

**01:06:47\*** *BA Team One: CM Batterbee and Firefighter D Brown wait for water before they force the door to flat 16 open. Firefighter O'Beirne estimates it takes approximately 60 seconds from plugging the fire hose into the DRM outlet on the fourth floor before water is available at the firefighting branch (Source: Contemporaneous Notes: GTIRT17-00016).*

**01:06:47\*** *Firefighter O'Beirne recalls seeing BA Team One: CM Batterbee and Firefighter D Brown in the lobby of the fourth floor with an enforcer waiting to force entry into the flat (Source: Contemporaneous Notes: GTIRT17-00016).*

**01:06:52** Farshid Kaficheraghi (flat 91, 12<sup>th</sup> floor) exits the building via the main entrance (Source: CCTV: Camera 4).

**01:07:21\*** *BA Team One: CM Batterbee and Firefighter D Brown make entry into flat 16 using an enforcer to gain entry and take a 45 mm jet and TIC with them. Thick black smoke is seen coming from the*



flat as the door is opened (Source: Contemporaneous Notes: GTIRT17-00016, GTIRT17-00460, GTIRT17-00011, GTIRT17-00012, GTIRT17-00458, TIC imagery).

### BA Crew at front door flat 16

ADJUSTED TIME APPROX 01:07:21



- 01:07:21\*** Firefighter O'Beirne, Firefighter Badillo and Firefighter Dorgu retreat from the fourth floor lobby to the stairwell due to the smoke. They shut the door to the fourth floor behind them to stop smoke getting into the stairwell (Source: Witness Statement: GTIRT18-00072).
- 01:07:21\*** Firefighter Bills sets about establishing a covering jet with Firefighter Abell consisting of 45 mm fire hose as he can see flames emanating from a fourth floor window on the East elevation of Grenfell Tower (Source: Contemporaneous Notes: GTIRT17-00014, GTIRT17-01197, GTIRT17-00054, GTIRT17-00010, MPS Witness Statement: GTIRT18-00043).
- 01:07:21\*** Firefighter O'Beirne goes to the fifth floor to see if there has been any fire spread. He meets a family (believed to be the Temesgens) who have just left flat 26, which is directly above flat 16. They tell him that their flat is on fire and it is locked. The family leave and Firefighter O'Beirne looks through the letter box and sees the light is on but can't see any smoke (Source: Contemporaneous Notes: GTIRT17-00016, MPS Witness Statement: GTIRT18-00072).
- 01:07:40** Alison Moses (flat 11, floor 4) descends the stairs to the stair lobby and leaves the building via the side door. She is using her mobile phone (Source: CCTV: Camera 2).
- 01:08:06** Video footage from Mr Kebede's (flat 16, fourth floor) phone shows the fire breaking out of the kitchen window. There is a large bang in the background around six seconds into the footage. It also shows clearly that the fire is fully developed in the compartment and appears to be venting (Source: Mobile Phone Video Footage: MET000083356).

**Please play Video '20170614\_010806' in Appendix 3.**

## OFFICIAL

- 01:08:27** Golf 362, Hammersmith's Pump is the third fire engine to arrive at Grenfell Tower (Source: MDT GPS Data). The Vision record shows G362 as booking Status 3 at 10:03:13 but it is known that the action to record this status was made at a later time).
- 01:08:30\*** *At around this time, CM Davies meets WM Dowden and he requests two BA wearers. CM Davies then confirms he is sending two firefighters wearing BA to the bridgehead (Source: GTIRT18-00972).*
- 01:08:30\*** *CM Davies states he runs to the end of Grenfell Road to stop any further appliances entering (Source: Contemporaneous Notes: GTIRT17-00026, MPS Witness Statement: GTIRT18-00972).*
- 01:08:30\*** *Shortly after arriving Firefighter Archer states "he could see a small amount of flames exiting through the window" (Source: Contemporaneous Notes: GTIRT17-00024).*
- 01:08:33** Golf 331, Kensington's PL book status 3, in attendance, at Grenfell Tower. This is the fourth fire engine to book in attendance (Source: 'Vision', GTIRT17-02791).
- 01:08:33\*** *WM O'Keeffe (Golf 331) states "he can see flames issuing from the fourth floor balcony and a significant amount of smoke issuing from the building lobby". It should be noted that Grenfell Tower does not have balconies to any flats (Source: Contemporaneous Notes: GTIRT17-00018, GTIRT17-01522, MPS Witness Statement: GTIRT17-01252, GTIRT17-02357).*
- 01:08:40** Manuel Miguel Alves (flat 105, 13<sup>th</sup> floor), exits the building, via the main entrance (Source: CCTV: Camera 4).
- 01:08:49** WM Dowden enters the main lobby with Firefighter Barton and Firefighter O'Hanlon, both wearing BA. WM Dowden asks an individual (believed to be Mr Alves from flat 105, 13<sup>th</sup> floor) for his key fob, which the member of the public gives to him (Source: CCTV: Camera 4).

## OFFICIAL

**01:09:02** BA Team One: CM Batterbee and Firefighter D Brown enter bedroom number one in flat 16. From the TIC footage below, the curtains on the North elevation of the flat can be seen blowing vigorously by the wind. On the night the wind was travelling in a North Westerly direction and it was reported by the Met Office to have been at a speed of 0 to 5 miles per hour (Source: Met Office Website, TIC Imagery).

### Searching first bedroom



**01:09:05** Firefighter Barton and Firefighter O'Hanlon exit the building wearing BA via the main entrance (Source: CCTV: Camera 4).

**01:09:26** Video footage shows flames have broken through the kitchen window area. Small embers can be seen dropping to ground floor level. BA Team One: CM Batterbee and Firefighter D Brown are in flat 16, searching the bedrooms (Source: Mobile Phone Video Footage: MET000083357 and TIC Imagery).

**Please play Video '20170614\_010926' in Appendix 3.**

**01:09:40** Firefighter O'Hanlon and Firefighter Barton both wearing SDBA and carrying two lengths of 45 mm fire hose enter through the main entrance (Source: CCTV: Camera 4).

**01:10\*** *Firefighter Badillo starts to set into the DRM outlet on the third floor and starts to lay out a 45 mm fire hose with a firefighting branch. Firefighter Badillo doesn't state he is with anyone else but Firefighter Dorgu talks about setting into the DRM outlet on the third floor. Firefighter O'Beirne corroborates this in his SAI interview (Source: SAI Transcript: GTIRT18-00577, Contemporaneous Notes: GTIRT17-00009, GTIRT17-00431, GTIRT17-00016, GTIRT17-00017, MPS Witness Statement: GTIRT18-01411, GTIRT18-00917, GTIRT18-00072, GTIRT18-00641).*

## OFFICIAL

- 01:10:00** Firefighter Hippel and CM Stern, both wearing SDBA, enter the building via the main entrance and ascend the stairs with Firefighter O'Hanlon and Firefighter Barton (Source: CCTV: Cameras 2 and 4).
- 01:10:00** WM Dowden and WM O'Keeffe enter the building via the main entrance. They are with Firefighter D Murphy and Firefighter Cornelius (Source: CCTV: Camera 4).
- 01:10:35** Firefighter D Murphy, Firefighter O'Beirne and Firefighter Cornelius exit the building via the main entrance (Source: CCTV: Camera 4).
- 01:10:43** Ilya as Sedradi, Hafida Sedradi and Sarah Sedradi (flat 55, eighth floor) and Ms Kinfu (flat 16, fourth floor), exit the building via the main entrance (Source: CCTV: Camera 4).
- 01:10:51** WM Dowden and WM O'Keeffe exit the building via the main entrance (Source: CCTV: Camera 4).
- 01:11:11** A length of 45 mm fire hose at ground floor level outside the East elevation is being filled with water (CCTV: Camera 4).
- 01:11:11\*** *Firefighter Archer is operating a covering jet (45 mm) at the East elevation, spraying water above the window of flat 16. (Source: Contemporaneous Notes: GTIRT17-00024, GTIRT17-00020, GTIRT17-00026, GTIRT17-00021, MPS Witness Statement: GTIRT18-00312, GTIRT18-01416, GTIRT18-00972, GTIRT18-00993).*
- 01:11:29\*** *Firefighter Archer puts water from a firefighting jet onto falling debris on the ground floor that is alight from the window of flat 16 on the east elevation of Grenfell Tower (Source, CCTV: Camera OPS1 Kensington leisure centre).*
- 01:11:34\*** *Firefighter Archer is at the East elevation and directs the firefighting jet upwards towards the Tower fire believed to be in the direction of flat 16 (Source, CCTV: Camera OPS1 Kensington leisure centre).*
- 01:11:34** BA Team Two: Firefighter O'Hanlon and Firefighter Barton put their facemasks on and start breathing from their BA sets. Their briefing is to go to the fourth floor, enter flat 16 with a 45 mm jet and back up BA Team One: CM Batterbee and Firefighter D Brown (Source: BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00025, GTIRT17-00027).
- 01:11:40** Firefighter O'Beirne enters the building via the main entrance. He is carrying a length of 45 mm fire hose and a sledge hammer (Source: CCTV: Camera 4).
- 01:11:45\*** *Firefighter Archer is at the East elevation and directs the firefighting jet down to the ground floor level and puts water onto fallen debris from the Tower (Source, CCTV: Camera OPS1 Kensington leisure centre).*

## OFFICIAL

- 01:11:53\*** Firefighter Archer is at the East elevation and directs the firefighting jet upwards to the Tower fire believed to be in the direction of flat 16 (Source, CCTV: Camera OPS1 Kensington leisure centre).
- 01:12\*** WM Dowden asks CM Davies to formulate an informative message. This message is to explain to Control and anyone monitoring the 'Airwave' radio what the incident is. This will normally confirm the address, the type of building, number of floors, dimensions of the building, number of persons believed involved and the percentage of the building on fire (Source: Contemporaneous Notes: GTIRT17-01215, GTIRT17-00293, GTIRT17-00026, MPS Witness Statement: GTIRT18-00972, GTIRT18-01065).
- 01:12\*** The fire now appears to be spreading out of the kitchen window of Flat 16 and flames can be seen licking up the side of the building. Small embers can also be seen falling to the floor. A covering jet is set up on the North East corner of Grenfell Tower. BA Team One are still searching flat 16 (Source: Mobile Phone Video Footage: MET000083361, TIC Imagery).
- Please play Video '20170614\_011200' in Appendix 3.**
- 01:12\*** WM Dowden notes that the external cladding appears to be burning. He states "It was sparking and spitting in a similar way to when magnesium burns and was making me feel uncomfortable". This is supported by Mr Kebede's (flat 16, fourth floor) telephone footage. He asks for a Make Pumps six and one Hydraulic Platform (HP) radio message to be sent immediately (Source: Contemporaneous Notes: GTIRT17-01215, GTIRT17-00293, MPS Witness Statement: GTIRT18-01065).
- 01:12:13\*** A large amount of steam can be seen emanating at the ground floor level outside the East elevation below what is believed to be flat 16 (Source, CCTV: Camera OPS1 Kensington leisure centre).
- 01:12:27** Eamon Zada (flat 53, eighth floor), runs down the stairs and exits the building via the main entrance (Source: CCTV: Cameras 2 and 4).

**01:12:27\*** BA Team One: CM Batterbee and Firefighter D Brown enter and search the second bedroom of flat 16. See image below (Source: TIC imagery).

## Entry into 2<sup>nd</sup> bedroom

ADJUSTED TIME APPROX 01:12:27



**01:12:30\*** WM Dowden tasks firefighters to lay out a ground monitor ready to work at the East elevation if it is required. This is to supplement the covering jet that is already working (Source: Contemporaneous Notes: GTIRT17-01215, GTIRT17-00293, MPS Witness Statement: GTIRT18-01065).

**01:12:30\*** Firefighter O'Beirne ascends the stairs to the third floor and meets Firefighter Dorgu and assists him with the second line of fire hose from the DRM outlet (Source: Contemporaneous Notes: GTIRT17-00016, GTIRT17-00017, MPS Witness Statement: GTIRT18-00072, GTIRT18-00641).

**01:12:54\*** A TIC captures BA Team One: CM Batterbee and Firefighter D Brown searching the toilet area off the corridor in flat 16 (Source: TIC Imagery).

**01:12:59** Golf 331, Kensington's PL, (Firefighter Broderick) sends an 'Assistance' radio message to Brigade Control:

"M2FN Golf 331 from WM O'Keefe make pumps 6 request 1TL, sorry, HP, Golf 331, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02473).

The control room is not only responsible for ensuring the correct fire service resources are sent to an incident they are also responsible for carrying out a range of other actions and notifications. Throughout this document a table of the operational response and notification actions is provided to indicate the volume of work required by the control room staff during large incidents.

**Six Pump fire operational response and notifications**

Operational response	Notification actions
<ul style="list-style-type: none"> <li>• Six Pumps including one 135 ladder</li> <li>• Three WMs</li> <li>• One Fire Investigation Unit (FIU)</li> <li>• Two Command Units</li> <li>• Two SMs</li> <li>• One GM as Monitoring Officer</li> <li>• One PLO (exclusive)</li> <li>• One Fire Safety Officer (FSO)</li> </ul>	<ul style="list-style-type: none"> <li>• Order Water Service Technician (unless incident is a special service)</li> <li>• Inform Police</li> <li>• Inform Environment Agency (EA)</li> <li>• Supervisor inform nearest Tactical Advisor Bulk Media</li> <li>• Supervisor inform Resource Management Logistics</li> <li>• Supervisor inform Operational Review Team (ORT)</li> <li>• Supervisor inform Duty Brigade Control Senior Manager if incident is of high profile/media interest</li> <li>• Inform Deputy Assistant Commissioner (DAC) as Remote Monitoring Officer</li> <li>• Action Make Pumps 6</li> <li>• Officer of the Day 1 or 2</li> <li>• Duty DAC</li> </ul>

**01:13\*** WM O’Keeffe is detailed to manage BA and the bridgehead on the second floor by WM Dowden (Source: Contemporaneous Notes: GTIRT17-01215, GTIRT17-00293, GTIRT17-00018 and GTIRT17-01522, MPS Witness Statement: GTIRT18-01065, GTIRT17-01252 and GTIRT17-02357).

**01:13:19** The Radio Operator at Brigade Control responds to Golf 331, Kensington’s PL’s message at 01:12:59:

"Make pumps 6 and 1 HP received."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02474).

## OFFICIAL

**01:13:29** Abdirahman Hirsi (flat seven, third floor), Zoe Dainton and David Benjamin (flat 12, fourth floor) and Suhayb Hirsi (flat 7, second floor) all exit the building via the main entrance (Source: CCTV: Camera 4).

**01:13:41** Golf 331, Kensington's PL, send a message to the Radio Operator at Brigade Control.

"M2FN Golf 331, err, should be make pump 6, err, 1 aerial, err, Golf 331 over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02475).

*This amendment is to change the type of aerial appliance required. The change is from one hydraulic platform to one "aerial". Where the assistance requested is "an aerial". The nearest aerial appliance is despatched irrespective of its type.*

**01:13:58** Brigade Control confirm they have received the amendment to the assistance message

"Amendment to one aerial received"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02476 and 'Vision': GTIRT17-02791).

**01:14\*** *BA Team Two: Firefighter O'Hanlon and Firefighter Barton, ascend the stairwell from the bridgehead. They meet Firefighter Badillo who has already plugged the second fire hose into the third floor DRM outlet. BA Team Two ascend the stairs to the fourth floor with this fire hose. Both firefighters see members of public self-evacuating as they go up the stairs (Source: Contemporaneous Notes: GTIRT17-00009, GTIRT17-00431, GTIRT17-00027, GTIRT17-00025, MPS Witness Statement: GTIRT18-01411, GTIRT18-00917, GTIRT18-00387, GTIRT18-00321).*

**01:14:00** WM O'Keeffe attempts to gain access through the main entrance. It is 50 seconds before an individual opens the door for him. He enters with two firefighters who are both wearing BA (Source: CCTV: Cameras 1 and 4).

**01:14:16\*** *BA Team One: CM Batterbee and Firefighter D Brown are in flat 16. They open the door to the kitchen for the first time. CM Batterbee explains the change in temperature is significant. "The water we put on the fire just turned to steam, I couldn't see any glowing or flame. I tried to use the TIC but every time we opened the door to apply water, visibility was zero". However Firefighter D Brown states the opposite that it is not hot, he also states there was no steam (Source: TIC imagery, Contemporaneous Notes: GTIRT17-00012, GTIRT17-00458, GTIRT17-00460, GTIRT17-00011).*

**01:14:21** Golf 272, North Kensington's Pump, send an 'Informative' radio message to the Radio Operator at Brigade Control:



## OFFICIAL

"From G272 residential block of flats of 20 floors 25 metres x 25metres, five roomed flat on fourth floor, 75 per cent alight, high rise procedure implemented MDT in use, tactical mode Oscar."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02477).

**01:14:32** BA Team One: CM Batterbee and Firefighter D Brown make multiple attempts to enter the kitchen in flat 16. CM Batterbee talks of high levels of heat, however Firefighter D Brown does not talk of any high levels of heat. The TIC image below shows a fire in the far corner of the kitchen, a kitchen appliance believed to be a fridge/freezer can be seen to the bottom middle right and to the left of the yellow is believed to be the kitchen window (Source: Contemporaneous Notes: GTIRT17-00012, GTIRT17-00458, GTIRT17-00460, GTIRT17-00011, TIC imagery).

2<sup>nd</sup> opening of kitchen door. Heat around window and fridge.



**01:14:44** Jose Vieiro and Cameron Vieiro (flat 46, seventh floor), enter the seventh floor lobby and return to the area outside their flat (Source: CCTV: Camera C15).

**01:15\*** Firefighter Badillo, whilst on the third floor, meets a group of individuals who show signs of having been in smoke. He states they have streaming eyes, they are coughing and look panicked. They say they are from the fifth and sixth floors (Source: Contemporaneous Notes: GTIRT17-00009, GTIRT17-00431, MPS Witness Statement: GTIRT18-01411, GTIRT18-00917).

**01:15\*** Firefighter O'Beirne returns to the fifth floor. He enters the fifth floor lobby and sees no smoke. When he looks through the letterbox of flat 26 the hallway of the flat is full of thick black smoke

## OFFICIAL

and he can no longer see the light on in the hall way (Source: Contemporaneous Notes: GTIRT17-00016, MPS Witness Statement: GTIRT18-00072).

- 01:15\*** Firefighter O'Beirne radios WM Dowden and says that flat 26 directly above flat 16 is now on fire. Firefighter O'Beirne states he doesn't get a reply from WM Dowden or anyone else (Source: Contemporaneous Notes: GTIRT17-00016, MPS Witness Statement: GTIRT18-00072).
- 01:15:03** WM O'Keeffe ascends the stairwell (Source: CCTV: Camera 2, Contemporaneous Notes: GTIRT17-00018, GTIRT17-01522, MPS Witness Statement: GTIRT17-01252, GTIRT17-02357).
- 01:15:05\*** CM Davies approaches Firefighter Archer and tells him to get rigged in BA. Firefighter Archer hands the jet to Firefighter D Murphy and Firefighter Cornelius from Kensington (Source: Contemporaneous Notes: GTIRT17-00024, GTIRT17-00020, GTIRT17-00026, GTIRT17-00021, MPS Witness Statement: GTIRT18-00312, GTIRT18-01416, GTIRT18-00972, GTIRT18-00993).
- 01:15:16** The Radio Operator at Brigade Control responds to Golf 272, North Kensington's Pump, confirming their 'Informative' message.
- "Golf 272, residential block of flats of 20 floors, 25 metres by 25 metres. Five room flat on fourth floor 75% alight. High rise procedure implemented. MDT in use, tactical mode Oscar received, stand by."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02483).
- 01:15:28** Brigade Control page Oscar Kilo 13, WM Matthew Leaver, who is a Fire Investigation Officer (FIO), to inform him there is a six pump fire in progress at Grenfell Tower (Source: 'Vision': GTIRT17-02791).
- 01:15:29** Burning debris is falling from the flat fire on the east elevation of Grenfell Tower (flat 16, fourth floor) to the ground adjacent to the side entrance to Grenfell Tower (Source: CCTV OPS1 Kensington leisure centre).

The table below show the resources required and mobilised to the six pump fire:

<b>Operational Response to the incident at Make Pumps 6</b>
<ul style="list-style-type: none"><li>• Golf 272, North Kensington's Pump</li><li>• Golf 271, North Kensington's PL</li><li>• Golf 331, Kensington's PL (assigned WM Romeo attribute which means a substantive WM is in attendance)</li><li>• Golf 362, Hammersmith's Pump</li><li>• Golf 361, Hammersmith's PL</li><li>• Alpha 212, Paddington's Pump</li><li>• Oscar Kilo 13, WM Leaver (as FIO)</li><li>• Command Unit 7 (CU7)</li><li>• CU8</li><li>• Hotel 41 Sierra SM Walton (as SM)</li><li>• Golf 22 Sierra SM Brett Loft (as SM)</li><li>• Foxtrot 115 GM Patrick Goulbourne (as GM)</li><li>• Oscar Golf 54 SM Gareth Cook (as PLO)</li><li>• Oscar Foxtrot 67 SM Daniel Egan (as FSO)</li></ul>

**01:15:32** The fire has now grown and a large quantity of debris is falling externally. A covering jet is now being operated in the North East corner by Firefighter D Murphy and Firefighter Cornelius. Firefighter Cornelius states that "the jet was having no impact on fire suppression as the fire was spreading behind the panelling and it was difficult to direct a flow of water on to the fire" (Source: Contemporaneous Notes: GTIRT17-00020, GTIRT17-01215, GTIRT17-00293, GTIRT17-00021, MPS Witness Statement: GTIRT18-01416, GTIRT18-01065, GTIRT18-00993, Mobile Phone Video Footage: MET000083359).

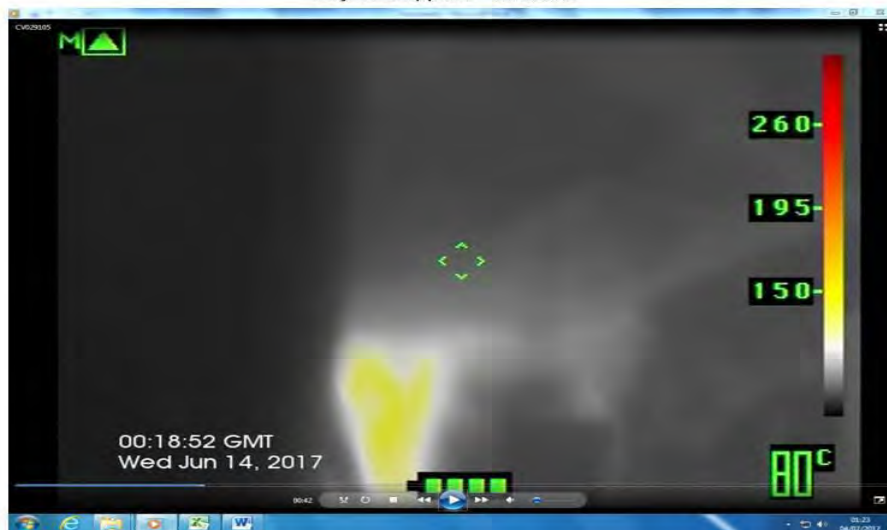
**01:15:32\*** WM Dowden notes that the external cladding is becoming more involved at a rapid rate (Source: Contemporaneous Notes: GTIRT17-01215, GTIRT17-00293, MPS Witness Statement: GTIRT18-01065 and Mobile Phone Video Footage: MET000083359).

**Please play Video '20170614\_011532' in Appendix 3.**

**01:15:34** BA Team One: CM Batterbee and Firefighter D Brown open the door to the kitchen again. The TIC imagery below shows flames around the kitchen window (Source: TIC Imagery, Contemporaneous Notes: GTIRT17-00012, GTIRT17-00458, GTIRT17-00460, GTIRT17-00011, MPS Witness Statement: GTIRT18-01837, GTIRT17-01434).

Opening of kitchen door. Flames around window.

Adj. time approx. - 01:15:34



**01:15:40** Firefighter Archer wearing BA enters main entrance (Source: CCTV: Camera 4, Contemporaneous Notes: GTIRT17-00014, GTIRT17-01197, GTIRT17-00054, GTIRT17-00024, MPS Witness Statement: GTIRT18-00043, GTIRT18-00312).

**01:16:00** Firefighter Abell exits the building via the main entrance (Source: CCTV: Camera 4).

**01:16** The picture below shows a fully developed fire within the fabric of the building spreading from the fourth floor to approximately the sixth or seventh floors. A covering jet can be seen working from the bottom middle of the picture (Source: MPS Fire Spread Presentation: GTIRT18-01590).



## OFFICIAL

- 01:16:05** Golf 272, North Kensington's Pump, send a radio message to Brigade Control confirming that Golf 272, is now the Incident Command Pump (ICP):
- "FN Golf 272 is ICP for this incident, Golf 272, over."
- This is the fire engine that will make and receive all radio messages for the incident until relieved by a CU (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02484, 'Vision': GTIRT17-02791, LFB Policy No. 238: GTIRT17-00908).
- 01:16:14** The Radio Operator at Brigade Control responds to Golf 272, North Kensington's Pump's message.
- "Golf 272, received."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02485).
- 01:16:26** Golf 361, Hammersmith's PL book Status 2, mobile to Grenfell Tower. Golf 361 is riding with five firefighters: WM Paul Watson, CM Matthew Sephton, Firefighter Patrick Murray, Firefighter Benjamin Felton and Firefighter Mark Brodrick (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 01:16:33** Daniel Griffin (flat 31, sixth floor) exits the building via the main entrance (Source: CCTV: Camera 4).
- 01:16:43** AOM Real calls the MPS to inform them of the six pump fire at Grenfell Tower and is given an MPS reference number from their Computer Aided Despatch (CAD) system as 482 (Source: NICE, Admin Phone Line Audio file: GTIRT18-00860).
- 01:16:45** Dorinda Suarez-Chans and Jose Costa Cotelos (flat 103,13<sup>th</sup> floor) descends the stairs holding towels over their mouths, indicating deteriorating conditions in the stairwell (Source: CCTV: Camera 2).
- 01:17\*** *Firefighter O'Beirne leaves the fifth floor and goes to the sixth floor (Source: Contemporaneous Notes: GTIRT17-00016, MPS Witness Statement: GTIRT18-00072).*
- 01:17:09\*** *Firefighter D Brown from BA Team One is at the kitchen door firefighting but closes the door due to the attack having no effect on the now very visible flames. They check the opposite door on the left, now known to be the door to the lounge, to see if there is another entrance to the kitchen. They do not find one. (Source: Contemporaneous Notes: GTIRT17-00012, GTIRT17-00458, GTIRT17-00460, GTIRT17-00011, MPS Witness Statement: GTIRT18-01837, GTIRT17-01434, TIC Imagery).*
- 01:17:09\*** *BA Team Two: Firefighter O'Hanlon and Firefighter Barton, meet BA Team One: CM Batterbee and Firefighter D Brown, in the hallway of flat 16. BA Team One are on the right hand side and BA Team Two are carrying out a left hand search. TIC imagery shows both BA teams in the*

## OFFICIAL

hallway (Source: TIC Imagery, MPS Witness Statement: GTIRT18-01837, GTIRT17-01434, GTIRT18-00321, GTIRT18-00387).

- 01:17:09** Jose Costa Cotelos (flat 103, 13<sup>th</sup> floor) leaves the building via the main entrance (Source: CCTV: Camera 4).
- 01:17:11** Alpha 212, Paddington's Pump book status 2, mobile to Grenfell Tower. Alpha 212 is riding with five firefighters: CM Ben Gallagher, Firefighter Harry Bettinson, Firefighter Geoffrey Campbell, Firefighter Raymond Keane and Firefighter James Wolfenden (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 01:17:12** CRO Howson at Brigade Control takes a call from a male who lives in W10 6SX who reports that he can smell burning/fire or rubber coming from a Tower behind them next to the leisure centre. CRO Howson tells the caller that the Brigade are attending a call at Grenfell Tower and the caller confirms that is the one he is calling about. CRO Howson confirms that the Brigade is on the scene. Incident Number 76038, Call Duration one minute 18 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00473).
- 01:17:12** Durinda Suarez Chans (flat 103, 13<sup>th</sup> floor) exits the building via the main entrance (Source: CCTV: Camera 4).
- 01:17:21** SM Loft calls Brigade Control and says he has been paged to a six pump fire. CRO Peter Duddy confirms he is the first SM. He then informs SM Loft that Golf 271 with WM Dowden, Golf 272 and Golf 331 are all in attendance. Golf 361, Golf 362 and Alpha 212 are on the way. He then says the second SM is Walton and the Group Manager (GM) is Patrick Goulbourne. He continues to say we also have SM Daniel Egan assigned as FSO and SM Cook as PLO.
- SM Loft asks if it has gone straight to six pumps, CRO Duddy says it is a standard fire, three pumps first then sends a message back for six pumps and one HP for high rise. SM Loft asks how many calls have been received, CRO Duddy tells him we have four calls altogether. SM Loft asks to be shown as Status 2 (Source: NICE, Admin Phone Line Audio file: GTIRT18-00254).
- 01:17:22** BA Team Three: CM Stern and Firefighter Hippel report to the bridgehead, start breathing under air and remove their BA tallies. They are briefed to go to the fifth and sixth floors to check to see if the fire has spread (Source: Contemporaneous Notes: GTIRT17-01198, GTIRT17-00019, MPS Witness Statement: GTIRT18-01111,GTIRT18-00427, BA Data: GTIRT17-02820).
- 01:17:28** Firefighter Archer wearing SDBA goes to the main entrance door and opens it (Source: Contemporaneous Notes: GTIRT17-00024, MPS Witness Statement: GTIRT18-00312, CCTV: Camera 4).

## OFFICIAL

- 01:17:31** SM Cook (Oscar Golf 54) books Status 2, mobile to Grenfell Tower from his home address in Brentford (Source: 'Vision': GTIRT17-02791).
- 01:17:45** Alk Haxhisefa, Alt Haxhisefa, Anvi Haxhisefa and Adriana Zymberaj (flat 106, 13<sup>th</sup> floor) exit the building via the main entrance (Source: CCTV: Camera 4).
- 01:17:51** SM Walton (Hotel 41 Sierra) phones Brigade Control and books Status 2, mobile to Grenfell Tower from Fulham fire station (Source: 'Vision': GTIRT17-02791, Contemporaneous Notes: GTIRT17-00004, GTIRT17-00278, GTIRT17-01137, GTIRT17-01138, GTIRT17-01139, MPS Witness Statement: GTIRT18-01000, NICE, Admin Phone Line Audio file: GTIRT18-00256).
- 01:18\*** *Firefighter O'Beirne enters the sixth floor lobby and he states it appears to be a little bit smoky. A Spanish speaking family of three come out of flat 36, sixth floor (two floors directly above flat 16). They inform Firefighter O'Beirne that their flat is alight. He confirms with them there is no one else is in the flat. The door is closed but unlocked. Firefighter O'Beirne enters the flat and sees a wall of thick black smoke from floor to ceiling. The family leave via the stairs. The occupants are Oscar Millan Gonzalez (flat 36, sixth floor), Ramiro Urbano (flat 176, 20<sup>th</sup> floor but staying in flat 36) and Claudia (non-resident 'friend' of Ramiro Urbano staying in flat 36) (Source: MPS Grenfell Tower Disaster Victim Identification (DVI) Recovery Floor Plan: GTIRT18-01470).*
- 01:18\*** *At around this time, WM O'Keeffe contacts WM Dowden via handheld radio and suggests sending a 'Make Pumps Eight' radio message as he requires additional resources (Source: Contemporaneous Notes: GTIRT17-00018, GTIRT17-01522, MPS Witness Statement: GTIRT17-01252, GTIRT17-02357).*
- 01:18\*** *Between 00:58 - 01:18 the following residents have either been rescued, assisted out or have self-evacuated from Grenfell Tower (Source: MPS Grenfell Tower Residents List by Flat and Floor Number Document: GTIRT18-01141, MPS Grenfell Tower CCTV Named Exits spreadsheet: GTIRT18-01051).*

1. Abdirahman Hirsi (flat seven, second floor)
2. Mr S H Duale (flat seven, second floor)
3. Suhayb Hirsi (flat seven, second floor)
4. Alison Moses (flat 11, fourth floor)
5. David Benjamin (flat 12, fourth floor)
6. Zoe Dainton (flat 12, fourth floor)
7. Maryam Adam (flat 14, fourth floor)

8. Abdulwahab Abdulhamid (flat 14, fourth floor)
9. Amna Mohammed (flat 14, fourth floor)
10. Mahad Egal (flat 15, fourth floor)
11. Zak Mahamed (flat 15, fourth floor)
12. Jamie Murry (flat 15, fourth floor)
13. Vega-Lily Mahamed (flat 15, fourth floor)
14. Bekailu Kebede (flat 16, fourth floor)
15. Almaz Kinfu (flat 16, fourth floor)
16. Elsa Afewaorki (flat 16, fourth floor)
17. Salah Yusuf (flat 21, fifth floor)
18. Mohamed Hariri (flat 21, fifth floor)
19. Daniel Griffin (flat 31, sixth floor)
20. Eamon Zada (flat 53, eighth floor)
21. Ilyaas Sedradi (flat 55, eighth floor)
22. Hafida Sedradi (flat 55, eighth floor)
23. Sarah Sedradi (flat 55, eighth floor)
24. Farshid Kaficheraghi (flat 91, 12 <sup>th</sup> floor)
25. Ms MM Ahmed (flat 102, 13 <sup>th</sup> floor)
26. Jose Costa Cotelos (flat 103, 13 <sup>th</sup> floor)
27. Durinda Suarez-Chans (flat 103, 13 <sup>th</sup> floor)
28. Fatima Alves (flat 105, 13 <sup>th</sup> floor)
29. Ines Alves (flat 105, 13 <sup>th</sup> floor)
30. Tiago Alves (flat 105, 13 <sup>th</sup> floor)
31. Manuel Miguel Alves (flat 105, 13 <sup>th</sup> floor)
32. Alk Haxhisefa (flat 106, 13 <sup>th</sup> floor)
33. Anvii Haxhisefa (flat 106, 13 <sup>th</sup> floor)



## OFFICIAL

34. Alt Haxhisefa (flat 106, 13 <sup>th</sup> floor)
35. Adriana Zymberaj (flat 106, 13 <sup>th</sup> floor)
36. Ishmael Boaitey (flat unknown, floor unknown)
37. Jalal Chentite (flat unknown, floor unknown)

**01:18:18** All on duty ORT officers are paged through a group page system informing them of the six pump fire (Source: 'Vision': GTIRT17-02791).

**01:18:20** Firefighter Archer returns to the front door and opens it (Source: CCTV: Camera 4).

**01:19:08** Golf 272, North Kensington's P, sends an 'Assistance' message to the Radio Operator at Brigade Control:

"M2FN Golf 272, make pumps eight, over"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02487).

**8 Pump fire operational response and notifications**

<b>Incident type: 8 pump fire</b>	
<b>Operational response</b>	<b>Notification actions</b>
<ul style="list-style-type: none"> <li>• Eight Pumps including one 135 ladder</li> <li>• Three WMs</li> <li>• One FIU</li> <li>• One FRU</li> <li>• Two CUs</li> <li>• Three SMs</li> <li>• One GM (Incident Commander 7-10 pumps) Officer</li> <li>• One FSO</li> <li>• One PLO (exclusive)</li> <li>• One DAC as Monitoring Officer</li> <li>• One Breathing Apparatus Unit (on the Operational Support Unit (OSU))</li> <li>• One Damage Control Unit (on the OSU)</li> </ul>	<ul style="list-style-type: none"> <li>• Order Canteen Van or inform of incident upgrade if already attending</li> <li>• Inform AC on duty type 24 AC1 or next in sequence if not available</li> <li>• Order Ambulance</li> <li>• Order Water Service Technician (unless incident is a special service)</li> <li>• Inform Police</li> <li>• Inform Environmental Agency</li> <li>• Supervisor inform Resource Management Logistics</li> <li>• Supervisor inform ORT</li> <li>• Supervisor inform nearest Tactical Advisor Bulk Media Officer of fires of eight pumps and above (not grass or special service)</li> <li>• Supervisor inform Duty Radio officer</li> <li>• Supervisor inform Duty FRS Press Officer</li> <li>• Supervisor inform Duty Brigade Control Senior Manager</li> <li>• Supervisor considers diverting press line to Duty FRS Press Officer</li> <li>• Inform AC1 as Remote Monitoring Officer</li> <li>• Action Make Pumps eight</li> <li>• Officer of the Day 1 or 2</li> <li>• Duty DAC</li> <li>• Duty AC</li> <li>• Commissioner and Staff Officers as appropriate</li> <li>• Authority members</li> </ul>

## OFFICIAL

- 01:19:08\*** Firefighter O'Beirne states he believes he is between the seventh and 10<sup>th</sup> floors when the 'Makes Pumps Eight' radio message is sent (Source: Contemporaneous Notes: GTIRT17-00016, MPS Witness Statement: GTIRT18-00072).
- 01:19\*** Firefighter Bills is ordered to move Golf 272, North Kensington's Pump, to allow access for the aerial appliance that was ordered on the make pumps six radio message (Source: Contemporaneous Notes: GTIRT17-00010).
- 01:19:13\*** At this time BA Team One: CM Batterbee and Firefighter D Brown open the door to the kitchen again (Source: TIC Imagery).



- 01:19:15** SM Loft, Golf 22 Sierra, is booked Status 2, mobile to Grenfell Tower. He is approximately three and a half miles away at his call out base which is Fulham fire station (Source: 'Vision': GTIRT17-02791, NICE, Admin Phone Line Audio file: GTIRT18-00254).
- 01:19:19** Alpha 213, Paddington's Turntable Ladder (TL) book status 2, mobile to Grenfell Tower. Alpha 213 is riding with two firefighters: CM Daniel Harriman and Firefighter Christopher Reynolds (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 01:19:27** Echo 109, GM Richard Welch is paged as BMA informed of an eight pump fire (Source: 'Vision': GTIRT17-02791).
- 01:19:53** Carmen Vieiro (flat 46, seventh floor) comes out into the seventh floor lobby (Source: CCTV: Camera C15).
- 01:19:54** Zak Chebiouni, carrying Sara Chebiouni (flat 66, ninth floor), leave the building via the main entrance (Source: CCTV: Cameras 2 and 4).

## OFFICIAL

- 01:19:58** CRO Howson at Brigade Control takes a call from a male caller in W11 1PG, outside Grenfell Tower, who explains that he can see a big fire behind him in the direction of Latimer Road tube station. CRO Howson confirms that the Brigade is attending a fire at Grenfell Tower on the Lancaster West estate and the caller confirms that this sounds like what he can see. He states that he assumes the Brigade is attending because it is so big. Incident Number 76039, Call Duration one minute seven seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00474).
- 01:20\*** BA Team Three: CM Stern and Firefighter Hippel ascend to the fifth floor and they confirm in their police statements that there is heavy smoke logging on this floor. They look to enter flat 26, directly above flat 16, but it is locked and they have no breaking in equipment or fire hose. They can see smoke coming from the flat (Source: Contemporaneous Notes: GTIRT17-00019, GTIRT17-01198, MPS Witness Statement: GTIRT18-0111, GTIRT18-00427).
- 01:20\*** Firefighter Badillo makes his way down to the bridgehead to liaise with WM Dowden as he believes that's where WM Dowden is located. He briefs CM Secrett at the bridgehead. CM Secrett informs Firefighter Badillo that WM Dowden is aware of the fire spread (Source: Contemporaneous Notes: GTIRT17-00009, GTIRT17-00431, GTIRT17-01215, GTIRT17-00293, GTIRT17-00013, MPS Witness Statement: GTIRT18-01411, GTIRT18-00917, GTIRT18-01065, GTIRT17-01551).
- 01:20:25\*** BA Team One: CM Batterbee and Firefighter D Brown open the door to the kitchen of flat 16 and attempt to extinguish the fire. CM Batterbee notes a drop in temperature which is consistent with the kitchen ventilating, however Firefighter D Brown does not (Source: Contemporaneous Notes: GTIRT17-00012, GTIRT17-00458, GTIRT17-00460, GTIRT17-00011, MPS Witness Statement: GTIRT18-01837, GTIRT17-01434, TIC Imagery).
- 01:20:26** Rashida Ali and Hayam Atmani (flat 125, 15<sup>th</sup> floor) leave the building, via the main entrance (Source: CCTV: Cameras 1 and 4).
- 01:20:39** Firefighter Archer enters the main entrance carrying a 45 mm fire hose and a firefighting branch (Source: CCTV: Cameras 1 and 4).
- 01:20:39** Mr Wintom Temesgen, Hiwot Dagnachew, Biruk Henoc and Yabasirra Henoc, (flat 26, fifth floor), leave the building via the main entrance (Source: CCTV: Camera 4).
- 01:20:48\*** BA Team One: CM Batterbee and Firefighter D Brown enter the kitchen and extinguish the fire (Source: Contemporaneous Notes: GTIRT17-00012, GTIRT17-00458, GTIRT17-00460, GTIRT17-00011, MPS Witness Statement: GTIRT18-01837, GTIRT17-01434, TIC Imagery).
- 01:20:54** Ms Vieiro is seen again on the seventh floor lobby holding something over her face indicating deteriorating conditions (Source: CCTV: Camera C15).

01:20:57 The table below show the resources required and mobilised to the eight pump fire:

<b>Operational Response to the incident at Make Pumps 8</b>
<ul style="list-style-type: none"><li>• Golf 272, North Kensington's Pump</li><li>• Golf 271, North Kensington's PL</li><li>• Golf 331, Kensington's PL</li><li>• Golf 362, Hammersmith's Pump</li><li>• Golf 361, Hammersmith's PL</li><li>• Alpha 212, Paddington's Pump</li><li>• Alpha 211, Paddington's PL</li><li>• Golf 261, Acton's PL</li><li>• Oscar Kilo 13, WM Leaver (as FIO)</li><li>• Alpha 216, Paddington's FRU</li><li>• CU7</li><li>• CU8</li><li>• Hotel 41 Sierra SM Walton (as SM)</li><li>• Golf 22 Sierra SM Loft (as SM)</li><li>• Oscar Golf 61 SM Saunders (as SM)</li><li>• Foxtrot 115 GM Goulbourne (as GM)</li><li>• Oscar Golf 54 SM Cook (as PLO)</li><li>• Echo 6 DAC O'Loughlin</li><li>• Oscar Foxtrot 67 SM Daniel Egan (as FSO)</li><li>• Golf 25 Alpha, Ealing's OSU (Breathing Apparatus Unit)</li><li>• Alpha 39 Alpha, Finchley's OSU (Damage Control Unit)</li></ul>

01:21\* *At around this time, Firefighter O'Beirne leaves the sixth floor and goes to the seventh floor (Source: Contemporaneous Notes: GTIRT17-00016, MPS Witness Statement: GTIRT18-00072).*

01:21\* *BA Team Three: CM Stern and Firefighter Hippel proceed to the sixth floor from the bridgehead (Source: Contemporaneous Notes: GTIRT17-00019, GTIRT17-01198, MPS Witness Statement: GTIRT18-01111, GTIRT18-00427).*

01:21 The fire has spread up the external façade to what is believed to be the ninth or tenth floor by this time (Source: Mobile Phone Video Footage: MET000083361).

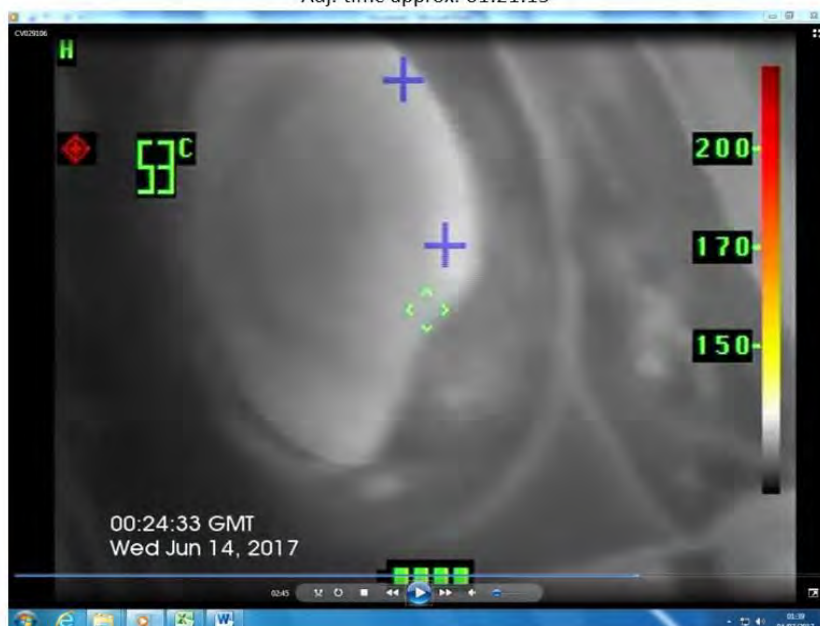
**Please play Video '20170614\_012100' in Appendix 3.**

## OFFICIAL

- 01:21:03** Fatima Jafari and Maria Jafari (flat 86, 11<sup>th</sup> floor). Luke Towner and Emma O'Connor (flat 171, 20<sup>th</sup> floor) leave the building via the main entrance (Source: CCTV: Camera 1).
- 01:21:07** BA Team Four: Firefighter Archer and Firefighter Abell report to the bridgehead on the second floor. They start up their BA sets and start breathing under air. They are tasked to go to fifth floor to extinguish the fire in flat 26 (Source: Contemporaneous Notes: GTIRT17-00024, GTIRT17-00014, GTIRT17-01197, GTIRT17-00054 , MPS Witness Statement: GTIRT18-00043, GTIRT18-00312, BA Data: GTIRT17-02820).
- 01:21:15** BA Team Two: Firefighter O'Hanlon and Firefighter Barton enter the kitchen and join BA Team One: CM Batterbee and Firefighter D Brown. BA Team One confirm with BA Team Two that the fire in the kitchen is out (Source: TIC Imagery, MPS Witness Statement: GTIRT18-00387, GTIRT18-01837, GTIRT17-01434, GTIRT18-00321).
- 01:21:15** BA Team One: CM Batterbee and Firefighter D Brown confirm the fire is extinguished in flat 16 and they send a message to the Breathing Apparatus Entry Control Officer (BAECO) confirming the fire is out (Source: Contemporaneous Notes: GTIRT17-00012, GTIRT17-00458, GTIRT17-00460, GTIRT17-00011, MPS Witness Statement: GTIRT18-01837, GTIRT17-01434).
- 01:21:15** The image below shows the washing machine in the kitchen which is hot but no flame (Source: Contemporaneous Notes: GTIRT17-00012, GTIRT17-00458, GTIRT17-00460, GTIRT17-00011, TIC Imagery).

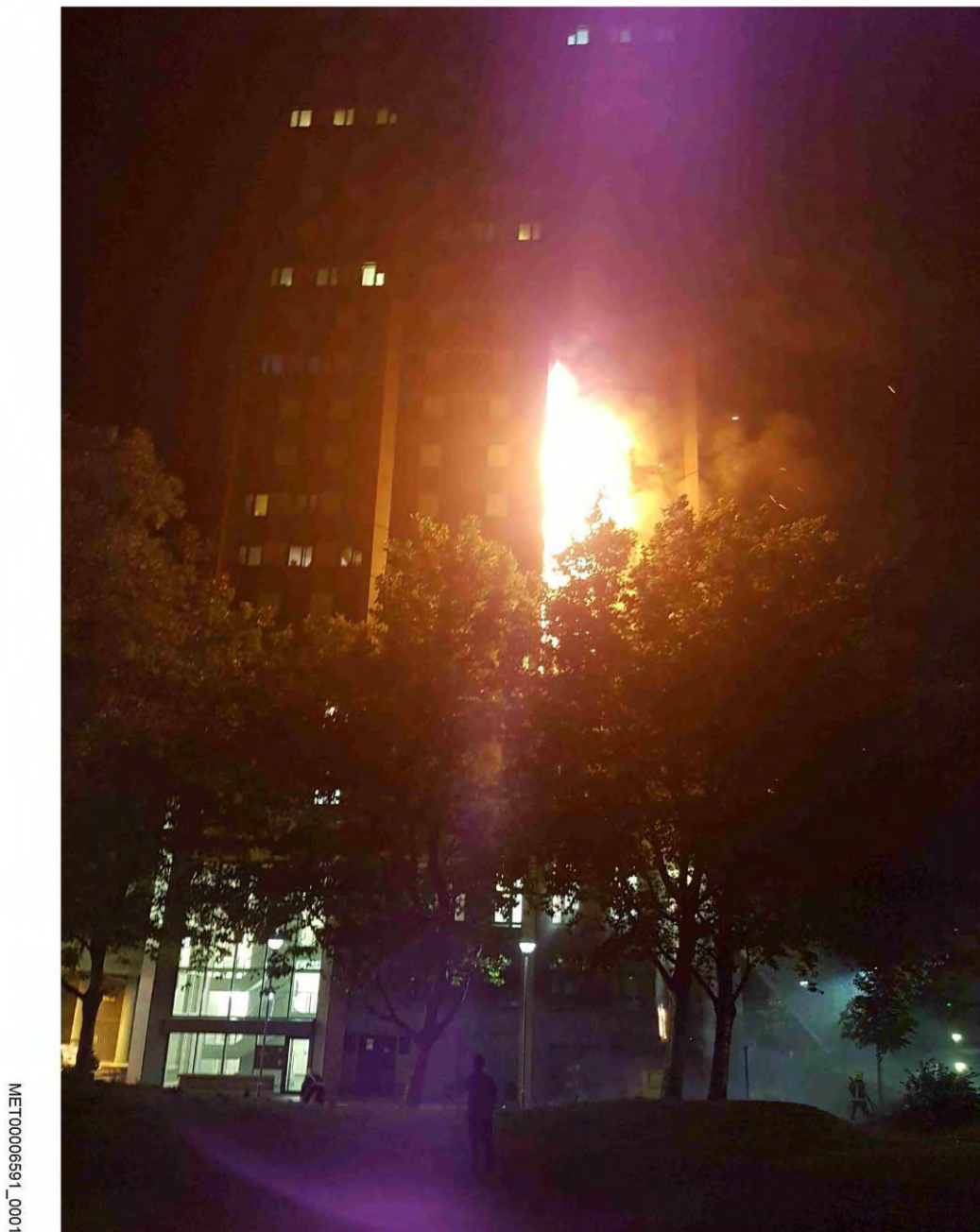
### Washing machine in kitchen.

Adj. time approx. 01:21:15



- 01:21:21** The picture below shows the fire has reached the 11<sup>th</sup> floor. A covering jet in the North East corner can be seen in use. It is believed this is Firefighter D Murphy or Firefighter Cornelius.

Another firefighter can be seen setting up a ground monitor (Source: MET00006591, Expert Witness Report: BLA00005481, CCTV: Camera 2).



**01:21:24** CRO Adams at Brigade Control takes a call from a female caller reporting the smell of smoke from inside Grenfell Tower. She states that she is from flat 195 on the 22<sup>nd</sup> floor. CRO Adams asks if there is smoke coming into her flat and the caller states that there is not but that she can smell smoke coming from the lift side of the building. CRO Adams advises the caller to stay inside and keep the door and window shut. CRO Adams explains that the fire is on the fourth floor and when the caller asks if they should stay where they are, CRO Adams replies

## OFFICIAL

that they should stay unless things change. Incident Number 76042, Call Duration one minute, 34 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00477).

**01:21:26\*** BA Team One: CM Batterbee and Firefighter D Brown capture pictures on a TIC (below) of what appears to be hot molten droplets falling from the outside of the tower past the window, which has been burnt away (Source: TIC Imagery).

### Kitchen window failed and molten Droplets Falling Outside.

Adj. time approx. 01:21:26



**01:21:30** BA Team Four: Firefighter Archer and Firefighter Abell, ascend the stairs from the bridgehead to the fifth floor and meet Firefighter Dorgu. He takes them to flat 26 on the fifth floor and they attempt to make entry into the flat (Source: Contemporaneous Notes: GTIRT17-00024, GTIRT17-00014, GTIRT17-01197, GTIRT17-00054, GTIRT17-00017).

**01:21:34** Hanan Wahabi (flat 66, ninth floor) leaves the building, via the main entrance (Source: CCTV: Camera 4).

**01:21:57** A firefighter, (believed to be Firefighter O'Beirne) enters the seventh floor lobby (Source: CCTV: Camera C15). He goes to flat 46 and two people, believed to be Carmen Vieiro and Jose Vieiro exit. They tell him their flat is on fire (Source: CCTV: Camera C15, MPS Witness Statement: GTIRT18-00072, Contemporaneous Notes: GTIRT17-00016).

**01:22:00** A member of the public (name unknown) enters the building (Source: CCTV: Camera 4).

**01:22:02** Rashida Ali and Hayam Atmani (flat 125, 15<sup>th</sup> floor) re-enter the building via the main entrance (Source: CCTV: Camera 4).

**01:22:05** Mohboubeh Jamalvatan (flat 10, third floor) descends the stairs and exits the building through the side door in the stair lobby (Source: CCTV: Camera 2).



## OFFICIAL

- 01:22:12** Saleh Eddine Chebiouni (flat 66, ninth floor), Mohammed Ahmed and Cyreen Ahmed (flat 102, 13<sup>th</sup> floor) come down the stairs and exit the building through the side door in the stair lobby (Source: CCTV: Camera 2).
- 01:22:16** Michael (Paramasivan) West (flat 45, seventh floor) comes out of his flat (CCTV footage jumps to 01:22:30, he is no longer visible but his door is left open) (Source: CCTV: Camera C15).
- 01:22:16** CRO Howson at Brigade Control takes a call from a male caller who reports that he can see a block of flats on fire. He explains that he is between Latimer Road station and Ladbroke Grove. CRO Howson confirms that the Brigade are attending a fire on the Lancaster Estate. Incident Number 76043, Call Duration 36 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00478).
- 01:22:18** Aziza Raihani (flat 126, 15<sup>th</sup> floor) descends the stairs to the stair lobby (Source: CCTV: Camera 2).
- 01:22:23** Rashida Ali and Hayam Atmani (flat 125, 15<sup>th</sup> floor) leave the main lobby and proceed into the stair lobby (Source: CCTV: Camera 2).
- 01:22:25** Rashida Ali (flat 125, 15<sup>th</sup> floor) talks with Aziza Raihani (flat 126, 15<sup>th</sup> floor) and leaves Hayam Atmani (flat 125, 15<sup>th</sup> floor) with her (Source: CCTV: Camera 2).
- 01:22:33** Golf 261, Acton's PL book status 2, mobile to Grenfell Tower. Golf 261 is riding with five firefighters, WM Nathan Ashe, Firefighter Nicke Merrion, Firefighter Will Murphy, Firefighter Harvey Sanders and Firefighter Mandeep Singh (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 01:22:35** Rashida Ali (flat 125, 15<sup>th</sup> floor) ascends the stairs from the stair lobby (Source: CCTV: Camera 2).
- 01:22:35\*** A firefighter, believed to be Firefighter O'Beirne, leaves the seventh floor lobby *and radios down to WM Dowden to inform him that the fire has spread to the seventh floor. Firefighter O'Beirne does not recall getting a response. He then proceeds to the eighth floor* (Source: CCTV: Camera C15, Contemporaneous Notes: GTIRT17-00016, GTIRT17-01215, GTIRT17-00293, MPS Witness Statement: GTIRT18-00072, GTIRT18-01065).
- 01:22:36** Hannah (Paramasivan) West (flat 45, seventh floor) is seen in the seventh floor lobby (Source: CCTV: Camera C15).
- 01:22:38** Aziza Raihani (flat 126, 15<sup>th</sup> floor) and Hayam Atmani (flat 125, 15<sup>th</sup> floor) leave the building via the side door in the stair lobby (Source: CCTV: Camera 2).
- 01:22:41** Mrs Vieiro (flat 46, seventh floor) re-enters the seventh floor lobby. *It appears that she returns to the seventh floor from the stairwell* (Source: CCTV: C15).

## OFFICIAL

- 01:22:45** Paddington's FRU, Alpha 216 book status 2, mobile to Grenfell Tower. Alpha 216 is riding with five firefighters, CM Philip Wigley, Firefighter Martin Gillam, Firefighter Russell Gonzalez, Firefighter Andrew Harris and Firefighter Dean Roberts (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 01:22:47** Mr Paramasivan (flat 45, seventh floor) enters the main lobby carrying Thea West (flat 45, seventh floor) (Source: CCTV: Cameras 2 and 4).
- 01:22:49** Alpha 211, Paddington's PL book status 2, mobile to Grenfell Tower. Alpha 211 is riding with five firefighters, WM Steven Collins, CM Guy Tillotson, Firefighter James Cuthbert, Firefighter Steven Mills and Firefighter Graeme Shaw (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 01:22:50** Fatima Jafari (flat 86, 11<sup>th</sup> floor), Taleen Ahmed (flat 102, 13<sup>th</sup> floor) and Aida Michael (not believed to be resident in Grenfell Tower) leave the building via the main entrance (Source: CCTV: Cameras 1 and 4).
- 01:22:51** Fire can now be seen externally at the 11<sup>th</sup> or 12<sup>th</sup> floor levels (Source: Mobile Phone Video Footage: MET000083362).

### **Please play Video '20170614\_012251' in Appendix 3.**

- 01:23\*** *Firefighter Dorgu meets a woman (now known to be Rashida Ali from flat 125, 15<sup>th</sup> floor) who informs him that her husband is in flat 122, 15<sup>th</sup> floor (now known to be Sid Ali) and is bedbound (Source: Contemporaneous Notes: GTIRT17-00016, MPS Witness Statement: GTIRT18-00072).*
- 01:23\*** *Firefighter O'Beirne reaches the eighth floor. There is heavy smoke logging in the eighth floor lift lobby. He goes straight out and up to the ninth floor. 'He states he didn't understand why the lift lobbies were getting smokier as he was going up. He thought smoke may be coming up the lift shaft' (Source: MPS Witness Statement: GTIRT18-00072, Contemporaneous Notes: GTIRT17-00016).*
- 01:23** WM O'Keeffe contacts WM Dowden (IC1) and informs him that he requires additional BA wearers and ECBs He suggests making pumps 10 (Source: Contemporaneous Notes: GTIRT17-00018, GTIRT17-01522, MPS Witness Statement: GTIRT17-01252, GTIRT17-02357).
- 01:23:15** CU7 from Wembley book Status 2, mobile to Grenfell Tower. CU7 is riding with two WMs: WM Norman Harrison and WM Antony Peckham (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 01:23:22** AOM Real at Brigade Control phones Thames Water Authority (TWA) at Brigade Control to inform them of the fire in progress at Grenfell Tower and order a water services technician. The TWA Operator asks how many pumps are attending the incident and AOM Real states that it is a

## OFFICIAL

ten pump fire. She asks the TWA Operator to hold and when she returns she repeats her request for a water services technician and also asks TWA to remotely increase the pressure. AOM Real confirms to the TWA Operator that it is now a 15 pump fire. Call Duration five minutes 18 seconds (Source: NICE, Admin Phone Line Audio file: GTIRT18-00865).

**01:23:49** Rashida Ali (flat 125, 15<sup>th</sup> floor), comes back down the stairs and leaves the building via the main entrance (Source: CCTV: Cameras 1, 2 and 4).

**01:23:50** CRO Adams at Brigade Control takes a call from a female caller who reports that she has seen a whole tower block on fire whilst driving down the A40. CRO Adams confirms the Brigade are in attendance and dealing with it. Incident Number 76044, Call Duration 39 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00479).

**01:23:56** Gitiara Pahlavani (flat 22, fifth floor) descends the stairs videoing on her phone and leaves the building via the main entrance (Source: CCTV: Cameras 2 and 4).

**01:24\*** *Firefighter O'Beirne enters the ninth floor and states he does not observe any smoke on that floor (Source: Contemporaneous Notes: GTIRT17-00016, MPS Witness Statement: GTIRT18-00072).*

**01:24:00** BA Team Four: Firefighter Archer and Firefighter Abell recall have difficulty gaining access to flat 26 and it takes them five minutes to gain entry (Source: Contemporaneous Notes: GTIRT17-00014, GTIRT17-01197, GTIRT17-00054, GTIRT17-00024, MPS Witness Statement: GTIRT18-00043, GTIRT18-00312, BA Data: GTIRT17-02820).

Rationale, both BA sets data show a steady rise and fall in consumption rate between 01:24 and 01:29, this is consistent with the work they describe undertaking).

**01:24:08** CRO Duddy at Brigade Control takes a call from a female caller reporting a fire in Grenfell Tower. The caller reports that there is a line of fire going right up the outside of it. CRO Duddy informs the caller that the Brigade is in attendance and additional resources are on their way. Incident Number 76045, Call Duration 34 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00480).

**01:24:09** Golf 271, North Kensington's PL sends a message to the Radio Operator at Brigade Control.

"M2FN Golf 271, make pumps 10, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02489).

Operational response	Notification actions
<ul style="list-style-type: none"> <li>• 9-12 Pumps including one 135 (Pumping Appliance)</li> <li>• Four WMs</li> <li>• One FIU</li> <li>• One FRU</li> <li>• Two Command Units</li> <li>• Five SMs</li> <li>• Two GMs (Incident Commander 7-10 pumps)</li> <li>• One PLO (exclusive)</li> <li>• One DAC (Monitoring Officer/Incident Commander 11-15 pumps)</li> <li>• One AC as Monitoring Officer</li> <li>• One Breathing Apparatus Unit (on the OSU)</li> <li>• One Damage Control Unit (on the OSU)</li> <li>• For incidents of 10 pumps and above;</li> <li>• One Portable Hygiene Unit will be mobilised via Logistics Manager in Resource Management Logistics</li> </ul>	<ul style="list-style-type: none"> <li>• Order AC1 or next available Duty AC</li> <li>• Inform AC2 they are now AC1</li> <li>• Order Canteen Van or inform of incident upgrade if already attending</li> <li>• Order Ambulance</li> <li>• Order Water Service Technician (unless incident is a special service)</li> <li>• Inform Police</li> <li>• Inform Environment Agency</li> <li>• Supervisor inform Resource Management Logistics</li> <li>• Supervisor inform ORT</li> <li>• Supervisor inform nearest Tactical Advisor Bulk Media Officer of fires of eight pumps and above</li> <li>• Supervisor inform Duty Radio Officer</li> <li>• Supervisor inform Duty FRS Press Officer</li> <li>• Supervisor inform Duty Brigade Control Senior Manager</li> <li>• Supervisor consider diverting press line to Duty FRS Press Officer</li> <li>• Action Make Pumps 9 - 12</li> <li>• Inform AC1 as Remote Monitoring Officer</li> <li>• Officer of the Day 1 or 2</li> <li>• Duty DAC</li> <li>• Duty AC (reassigned)</li> <li>• Commissioner and Staff Officers as appropriate</li> <li>• Authority members</li> <li>• Additional for 10 pumps</li> <li>• Supervisor inform Respiratory Protection Equipment officer</li> </ul>

**01:24:18** Betty Kasote (flat 41, seventh floor) leaves the building via the main entrance (Source: CCTV: Cameras 1 and 4).

## OFFICIAL

- 01:24:18** Rawda Said and Makrem Harzi carrying Yusuf Harzi ( from flat 54, Eighth floor) descends the stairs and proceed into main lobby (Source: CCTV: Camera 2).
- 01:24:27** Joseph John, Malacki John and Leanne Jackson Le Blanc (flat six, second floor), Mr Vieiro, Mrs Vieiro (flat 46, seventh floor), Ms West (flat 45, seventh floor), Catherine Handley and Mary Handley (flat 52, eighth floor) leave the building via the main entrance (Source: CCTV: Camera 4).
- 01:24:28** Makrem Harzi carrying Yusuf Harzi (Flat 54, Eighth floor) leaves the building via the main entrance (Source: CCTV: Camera 4)
- 01:24:29** Rawda Said (Flat 54, Eighth floor) leaves the building via the main entrance (Source: CCTV: Camera 4).
- 01:24:29** Catherine Hanley and Mary Hanley (flat 52, eighth floor) come down the stairs and proceed into the main lobby (Source: CCTV: Camera 2).
- 01:24:33** Golf 271, North Kensington's PL, sends a message to the Radio Operator at Brigade Control.
- "M2FN Golf 271, can we request the attendance of the police for crowd control? Golf 271."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02491).
- 01:24:33** Hannah West (flat 45, seventh floor) leaves the building via the main entrance (Source: CCTV: Camera 4).
- 01:24:36** Mr West carries Thea West out of the building via the main entrance, they are both from flat 45 on the seventh floor (Source: CCTV: Camera 4).
- 01:24:37** Catherine Hanley and Mary Hanley (flat 52, eighth floor) leave the building via the main entrance (Source: CCTV: Camera 4).
- 01:24:53** Echo 109, GM Welch rings the paging officer in response to the notification of a six pump fire. This notification action is for a BMA. CRO Adams informs GM Welch that the incident has now escalated to a 10 pump fire. GM Welch informs CRO Adams that he will attend and to book him Status 2, mobile to Grenfell Tower, from his home address in Bexley (Source: Admin Call: GTIRT18-00259, 'Vision': GTIRT17-02791).
- 01:24:53** Oscar Golf 61, SM Saunders books Status 2, mobile to Grenfell Tower, from his home address in Postcode WD25 (Source: 'Vision': GTIRT17-02791).
- 01:24:57** CRO Howson at Brigade Control takes a call from a male caller in W11 4JJ. He says there is a "Fire in a tower opposite". CRO Howson confirms that Brigade is in attendance at Grenfell

## OFFICIAL

Tower. Incident Number 76046, Call Duration 26 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00481).

- 01:24:57** CRO Duddy at Brigade Control takes a call from a BT Operator. A female can be heard shouting very loudly in the background. CRO Duddy asks if the line is still open and the BT Operator explains that it is but that she is not getting any response from the caller except shouting 'Help, Help'. CRO Duddy asks the BT Operator if the caller states that her flat is on fire but the response is interrupted by the caller shouting. CRO Duddy explains that the Brigade are already in attendance and the female caller states that she cannot breathe and that the fire is in the kitchen. The caller then leaves the line. CRO Duddy confirms with the BT operator that the line is still open and says hello several times. He asks the BT Operator to keep the line open. Incident Number 76047, Call Duration one minute, 57 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00482).
- 01:24:58** Shantila Patel (flat 56, eighth floor) leaves the building via the main entrance (Source: CCTV: Camera 4).
- 01:25\*** *BA Team Four: Firefighter Archer and Firefighter Abell try to gain access to flat 26, fifth floor. Before this happens a family of five come out from the flat next door (flat 25), and leave the fifth floor. They are later identified as Mohammed Rasoul, Munira Mahmud, Ahmed Abde Rrasoul, Mohammed Abdell Rasoul and Zahra Rasoul. BA Team Four wait to force entry into flat 26 until the family have been escorted out of the lobby. This is done by Firefighter Dorgu (Source: Contemporaneous Notes: GTIRT17-00017, MPS Witness Statement: GTIRT18-00641, BA Data: GTIRT17-02820).*
- 01:25:04** Oscar Kilo 13, WM Matthew Leaver, FIO, books Status 2, mobile to Grenfell Tower, from Alpha 28 Dowgate fire station (Source: 'Vision': GTIRT17-02791).
- 01:25:06** Golf 361, Hammersmith's PL book status 3, in attendance, at Grenfell Tower. This is the fifth fire engine in attendance (Source: 'Vision': GTIRT17-02791).
- 01:25:09** William Thompson (flat 52, eighth floor), Chiraag Patel, Kirwan Shantila Patel (flat 56, eighth floor), Amina Mohammed and Kahlid Ahmed (flat 51, eighth floor) all exit the building via the main entrance (Source: CCTV: Camera 4).
- 01:25:12** CRO Heidi Fox at Brigade Control takes a call from a female caller in W11 4EU. The caller states that there is a building opposite her that is on fire and CRO Fox advises her that the Brigade are already in attendance. Incident Number 76049, Call Duration 28 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00483).
- 01:25:14** BA Team One: CM Batterbee and Firefighter D Brown capture pictures on their TIC below, which shows molten droplets falling past the kitchen window of flat 16 (Source: TIC Imagery).

## Molten dropped down outside kitchen window. Camera on 2x zoom



ADJUSTED  
TIME  
APPROX  
01:25:14

- 01:25:14** Foxtrot 11,3 GM Stephen West, who is the ORT shadowing officer is mobilised to attend the incident by Brigade Control (Source: 'Vision': GTIRT17-02791).
- 01:25:16** OM Alexandra Norman at Brigade Control takes a call from a male caller in flat 111, 14<sup>th</sup> floor. The caller states that he can smell smoke but there is no smoke in his flat so he is advised by OM Norman it is safer to stay in his flat as there may be smoke in the stairwells. OM Norman also advises that if he wants to leave and it is safe to do so then he can. It is believed the caller subsequently opens the front door causing the smoke alarm to actuate and says he can't get out because of the smoke. He explains that there is smoke in the corridor. OM Norman tells him to block the doors and that he should stay put if he cannot get out safely. She tells him that she will tell the crews that he is there. Incident Number 76058 Call Duration three minutes 57 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00492).
- 01:25:23** Firefighter Badillo leaves the building via the main entrance. He props the front door open with his fire helmet as the door is on a timer and closes automatically (Source: CCTV: Camera 1).
- 01:25:34\*** An unidentified firefighter wearing BA briefly enters the seventh floor lobby. *This is believed to be Firefighter Hippel as all other firefighters are accounted for in the building at this time* (Source: CCTV: Camera C15).
- 01:25:36** CRO Howson at Brigade Control takes a call from an occupant believed to be from flat 91, 12<sup>th</sup> floor. CRO Howson states that there are six appliances in attendance and more on the way and then asks if he is okay and the caller responds by stating that he is scared. The caller says goodbye and the line goes dead. Incident Number 76050 Call Duration 46 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00484).

## OFFICIAL

- 01:25:40** Monica Lokko (flat three, first floor mezzanine), Reshad Naqshbandi (flat eight, third floor) and Elizabeth Sobieszczak (flat 43, seventh floor) leave the building via the main entrance (Source: CCTV: Camera 4).
- 01:25:41** Alpha 216, Paddington's FRU, confirm with Brigade Control if they are required at the 10 pump fire. This is because the mobilisation has not appeared on their MDT:
- "M2FN Alpha 216, can you confirm we're no longer required for scene of 10 pump fire, over?"
- (Source: 'Vision': GTIRT17-02791 and NICE, Radio Message Audio and Transcript: GTIRT17-02494).
- 01:25:41** The Radio Operator at Brigade Control responds to Alpha 216, Paddington's FRU.
- "Alpha 216, I am not aware that you are not required for the 10 pump. Can you just proceed and we are taking – we're taking emergency calls at the moment. Just proceed. Over"
- (Source: NICE, Radio Message Audio and Transcript: GTIRT17-02493).
- 01:25:41** Alpha 216, Paddington's FRU, contact the Radio Operator at Brigade Control.
- "Alpha 216 received, over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02492).
- 01:25:54** Golf 25 Alpha, Ealing's OSU book status 2, mobile to Grenfell Tower. Riding with one firefighter, Firefighter Phillip Birt (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 01:26\*** *At this time Firefighter O'Beirne hears a scream or a shout. He goes to the next floor which he believes is the 10<sup>th</sup>, 11<sup>th</sup> or 12<sup>th</sup>. He stands at the door into the lift lobby and after a few seconds a woman exits the lobby on her hands and knees in a distressed state. (It is possible that this is Damiana Louis from flat 96, 12<sup>th</sup> floor) Firefighter O'Beirne looks into the lobby and observes there is thick black smoke from floor to ceiling. He turns and asks her if there is anyone else in there but she has already gone down the stairs and doesn't turn back (Source: MPS Witness Statement: GTIRT18-00072).*
- By this time the fire has spread up the external façade to the 23<sup>rd</sup> floor, having travelled 19 floors in 12 minutes (Source: MPS Fire Spread Presentation, GTIRT18-01590).
- 01:26:27** CRO Angie Gotts at Brigade Control takes a call from a male caller who states he can smell burning in the area of his property in W10 6LW but he cannot see the building that is on fire. Incident Number 76053, Call Duration one minute 34 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00487).



## OFFICIAL

**01:26:38** Hermine Harris (flat 42, seventh floor) leaves the building via the main entrance (Source: CCTV: Camera 4).

**01:26:43** The table below show the resources mobilised to the 10 pump fire: (Source: 'Vision': GTIRT 17-02791).

<b>Operational Response to the incident at Make Pumps 10</b>
<ul style="list-style-type: none"><li>• Golf 272, North Kensington's Pump</li><li>• Golf 271, North Kensington's PL</li><li>• Golf 331, Kensington's PL</li><li>• Golf 362, Hammersmith's Pump</li><li>• Golf 361, Hammersmith's PL,</li><li>• Alpha 212, Paddington's Pump</li><li>• Alpha 211, Paddington's PL</li><li>• Golf 261, Acton's PL</li><li>• Golf 371, Chiswick's PL</li><li>• Golf 281, Willesden's PL</li><li>• Oscar Kilo 13, WM Leaver from the Fire Investigation Team</li><li>• Alpha 216, Paddington's FRU</li><li>• CU7</li><li>• CU8</li><li>• Hotel 41 Sierra SM Walton (as SM)</li><li>• Golf 22 Sierra SM Loft (as SM)</li><li>• Oscar Golf 61 SM Saunders (as SM)</li><li>• Alpha 40 Sierra, SM Peter Wolfenden (as SM)</li><li>• Oscar Echo 69, SM Daniel Kipling (as SM)</li><li>• Foxtrot 115 GM Goulbourne (as GM)</li><li>• Foxtrot 113 GM West (ORT Shadowing)</li><li>• Oscar Golf 54 SM Cook (as PLO)</li><li>• Echo 6 DAC O'Loughlin</li><li>• Oscar Foxtrot 67 SM Daniel Egan (as FSO)</li><li>• Golf 25 Alpha, Ealing's OSU (Breathing Apparatus Unit)</li><li>• Alpha 39 Alpha, Finchley's OSU (Damage Control Unit)</li></ul>

**01:26:49** Firefighter Badillo picks his fire helmet up at the main entrance where he earlier placed it to wedge the door open (Source: CCTV: Camera 1).

## OFFICIAL

**01:26:52** Two members of the public, Rhea Rojo (flat 91, 12<sup>th</sup> floor) and Nadia Jafari (flat 86, 11<sup>th</sup> floor), leave the lift at ground floor level and black smoke is emanating from the top of the lift car. See picture below (Source: CCTV: Camera 5).



**01:26:54** CRO Duddy at Brigade Control takes a call which is transferred from a BT Operator in Nottingham. A female caller comes on the line and reports that there is a fire in flat 186, Grenfell Tower. She says there is a fire in the whole building and when CRO Duddy asks if the caller is in the building, she confirms that everyone is out. The caller is advised to stay out, not to go back in and that there are a lot of fire engines already there. Incident Number 76052, Call Duration one minute 20 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00486).

**01:26:56** Alpha 212, Paddington's Pump book status 3, in attendance. This is the sixth fire engine in attendance at Grenfell Tower (Source: 'Vision': GTIRT17-02791).

**01:26:56\*** Firefighter Badillo meets Ms Urbano at the main entrance and Ms Urbano hands him a set of keys to flat 176, 20<sup>th</sup> floor. *(In his statement Firefighter Badillo states Ms Urbano tells him that her sister Jessica is still in their flat on the 20<sup>th</sup> floor and he tells her he will go and get her)* (Source: CCTV: Camera 1, Contemporaneous Notes: GTIRT17-00009, GTIRT17-00431, MPS Witness Statement: GTIRT18-01411, GTIRT18-00917).

**01:26:58** CRO Fox at Brigade Control takes a call from a female reporting a fire in Grenfell Tower. The caller explains that she is on the 12<sup>th</sup> floor and asks for some advice on what to do. CRO Fox clarifies the address and the caller explains that she can see the fire through the window and reports that her neighbour says that the fire is in her kitchen already. The caller says that smoke is coming from

## OFFICIAL

the main door and CRO Fox advises her to put wet towels down to stop the smoke. There is some audible confusion regarding whether the towels should be wet or dry and CRO Fox then confirms the location and flat number as flat 95. CRO Fox states that she will pass on the information to the crews. Incident Number 76062, Call Duration two minutes and 10 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00495).

- 01:27:01** Firefighter D Brown's (from BA Team One) Low Pressure Warning Alarm (LPWA) actuates, which informs him that he is low on air. Firefighter D Brown continues to try and put the fire out on the outside of the building by hanging out of the window whilst being held by CM Batterbee (Source: BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00012, GTIRT17-00458, GTIRT17-00460, GTIRT17-00011, MPS Witness Statement: GTIRT18-01837, GTIRT17-01434).
- 01:27:02** Golf 271, North Kensington's PL, sends a message to the Radio Operator at Brigade Control.
- "M2FN Golf 271, make ALP2, over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02495).
- 01:27:02** CRO Howson at Brigade Control takes a call from a male outside of Grenfell Tower stating that he can see a really big fire at Grenfell Tower and that it looks like it could collapse. CRO Howson tells the caller that six fire engines are en-route. Incident Number 76051, Call Duration 25 seconds (Source: BOSS viewer, 999 Audio file and Transcript: GTIRT17-00485) The call time is the BOSS call time but has been referenced as using the call creation time.
- 01:27:03** SM Oliff (OOD) who is the nominated Officer of the Day (OOD) contacts the paging officer to acknowledge receipt of the eight pump fire. He confirms that Brigade Control are located at Stratford and states he will proceed to Brigade Control (Source: NICE, Admin Phone Line Audio file: GTIRT18-00251, 'Vision': GTIRT17-02791).
- 01:27:05** Ms Rojo (flat 91,12<sup>th</sup> floor) and Jean Lavine (flat 42, 7<sup>th</sup> floor) leave the building via the main entrance (Source: CCTV: Camera 4).
- 01:27:06** The Radio Operator at Brigade Control confirms receipt of message from G271, North Kensington's PL at **01:27:02**:
- "Make ALPs 2, further traffic."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02496).
- 01:27:10** CM Sephton from BA Team Six, removes his BA tally from his BA set before entering the building (Source: BA Data: GTIRT17-02820, CCTV: Camera 4).
- 01:27:13** Brigade Control request best approach road for officers. Hotel 41 Sierra, SM Walton is having difficulty finding a route to the incident due to the amount of road closures in the area (Source:

## OFFICIAL

'Vision': GTIRT17-02498, Contemporaneous Notes: GTIRT17-00004, GTIRT17-00278, GTIRT17-01137, GTIRT17-01138, GTIRT17-01139, MPS Witness Statement: GTIRT18-01000).

G271, North Kensington's PL, advise that Bomore Road is the best approach road to the incident (Source: 'Vision': GTIRT17-02791, NICE, Radio Message Audio file and Transcript: GTIRT17-02497).

- 01:27:15** Nadia Jafari (from flat 86, 11<sup>th</sup> floor) exits via the main entrance (Source: CCTV: Camera 4).
- 01:27:16** Rita Tankrian, Mesrob Kassemajian and Fung (girlfriend of Mesrob Kassemajian surname unknown) (flat 141, 17<sup>th</sup> floor) leave the building via the main entrance (Source: CCTV: Camera 4).
- 01:27:17** CM Secrett descends the stairs to the stair lobby and exits in to the main lobby (Source: CCTV: Camera 2).
- 01:27:23** As CM Secrett exits the building as he passes Firefighter Badillo they talk to each other, CM Secrett leaves the building, via the main entrance and Firefighter Badillo heads towards the ground floor lift lobby (Source: CCTV: Cameras 3 and 4).
- 01:27:26** Golf 271, North Kensington's PL, sends a message to the Radio Operator at Brigade Control.
- "Further traffic, make pumps 15, over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02499).

**13+ pumps operational response and notification actions**

<b>Incident Type: 13+ Pumps</b>	
<b>Operational response</b>	<b>Notification actions</b>
<ul style="list-style-type: none"> <li>• 13+ Pumps including one 135 (Pumping Appliance)</li> <li>• Five WMs</li> <li>• One FIU</li> <li>• One FRU</li> <li>• Two CUs</li> <li>• Six SMs</li> <li>• Three GMs</li> <li>• One PLO (exclusive)</li> <li>• One FSO</li> <li>• One DAC (Incident Commander 11-15 pumps)</li> <li>• One AC(Monitoring officer/Incident Commander 16+ pumps)</li> <li>• One Breathing Apparatus Unit (on the OSU)</li> <li>• One Damage Control Unit (on the OSU)</li> <li>• One Portable Hygiene Unit will be mobilised via Logistics Manager in Resource Management Logistics</li> </ul>	<ul style="list-style-type: none"> <li>• Order AC1 or next available Duty AC. Inform AC2 they are now AC1</li> <li>• Order Canteen Van or inform of incident upgrade if already attending</li> <li>• Order Ambulance</li> <li>• Order Water Service Technician (unless incident is a special service)</li> <li>• Inform Police</li> <li>• Inform Environment Agency</li> <li>• Supervisor inform Resource Management Logistics</li> <li>• Supervisor inform ORT</li> <li>• Supervisor inform nearest Tactical Advisor Bulk Media Officer</li> <li>• Supervisor inform Duty Radio Officer</li> <li>• Supervisor inform Duty FRS Press Officer</li> <li>• Supervisor inform Duty Brigade Control Senior Manager</li> <li>• Supervisor consider diverting press line to Duty FRS Press Officer</li> <li>• Action Make Pumps 13+</li> <li>• Inform AC1 as Remote Monitoring Officer</li> <li>• Supervisor inform Respiratory Protection Equipment Officer</li> <li>• Officer of the Day 1 or 2</li> <li>• Duty DAC</li> <li>• Duty AC(reassigned)</li> <li>• Commissioner and Staff Officers as appropriate</li> <li>• Authority members</li> <li>• Supervisor order Duty Brigade Control Senior Manager</li> </ul>

## OFFICIAL

- 01:27:28** Van Quang Ho (flat 76, 10<sup>th</sup> floor) leaves the building, via the main entrance (Source: CCTV: Camera 4).
- 01:27:31** Firefighter Badillo enters the ground floor lift lobby with the keys given to him by Ms Urbano (believed to be for flat 176, 20<sup>th</sup> floor) (Source: CCTV: Camera C18, Contemporaneous Notes: GTIRT17-00009, GTIRT17-00431, MPS Witness Statement: GTIRT18-01411, GTIRT18-00917).
- 01:27:34** Nadia Jafari (from flat 86, 11<sup>th</sup> floor) re-enters Grenfell Tower from outside (Source: CCTV: Camera 4).
- 01:27:35** The Radio Operator at Brigade Control confirm Golf 271, North Kensington's PL, message of **01:27:26**:  
"Make pumps 15 and aerials 2 received. Hotel 41 Sierra, did you intercept that road, over?"  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02500).
- 01:27:42** Firefighter Badillo enters the lift on the ground floor. From his statements his intention is to travel to the 20<sup>th</sup> floor to rescue Jessica Urbano from flat 176 (Source: CCTV: Cameras C18 and 5, Contemporaneous Notes: GTIRT17-00009, GTIRT17-00431, MPS Witness Statement: GTIRT18-01411, GTIRT18-00917).
- 01:27:46** CRO Howson at Brigade Control takes a call from a male caller who is incoherent. CRO Howson tries to get some information but the caller doesn't answer. The BT Operator then comes on to the line and states that the initial caller is a female asking for the fire brigade who sounds quite panicky. Incident Number 76055, Call Duration 46 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00489).
- 01:27:50** Zahra Rasoul Mahmud, Munira Mahmud, Mahammed Rasoul (flat 25, fifth floor) and Hoang Khanh Quang (flat 76, 10<sup>th</sup> floor) leave the building via the main entrance (Source: CCTV: Camera 4).
- 01:27:51** Nadia Jafari (flat 86, 11<sup>th</sup> floor) exits via the main entrance (Source: CCTV: Camera 4).
- 01:27:56** Sabah Abdulla (flat 143, 17<sup>th</sup> floor), Fied Bayam, Nadia Yousef (flat 121, 15<sup>th</sup> floor), Hafsa Khalloud, Zaid Khalloud, Youssef Khalloud Nusaybah Khalloud and Mouna El-Ogbani (flat 85, 11<sup>th</sup> floor) descend the stairs to the stair lobby followed by LFB personnel and proceed into the main lobby (Source: CCTV: Camera 2).
- 01:28\*** *Firefighter Badillo is travelling in the lift to the 20<sup>th</sup> floor. He states that the lift stops at the 15<sup>th</sup> floor, where the doors open and the lift car fills full of black smoke. He is not wearing BA. Firefighter Badillo manages to find his way through the lift lobby door and into the stairwell. He*

## OFFICIAL

*then descends the stairs (Source: Contemporaneous Notes: GTIRT17-00009, GTIRT17-00431 and MPS Witness Statement: GTIRT18-01411, GTIRT18-00917).*

- 01:28** BA Team One: CM Batterbee and Firefighter D Brown, withdraw from flat 16 due to the continuing actuation of Firefighter D Brown's LPWA. BA Team Two: Firefighter O'Hanlon and Firefighter Barton, continue fighting the fire on the external facade from inside the flat. BA Team Two state the window and frame in the kitchen has failed which means the area is ventilated. They notice the external window surround is on fire and reach out of the opening as far as they can to extinguish it and try to see how high the fire has spread (Source: Contemporaneous Notes: GTIRT17-00027, GTIRT17-00012, GTIRT17-00458, GTIRT17-00460, GTIRT17-00011, GTIRT17-00025, MPS Witness Statement: GTIRT18-00387, GTIRT18-01837, GTIRT17-01434, GTIRT18-00321).
- 01:28\*** *Firefighter O'Beirne is on the stairwell between the 10<sup>th</sup> and 14<sup>th</sup> floors. Firefighter O'Beirne meets two adult males of Arabic appearance. One of whom states his dad is bedbound and still in the flat on the 16<sup>th</sup> floor. Firefighter O'Beirne radios this information to the bridgehead but does not recall receiving confirmation that the radio message has been received (it is now known that this is Sam Daniels, flat 135, 16<sup>th</sup> floor) (Source: Contemporaneous Notes: GTIRT17-00016, MPS Witness Statement: GTIRT18-00072, GTIRT18-02500).*
- 01:28** BA Team Three: Firefighter Hippel and CM Stern intercept the message from Firefighter O'Beirne, they believe they are on the fifth or sixth floor (Source: Contemporaneous Notes: GTIRT17-00016, GTIRT17-01198, GTIRT17-00019, MPS Witness Statement: GTIRT18-00072, GTIRT18-01111, GTIRT18-00427).
- 01:28** BA Team Four: Firefighter Archer and Firefighter Abell, enter flat 26 on the fifth floor. The smoke is thick, black and down to ground. The lift lobby then fills full of smoke which then goes into the stairwell as the fire hose is propping the lift lobby door open. The temperature in the flat is said to be very warm and they are unable to see the fire using the TIC. As they enter further into the flat the fire hose then becomes stuck and Firefighter Archer goes back to the stairwell to free the fire hose (Source: BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00014, GTIRT17-01197, GTIRT17-00054, GTIRT17-00024, MPS Witness Statement: GTIRT18-00043, GTIRT18-00312).
- 01:28:00** CRO Gotts at Brigade Control takes a call from a member of the public reporting a massive fire in a flat that they can see as they are driving to Shepherds Bush. Incident Number 76056, Call Duration 52 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00490).
- 01:28:00** Golf 281, Willesden's PL book status 2, mobile to Grenfell Tower. Golf 281 is riding with five firefighters: WM Alexander Cardy, CM Craig Eden, Firefighter Katie Foster, Firefighter Gregory

## OFFICIAL

Lawson and Firefighter Tom Welch (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).

**01:28:02** CRO Duddy at Brigade Control takes a call from a female member of the public reporting a fire in Grenfell Tower. She explains that she is in the building opposite. CRO Duddy states that the Brigade is in attendance. Incident Number 76054, Call Duration 26 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00488).

**01:28:04** Nadia Yousef, Fied Bayam (flat 121, 15<sup>th</sup> floor), Hafsa Khalloud, Mouna El-Ogbani, Zaid Khalloud, Youssef Khalloud, Nusaybah Khalloud (flat 85, 11<sup>th</sup> floor) and Sabah Abdullah (flat 143, 17<sup>th</sup> floor) leave the building via the main entrance (Source: CCTV: Camera 4).

**01:28:05** Echo 6, DAC Andrew O'Loughlin, calls Brigade Control in response to the pager message to an eight pump fire at Grenfell Tower and asks if it is now a 15 pump fire which Brigade Control confirms. DAC O'Loughlin confirms that he is en-route and to book him Status 2, mobile to Grenfell Tower and states that DAC Fenton will be taking over the duty DAC role (Source: NICE, Admin Phone Line Audio file: GTIRT18-00252, 'Vision': GTIRT17-02791).

**01:28:11** Firefighter Dorgu runs out of the building via the main entrance (Source: CCTV: Cameras 2 and 4, MPS Witness Statement: GTIRT18-00641, Contemporaneous Notes: GTIRT17-00017).

**01:28:12** Golf 271, North Kensington's PL, send an 'assistance' message to Brigade Control, confirming 'Persons Reported':

"M2FN Golf 271, this is a person-reported fire, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02501).

This message means that the Incident Commander is informing Brigade Control that people are involved (Source: 'Vision': GTIRT17-02791).

### Persons Reported operational response and notification actions

Incident Type: PR – Fire – Persons Reported	
Operational response	Notification actions
<ul style="list-style-type: none"><li>• Normal Predetermined Attendance for the premises/thoroughfare and Fire</li><li>• 1 x WM</li><li>• 1 x FIU</li><li>• 1 x SM as Monitoring Officer</li><li>• 1 x Command Unit</li></ul>	<ul style="list-style-type: none"><li>• Order Ambulance</li><li>• Inform Police</li><li>• Supervisor inform Resource Management Logistics</li><li>• Supervisor inform ORT</li><li>• Inform FSO if not already attending.</li><li>• Inform GM as Remote Monitoring Officer</li></ul>



## OFFICIAL

- 01:28:19** CRO Sarah Russell at Brigade Control takes a call from the Glasgow BT Operator who states that a male caller is on the line but has now cleared the line. The BT Operator says that the caller starts saying Ladbroke something, but then the line clears. CRO Russell says she will call him back. Incident Number 76059a, Call Duration 24 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00493). The Call time is the BOSS call time but has been referenced using the 'Vision' call creation time.
- 01:28:19** CRO Russell at Brigade Control calls the number provided above and speaks to a delivery driver who wants to report a fire in Grenfell Tower. CRO Russell confirms that the Brigade is in attendance (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00538).
- 01:28:21** The Radio Operator at Brigade Control confirm receipt of Golf 271, North Kensington's PL's, message of 01:28:12.
- "Golf 271, persons reported also received."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02502).
- 01:28:26** CRO Duddy at Brigade Control takes a call from the occupant of flat 82, 11<sup>th</sup> floor. The female caller explains that she is stuck on the 11<sup>th</sup> floor and does not know how to get out. CRO Duddy asks if there is any smoke in her property to which the caller states that there is no smoke in her property but that there is smoke in the landing. CRO Duddy advises her to keep the doors and windows closed. Incident Number 76057, Call Duration one minute six seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00491).
- 01:28:39** Ms Louis (flat 96, 12<sup>th</sup> floor) leaves the building via the side entrance (Source: CCTV: Camera 2).
- 01:28:41** Oscar Echo 69, SM Kipling, books Status 2, mobile to Grenfell Tower from his home address in Surrey Quays (Source: 'Vision': GTIRT17-02791 and ORF Register: GTIRT17-02567).
- 01:28:49** Mustafa Abdu (flat 184, 21<sup>st</sup> floor) and Joao Dias (flat 104, 13<sup>th</sup> floor) leave the building via the main entrance (Source: CCTV: Camera 4).
- 01:29:00** The main entrance door is still automatically closing causing access issues for firefighters (Source: CCTV: Cameras 1 and 4).
- 01:29** WM Watson meets WM Dowden and discusses the incident resourcing. They agree the incident requires 20 fire engines and two FRUs. WM Dowden confirms that a bridgehead has been established on the second floor and asks WM Watson to establish a staging area on the ground floor (Source: CCTV: Camera 4, Contemporaneous Notes: GTIRT17-01215, GTIRT17-00293, GTIRT17-00031, MPS Witness Statement: GTIRT18-01065, GTIRT18-00073).

## OFFICIAL

- 01:29** BA Team One: CM Batterbee and Firefighter D Brown report back to the BA ECP at the bridgehead and replace their BA tallies into their BA sets and brief WM O'Keeffe as to what they have seen in flat 16 and the extent of the external fire travel observed (Source: Contemporaneous Notes: GTIRT17-00012, GTIRT17-00458, GTIRT17-00460, GTIRT17-00011, GTIRT17-00018, GTIRT17-01522, MPS Witness Statement: GTIRT18-01837, GTIRT17-01434, GTIRT17-01252, GTIRT17-02357).
- 01:29\*** *Firefighter O'Beirne and the two residents one of whom is now known to be Sam Daniels are between the ninth and 14<sup>th</sup> floors (Source: Contemporaneous Notes: GTIRT17-00016, MPS Witness Statement: GTIRT18-00072, GTIRT18-02500).*
- 01:29** BA Team Three: CM Stern and Firefighter Hippel are ascending the stairs towards Firefighter O'Beirne, Mr Daniels and the other resident (Source: Contemporaneous Notes: GTIRT17-00016, GTIRT17-01198, GTIRT17-00019, MPS Witness Statement: GTIRT18-00072, GTIRT18-00427, GTIRT18-01111).
- 01:29\*** *WM Dowden notices a large amount of debris falling from the tower and orders the crew working the covering jet (Firefighter D Murphy and Firefighter Cornelius) to move back to a safe area. The firefighters move back and at this point WM Dowden realises that the jet is having no effect on suppressing the fire and he orders the crew to turn off the covering jet and report to the bridgehead wearing BA (Source: MPS Witness Statement: GTIRT18-01065).*
- 01:29:03** Echo 6, DAC O'Loughlin is booked Status 2, mobile to the incident, from his home address in Surbiton (Source: 'Vision', GTIRT17-02791 and ORF Register: GTIRT17-02567).
- 01:29:05** AOM Real at Brigade Control calls the London Ambulance Service (LAS) and asks for their attendance. She gives the address of Grenfell Tower and postcode as W11 1TG. The Ambulance Operator says this brings up The Parade off St John's Hill. AOM Real states that it is the Lancaster West estate, the Ambulance Operator asks if this is a "new build". AOM Real answers no. The Ambulance Operator appears to be having difficulty finding Grenfell Tower. AOM Real passes it as a 25 pump fire. The ambulance reference is given as 247. Call Duration three minutes 18 seconds, (Source: NICE, Admin Phone Line Audio file: GTIRT18- 00869).
- 01:29:11** Golf 271, North Kensington's PL, sends a message to the Radio Operator at Brigade Control.  
"Authority." "M2FN Golf 271, make pumps 20 and FRUs 2, over."  
(Source: NICE, Radio Message Audio file: GTIRT18-02503).
- 01:29:28** Sepideh Minaei Moghaddam and Sepehr Wastfaleh (flat four, first floor mezzanine), leave the building via the main entrance (CCTV: Camera 4).
- 01:29:33** The Radio Operator at Brigade Control sends a message to Golf 271, North Kensington's PL:

## OFFICIAL

"Make pumps 20, FRUs 2 received."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02504).

- 01:29:34** CRO Duddy at Brigade Control takes a call from a female caller who lives near Grenfell Tower to report that it is burning. CRO Duddy confirms that the Brigade is already there. Incident Number 76061, Call Duration 26 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00494). The time shown is the BOSS call time but has been referenced using the 'Vision' call created time.
- 01:29:38** CRO Adams at Brigade Control takes a call from a female requesting Fire Brigade attendance at Ladbrooke Grove, Latimer Road. CRO Adams confirms that this is to Grenfell Tower and explains that the Brigade is already in attendance. The caller asks CRO Adams to send more fire engines and states that the whole of left side of building is on fire. The caller then corrects herself by stating that the whole of the right side is on fire. CRO Adams advises that 20 fire engines are coming and the fire service are already in attendance. Incident Number 76065, Call Duration 60 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00498).
- 01:29:41** Bravo Charlie 02 Senior Operations Manager (SOM) Joanne Smith who is the Duty Brigade Control Senior Manager is paged and notified of the incident (Source: 'Vision': GTIRT17-02791 and Paging Logs: GTIRT18-02098).
- 01:29:48** CRO Gotts at Brigade Control takes a call from a male caller who states he has received a call from his girlfriend and that there is a fire in her block near Latimer Road. He is advised that the Brigade is on scene and dealing with the fire. Incident Number 76064, Call Duration 20 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00497).
- 01:29:48** CRO Russell at Brigade Control takes a call from the Portadown BT Operator who passes on a mobile number saying the line has cleared. The BT Operator adds that it appears to be a child on the line who asks for the Fire Brigade. She also says the caller sounds in distress. CRO Russell says she will call the number back. Incident Number 76096a, Call Duration 21 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00527).
- 01:29:51** A team of three firefighters wearing BA arrive at the main entrance, these are CM Sephton, Firefighter Broderick and Firefighter Brodrick. The door is closed and they cannot gain access into the building (Source: CCTV: Cameras 1 and 4).

## OFFICIAL

**01:30** The image below shows the fire spread at Grenfell Tower. The picture shows the North elevation alight and spreading up the tower.



(Source: MET000085871).

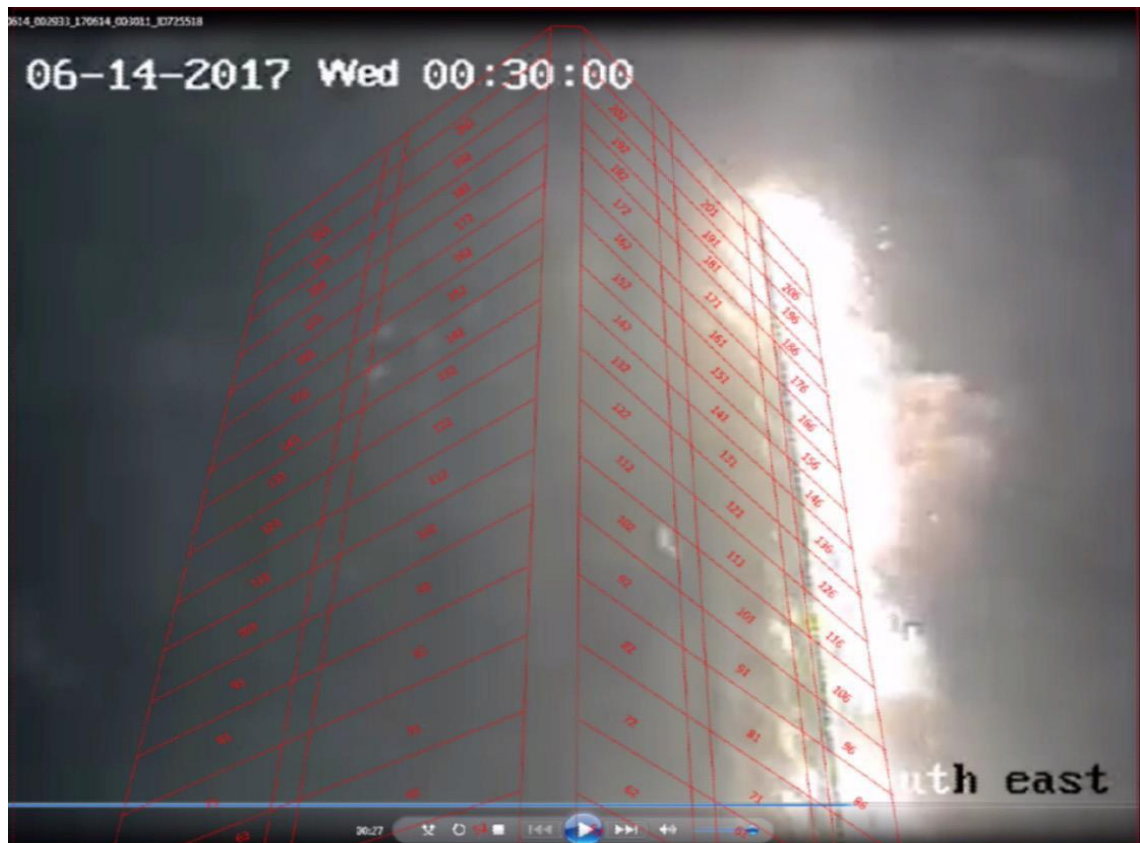
**01:30:00** CRO Duddy at Brigade Control takes a call from a female caller reporting that there is a fire in Grenfell Tower and that they are stuck on the top floor and that the doors won't open. The caller explains that there is smoke everywhere and the fire is in her house on the 22<sup>nd</sup> floor. She tells CRO Duddy that everyone is now on the 23<sup>rd</sup> floor. The caller further explains that the fire has broken into the kitchen of her flat and she has run into the neighbour's flat. FSG is given to explain how to try to prevent smoke from coming in. The line is very poor and keeps cutting out and the caller's voice keeps breaking up. When the line goes quiet, CRO Duddy asks the Operator if the line is open but there is no response and eventually the line drops out. Incident Number 76063 Call Duration two minutes 37 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00496).

**01:30\*** *Helen Gebremeeskal (flat 186, 21<sup>st</sup> floor) states she goes to the fire exit door leading to the stairwell on the landing to see about escaping down the stairs. She opens the fire door but does not go down at this point. She thinks it is about 01.30am and there is smoke 'but not so much that we can't see each other'. Lots of people, on the other side of the door are coming up the stairs*

## OFFICIAL

from the lower levels and they are heading up the tower, via the stairs. She can see lots of people coming up from the lower floors, but she doesn't know how many. There are enough of them to make it hard to go down the stairs at this time. She states, 'they tell us to go back to our flat. It appeared to me that they were trying to escape from a fire below' (Source: BSR Witness Statement: IWS00000218).

**01:30** CCTV footage in the picture below is from the on site camera shows that the fire has reached the roof. The flames appear to involve the outside of flats on the North East corner of Grenfell Tower (Source: CCTV: Camera CH01, MPS GT Plan: GTIRT18-00274).



**01:30\*** At around this time, BA Team Three: CM Stern and Firefighter Hippel meet Firefighter O'Beirne, Sam Daniels and another resident (believed to be Hamed from flat 136,16th floor) in the stairwell. Firefighter O'Beirne states he believes they are between the ninth and 10<sup>th</sup> floors . Firefighter Hippel and CM Stern claim they meet the others on or around the sixth floor whilst Sam Daniels records in his police statement they are on the 11<sup>th</sup> floor or possibly the 14<sup>th</sup> floor, he also comments that it is confusing due to the refurbishment (Source: Contemporaneous Notes: GTIRT17-00016, GTIRT17-01198, GTIRT17-00019, MPS Witness Statement: GTIRT18-00072, GTIRT18-00427, GTIRT18-01111, GTIRT18-02500).

**01:30:02** OM Norman at Brigade Control takes a call from a female caller who states that her, her husband, three children including a baby are in Grenfell Tower in flat 175 on the 20<sup>th</sup> floor and that there is a fire in her building. The caller originally states that she is on the 17<sup>th</sup> floor and then corrects

herself. OM Norman explains that the fire is on the fourth floor and the caller states that there is smoke coming into her flat. OM Norman advises the caller to stay in the flat unless its safe to leave as she doesn't know what the conditions are like on the stairs. She tells the caller to block the doors and the caller confirms that her husband has done this and that the family have all moved into the sitting room. The caller is scared and panicking and OM Norman confirms that she will send someone up to her. OM Norman repeats her advice to block the door and tells the caller not to open the windows unless there is no smoke because the fire will be coming up the outside of the building. Incident Number 76079, Call Duration two minutes 40 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00512).

**01:30:05** Golf 371, Chiswick's PL book Status 2, mobile to Grenfell Tower. Golf 371 is riding with five firefighters: WM Alan Moore, Firefighter Tristan Daoud, Firefighter Agnel Fernandes, Firefighter Stephen O'Donoghue and Firefighter Vincent Williams (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).

**01:30:08** After completing the call to the BT Operator (call received at **01:29:48**), CRO Russell at Brigade Control calls the mobile number given to her and a young girl can be heard saying "Mum". She then says there is a fire in the kitchen, then says there is a fire in the building. The caller is on the 23<sup>rd</sup> floor. CRO Russell asks the caller where the smoke is coming from and the caller states it is coming from the floor. She says there are 10 people including her. It appears initially that the caller is on the landing outside the flat. A smoke alarm is sounding and someone is heard saying "come in", "we have to close the door". CRO Russell confirms they need to go inside and try and block underneath the front door to stop the smoke coming in and establishes some information about the location of the fire. The caller says the fire is on the 20<sup>th</sup> floor but they are on the 23<sup>rd</sup>. CRO Russell asks the caller who the people are with them. They reply, "I'm not with my family". At **01:39:41** the caller tells CRO Russell they have moved into a bedroom. At **01:47:28** CRO Russell is able to confirm that the caller's name is Jessica, that she is 12 years old, is in flat 201 and that there are 12 people in the flat including herself. CRO Russell continues to support Jessica and asks her to keep her up to date. At **02:09:32** Jessica says "there's a fire in the room". At around **02:13** CRO Russell asks Jessica to talk to other people in the room and ask if they think it would safer to leave that room and go to another room if the flames are now coming in. Jessica says they have tried already and there is too much smoke. CRO Russell asks to speak to the person that tried to get out but is told he cannot talk. CRO Russell persists in trying to get the phone passed over but Jessica cannot pass it or speak to anyone. The call ends at **02:24:45** when Jessica becomes inaudible for several minutes and CRO Russell cannot get any response. She repeatedly tries to raise a response. Call Number 76096b, Call Duration 55 minutes (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00570).

At the beginning of the shift CRO Sarah Russell is allocated to a radio position in the Brigade Control room. She is scheduled to monitor the radio channel for all Brigade resources South of the River Thames. In her MPS witness statement she says that she could see that the "number of calls began stacking up". She asks her colleague CRO Sharon Darby if she can manage both the North and South radio channels in order that she can assist with the high volume of 999 emergency calls being received. This is not an uncommon practice during busy periods.

- 01:30:08** CRO Fox at Brigade Control takes a call from a male caller who says there is a fire and that he is on the 22<sup>nd</sup> floor. CRO Fox confirms that the caller is in Grenfell Tower and confirms that the Brigade are on their way. The caller acknowledges that he can see the Brigade but states that the conditions are terrible and it is not possible to see your hand in front of you. CRO Fox tells the caller to put towels down to prevent smoke from coming in and the caller thanks her and says he will tell the others. Smoke alarms are audible. Incident Number 076066, Call Duration (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00499).
- 01:30:11\*** *Sepideh Minaei Moghaddam and Sepehr Wastfaleh (flat 4, first floor mezzanine), Marlon Mangoba Snr, Marlon Mangoba Jnr and Nida Mangoba (flat 116, 14<sup>th</sup> floor) leave the building via the main entrance (Source: CCTV: Camera 4).*
- 01:30:14** CRO Howson at Brigade Control takes a call from a male caller who is on his balcony in W2 5TQ and he can see a whole block of flats on fire near Westfield. CRO Howson checks the individual's postcode and is satisfied that the caller is in close enough proximity to Grenfell for it to be the same incident. Incident Number 76069 Call Duration one minute 38 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00502).
- 01:30:25** Firefighter Dorgu, now wearing BA, enters the main lobby with a 45 mm fire hose. A further four BA wearers enter the main lobby, Firefighter Broderick, Firefighter Brodrick, Firefighter Felton and CM Sephton, they are carrying an enforcer, two firefighting branches, two 45 mm fire hose and a Halligan tool (Source: CCTV: Cameras 1 and 4).
- 01:30:29** Golf 371, Chiswick's PL contact Brigade Control and inform them there is no ordering on the appliance MDT:
- "Yeah, FN Golf 371, we are status 2 to this incident, although we have no incident showing on the MDT over. Could you send through again?"
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02505).
- 01:30:30\*** *BA Team Three: CM Stern and Firefighter Hippel climb to the 16<sup>th</sup> floor, having spoken to Firefighter O'Beirne and Sam Daniels (Source: Contemporaneous Notes: GTIRT17-01198, GTIRT17-00019, MPS Witness Statement: GTIRT18-00427, GTIRT18-01111 GTIRT18-02500).*

## OFFICIAL

**01:30:32** Amiel Miller (flat 145, 17<sup>th</sup> floor) leaves the building via the main entrance (Source: CCTV: Camera 4).

**01:30:33** The table below show the resources required and mobilised to the 20 pump fire:

<b>Operational Response to the incident at Make Pumps 20</b>
<ul style="list-style-type: none"><li>• Golf 272, North Kensington's Pump</li><li>• Golf 271, North Kensington's PL</li><li>• Golf 331, Kensington's PL</li><li>• Golf 362, Hammersmith's Pump</li><li>• Golf 361, Hammersmith's PL,</li><li>• Alpha 212, Paddington's Pump</li><li>• Alpha 211, Paddington's PL</li><li>• Golf 261, Acton's PL</li><li>• Golf 371, Chiswick's PL</li><li>• Golf 281, Willesden's PL</li><li>• Golf 341 Chelsea's PL</li><li>• Golf 351, Fulham's PL</li><li>• Golf 291, Park Royal's PL</li><li>• Alpha 411, West Hampstead's PL</li><li>• Alpha 231, Euston's PL</li><li>• Alpha 241, Soho's PL</li><li>• Alpha 242, Soho's Pump</li><li>• Hotel 271, Battersea's PL</li><li>• Golf 251, Ealing's PL</li><li>• Hotel 331, Wandsworth's PL</li><li>• Oscar Kilo 13, WM Matthew Leaver (as FIO)</li><li>• Alpha 216, Paddington's FRU</li><li>• CU7</li><li>• CU8</li><li>• Hotel 41 Sierra SM Walton (as SM)</li><li>• Golf 22 Sierra SM Loft (as SM)</li><li>• Oscar Golf 61SM Saunders (as SM)</li><li>• Alpha 40 Sierra, SM Wolfenden (as SM)</li><li>• Oscar Echo 69, SM Kipling (as SM)</li><li>• Hotel 33 Sierra, SM Jacqueline McConochie (as SM)</li></ul>



- Foxtrot 115 GM Goulbourne (as GM)
- Foxtrot 113 GM West (ORT Shadowing)
- Foxtrot 118 GM Thomas Goodall (as GM)
- Echo 63 GM David O'Neill (as GM)
- Oscar Golf 54 SM Cook (as the PLO)
- Echo 6 DAC O'Loughlin (DAC)
- Oscar Foxtrot 67 SM Daniel Egan (as FSO)
- Golf 25 Alpha, Ealing's OSU (Breathing Apparatus Unit)
- Alpha 39 Alpha, Finchley's OSU (Damage Control Unit)

- 01:30:36** WM Watson enters main entrance carrying one length of 45 mm fire hose (Source: CCTV: Camera 4).
- 01:30:36** The Duty Press Officer, Catherine Allum, is contacted by Brigade Control by pager (Source: 'Vision': GTIRT17-02791).
- 01:30:36** Danel Miller and Corinne Jones (flat 145, 17<sup>th</sup> floor) leave the building via the main entrance (Source: CCTV: Camera 4).
- 01:30:38** CRO Gotts at Brigade Control takes a call from a female caller who states she is in her neighbour's house on the 22<sup>nd</sup> floor of Grenfell Tower and they can smell smoke. CRO Gotts advises the caller to get fresh air from the window and confirms that the fire is on the fourth floor. The caller asks if they should stay in the flat and CRO Gotts responds that she is unable to advise the caller but will let the crews know that the caller is on the 22<sup>nd</sup> floor. Incident Number 076068, Call Duration one minute, 22 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00501).
- 01:30:39** The Radio Operator at Brigade Control responds to Golf 371, Chiswick's PL's messaging referencing no ordering on the MDT, confirming that they have received them as status 2:  
"Er, I'm not able to send it through again, erm, but status two is received".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02506).
- 01:30:41** Genaro Batoan and Elisa Rabaya (flat 146, 17<sup>th</sup> floor) leave the building (Source: CCTV: Cameras 2 and 4).
- 01:30:41** CM Secrett enters the main entrance carrying two lengths of 70 mm fire hose (Source: CCTV: Camera 4).
- 01:30:47** CRO Adams at Brigade Control takes a call from a male caller who asks her to get firefighters to the Silchester Estate. CRO Adams asks if the caller is referring to Grenfell Tower and explains that the

## OFFICIAL

firefighters are already there. Incident Number 076067, Call Duration 23 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00500).

- 01:30:48** CU8, Fulham's CU book status 3, in attendance, at Grenfell Tower. This is the first CU in attendance (Source: 'Vision': GTIRT17-02791).
- 01:30:56** A team of four firefighters enter through the main entrance (CM Gallagher, Firefighter Bettinson, Firefighter Wolfenden and Firefighter Campbell). They have three lengths of 45 mm fire hose between them (Source: CCTV: Camera 4).
- 01:31\*** *BA Team Three: CM Stern and Firefighter Hippel get to the 16<sup>th</sup> floor. There are four conflicting statements around these actions. CM Stern and Firefighter Hippel state that Sam Daniels and Firefighter O'Beirne are with them on the 16<sup>th</sup> floor. Sam Daniels and Firefighter O'Beirne state they do not go up with them to the 16<sup>th</sup> floor, but they wait in the stairwell mezzanine between the ninth and 10<sup>th</sup> floors with the other resident until BA Team Three return to them (Source: MPS Witness Statement: GTIRT18-00072, GTIRT17-01198, GTIRT17-00019 and GTIRT18-02500).*
- 01:31:10** Firefighter Badillo arrives at the bottom of the stairs and is talking to a BA Team that are waiting to go upstairs (Source: CCTV: Camera 2).
- 01:31:13** Virgillio Castro (flat 146,17<sup>th</sup> floor) leaves the building (Source: CCTV: Camera 4).
- 01:31:14** CRO Fox at Brigade Control takes a call from a member of the public living in North Acton who explains that they are on the 12<sup>th</sup> floor of their block and can see a burning building. CRO Fox states that the Brigade is attending a huge fire in Grenfell Tower in North Kensington. The caller is satisfied with this explanation. Incident Number 076070, Call Duration 44 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00503).
- 01:31:18** Firefighter Badillo leaves the building via the main entrance having returned from the 15<sup>th</sup> floor (Source: Contemporaneous Notes: GTIRT17-00009, GTIRT17-00431, MPS Witness Statement: GTIRT18-01411, GTIRT18-00917, Camera 4 CCTV).
- 01:31:20\*** *Firefighter Badillo, after exiting the building, locates WM Dowden to explain about the conditions higher up the building. WM Dowden says to Firefighter Badillo that he has just made pumps 20 and Firefighter Badillo says, that is not enough and according to Firefighter Badillo's statement, WM Dowden says to him, "go on then" pointing at the PL. This is not corroborated by WM Dowden. Firefighter Badillo proceeds to Golf 271, North Kensington's PL, and Makes Pumps 25. He does not wait for an acknowledgement from Brigade Control (Source: CCTV: Camera 4, Contemporaneous Notes: GTIRT17-00009, GTIRT17-00431, GTIRT17-01215, GTIRT17-00293, MPS Witness Statement: GTIRT18-01411, GTIRT18-00917, GTIRT18-01065).*

## OFFICIAL

- 01:31:29** Alpha 211, Paddington's PL, Paddington's second fire engine book status 3, in attendance, at Grenfell Tower. This is the seventh fire engine in attendance (Source: 'Vision': GTIRT17-02791).
- 01:31:30** Golf 271, North Kensington's PL, sends a message to the Radio Operator at Brigade Control.  
"M2FN Golf 271 make pumps 25, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02507).
- 01:31:31** Golf 351, Fulham's PL book Status 2, mobile to Grenfell Tower. Golf 351 is riding with five firefighters, WM Glynn Williams, CM Christopher Batcheldor, Firefighter David Hill, Firefighter Abdul Malik and Firefighter Neil Saunders (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 01:31:51** Rose Lewis, Octina Lewis, Theodore Charles (flat five, third floor), Saeda Ahmed, Shahid Ahmed (flat 156, 18<sup>th</sup> floor), Hime Gashaw, Richard Fletcher, Sophia Fletcher (flat 131, 16<sup>th</sup> floor) exit the building (Source: CCTV: Camera 4).
- 01:31:58** Alpha 40 Sierra, SM Wolfenden books Status 2, mobile to Grenfell Tower from his home address (Source: "Vision': GTIRT17-02791).
- 01:32\*** *At around this time, prior to the arrival of Alpha 213, Paddington's TL, CM Davies and Firefighter Broderick reverse Golf 331, Kensington's PL, and Golf 362, Hammersmith's Pump, out of Grenfell Road to ensure access for Alpha 213 (Source: MPS Witness Statement: GTIRT17-00022, GTIRT18-00972).*
- 01:32:04** CRO Adams at Brigade Control takes a call from a BT Operator in Nottingham who reports that a male caller is asking for the Fire Brigade but the line drops out. CRO Adams tries to confirm if the caller is ringing about Grenfell Tower and says she will call the number back. Incident Number 076074a, Call Duration 36 seconds. The call back is very brief. A male caller says Grenfell Tower is on fire. CRO Adams says that the fire service is there and thanks the caller. Incident Number 76074b, Call Duration 30 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00507, GTIRT17-00544).
- 01:32:07** Alpha 213, Paddington's TL book status 3, in attendance. This is the first aerial in attendance (Source: 'Vision': GTIRT17-02791).
- 01:32:08** Golf 22 Sierra, SM Loft books Status 3, in attendance at Grenfell Tower. He is the first SM in attendance (Source: 'Vision': GTIRT17-02791).
- 01:32:08** A unidentified Fire engine is reversing up the slope towards Kensington leisure centre from the east elevation of Grenfell Tower (Source: CCTV: Cameras OPS1 Kensington leisure centre).

## OFFICIAL

- 01:32:08** Alpha 411, West Hampstead's PL book status 2, mobile to Grenfell Tower. Alpha 411 is riding with four firefighters: CM Gregory Yeoman, Firefighter Luke Cook, Firefighter Brian Flanagan and Firefighter Anthony Nelson (Source: 'Vision': GTIRT17-02791 and ORF Register: GTIRT17-02567).
- 01:32:10** BA Team One: CM Batterbee and Firefighter D Brown leave the building via the main entrance (Source: CCTV: Cameras 2 and 4).
- 01:32:10** CRO Howson at Brigade Control takes a call from what sounds like a child who says they are in a top floor flat. CRO Howson asks the flat number but the caller says she is from flat 155 but is now in a different flat. CRO Howson reassures the caller that there are a lot of fire engines there and asks again what flat they are in and the caller doesn't know the number but reports that there are about eight kids and a lot of adults. CRO Howson asks if the fire is in the flat and is told that it is not but when told that there is smoke in the flat, CRO Howson tells the caller to block the doors with towels and cushions. A smoke alarm is audible in the background. CRO Howson asks if there is an adult there she can speak to and a male adult comes on the line and states that smoke is coming through the window. CRO Howson advises him to shut the window and tries to get the flat number again but does not get a response. The line then drops out. Incident Number 143550, Call Duration four minutes, one second (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01735).
- 01:32:10** BA Team One: CM Batterbee and Firefighter D Brown leave the building. They brief WM Dowden on what they have done and witnessed (Source: Contemporaneous Notes: GTIRT17-00012, GTIRT17-00458, GTIRT17-00460, GTIRT17-00011, GTIRT17-01215, GTIRT17-00293, MPS Witness Statement: GTIRT18-01837, GTIRT17-01434, GTIRT18-01065).
- 01:32:11\*** BA Team one: CM Batterbee and Firefighter D Brown insert their BA tallies into their bodyguards. *It is believed that they were manually logged off the ECB prior to this time. however, there is no data available to confirm this action as the ECB data has been overwritten at this time.* (Source: BA Data: GTIRT17-02820).
- 01:32:13** Hotel 271, Battersea's PL book status 2, mobile to Grenfell Tower. Hotel 271 is riding with six firefighters: WM Stewart Brown, Firefighter Ricky Nuttall, Firefighter Nicolas Sanchez, Firefighter Michael Smith, Firefighter Leon Whitley and Firefighter Adam Yamin (Source: 'Vision': GTIRT17-02791 and ORF Register: GTIRT17-02567).
- 01:32:25\*** Firefighter Campbell is at the entrance of the building and meets three individuals (now known to be Meron Mekonnen, Liya Yohannes and Yohanna Yohannes, flat 163, 19<sup>th</sup> floor) *who ask him where should they go. (Firefighter Campbell states he asks them, "is this all of you". They say "yes". He then tells them not to go back in.* They then leave the area and head towards the leisure centre) (Source: CCTV: Cameras 1 and 4).

## OFFICIAL

- 01:32:25\*** Firefighter Campbell then drops two lengths of fire hose in the main lobby by a wall, *whilst there he overhears WM O'Keeffe on the handheld radio stating that he needs more firefighting branches. Firefighter Campbell immediately goes outside and attempts to get some fire hose from the closest fire engine to the tower, but he states there is none available on that particular fire engine. Firefighter Campbell is unsure at what point he meets CM Gallagher but they then proceed to check the fire lift. One set of lift doors are open and the lift is full of smoke (Source: CCTV: Camera 4, MPS Witness Statement: GTIRT18-00967, GTIRT18-02051).*
- 01:32:32** CRO Gotts at Brigade Control takes a call from a female caller reporting a fire in Grenfell Tower. CRO Gotts reassures the caller that the Brigade is there. Incident Number 76072, Call Duration 33 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00505). For information, this is the BOSS call time but it has been referenced using the BOSS Call creation time.
- 01:32:35** CRO Duddy at Brigade Control takes a call from a male to report a fire in a whole block of flats. CRO Duddy confirms that the caller is referring to Grenfell Tower and advises that the Brigade is already in attendance. Incident Number 076071, Call Duration 19 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00504).
- 01:32:39** Alpha 241, Soho's PL book status 2, mobile to Grenfell Tower. Alpha 241 is riding with five firefighters: WM Stuart Beale, Firefighter Oliver Desforges, Firefighter Adam Johnson, Firefighter Jonathon Saunders and Firefighter Laurence Stavelly (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 01:32:46** Hotel 331, Wandsworth's PL book Status 2, mobile to Grenfell Tower. Hotel 331 is riding with six firefighters: WM Jonathon Parker, CM Richard McShee, Firefighter Zade Alassad, Firefighter Scott Bell, Firefighter Margaret Errington and Firefighter John Wright (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 01:32:47** CRO Fox at Brigade Control takes a call from a male caller reporting a big fire just after Paddington Station. CRO Fox asks if it is the Lancaster West Estate and the caller isn't sure exactly. She says the Brigade is attending and finishes the call. Incident Number 076073, Call Duration 24 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00506).
- 01:32:51** OM Norman at Brigade Control takes a call from a female caller outside Grenfell Tower who is very emotional and panicking. The caller states that she is in Cornwall Crescent and can see the tower disintegrating in front of her eyes. OM Norman reassures her that it is not collapsing but the caller is crying and says she has friends that live there. OM Norman suggests that the caller rings her friends and speaks to them. Incident Number 143549, Call Duration one minute, four seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01734).

## OFFICIAL

- 01:33** Golf 22 Sierra, SM Loft meets WM Dowden outside (believed to be outside the East elevation). They discuss the merits of SM Loft taking over the incident and after a short discussion SM Loft and WM Dowden agree that the FSG calls take priority and that SM Loft will not take command but manage the FSG calls (Source: CCTV: Camera 2, MPS Witness Statement: GTIRT18-02094, GTIRT18-01065).
- 01:33:00** The main entrance door is still not secure in the open position. The automatic closing mechanism is still in operation and hampers firefighters' entry into the building (Source: CCTV: Cameras 1 and 4).
- 01:33:01** CRO Duddy at Brigade Control takes a call from a female caller in flat 82 on the 11<sup>th</sup> floor who immediately asks if someone can come and get her and her daughter out. CRO Duddy confirms that there is no smoke in the flat and advises the caller to close all the doors and windows and tells her that she is well away from the fire. He reassures her that he will get someone up to help her and repeats the flat number to confirm he has the correct location of the caller. Incident Number 076076, Call Duration 47 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00509).
- 01:33:03** Golf 251 Ealing's PL book Status 2, mobile to Grenfell Tower. Golf 251 is riding with five firefighters: WM Marc Aston-O'Donovan, Firefighter Richard Barker, Firefighter Neil Green, Firefighter David Maskell and Firefighter Anthony Quann (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 01:33:12** CRO Gotts at Brigade Control takes a call from a male caller who is shouting "please, please the fire is in my flat". He repeats this again and CRO Gotts tries to get the flat number. The BT Operator then cuts in and says the caller has put the phone down but that he does say to the Operator that he is on the 11<sup>th</sup> floor of Grenfell Tower. CRO Gotts confirms to the BT Operator that the Brigade is in attendance. Incident Number 076075, Call Duration 32 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00508).
- 01:33:12** CRO Jones at Brigade Control takes a call from a female who reports that the block next to her on the Lancaster West Estate is on fire. CRO Jones is advised that the Brigade is on scene and dealing. Incident Number 076078, Call Duration 49 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00511).
- 01:33:14** Firefighter D Murphy and Firefighter Cornelius are seen entering the main lobby, wearing BA (Source: CCTV: Camera 4).
- 01:33:30\*** *BA Team Three: CM Stern and Firefighter Hippel, enter the 16<sup>th</sup> floor lobby. CM Stern crawls in and feels the leg of someone standing up. He pulls them to the ground and assists the person to the stairwell (it is confirmed at a later date that the person is Edward Daffern from flat 134, 16<sup>th</sup> floor). Once at the stairwell Edward Daffern is able to self-evacuate. BA Team Three then proceed*

## OFFICIAL

to enter what is believed to be flat 136, on the 16<sup>th</sup> floor. The flat is heavily smoke logged and very hot. They have no water and are low on air so decide to withdraw. They knock on the other flat doors on the 16<sup>th</sup> floor but get no reply. CM Stern's statement states that he thought the person that they found is the person they went looking for (Source: MPS ISP Response: GTIRT18-02500, MPS Witness Statement: GTIRT18-01111).

**01:33:33** BA Team Five: CM Secrett, Firefighter Dorgu and Firefighter Badillo, go under air and remove their BA tallies. They tell WM O'Keeffe they are going to the 20<sup>th</sup> floor to rescue a girl (now known to be Jessica Urbano). This is following Firefighter Badillo's earlier attempt to get to flat 176. Firefighter Badillo still has the keys to the flat (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01411, GTIRT18-00917, GTIRT18-00641, GTIRT17-01551).

**01:33:34** The LPWA actuates on Firefighter O'Hanlon's (from BA team two) BA set (Source: BA Data: GTIRT17-0282, Contemporaneous Notes: GTIRT17-00025).

**01:33:35** Firefighter Badillo enters the main lobby with Firefighter Murray (Source: CCTV: Camera 4).

**01:33:35** Alpha 245, Soho's Aerial Ladder Platform (ALP) book status 2, mobile to Grenfell Tower. Alpha 245 is riding with two firefighters: CM Christopher Frost and Firefighter Jason King (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).

**01:33:40** Alpha 231, Euston's PL book status 2, mobile to Grenfell Tower. Alpha 231 is riding with five firefighters: WM Jaydn Kearsarge, Firefighter Jessamine Bate, Firefighter Chris Cheesman, Firefighter Niki Mitchell and Firefighter Michael Pole (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).

**01:33:40\*** Firefighter Campbell wedges open the main entrance door, preventing it from closing making access for firefighters easier (Source: CCTV: Cameras 1 and 4).

**01:33:50** The table below show the resources required and mobilised to the 25 pump fire:

<b>Operational Response to the incident at Make Pumps 25</b>
<ul style="list-style-type: none"><li>• Golf 272, North Kensington's Pump</li><li>• Golf 271, North Kensington's PL</li><li>• Golf 331, Kensington's PL</li><li>• Golf 362, Hammersmith's Pump</li><li>• Golf 361, Hammersmith's PL</li><li>• Alpha 212, Paddington's Pump</li><li>• Alpha 211, Paddington's PL</li><li>• Golf 261, Acton's PL</li><li>• Golf 371, Chiswick's PL</li></ul>

- Golf 281, Willesden's PL
- Golf 341 Chelsea's PL
- Golf 351, Fulham's PL
- Golf 291, Park Royal's PL
- Alpha 411, West Hampstead's PL
- Alpha 231, Euston's PL
- Alpha 241, Soho's PL
- Alpha 242, Soho's Pump
- Hotel 271, Battersea's PL
- Golf 251, Ealing's PL
- Hotel 331, Wandsworth's PL
- Alpha 412, West Hampstead's Pump
- Hotel 421, Richmond's PL
- Hotel 221, Lambeth's PL
- Hotel 222, Lambeth's Pump
- Golf 301, Wembley's PL
- Oscar Kilo 13, WM Matthew Leaver (as FIO)
- Alpha 216, Paddington's FRU
- Golf 346, Chelsea's FRU
- CU7
- CU8
- Hotel 41 Sierra SM Walton (as SM)
- Golf 22 Sierra SM Loft (as SM)
- Oscar Golf 61 SM Saunders (as SM)
- Alpha 40 Sierra, SM Peter Wolfenden (as SM)
- Oscar Echo 69, SM Kipling (as SM)
- Hotel 33 Sierra, SM McConochie (as SM)
- Foxtrot 115 GM Goulbourne (as GM)
- Foxtrot 113 GM West (as GM) (ORT Shadowing)
- Foxtrot 118 GM Goodall (as GM)
- Echo 63 GM O'Neill (as GM)
- Oscar Golf 54 SM Cook (as PLO)
- Echo 6 DAC O'Loughlin (as DAC)
- Oscar Foxtrot 67 SM Daniel Egan (as FSO)
- Golf 25 Alpha, Ealing's OSU (Breathing Apparatus Unit)



## OFFICIAL

• Alpha 39 Alpha, Finchley's OSU (Damage Control Unit)

Source: 'Vision': GTIRT17-02791).

- 01:33:52** Echo 63, GM O'Neill, books Status 2, mobile to Grenfell Tower, from his home address (Source: 'Vision': GTIRT17-02791).
- 01:33:53** Golf 341, Chelsea's PL book status 2, mobile to Grenfell Tower. Golf 341 is riding with five firefighters: WM Louisa De Silvo, Firefighter Russell Butler, Firefighter Nicholas Ferguson, Firefighter Robert Petty and Firefighter Ana Repas (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 01:33:55** CRO Gotts at Brigade Control takes a call from a female caller who is clearly distressed and reports a fire in her building. CRO Gotts confirms the location with the caller as Grenfell Tower and then confirms that the fire service is there. The caller states that she is scared, has three young children and is pregnant and doesn't know what to do. CRO Gotts suggests that the caller go to the window and get some air. She then asks which floor the caller is on to which the caller tells her that she is on the 18<sup>th</sup> floor. The caller says there is no smoke in her flat at the moment but that she has tried to get out of her flat onto the fire escape but there is thick black smoke. CRO Gotts repeats the advice to try and block the smoke and get some air from the window. CRO Gotts then confirms the floor number and tells the caller that she will let the Brigade know she is there. Incident Number 143545, Call duration one minute 21 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01730).
- 01:34:04** Three firefighters go upstairs, it is believed they are going to the bridgehead. A CM waits at the bottom of the stairs (Source: CCTV: Camera 2).
- 01:34:06** Walaa Khdeir and Lujain Khdeir (flat 64, 11<sup>th</sup> floor) and Reem Dedrich (flat 123, 15<sup>th</sup> floor) leave the building (Source: CCTV: Camera 4).
- 01:34:18** CRO Duddy at Brigade Control takes a call from a male caller who asks for lots of fire engines as there is a massive fire in one of the buildings. CRO Duddy asks if it is Grenfell Tower and when the caller confirms this CRO Duddy assures him that the fire service is there and dealing. Incident Number 76077, Call Duration 27 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00510).
- 01:34:18** Foxtrot 113, GM West books Status 2, mobile to Grenfell Tower, from his home address (Source: 'Vision': GTIRT17-02791).
- 01:34:30** WM Watson opens the fire panel door in the main lobby and looks at it but he does not appear to attempt to operate the system controls (Source: CCTV: Cameras 3 and 4).
- 01:34:30** Madison Rylee, Wesley Ignacio, Madylyn Ignacio and Erlinda Ignacio (flat 62, ninth floor) leave the building (Source: CCTV: Camera 4).

## OFFICIAL

- 01:34:40** CM Gallagher tries the fire lift (Source: CCTV: Camera 5).
- 01:34:46** CM Tillotson and a firefighter enter the main lobby carrying two 45 mm fire hose using the carrying straps from the FIRE bag which Paddington have on trial (Source: CCTV: Camera 4).
- 01:34:50** CRO Duddy at Brigade Control takes a call from a female caller who immediately reports that she is trapped in 192 Grenfell Tower. CRO Duddy tells the caller that the fire service is there and the caller asks what they should do as that they have tried to get down the stairs but it is full of smoke. CRO Duddy asks which floor the caller is on and the caller informs him it is the 22<sup>nd</sup> floor. He then informs the caller that the fire is on the fifth floor and the smoke could be coming up from there. CRO Duddy asks where the smoke is coming from. The caller first says the smoke is coming from the outside then changes her mind and says that it is in the corridor. CRO Duddy explains that if the smoke is coming from the corridor then they should close the door and block it up and if the smoke is coming in from the windows then the caller should close the windows but they can use the window to let smoke out of the flat if it is safe to do so. CRO Duddy states that there are people coming up to the 22<sup>nd</sup> floor. Incident Number 076080, Call Duration one minute, 27 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00513).
- 01:34:55** The Radio Operator at Brigade Control sends a message to Golf 271, North Kensington's PL.  
"Priority, priority, Golf 271, Golf 271 from M2FN, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02513).
- 01:34:59** Firefighter Hippel from BA Team Three presses his withdrawal button on his BA set. This is to inform the ECB that they are on their way out (Source: BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-01198, MPS Witness Statement: GTIRT18-00427).
- 01:35:00** A male wearing a baseball cap leaves the lift at second floor level and BA Team Five: CM Secrett, Firefighter Badillo and Firefighter Dorgu can be seen in the lift lobby (Source: CCTV: Camera C18).
- 01:35:07** Firefighter Abell helps set up a ground monitor and a water supply but it is not immediately charged outside the East elevation (Source: CCTV: Camera 2, Contemporaneous Notes: GTIRT17-00014, GTIRT17-01197, GTIRT17-00054, MPS Witness Statement: GTIRT18-00043).
- 01:35:09** CRO Fox at Brigade Control takes a call and there is faint crying on the line and she asks if the caller can hear her but no one responds. CRO Fox continues to try and get a response for around 50 seconds but ends the call when she fails to get a response. Incident Number 76084, Call Duration 54 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00516).
- 01:35:10** Golf 291, Park Royal's PL book Status 2, mobile to Grenfell Tower. Golf 291 is riding with five firefighters: WM Phillip Turcsi, Firefighter Simon Grant, Firefighter Gary Moore, Firefighter James

## OFFICIAL

Power and Firefighter Joe Worley (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).

**01:35:13** Edward Daffern (flat 135, 16<sup>th</sup> floor) descends the stairs to the stair lobby and proceeds into the main lobby where he talks to Firefighter Raymond Keane before leaving the building via the main entrance (Source: CCTV: Camera 2 and 4).

**01:35:17** Alpha 412, West Hampstead's Pump book status 2, mobile to Grenfell Tower. Alpha 412 is riding with four firefighters: CM Martin Hoare, Firefighter Carl Clarke, Firefighter Stephen Dounias and Firefighter Matthew Tanner (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).

**01:35:18** Alpha 216, Paddington's FRU book status 3, in attendance at Grenfell Tower. Alpha 216 is the first FRU in attendance (Source: 'Vision': GTIRT17-02791).

**01:35:22** The Radio Operator at Brigade Control sends a message to Golf 271, North Kensington's PL.

"Priority, priority, Golf 271, Golf 271 from M2FN, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02514).

**01:35:24** OM Norman at Brigade Control rings the team leader from CU8 (who has booked in attendance at the incident at **01:30:48**) and says she needs crews to go and check some flats. The CU Operator WM Daniel Meyrick explains that he has heard Brigade Control trying to reach G271 but that they are in the process of taking over. OM Norman asks him again to get crews to go and check some flats and he asks if the information has already been sent by radio. OM Norman replies saying she does not know and then confirms that the radio message is about a caller on the 18<sup>th</sup> floor. She then makes reference to the large volume of calls being received.

The information subsequently passed is summarised below (Source: NICE, Admin Phone Line Audio file: GTIRT18-00507).

Flat Number	Floor number	Number of people	Remarks
111	14	One person	Got smoke coming in to the premises
175	20	Five people	Got smoke coming in to the premises
Not given	18		
Not given	Top floor	Two adults and eight	Smoke going in to the

OFFICIAL

		children	flat
--	--	----------	------

(Source: NICE, Admin Phone Line Audio file: GTIRT18-00507).

**01:35:25** CRO Adams at Brigade Control takes a call from a female member of the public reporting a tower block on fire in West London. CRO Adams checks with the caller whether it is Grenfell Tower and the caller says she thinks it is. CRO Adams tells the caller that the Brigade is there and dealing with it. Incident Number 076082, Call Duration 25 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00514).

**01:35:27** Duty Radio Engineer is paged by Brigade Control (Source: 'Vision': GTIRT17-02791).

**01:35:27** Nagawa Nalukwago (flat 71, 10<sup>th</sup> floor) and Sid Ali Atmani (flat 125, 15<sup>th</sup> floor) leave the building (Source: CCTV: Camera 4).

**01:35:31** Golf 261 Acton's PL book status 3, in attendance at Grenfell Tower. This is the eighth fire engine in attendance (Source: 'Vision': GTIRT17-02791).

**01:35:36** The Radio Operator at Brigade Control sends a message to Golf 271, North Kensington's PL.

"Priority, priority, Golf 271, Golf 271 from M2FN, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02515).

**01:35:36** The pre-alarm sounds on the BA set worn by Firefighter Dorgu which indicates he has stood still for 30 seconds. It is possible that this occurs whilst waiting for the lift (Source: BA Data).

**01:35:38** One firefighter enters the main lobby carrying two 45 mm fire hose using carrying straps (Source: CCTV: Camera 4).

**01:35:46** Firefighter O'Hanlon from BA Team Two, reports to the BAECO and closes down (Source: BA Data: GTIRT17-02820).

**01:35:54** Golf 301, Wembley's PL book status 2, mobile to Grenfell Tower. Golf 301 is riding with four firefighters: WM Peter Clark, Firefighter Enrico Beltrami, Firefighter William Boulton and Firefighter Dilles Devani (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).

**01:35:54** Golf 261, Acton's PL, interrupt the Radio Operator saying they will take the priority message on behalf of Golf 271, North Kensington's PL, who have not responded.

"M2FN Golf 261 in attendance. Would you like to take that priority? Over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02516).

**01:35:54** During the phone call that OM Norman has at **01:35:24** with CU8, a CRO can be heard sending the information to Golf 261 Acton's PL as above. This is the second method in which FSG

## OFFICIAL

information has been passed to the incident ground (Source: Radio Message: GTIRT17-02516, GTIRT17-02520 and 'Vision': GTIRT17-02791).

**01:35:55** Hotel 221, Lambeth's PL book status 2, mobile to Grenfell Tower. Hotel 221 is riding with WM Paul Sadler, Firefighter Elliot Juggins, Firefighter Steven Page, and Firefighter Michael Worman (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).

**01:36\*** *CM Stern, Firefighter Hippel, Firefighter O'Beirne, Sam Daniels and Hamid Wahbi start to make their way down the stairs to exit the building (Source: Contemporaneous Notes: GTIRT17-00016, GTIRT17-01198, GTIRT17-00019, MPS Witness Statement: GTIRT18-00072, GTIRT18-00427, GTIRT18-01111, GTIRT18-02500).*

**01:36\*** *CM Wigley from Alpha 216, Paddington's FRU (arrives 01:35) approaches WM Dowden. WM Dowden instructs CM Wigley to get a line operations system working from the roof to allow water to be put on the fire from above. He states he wants a drencher type system to put the fire out from the outside (Source: Contemporaneous Notes: GTIRT17-01215, GTIRT17-00293, MPS Witness Statement: GTIRT18-01067, GTIRT18-01065).*

**01:36** BA Team Five: CM Secrett, Firefighter Badillo and Firefighter Dorgu, get into the lift on the second floor and press the buttons to proceed to the 20<sup>th</sup> floor (Source: CCTV: Camera C18).

**Please play video clip 'CCTV 27' in Appendix 3.**

**01:36** Alpha 213, Paddington's TL arrives outside the East elevation as the fire is spreading laterally to the South Eastern and North Eastern corners of the building (Source: CCTV: Camera 2).

**01:36:00** Below is a summary of the FSG calls that Brigade Control have received by this time:

Time of Call	Flat number	Floor number	Number of people	Remarks
01:21:24	195	22		Smell of smoke
01:24:57				The fire is in the kitchen
01:25:16	111	14		Trapped by smoke
01:25:36	91	12		
01:26:58	95	12		Caller says "we" but numbers not recorded by Brigade Control
01:28:26	82	11		
01:30:00		23		

01:30:02	175	20	Five	Smoke coming into the flat
01:30:08	201	23	11	Girl gives her name as Jessica
01:30:08		22	One	Male caller
01:30:38		22		Female caller who says she is in someone else's flat. No total number of people asked for
01:32:10		Top flat		Caller is a young person and says there are about eight kids and a lot of adults
01:33:01	82	11	One adult and one child	
01:33:12		11		Caller says the fire is in his flat and tells the BT Operator he is on the 11th floor
01:33:55		18	Four	Caller says she is pregnant
01:34:50	192	22		

**01:36:01** The Radio Operator at Brigade Control sends a message to Golf 261, Acton's PL.

"Yeah, Golf 261, we've got, um, we've got a caller on the 18<sup>th</sup> floor, thick smoke is in her flat. We've got persons on the 22<sup>nd</sup> floor with smoke coming into their flat. And we've had a further call to say there's a fire on the 20<sup>th</sup> floor, flat 82, also people trapped. Over"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02517).

**01:36:04** CRO Jones at Brigade Control takes a call from a member of the public living opposite the tower who states that the building in front of them is on fire. The caller states that they think it is Trellick Tower but when CRO Jones asks if they mean Grenfell Tower the caller replies yes and explains that people are screaming and that they cannot get out. CRO Jones confirms that the Brigade is in attendance. Incident Number 076083, Call Duration 27 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00471).

## OFFICIAL

- 01:36:12** Iman Alkuedi and Rawan Khdeir (flat 64, floor 9) leave the building via the main entrance (Source: CCTV: Camera 4).
- 01:36:13** Alpha 242, Soho's Pump book Status 2, mobile to Grenfell Tower. Alpha 242 is riding with four firefighters: CM Andrew Percy, Firefighter Richard Mitchell, Firefighter Theresa Orchard and Firefighter Terence Roots (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 01:36:14** Firefighter Barton from BA Team Two reports to the BAECO and closes down. They brief WM O'Keeffe on observations and actions (Source: BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00027, GTIRT17-00025, GTIRT17-00018, GTIRT17-01522, MPS Witness Statement: GTIRT18-00387, GTIRT17-00025, GTIRT17-01252, GTIRT17-02357).
- 01:36:15** CRO Gotts at Brigade Control receives a call from a BT Operator who passes over a mobile number and states that the caller has cleared the line. CRO Gotts confirms that she will ring back.
- CRO Gotts calls back and a male caller says he can see a whole building on fire from outside. He is assured the Brigade has 25 appliances there and are dealing with it. Incident Number 076087a and b, Call Duration a, 13 seconds, b, 42 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00518, GTIRT17-00555).
- 01:36:23** The Glasgow BT Operator passes a caller to the North West Fire Control (NWFC). The caller gives her name as Mariko Toyoshima-Lewis and is in flat nine on the third floor. She tells the BT Operator that she can feel heat and it is smoky. The caller says five people are in the flat. Caller says there is a wheelchair user and she cannot get down the stairs. The caller references an explosion and a tree alight outside the tower. FSG is given and the NWFC Operator stays on the line until crews arrive (BA Team 19: Firefighter Desforges and Firefighter R Mitchell, Alpha 24, Soho). Incident Number 76639, call Duration 30 minutes, 33 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00567).
- 01:36:27** Golf 261, Acton's PL, send a message to the Radio Operator at Brigade Control.
- "M2FN Golf 261, that's received. Could you just confirm fire survival guidance calls received on the 18<sup>th</sup> floor, 22<sup>nd</sup> floor and 20<sup>th</sup> floor and confirm the flat numbers? Over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02518).
- 01:36:34** Mohammed Rasoul and Ahmed Rasoul (flat 25, fifth floor) leave the building via the main entrance (Source: CCTV: Camera 4).
- 01:36:36** CRO Jones at Brigade Control takes a call from a person requesting assistance at Grenfell Tower. The caller states the fire is getting extreme and the Fire Brigade won't be able to get in because the road is blocked. The caller confirms they are not inside the premises and is advised that the Brigade is in attendance and dealing. Call Number 076085, Call Duration 54 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00517).

## OFFICIAL

- 01:36:44** Golf 346, Chelsea's FRU book status 2, mobile to Grenfell Tower. Golf 346 is riding with five firefighters: CM Raoul Codd, Firefighter Ernest Okoh, Firefighter Tom Reddington, Firefighter Alan Sime and Firefighter Nikki Upton (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 01:36:44** The Radio Operator at Brigade Control replies to G261, Acton's PL:  
"Um, yeah, sorry, Golf 2 - sorry, um, yes, err, as you are, I'll repeat, sorry, we're getting, um, lots of fire survival calls and people are asking lots of questions. I do apologise. I'll just repeat it. Caller on the 18<sup>th</sup> floor, thick smoke outside her flat, persons on the 22<sup>nd</sup> floor, smoke coming into their flat, er, further call to say that there's fire on the 20<sup>th</sup> floor, flat 82, also people trapped. We also have a further call to a flat on the top floor, adults and eight children have smoke coming into the flat, um, unable to leave, um, and then the call has dropped out. Over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02519).
- 01:36:48** WM Mark Kentfield from CU8 is seen entering the main lobby and talks to WM Watson and then goes back outside (Source: CCTV: Camera 4).
- 01:36:48** Maher Khoudair (flat 66, 9<sup>th</sup> floor ) descends the stairs to the stair lobby then proceeds into the main lobby (Source , CCTV: Camera 2).
- 01:36:52** Hotel 421, Richmond's PL book status 2, mobile to Grenfell Tower. Hotel 421 is riding with six firefighters: WM James Berry, CM Andrew Fulker, Firefighter Robert Dwyer, Firefighter Simon Fairbrother, Firefighter Christopher Perez and Firefighter Simon Wigley (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 01:37:08** Foxtrot 118, GM Goodall books Status 2, mobile to Grenfell Tower (Source: 'Vision': GTIRT17-02791).
- 01:37:09** CRO Duddy at Brigade Control takes a call from a female in W11 4HE to report that they can see a fire in the building opposite their house. CRO Duddy advises the caller that the Brigade is already in attendance. Incident Number 076088, Call Duration 26 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00520).
- 01:37:09** CRO Howson at Brigade Control takes a call from a female caller who states that she can see a massive fire in a tower and that people may jump out. Caller states they are not in the building but can hear people screaming for help. CRO Howson states there are 10 fire engines there and more en-route. Incident Number 76091, Call Duration 41 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00523).
- 01:37:12\*** *BA Team Five: CM Secrett, Firefighter Badillo and Firefighter Dorgu exit the lift at this time, it is not confirmed which floor but the firefighters believe it to be around the sixth, seventh or eighth floor level. This is unexpected as they think they are going to the 20th floor. Thick black smoke*



## OFFICIAL

*enters the lift. They state they leave the lobby and make their way to the stairs and start to climb. They do not pass anyone on their way up the stairs to the 20<sup>th</sup> floor (Source: CCTV: Camera 18, Contemporaneous Notes: GTIRT17-00009, GTIRT17-00431, GTIRT17-00017, GTIRT17-00013, MPS Witness Statement: GTIRT18-01411, GTIRT18-00917, GTIRT18-00641, GTIRT17-01551).*

- 01:37:14** Maher Khdeir (flat 66, 9<sup>th</sup> floor ) leaves the building via the main entrance (Source: CCTV: Camera 4).
- 01:37:18** CRO Fox at Brigade Control takes a call from a male caller reporting a big fire near Westfield. CRO Fox reassures the caller that the Brigade are dealing with the incident. Incident Number 76092, Call Duration 21 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00524).
- 01:37:18** CRO Gotts at Brigade Control takes a call from the LAS asking the Brigade to confirm the postcode of the incident. LAS then advise CRO Gotts that they have 10 or 11 resources assigned and en-route to scene and give their reference number as 247. Incident Number 76093, Call Duration 53 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00525).
- 01:37:22** CRO Adams at Brigade Control takes a call from a male caller who states they can see a fire in a tower block quite far away. CRO Gotts advises the caller that the Brigade is in attendance. Incident Number 76090, Call Duration 29 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00522).
- 01:37:23** Hotel 222, Lambeth's Pump book status 2, mobile to Grenfell Tower. Hotel 222 is riding with four firefighters: CM Benjamin McAlonen, CM Richard Evans, Firefighter Gemma Bloxham, Firefighter Peter Herrera (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 01:37:26** NWFC receive a call from a BT Operator in Glasgow who reports that they received an abandoned call from a male caller who is requesting the Brigade but the line has since cleared. NWFC confirm that they will call him back. Incident Number 76640, Call Duration 25 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00519).
- The NWFC CRO makes a call back to the number above and the caller states that "they are already here". The NWFC CRO tries to confirm where the caller wants the Fire Service to go, but he just repeats they're already here. Incident Number 76640a, Call Duration 27 seconds (Source: 999 Audio file and Transcript: GTIRT17-00475).
- 01:37:33** CRO Duddy at Brigade Control takes a call from a member of the public who asks if the Brigade are aware that Grenfell Tower is on fire. CRO Duddy confirms that the caller is not in the tower and advises that the Brigade is aware and that there are 25 engines in attendance. Incident Number 76089, Call Duration 20 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00521).
- 01:37:37** Golf 261, Acton's PL, sends a message back to the Radio Operator at Brigade Control.

## OFFICIAL

"M2FN Golf 261 that's received. I'll pass this information onto incident commander. Er, we have just arrived so, um, it may take some time to, er, confirm your details. Over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02520).

- 01:37:47** A member of the public enters the main entrance and starts talking to firefighters (he is subsequently identified as Jody Martin). *It is believed from statements that he is explaining that people are going to jump around the back.* All the firefighters leave the main lobby and move towards the West elevation to investigate (Source: CCTV: Camera 4).
- 01:37:50** OM Norman at Brigade Control takes a call from a male caller who reports a fire near Latimer Road station. She asks the caller to confirm if it is a fire in a tower block in Kensington and the caller says yes and he is advised the Brigade is in attendance. Incident Number 76094, Call Duration 47 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00526).
- 01:37:51** At this time Firefighter Badillo's breathing rate peaks and now starts to slow down which could indicate he has reached the 20<sup>th</sup> floor, he states he waits for the rest of the team to catch up (Source: BA Data: GTIRT17-01627, MPS Witness Statement: GTIRT18-00917).
- 01:37:58** CRO Duddy at Brigade Control takes a call with a female saying "113, hello". CRO Duddy responds with "hello Fire Brigade". The caller sounds distressed and is speaking very quickly. A smoke alarm is sounding in the background and the caller states that there is smoke coming through the letter box. CRO Duddy confirms that she is calling from Grenfell Tower and asks which floor the caller is on to which she replies the 14<sup>th</sup>. CRO Duddy advises the caller that the fire is on the fifth floor. The caller says that she doesn't know what to do and she has a baby in the house. She explains that the occupants have tried to run out but there is smoke in the corridor and the whole corridor is black so they have run back in the house. She also explains to CRO Duddy that there is smoke coming through the door and filling up the whole of the house. CRO Duddy advises her to block up the doors to keep the smoke out. He says he will let the crews know where she is. Incident Number 143561, Call Duration one minute, 13 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01746).
- 01:38** BA Team Six: CM Sephton, Firefighter Broderick and Firefighter Brodrick, report to the bridgehead on the second floor and start breathing under air. They are tasked to go to and relief BA Team Four: Firefighter Archer and Firefighter Abell in flat 26 on the fifth floor and continue to extinguish the fire. BA and telemetry data shows that CM Sephton and Firefighter Brodrick do not log onto the ECB (Source: BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00022, GTIRT17-00032 and GTIRT17-00030, MPS Witness Statement: GTIRT18-01440, GTIRT17-01363 and GTIRT18-010).
- 01:38\*** Between 01:19 – 01:38 the following residents have either been rescued, assisted out or self-evacuated from Grenfell Tower (Source: MPS Residents' List: GTIRT18-01141 and MPS CCTV Named Exits List: GTIRT18-01051)

**OFFICIAL**

1.	Zak Chebiouni (flat 66, ninth floor)
2.	Sara Chebiouni (flat 66, ninth floor)
3.	Saleh Eddine Chebiouni (flat 66, ninth floor)
4.	Maria Jafari (flat 86, 11 <sup>th</sup> floor)
5.	Fatima Jafari (flat 86, 11 <sup>th</sup> floor)
6.	Ramiro Urbano (flat 176, 20 <sup>th</sup> floor) It is believed that he is in Flat 36 at time of incident.
7.	Oscar Millan Gonzalez (flat 36, sixth floor)
8.	Leanne Jackson Le Blanc (flat six, second floor Walkway)
9.	Unidentified female? (unknown)
10.	Joseph John (flat six, second floor Walkway)
11.	Hanan Wahabi (flat 66, ninth floor)
12.	Sabah Abdullah (flat 143, 17 <sup>th</sup> floor)
13.	Said Bayan (flat 121, 15 <sup>th</sup> floor)
14.	Jean Lavine (flat 42, 7 <sup>th</sup> floor)
15.	Sepideh Minaei Moghaddam (flat five, first floor)
16.	Sepehr Wastfaleh (flat four, first floor)
17.	Monica Lokko (flat three, first Floor)
18.	Reshad Naqshbandi (flat eight, second floor)
19.	Malacki John (flat six, second floor)
20.	Mahboubeh Jamalvatan (flat 10, third floor)
21.	Wintom Temesgen (flat 26, fifth floor)
22.	Hiwot Dagnachew (flat 26, fifth floor)
23.	Biruk Henoc (flat 26, fifth floor)
24.	Citiara Pahlavani (flat 22, fifth floor)

25.	Henock Yabsirra (flat 26, fifth floor)
26.	Munira Mahmud (flat 25, fifth floor)
27.	Zahra Rasoul (flat 25, fifth floor)
28.	Mohammed Rasoul (flat 25, fifth floor)
29.	Ahmed Rasoul (flat 25, fifth floor)
30.	Betty Kasote (flat 41, seventh floor)
31.	Jose Vieiro (flat 46, seventh floor)
32.	Carmen Vieiro (flat 46, seventh floor)
33.	Hannah West, (flat 45, seventh floor)
34.	Michael Paramasivan (West) (flat 45, seventh floor)
35.	Thea West (flat 45, seventh floor)
36.	Elizabeth Sobieszczak (flat 43, seventh floor)
37.	Catherine Hanley (flat 52, eighth floor)
38.	Mary Hanley (flat 52, eighth floor)
39.	Shantila Patel (flat 56, eighth floor)
40.	William Thompson (flat 52, eighth floor)
41.	Chiraag Patel (flat 56, eighth floor)
42.	Kirwan Shanti Patel (flat 56, eighth floor)
43.	Amina Mohamed (flat 51, eighth floor)
44.	Khalid Ahmed (flat 51, eighth floor)
45.	Madison Ignacio (flat 62, ninth floor)
46.	Wesley Ignacio (flat 62, ninth floor)
47.	Madylyn Ignacio (flat 62, ninth floor)
48.	Walaa Khdeir (flat 64, ninth floor)

49.	Lujain Khdeir (flat 64, ninth floor)
50.	Iman Alkuedi (flat 64, ninth floor)
51.	Rawan Khdeir (flat 64, ninth floor)
52.	Erlinde Ignacio (flat 62, ninth floor)
53.	Van Quang Ho (flat 76, 10 <sup>th</sup> floor)
54.	Hoang Khanh Quang (flat 76, 10 <sup>th</sup> floor)
55.	Nagawa Nalukwago (flat 71, 10 <sup>th</sup> floor)
56.	Hafsa Khalloud (flat 85, 11 <sup>th</sup> floor)
57.	Zaid Khalloud (flat 85, 11 <sup>th</sup> floor)
58.	Youssef Khalloud (flat 85, 11 <sup>th</sup> floor)
59.	Nusaybah Khalloud (flat 85, 11 <sup>th</sup> floor)
60.	Mouna El-Ogbani (flat 85, 11 <sup>th</sup> floor)
61.	Damiana Louis (flat 96, 12 <sup>th</sup> floor)
62.	Rhea Rojo (flat 91, 12 <sup>th</sup> floor)
63.	Aida Michael (flat 102, 13 <sup>th</sup> floor)
64.	Taleen Ahmed (flat 102, 13 <sup>th</sup> floor)
65.	Joao Dias (flat 104, 13 <sup>th</sup> floor)
66.	Marlon Mangoba (Senior) (flat 116, 14 <sup>th</sup> floor)
67.	Marlon Mangoba (Junior) (flat 116, 14 <sup>th</sup> floor)
68.	Nida Mangoba (flat 116, 14 <sup>th</sup> floor)
69.	Rasheeda Ali (flat 125, 15 <sup>th</sup> floor)
70.	Nadia Yousef (flat 121, 15 <sup>th</sup> floor)
71.	Aziza Raihani (flat 126, 15 <sup>th</sup> floor)
72.	Hayam Atmani (flat 125, 15 <sup>th</sup> floor)

73.	Sid Ali Atmani (flat 125, 15 <sup>th</sup> floor)
74.	Reem Dedrich (flat 123, 15 <sup>th</sup> floor)
75.	Edward Daffern (flat 134, 16 <sup>th</sup> floor)
76.	Hamid Wahbi (flat 136, 16 <sup>th</sup> floor)
77.	Samuel Daniels (flat 135, 16 <sup>th</sup> floor)
78.	Mesrob Kassemajian (flat 141, 17 <sup>th</sup> floor)
79.	Rita Tankarian (flat 141, 17 <sup>th</sup> floor)
80.	Fung (girlfriend of Mesrob Kassemajian surname unknown) (flat 141, 17 <sup>th</sup> floor)
81.	Genaro Batoan (flat 146, 17 <sup>th</sup> floor)
82.	Elisa Rabaya (flat 146, 17 <sup>th</sup> floor)
83.	Virgilio Castro (flat 146, 17 <sup>th</sup> floor)
84.	Meron Mekonnen (flat 163, 19 <sup>th</sup> floor)
85.	Liya Yohannes (flat 163, 19 <sup>th</sup> floor)
86.	Yohanna Yohannas (flat 163, 19 <sup>th</sup> floor)
87.	Luke Towner (flat 171, 20 <sup>th</sup> floor)
88.	Emma O'Connor (flat 171, 20 <sup>th</sup> floor)
89.	Mustafa Abdu (flat 184, 21 <sup>st</sup> floor)
90.	Chin-Hsuan Lydia Liao (flat 195, 22 <sup>nd</sup> floor)
91.	Danel Miller (flat 145, 17 <sup>th</sup> floor)
92.	Amiel Miller (flat 145, 17 <sup>th</sup> floor)
93.	Corinne Jones (flat 145, 17 <sup>th</sup> floor)
94.	Rose Lewis (flat five, third floor)
95.	Theodore Charles (flat five, third floor)
96.	Octina Lewis (flat five, third floor)

97.	Hime Gashaw (flat 131, 16 <sup>th</sup> floor)
98.	Richard Fletcher (flat 131, 16 <sup>th</sup> floor)
99.	Sophia Fletcher (flat 131, 16 <sup>th</sup> floor)
100.	Saeda Ahmed (flat 156, 18 <sup>th</sup> floor)
101.	Shahid Ahmed (flat 156, 18 <sup>th</sup> floor)

**01:38:02** CRO Howson at Brigade Control takes a call from the MPS saying that they have received a call from a family in flat 142 on the 17<sup>th</sup> floor. There are five people in the flat and smoke is coming in to the flat. CRO Howson advises she will pass the information to the crews on scene. Incident Number 143551, Call duration 56 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01736).

**01:38:02\*** *Firefighter Broderick states after looking at the layout of the sixth floor his BA team go back down the stairwell to the fifth floor. The stairwell is now filling up with smoke. There is fire hose on the stairwell, firefighter Broderick thinks one 45mm fire hose is from another crew. (Source: MPS Witness Statement: GTIRT18-01440).*

**01:38:16** CRO Fox at Brigade Control takes a call from a female caller who reports that she is stuck on the 23<sup>rd</sup> floor in flat 205 with six other people. The caller advises there is no visible smoke or fire in the flat and further states she lives in a flat below on the 22<sup>nd</sup> floor but has to move to flat 205 as hers is on fire. Voices are audible in the background. CRO Fox advises the caller that the Brigade crews on scene will be notified. Incident Number 76099, Call Duration one minute, 31 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00530).

**01:38:17** Brigade Control mobilise the additional resources for FSG. CU2, Islington's CU (FSG CU), Alpha 431, Kentish Town's PL (FSG WM), Hotel 27 Sierra SM Nicholas Myatt (FSG SM) are mobilised (Source: 'Vision': GTIRT17-02791).

**01:38:18** CRO Adams at Brigade Control takes a call from a female who is shouting loudly and repeatedly stating that she is on the 14<sup>th</sup> floor in flat 115. She shouts that the fire is coming into the building and asks how she can get downstairs. CRO Adams confirms that the caller is in Grenfell Tower and frequently asks what flat the caller is in to which the caller responds 14. The caller shouts that she is going to die and CRO Adams informs her that she will get crews to her. CRO Adams then manages to confirm that smoke is coming in under the door and windows and advises the caller to block the door and shut the windows. The caller is very distressed and says there is fire coming through the door and states that she feels like jumping. A smoke alarm is audible in the background.

## OFFICIAL

Incident Number 76113, Call Duration four minutes, 20 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00546).

- 01:38:25** Oscar Golf 54, SM Cook books Status 3, in attendance at Grenfell Tower. He is the second SM in attendance. His role is PLO (Source: 'Vision': GTIRT17-02791).
- 01:38:30\*** *Firefighter Archer from BA Team Four, is on the stairwell between fourth and fifth floors trying to pull the fire hose up for Firefighter Abell. He meets BA Team Six: CM Sephton, Firefighter Broderick and Firefighter Brodrick who have been briefed at the bridgehead to go and extinguish the fire in flat 26. Firefighter Archer briefs BA Team Six and explains that they are nearing time of whistle, Firefighter Archer goes and gets Firefighter Abell and they handover the TIC and the 45 mm fire hose to BA Team Six (Source: Contemporaneous Notes GTIRT17-00024, GTIRT17-00054, MPS Witness Statement: GTIRT18-00043, GTIRT18-00312).*
- 01:38:37** CRO Gotts at Brigade Control takes a call from a very calm male caller who reports a fire in Grenfell Tower and asks what to do because the fire is spreading. He asks if he should stay put because the fire is in the next door kitchen. The caller asks if the Brigade is on site and CRO Gotts confirms that there are lots of them and that she will let the crews know that he is there. Caller says he is in flat 95 on the 12<sup>th</sup> floor and there are children in the flat. He is advised to try and get some fresh air from a window and block anywhere where smoke is coming from. (This is linked to 076062 at 01:26:58, Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00495). Incident Number 76100, Call Duration one minute, 19 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00531).
- 01:38:38** OM Norman at Brigade Control takes a call from a male caller who reports a fire next to the A40 and states it looks "proper crazy". OM Norman asks if it is a tower block and the caller states that it is. The caller is advised that the Brigade is in attendance with 25 fire engines. Incident Number 76097, Call Duration 38 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00528).
- 01:38:38** CRO Jones at Brigade Control takes a call from a female who says she is trapped in flat 182 on the 21<sup>st</sup> floor and advises the caller to put something by the door and make sure all the doors and windows are closed. A man then comes on the line and explains that they have tried to get down the stairs but it is too smoky and CRO Jones explains that she needs them to stay in the flat and advises him to open the window if it will provide them with fresh air. The caller states that smoke is coming from the front door and reports that there are five people including the caller, his wife and three children aged eight, 16, 21. The caller explains that he is looking through the spy hole in the front door and that it is very smoky. CRO Jones tells them that they will all be alright and asks if the caller wants her to stay on the line. CRO Jones advises that she is going to let the crews know where they are and asks if they are okay in the flat. The phone is passed to the son at this point



## OFFICIAL

who asks the CRO to stay on the phone. The phone is then passed to the sister and CRO Jones reassures her that everyone will be alright. The family move to the living room and then to the bedroom. At approximately **02:34** CRO Jones gives specific directions to get out. The line goes quiet and CRO Jones cannot get any response. Incident Number 143560, Call Duration 59 minutes 40 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01745).

**01:38:40** BA Team Three: CM Stern and Firefighter Hippel return to the bridgehead and close down (Source: BA Data: GTIRT17-02820).

**01:38:40** Samuel Daniels (flat 135, 16<sup>th</sup> floor) leaves the building (Source: CCTV: Camera 4).

**01:38:49** Hamid Wahbi (flat 136, 16<sup>th</sup> floor) leaves the building (Source: CCTV: Camera 4).

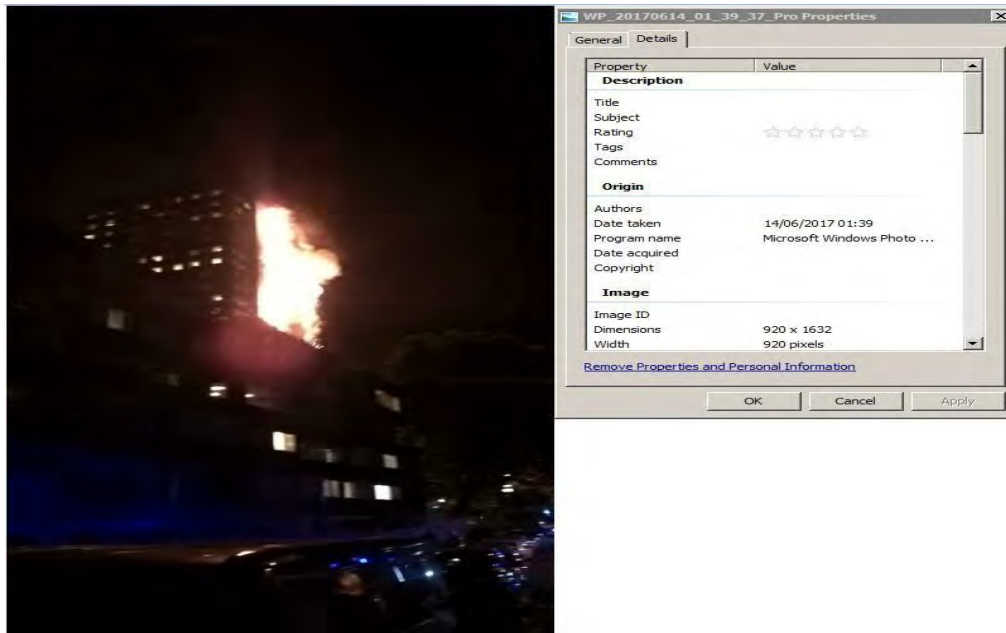
**01:38:50** SM Loft approaches the main door and talks to WM Paul Watson. Neither state what they discuss (Source: CCTV: Cameras 1 and 4, MPS Witness Statement: GTIRT18-02094, GTIRT18-00073).

**01:38:51** AC Andrew Roe responds to a paging alert and calls and talks to AOM May at Brigade Control. He is told that the incident is a 25 pump fire in a high rise building and the AOM May explains that the incident has escalated quickly with a six, eight, 10, 15, 20, 25 pump progression, stating that there are a lot of people trapped in flats. AC Roe asks who is in charge but AOM May states he is unable to tell him at this time. AC Roe asks which DAC has been mobilised and is informed that Echo Six DAC O'Loughlin is Status 2.

AC Roe asks for any recent radio messages and AOM May says residential block of flats of 20 floors, 25 by 25, five room flat on the fourth floor, 75% alight, high rise procedures implemented.

AC Roe asks again who is in charge but the officer of the watch is unable to tell him. Brigade Control then confirm that GM Goulbourne is Status 2. GM Cook and SM West of the ORT are also Status 2. AC Roe asks to be shown as Status 2, as well (Source: NICE, Admin Phone Line Audio file: GTIRT18-00253).

**01:39:00** The picture below is taken by SM Cook on his mobile phone. He sends it to AC Roe. SM Cook is the designated PLO for this incident (Source: Image library, Contemporaneous Notes: GTIRT17-00006).



- 01:39\*** BA Team Four: Firefighter Archer and Firefighter Abell make their way to the bridgehead on the second floor, where WM O'Keeffe is in charge (Source: Contemporaneous Notes: GTIRT17-00014, GTIRT17-01197, GTIRT17-00054, GTIRT17-00024).
- 01:39:08** AOM Real at Brigade Control takes a call from SOM Smith who is calling for an update. AOM Real explains that they are taking lots of FSG calls and states that it is now a 25 pump fire. SOM Smith asks if there are any long FSG calls where people are on the line and AOM Real states that OM Norman is on the line to someone. SOM Smith also checks if the system is coping and tells AOM Real to prioritise the FSG calls over the Resource Management Logistics notifications. SOM Smith confirms she will be attending Stratford (Source: NICE, Admin Phone Line Audio file: GTIRT18-00878).
- 01:39:13** Golf 341, Chelsea's PL book status 3, in attendance, at Grenfell Tower. This is the ninth fire engine in attendance (Source: 'Vision': GTIRT17-02791).
- 01:39:15** OM Norman at Brigade Control takes a call from a male caller in flat 204 on the 23<sup>rd</sup> floor at Grenfell Tower who is by himself. OM Norman asks if the caller can get out and he replies that he cannot and a smoke alarm is audible in the background. OM Norman asks if there is smoke coming into his flat and the caller explains that there is a little so she advises him to block the door to stop the smoke and stay where he is or leave if he thinks it is safe to do so. OM Norman tells him to go to the room furthest away from the fire and she will let the crews know where he is. She advises him to call back if it gets any worse. Incident Number 76130, Call Duration three minutes, 33 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00563).
- 01:39:20** CRO Duddy at Brigade Control takes a call from a male caller who states there is a building on fire and he advises the caller that the Brigade is already in attendance. Incident Number 76098, Call Duration 12 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00529).

## OFFICIAL

- 01:39:21** Golf 371, Chiswick's PL book status 3, in attendance, at Grenfell Tower. This is the 10<sup>th</sup> fire engine in attendance (Source: 'Vision': GTIRT17-02791).
- 01:39:55** Alpha 431, Kentish Town's PL book status 2, mobile to Grenfell Tower. Alpha 431 is riding with five firefighters: WM Matthew Gregory, Firefighter Anthony Mawusi-Doe, Firefighter Tyrone Jackdeo, Firefighter Sunil Patel and Firefighter Ferguson Portuphy (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 01:40\*** *Whilst waiting at the second floor bridgehead, CM Tillotson is tasked by WM O'Keeffe to retrieve the BA Tallies of two BA wearers sent to the fifth floor as they have not handed in their BA tallies in at the BAACP. BA data shows the two wearers are CM Sephton and Firefighter Brodrick from Golf 36, Hammersmith (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00064).*
- 01:40\*** *Firefighter Campbell is outside Grenfell Tower wearing his BA set which is not started up. WM Steve Collins asks him to get a ground monitor set up. Firefighter Campbell runs to a fire engine and gets a ground monitor and then goes back to the main lobby and pairs up with Firefighter Steven Mills (Source: Contemporaneous Notes: GTIRT17-00034, MPS Witness Statement: GTIRT18-00967, GTIRT18-02051).*
- 01:40\*** *On arrival Firefighter Daoud (Golf 371) states that he hears someone shout 'everyone in BA'. Firefighter Daoud rigs in his BA set (Source: MPS Witness Statement: GTIRT18-00393).*
- 01:40\*** *Firefighter O'Donoghue (Golf 371) is instructed by CM Davies (Golf 362) to turn on the hydrant. Once this is done WM Moore (Golf 371) tells Firefighter O'Donoghue to rig in BA. He joins Firefighter Daoud, they collect a Sledge Hammer, a TIC and some fire hose. They then head to the tower (Source: MPS Witness Statement: GTIRT18-00393, GTIRT18-00046).*
- 01:40:00** Turufat Girma, Abem Abraham and Abraham Abebe leave flat 44 on the seventh floor (Source: CCTV: Camera C15).
- 01:40:00** CM Stern exits the building via the main lobby (Source: CCTV: Camera 4).
- 01:40:01** Golf 281, Willesden's PL book status 3, in attendance, at Grenfell Tower. This is the 11<sup>th</sup> fire engine in attendance (Source: 'Vision': GTIRT17-02791).
- 01:40:02** BA Team Four: Firefighter Archer and Firefighter Abell close down their BA sets and are logged off the ECB (Source: BA Data: GTIRT17-02820).
- 01:40:12** Hotel 41 Sierra, SM Walton, books Status 3, in attendance, at Grenfell Tower. He is the third SM in attendance. SM Walton is informed by a CU officer believed to be WM D Meyrick that he is the first SM in attendance. SM Walton believes he is in fact the second but in reality he is the third as both SM Loft and SM Cook have already booked in attendance. SM Walton believes he

## OFFICIAL

will be in charge of the incident after receiving this information (Source: 'Vision': GTIRT17-02791, MPS Witness Statement: GTIRT18-01000).

- 01:40:12** CRO Duddy at Brigade Control takes a call from a male caller who is reporting a fire near Shepherds Bush. The caller advises that lots of calls have been put through and that the Brigade are already there. Incident Number 76101, Call Duration 29 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00532).
- 01:40:17** CRO Howson at Brigade Control takes a call from a male caller shouting "Grenfell Tower, Grenfell Tower". She immediately asks what flat he is in and the caller responds to report that he is on the 14<sup>th</sup> floor in flat 111. CRO Howson asks if he has any smoke in his flat and if he is on his own. The caller says that the whole flat is full of smoke and that he is on his own and cannot move. He appears to be struggling to speak and says he is locked in the bathroom but there is smoke in there too. He is advised to shut the windows, block the door with towels to stop the smoke coming in and get down low. The caller shouts that he cannot get out and CRO Howson tells him that the crews will come to him. Incident Number 76114, Call Duration two minutes 35 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00547).
- 01:40:20** CU2, Islington's CU book Status 2, mobile to Grenfell Tower. CU2 is riding with two WMs, WM Patrick Delaney and WM Peter Johnson (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 01:40:22\*** *Two firefighters believed to be BA Team Two: Firefighter O'Hanlon and Firefighter Barton exit the building and go to their fire engine and change their BA cylinders on their Standard Duration Breathing Apparatus (SDBA) sets (Source: Contemporaneous Notes: GTIRT17-00027, GTIRT17-00025, MPS Witness Statement: GTIRT18-00387, GTIRT18-00321).*
- 01:40:24** The pre-alarm sounds on the BA set worn by Firefighter Badillo, indicating he has been stood still for 30 seconds (Source: BA Data: GTIRT17-01627).
- 01:40:33** Tyroshondre Petralias and Rukeyatu Mamadu (flat two, first floor) leave the building (Source: CCTV: Camera 4).
- 01:40:39** Firefighter Dorgu from BA Team Five's breathing rates slow at this point, which is consistent with him stopping at the 20<sup>th</sup> floor. He states he is with Firefighter Badillo and CM Secrett (Source: BA Data: GTIRT17-02820).
- 01:40:40** CRO Duddy at Brigade Control takes a call from a female caller who asks if the Brigade is aware of a fire at Grenfell Tower and he advises that the Brigade is aware and there are 25 appliances on scene. Incident Number 76102, Call Duration 20 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00533).

## OFFICIAL

- 01:40:44** The motion pre-alarm sounds on Firefighter Dorgu's BA set indicating he has been stationary for 30 seconds (Source: BA Data: GTIRT17-02820).
- 01:40:44** CRO Gotts at Brigade Control takes a call from a male who is speaking very fast and it is difficult to make out what he is saying. She asks him to slow down and confirm the name of the building that he is calling about but he cannot remember. The caller explains that he has received a call from his sister who says there is a fire in the building. The caller states flat numbers 113 and 115 but it is not clear if the caller is reporting his sister is in the building or is safely outside the building. CRO Gotts asks if the caller is referring to Grenfell Tower. She says if he is not sure he needs to find out and ring back. He confirms that it is the correct address and CRO Gotts states that the Brigade is in attendance. Incident Number 76106, Call Duration one minute and 30 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00537).
- 01:40:46** Abraham Abebe (flat 44, seventh floor) enters the seventh floor lobby carrying Abem Abraham. The lobby is smoky with visibility at about three metres. Turufat Girma, Mr Abebe's partner, also enters the seventh floor lobby (Source: CCTV: Camera C15).
- 01:40:50** The Radio Operator at Brigade Control sends a message to G271, North Kensington's PL.  
"Golf 271, priority, golf 271. Over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02523).
- 01:40:57** SM Cook is outside Grenfell Tower on the East elevation walkway taking pictures (Source: CCTV Camera OPS1 Kensington leisure centre).
- 01:40:58** CRO Fox at Brigade Control takes a call from a BT Operator who advises that they have tried to pass a call to Brigade Control but that the call has dropped out. The BT Operator passes the mobile number to CRO Fox who says she will call back. Incident Number 76105a, Call Duration 16 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00536).
- 01:40:58** CRO Fox at Brigade Control calls the number back given by the BT Operator and speaks to the caller. The caller asks if the Brigade is aware of a fire at Ladbroke Grove and is informed that crews are in attendance. Incident Number 76105b, Call Duration 44 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00587).
- 01:41:00** NWFC take a call from a BT Operator in Glasgow who explains that after around five minutes trying to pass the call to London, the caller has hung up. The BT Operator states that the caller was reporting a fire at a tower block and the NWFC Operator asks if the caller has given the address. The BT Operator says no and the NWFC Operator confirms that they will call back. Incident Number 1706004390, Call Duration 36 seconds (Source: BOSS Viewer, 999 Audio file: GTIRT18-02452).

## OFFICIAL

**01:41:18** NWFC take a call from a caller stating that she is on the top floor at Grenfell Tower and that there is thick smoke and she is in someone else's flat. She explains that she is in the bedroom in flat 201 on the 23<sup>rd</sup> floor and cannot breathe. The NWFC CRO asks if the caller can get to a window to get some air but the caller says she cannot see because the smoke is too thick. The caller then repeats she is in someone else's flat and states that there are about ten of them. The NWFC CRO passes on advice about blocking doors and keeping low. At approximately 01:45 the NWFC CRO states that she has passed on the information to the crews. The caller says her name is Debbie and that she is originally from flat 161. Debbie states that everyone is in the bedroom with the door shut but that everyone is being sick with smoke. At around **01:53** Debbie is told the crews will get you out. The NWFC CRO asks if there are any children and Debbie states that she thinks there are two but maybe more, one baby and one schoolchild. By approximately **02:03** Debbie says the windows are cracking and flames are at the windows. At **2:06:31** Debbie states that the flat is on fire and that they must get out of the room that they are in. There is a lot of commotion and shouting while Debbie tries to get out. It is not clear why she cannot get out of the room. Debbie states that she cannot move or breathe and that she is too hot and the NWFC Operator reiterates the advice to the caller to get out if she can. Incident Number 76642, Call Duration 40 minutes, 23 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00534).

*It should be noted that this call and the call with Jessica Urbano at **01:29:48** (Incident number 76096b, Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00570) are taking place simultaneously and both Deborah Lamprell and Jessica Urbano are in the same bedroom in the same flat.*

**01:41:21** CRO Duddy at Brigade Control takes a call from a female caller who says there is a fire downstairs and she cannot evacuate because it is pitch black outside. CRO Duddy asks if the caller is in Grenfell Tower and when this is confirmed, he explains that fire is on the fourth floor and that the caller is well away from the fire. The caller says that the smoke is coming up and the door is hot and asks what they should do. CRO Duddy provides FSG stating they need to stop the smoke by putting things around the door and letterbox and says to close the windows if smoke is coming in. She confirms they are in flat 73 on the 10<sup>th</sup> floor. The caller asks what they should do about getting out and CRO Duddy tells her to stay where they are until the crews come and get them. Incident Number 76104, Call Duration one minute, 58 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00535).

**01:41:24** Bravo Mike 8, AC Roe, books Status 2, mobile to Grenfell Tower (Source: 'Vision': GTIRT17-02791).

## OFFICIAL

- 01:41:50** WM Watson is seen in the main lobby on his own, which shows that at this time there are no firefighters wearing BA available to him to deploy to the bridgehead. There are 10 fire engines, one CU, one FRU and one TL in attendance (Source: CCTV: Cameras 3 and 4).
- 01:41:57** Leroy (Barnaby) Augustus and Petra Doulova (flat 174, 20<sup>th</sup> floor) leave the building (Source: CCTV: Camera 4).
- 01:42\*** *CM Tillotson returns to the second floor bridgehead with the two missing BA tallies and gives them to the BAECO (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00064).*
- 01:42:00** AC Roe phones DAC Fenton and confirms that he wants the Brigade Co-ordination Centre (BCC) to be set up at Stratford (Source: Mobile Phone Call Log: GTIRT18-01250, MPS Witness Statement: GTIRT17-01254, GTIRT18-00944).
- 01:42:04\*** *CU7, Wembley's CU book Status 3, in attendance, at Grenfell Tower. They are the second CU in attendance (Source: estimated time using MDT GPS Data: GTIRT17-00943).*
- 01:42:05** NWFC take a call from a female caller via a BT Operator at Bangor as the Brigade are unable to take the call. The caller states there is a fire in W11 4HE. The description she gives is a three storey brown building. Incident Number 76641, Call Duration two minutes 53 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00553).
- 01:42:08** CRO Fox at Brigade Control takes a call from a member of the public who states that there is a massive fire in Latimer Road. She asks if it is Grenfell estate and the caller confirms. CRO Fox advises that the Brigade is aware and dealing with it. Incident Number 76108, Call Duration 18 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00539).
- 01:42:09** BA Team Seven: CM Tillotson, CM Gallagher, Firefighter Bettinson, Firefighter Wolfenden and Firefighter Felton report to the bridgehead and are tasked to undertake search and rescue on the fourth floor (Source: BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00042, GTIRT17-00037, GTIRT17-00036, GTIRT17-00035, GTIRT17-00028, MPS Witness Statement: GTIRT18-00064, GTIRT18-00929, GTIRT17-02925, GTIRT18-01002, GTIRT18-01110).
- 01:42:14** CRO Gotts at Brigade Control takes a call from a female caller who reports that there is a fire in the W11 area and that there are people stuck inside the building. The caller passes the phone to a man. CRO Gotts asks the caller if he thinks it is Grenfell Tower and the caller confirms that he thinks that is the one. He is advised that the Brigade is there and dealing with the incident. Incident Number 76109, Call Duration 49 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00541).
- 01:42:29** Golf 25 Alpha, Ealing's OSU book status 3, in attendance, at Grenfell Tower. This is the first OSU in attendance (Source: 'Vision': GTIRT17-02791).

## OFFICIAL

- 01:42:30** Firefighter Abell and Firefighter Archer return to the main lobby after their BA wear (Source: CCTV: Cameras 2, 3 and 4).
- 01:42:34\*** A member of public (now known to be Jody Martin) enters the main lobby carrying a large firefighters axe. *He has a discussion with WM Watson and explains that he believes there are people at the rear of the building who are threatening to jump. WM Watson sends Firefighter Murray around the back to corroborate this information. According to WM Watson's statement, he asks the member of public (now known to be Jody Martin) who he is. He tells WM Watson that he is an American firefighter. WM Watson states that it doesn't matter that he is an American firefighter and tells him to leave. Firefighter Murray returns and explains that the member of public (now known to be Jody Martin) is right. WM Watson then tells Firefighter Murray to go and get a loudhailer and reassure the residents (Source: CCTV: Camera 4, MPS Witness Statement: GTIRT18-00073).*
- 01:42:38** Hotel 331, Wandsworth's PL arrives at Grenfell Tower. This is the 12<sup>th</sup> fire engine in attendance (Source: approximate time from MDT GPS Data, GTIRT17-00943).
- 01:42:39** Alpha 213, Paddington's TL, is pitched outside the South elevation. This is only possible because WM Dowden has previously tasked CM Davis to secure a separate hydrant to connect to a fire engine that only supplies water to Alpha 213 (Source: CCTV: Camera 4, MPS Witness Statement: GTIRT18-01065, GTIRT18-00972).
- 01:42:40\*** Firefighter O'Beirne enters the main lobby carrying a BA ECB and makes his way up the stairs. *According to his statement he is heading to the bridgehead on the second floor (Source: CCTV: Cameras 4 and 2, MPS Witness Statement: GTIRT18-00072).*
- 01:43:00** Essex FRS take a call from a BT Operator reporting an abandoned call for London. The Essex CRO asks the BT Operator if they are aware of the location of the fire currently in progress in London and the BT Operator states that she thinks it is a tower block on fire in the Ladbrooke Grove area. Incident Number 13559, Call Duration 54 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00540).
- 01:43:00** OM Norman at Brigade Control takes a call from the NWFC who are asking confirmation that London are receiving calls to Grenfell Tower. OM Norman confirms that they are aware and asks if they have people trapped. The NWFC Operator says they have flat nine with two adults and three children. This is the call that is referred to earlier in this report at **01:36:23**. She says they are still on the line and states that one of the residents is a young male who is a wheelchair user. OM Norman confirms that she will let the crews know. The two operators agree that NWFC will only contact London if they have people trapped. The NWFC Operator then adds that they have another call with five people in flat 175 on the 20<sup>th</sup> floor (Source: FRS Incident Log, Audio File and Transcript: GTIRT17-01773).



## OFFICIAL

**01:43:00\*** BA Team Five: CM Secrett, Firefighter Badillo and Firefighter Dorgu enter the 20<sup>th</sup> floor lobby. Visibility is poor and they cannot see the door numbers. They locate flat 176 and the door is open. Firefighter Badillo and CM Secrett search the flat twice in an effort to locate Jessica Urbano. They do not find anyone and they surmise that as the door is open she may have already left. They leave the flat and meet Firefighter Dorgu who attempts to contact the BAECO with an update but cannot get through on the radio (Source: Contemporaneous Notes: GTIRT17-00009, GTIRT17-00431, GTIRT17-00017, GTIRT17-00013, MPS Witness Statement: GTIRT18-01411, GTIRT18-00917, GTIRT18-00641, GTIRT17-01551).

**01:43:04** CRO Fox at Brigade Control takes a call from a male caller who is reporting a tower block fire in the Ladbrooke Grove area. CRO Fox confirms that the Brigade is dealing. Incident Number 76111, Call Duration 18 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00543).

**01:43:07** CU8 contacts the Radio Operator at Brigade Control:

"FN, this is Charlie Uniform 8, we're in the process of setting up here. Is there any information you want to pass to us?"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02524)

**01:43:13** The Radio Operator at Brigade Control replies to CU8.

"Yeah, Charlie Uniform 8, we've got several, um, fire survival calls going on. Um, I have passed some of them over. I'll pass them over to you. I'm sure you're aware it's a pro... err, of smoke but we've got people stuck in flats on the 10<sup>th</sup> floor, seven people in flat 2-0... 205 on the 23<sup>rd</sup> floor unable to leave their property, persons trapped in a flat on the 12th floor unable to leave, smoke coming into flats on the 14<sup>th</sup> floor, on the 17<sup>th</sup> floor in flat 142 we've got five people, err, in the flat with smoke coming in to the flat. In flat, err, in flat 95 on the 12<sup>th</sup> floor the caller's, err, got smoke coming in. And, err, a caller on the 18<sup>th</sup> floor has thick smoke outside her flat, err, she's inside the flat as well. Over."

Flat number	Floor number	Number of people	Remarks
Not given	10	Not given	People stuck
205	23	7	Unable to leave property
Not given	12	Not given	Unable to leave property
Not given	14	Not given	Smoke coming in to flats
142	17	5 people	Smoke coming in to flat
95	12	Not given	Smoke coming in to flat
Not given	18	Not given	Thick smoke outside flat

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02525).

**OFFICIAL**

At this stage Brigade Control has received FSG calls and information about people throughout the building from various sources. Other calls have been taken by other emergency service control rooms and agencies (Source: 'Vision': GTIRT17-02791).

The table below summarises the FSG call information between 01:36:23 – 01:41:21:

Time of Call	Flat number	Floor number	Number of people	Remarks
01:36:23	9	3	5	1 x Wheelchair user
01:37:58		14	1 Adult and 1Baby	No flat number obtained
01:38:02	142	17	5 people	Smoke coming in the flat
01:38:16	205	23	7 people	
01:38:18	115	14	One adult one baby	
01:38:37	95	12	One adult	
01:38:38	182	21		
01:38:51	204	23	One adult	
01:40:17	111	14		
01:41:18	161*	23	One adult female	This is a call taken by NWFC and the caller is identified by herself as Debbie. *161 is not on the 23 <sup>rd</sup> floor but it becomes clear that Debbie is from 161 but has moved up the building
01:41:21	73	10	One adult	Caller told to stay where they are and wait for someone to come and get them

**01:43:14** NWFC take a call transferred by BT and the Operator states the call has been passed to them because of a five minute delay in trying to put the call through to the Brigade. The caller says she is in flat 175 of Grenfell Tower on the 20<sup>th</sup> floor and that there are five of them, two adults and three children including a baby. She also explains that her husband wants them to leave but there is black smoke in the hallway. The NWFC Operator passes the message to London and continues to provide continuous FSG. The call is ended by the NWFC Operator who says she is going to find out what is going on and tells the caller to ring back if she needs to. The NWFC Operator

## OFFICIAL

confirms that there are 20 fire engines there. Incident Number 76644, Call Duration seven minutes, 54 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00476).

- 01:43:18\*** Firefighter Archer and Firefighter Abell leave through the main entrance going outside. Firefighter Archer's fire helmet is completely blackened indicating severe heat and smoke within the area of the building they have been in (Source: CCTV: Cameras 2, 3 and 4).
- 01:43:19** CRO Gotts at Brigade Control takes a call from flat 82 on the 11<sup>th</sup> floor. The caller has called previously (incident number 076057 at **01:28:26**). The caller talks about her husband and states she has a daughter but it is unclear if she is in the flat. The caller explains that this is her second call to the Brigade and confirms that they cannot get out because of the smoke outside the door. Incident Number 76117 (Linked to 76147: GTIRT17-00581, 76191: GTIRT17-00629 and 76200: GTIRT17-00637). Call Duration one minute, 21 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00550).
- 01:43:22** CRO Duddy at Brigade Control takes a call from a male caller who states that there is a big fire at Grenfell Tower. CRO Duddy advises that the Brigade is aware and dealing with it. Incident Number 76110, Call Duration 16 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00542).
- 01:43:31** Radio Workshops Duty Engineer contacts Brigade Control and confirms receipt of the pager message (Source: NICE, Admin Phone Line Audio file: GTIRT18-00880 and 'Vision': GTIRT17-02791).
- 01:43:44** CRO Duddy at Brigade Control takes a call which is inaudible. He is advised by the BT Operator that they have spoken to a male who is hard of hearing. He reports a fire in the area. CRO Duddy states they are aware of a large fire and that the Brigade is dealing with it. Incident Number 76115, Call Duration 59 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00548)
- 01:43:46** CRO Fox takes a call at Brigade Control from the MPS who state they keep receiving calls, regarding floor 16 and 17. The MPS advise that they do not have flat numbers but have phone numbers. CRO Fox states that they do not have time to ring people back due to the number of calls being handled and informs the MPS Operator to get flat numbers next time and that she will pass on to the fire ground about the floors. Incident Number 76116, Call Duration 59 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00549).
- 01:43:48** NWFC take a call from a BT Operator in Nottingham who are passing on an abandoned call that is meant for the Brigade. The CRO says he will call the number back. Incident Number 76643, Call Duration 29 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01830).
- 01:44\*** *BA Team Seven: CM Gallagher, CM Tillotson, Firefighter Bettinson, Firefighter Felton and Firefighter Wolfenden reach the sixth floor and start banging on doors and shouting to get people*

## OFFICIAL

*out. They meet a couple, possibly with a boy. CM Gallagher and Firefighter Felton escort the residents to the main lobby. (The members of the public are believed to be A Shah and J Shah, however Paul Menacer and Kerry O'Hara from the sixth floor also leave the building around this time, this is from Cameras 2 and 4, CCTV footage) (Source: Contemporaneous Notes: GTIRT17-00037, GTIRT17-00028, MPS Witness Statement: GTIRT18-00929, GTIRT18-01110, Cameras 2 and 4, CCTV).*

- 01:44:19** CU8 confirm receipt of information in message sent by the Radio Operator at Brigade Control at **01:43:13**.
- "Okay. Just to confirm that's the 10<sup>th</sup> floor, the 23<sup>rd</sup> floor, the 12<sup>th</sup> floor, the 14<sup>th</sup> floor, the 17<sup>th</sup> floor, the 12<sup>th</sup> floor and the 18<sup>th</sup> floor. The only flat numbers you've given me are the 17<sup>th</sup> floor is 142 and that's five people and the 12<sup>th</sup> floor is Flat 95, no further information than that apart from heavy smoke logging. Over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02526).
- 01:44:27** A245 Soho ALP arrives at the East elevation slope outside Kensington leisure centre (Source: CCTV Camera Kensington leisure centre OPS1).
- 01:44:31** Aimen Mawia (visitor - address unknown) leaves the building by the side door in the stair lobby (Source: CCTV: Camera 2).
- 01:44:34** Hotel 271, Battersea's PL book status 3, in attendance, at Grenfell Tower. This is the 13<sup>th</sup> fire engine in attendance (Source: 'Vision': GTIRT17-02791).
- 01:44:36** Paul Menacer (flat 33, sixth floor) leaves the building via the side door in the stair lobby (Source: CCTV: Camera 2).
- 01:44:40** CM Stern meets Mary Brennan (unknown address) in the main lobby and escorts her out (Source: CCTV: Camera 4).
- 01:44:43** CRO Duddy at Brigade Control takes a call from a male caller who states that he is stuck in flat 95 on the 12<sup>th</sup> floor and says he has two children. CRO Duddy explains that the fire is on the fourth floor and the caller informs him that embers have come up and in the window and have started a fire in the kitchen of flat 96 next door. He also says there are other people trapped on the 11<sup>th</sup> floor. The caller reports that it is very smoky and asks for help. CRO Duddy informs the caller that crews will be sent up to him. CRO Duddy advises him to get to the room furthest away from the fire. Incident number 76118, Call Duration three minutes, 33 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00551).
- 01:44:45** Sharon Haley (flat 24, fifth floor) and Kenny Smith (flat 13, fourth floor) leave the building (Source: CCTV: Camera 4).

## OFFICIAL

- 01:44:48** Brigade Control phone GM Goulbourne to check if he has received an ordering for the attendance at Grenfell. The call is not answered (Source: NICE, Admin Phone Line Audio file: GTIRT18-00257).
- 01:44:58\*** *Firefighter Cuthbert states that his BA team go up to the fifth floor. The heat and the smoke is "crazy". Firefighter Cuthbert explains he has never experienced it this intense before. It is really hot underfoot. The smoke logging in the stairwell is getting increasingly worse. "When we went from the fourth to the fifth floors it went up to a totally different gear. The smoke logging in the stairwell was getting increasingly worse. On the fourth floor initially it was wispy to thick. On the fifth floor you couldn't really see in front of you in that lobby area". (MPS Witness Statement: GTIRT18-01844).*
- 01:45:00** NWFC take a call from a BT Operator in Glasgow reporting a female that has requested to speak with the Brigade but who has now cleared the line (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01772).
- NWFC generate a call back to the number given by the BT Operator in Glasgow and the call goes straight to the Vodafone voicemail. The CRO leaves a message asking the caller to call back if they still need assistance. Incident Number 1706004392, Call Duration 26 seconds (Source: FRS Incident Log and Audio File: GTIRT18-02453) .
- It should be noted that NWFC make an additional call back to the same mobile at **01:47:28** (GTIRT17- 00594).
- 01:45:02** Alpha 411, West Hampstead's PL book status 3, in attendance, at Grenfell Tower. This is the 14<sup>th</sup> fire engine in attendance (Source: 'Vision': GTIRT17-02791).
- 01:45:02** CRO Gotts at Brigade Control takes a call reporting a fire in Grenfell Tower. The caller is believed to be outside of Grenfell Tower. CRO Gotts confirms that the Brigade is in attendance and dealing with it. Incident number 76119, Call Duration 19 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00552).
- 01:45:04** Alpha 231, Euston's PL book status 3, in attendance, at Grenfell Tower. This is the 15<sup>th</sup> fire engine in attendance (Source: 'Vision': GTIRT17-02791).
- 01:45:13** BA Team Eight: Firefighter Shaw and Firefighter Cuthbert report to the bridgehead, they receive their briefing and remove their BA tallies. They have no firefighting media but are told to go to the fifth and sixth floor for search and rescue (Source: BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00044, GTIRT17-00043, MPS Witness Statement: GTIRT18-01534, GTIRT18-01844).
- 01:45:20** CM Stern and Kerry O'Hara (flat 34, sixth floor) exit the building via the main entrance (Source: CCTV: Camera 4).

## OFFICIAL

- 01:45:23** GM Pat Goulbourne answers a phone call from Brigade Control. The CRO asks him if he has received an ordering on his pager. He advises he has not and checks his pager. He notes he has received a message and confirms the address. Brigade Control confirm it is now a 25 pump fire, persons reported, multiple FSG Calls. GM Goulbourne says he is actually not on duty which is why he has not noted the pager message. He says he will attend anyway and books Status 2, mobile to Grenfell Tower. Very little information is passed during the discussion except that Brigade Control are taking a large number of FSG calls (Source: NICE, Admin Phone Line Audio file: GTIRT18-00258 and 'Vision': GTIRT17-02791).
- 01:45:24** WM Ashe enters the main lobby via main entrance (Source: CCTV: Camera 4).
- 01:45:27** Golf 351, Fulham's PL book status 3, in attendance, at Grenfell Tower. This is the 16<sup>th</sup> fire engine in attendance (Source: 'Vision': GTIRT17-02791).
- 01:45:47** WM Watson and WM Ashe proceed upstairs (Source: CCTV: Camera 2).
- 01:45:51** CRO Howson at Brigade Control takes a call reporting a fire in a tower block near Latimer Road. He explains that the emergency services are on the motorway going the long way round to the fire. Incident Number 76122, Call Duration one minute, one second (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00557).
- 01:45:52** NWFC receive a call from a member of the public who reports a fire in Ladbrooke Grove. The NWFC Operator confirms that the Brigade is on their way. Incident Number 76645 Call Duration one minute, four seconds (Source: BOSS Viewer, 999 Audio file: GTIRT17-00545).
- 01:45:53** Between 01:45:53 and 01:47:14 the pre-alarm actuates on all of BA Team Five. This indicates that this team of firefighters are not moving for a period of over 30 seconds. It is believed that the team have finished the search of flat 176 and are discussing where they think Jessica Urbano has gone (Source: BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00009, GTIRT17-00431, GTIRT17-00017, GTIRT17-00013, MPS Witness Statement: GTIRT18-01411, GTIRT18-00917, GTIRT18-00641, GTIRT17-01551).
- 01:45:53** BA Team 13: CM Wigley, Firefighter A Harris, Firefighter Gonzalez, Firefighter Gillam and Firefighter D Roberts, are Alpha 216, Paddington's FRU crew. They are wearing Extended Duration Breathing Apparatus (EDBA) and are the first firefighters to enter Grenfell Tower wearing EDBA. They enter the main lobby carrying line operations equipment. They are also carrying two lengths of 45 mm fire hose, and a firefighting branch. They are seen making their way upstairs. They have been tasked by WM Dowden to get to the roof and attempt to extinguish the fire using fire hose (Source: CCTV: Cameras 4 and 2, Contemporaneous Notes: GTIRT17-00052, GTIRT17-00053, GTIRT17-00051, MPS Witness Statement: GTIRT18-01067, GTIRT17-02917, GTIRT17-01393, GTIRT18-00414).

## OFFICIAL

- 01:45:53** A firefighter enters the seventh floor lobby. It is believed to be Firefighter Bettinson as there are a set of diamonds on the fire helmet indicating a firefighter on development. Firefighter Bettinson is the only probationer wearing BA at this time in the building (Source: CCTV: Camera C15).
- 01:46:00** AC Roe rings AC Richard Mills who is AC2 and asks him to become AC1 as he is mobilising to the incident at Grenfell Tower (Source: Mobile Phone Call Log: GTIRT18-01250, MPS Witness Statement: GTIRT17-01254, GTIRT18-00944).
- 01:46:00\*** Firefighter Murray enters the main entrance wearing BA and carrying a loud hailer. *From his statement he has been at the West elevation telling people not to jump and to get out if they can* (Source: CCTV: Camera 4 and MPS Witness Statement: GTIRT18-01066).
- 01:46\*** WM Ashe informs WM Dowden that debris is falling from the North face of Grenfell Tower (Source: MPS Witness Statement: GTIRT18-01412).
- 01:46:00** AOM Real takes a call from NWFC who provide additional information from their call at 01:43:00. NWFC confirm the location of flat nine as being on the third floor and report a call from flat 161 on the 23rd floor where there are 10 people trapped in one bedroom. AOM Real confirms this information and NWFC Operator states that they have someone on the line to the caller. It should be noted that flat 161 is not on the 23rd floor. (This is believed to be a call from Deborah Lamprell who is resident in flat 161 but moves up to flat 201 on the 23<sup>rd</sup> floor). (Source: FRS Incident Log, Audio File and Transcript: GTIRT17-01774).
- 01:46:02** OM Norman makes an outgoing call to the resident that she speaks to at **01:39** who reports that he is in flat 204 on the 23rd floor, (GTIRT17-00563). OM Norman calls to check that he is still safe. There is a smoke alarm sounding in the background. OM Norman tells him to keep doing what he is doing and if it gets worse to call back. He explains that he thinks the fire is in the flat next to him and OM Norman says that the fire is on the 4th floor. He says that he thinks it has come up the stairs. She tells him to stay where he is, stop the smoke from coming in and that the crews know where he is. (Source: NICE, Admin Phone Line Audio file: GTIRT18-03148).
- 01:46:05** CRO Howson at Brigade Control takes a call from a male caller who reports that there is a massive building on fire. He explains that he can hear people screaming inside and wants to let the Brigade know that there are still people in there. CRO Howson advises him that the Brigade is aware of a large fire on the Lancaster West estate where there are people on several different floors and the Brigade are in attendance. Incident Number 76120, Call Duration 34 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00554).
- 01:46:05** The Radio Operator at Brigade Control contacts CU 8 with a priority message:  
"Go ahead with priority, over."

## OFFICIAL

"Yeah, got some further callers, um, ringing in. We've got, um, 11 people in a bedroom of a flat on the 23<sup>rd</sup> floor. We've got, um, a caller saying a further fire has started on the 12<sup>th</sup> floor, flat, flat 96, outside flat 96. We've got further calls coming from the police, from callers trapped on the 16<sup>th</sup> and 17<sup>th</sup> floors. Over. "

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02527).

Flat number	Floor number	Number of people	Remarks
	23	11	All in bedroom
96	12		Fire started in flat
	16		Persons trapped (information received from the police)
	17		Persons trapped (information received from the police)

- 01:46:10** Hotel 27 Sierra, SM Nicholas Myatt books Status 2, mobile to Grenfell Tower, from his home address in Surbiton (Source: 'Vision': GTIRT17-02791).
- 01:46:18** CRO Adams at Brigade Control takes a call from the MPS Control Room. The MPS CRO asks if there is any advice they can give callers and explains that she has a caller that is stuck on the 16<sup>th</sup> floor who is very distressed. The MPS Operator asks if she can set up a conference call between the individual and CRO Adams. CRO Adams agrees and provides advice about blocking doors and closing windows. She asks what flat the caller is in and he replies that he is in flat 133. CRO Adams tells the caller to call back if it gets worse and the MPS take the call back, releasing CRO Adams from the call. Incident Number 76126, Call Duration two minutes, 31 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00560).
- 01:46:23** Alpha 241, Soho's PL, is in attendance. This is the 17<sup>th</sup> fire engine in attendance (Source: approximate time from MDT GPS Data: GTIRT17-00943).
- 01:46:34** CU8 reply to the Radio Operator at Brigade Control message passed at **01:46:05**:  
"FN from Charlie Uniform 8, can you repeat the whole of that message? Over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02528).
- 01:46:35** Abraham Abebe is escorted from flat 44, seventh floor by Firefighter Bettinson from BA team Seven (Source: CCTV: Camera C15).



## OFFICIAL

- 01:46:36** In the seventh floor lobby CM Tillotson from BA team Seven can be seen by the lift doors. CM Tillotson appears with Firefighter Bettinson, identified by the diamonds on his fire helmet (Source: CCTV: Camera C15, BA Data: GTIRT17-02820).
- 01:46:39** The Radio Operator at Brigade Control repeats back the information sent at **01:46:05**.  
"Yeah. We've got 11 people in a bedroom of a flat on the 23<sup>rd</sup> floor, um, a further fire started on... on the 12<sup>th</sup> floor. Um, we've got people trapped in flats 96 and 95 and we've further calls calling from the people of people trapped on the 16<sup>th</sup> and 17<sup>th</sup> floors. Over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02529).
- 01:46:49** John Beadle (flat 13, fourth floor) leaves the building. He was seen entering the building at 00:56:01 (Source: CCTV: Cameras 3 and 4).
- 01:46:50** Alpha 412, West Hampstead's Pump is in attendance at Grenfell Tower. This is the 18<sup>th</sup> fire engine in attendance (Source: approximate time using MDT GPS Data: GTIRT17-00943).
- 01:46:52** Foxtrot 115, GM Goulbourne books Status 2, mobile to Grenfell Tower, by Brigade Control (Source: 'Vision': GTIRT17-02791).
- 01:47:00** Essex FRS Control take a call from BT Glasgow who explain that they have a caller on the line who has been waiting for six minutes to get through to the Brigade who is requesting the attendance of Police, Fire and Ambulance to a fire in a tower block. The male caller advises that he is driving on the A40 and can see a fire. The Essex CRO is aware of the fire and asks the caller to confirm that it is in the Ladbroke Grove area. The caller confirms that he thinks it is and the Essex CRO says that the Brigade are in attendance. Incident Number 76636, Call Duration one minute, 17 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00556).
- 01:47:05** Alpha 242, Soho's Pump book status 3, in attendance, at Grenfell Tower. This is the 19<sup>th</sup> fire engine in attendance (Source: 'Vision': GTIRT17-02791).  
Firefighter Orchard is the driver of Alpha 242. On arrival the other firefighters are already wearing BA so they jump off and head to the tower. Firefighter Orchard then puts on her PPE and then gets rigged in her BA set. She then makes her way to the holding area (Source: MPS Witness Statement: GTIRT18-00647).
- 01:47:06** CU8 contact the Radio Operator at Brigade Control in response to message received at **01:46:39**.  
"Er, people trapped in flat -in flats 96 and 95, do you know the numbers and what was the rest, rest of the message after that? Over"  
"Yeah."

## OFFICIAL

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02530).

**01:47:13** The Radio Operator at Brigade Control passes the information.

"Yeah, it was on the 12<sup>th</sup> floor, err, for peoples trapped in flats 96 and 95 and the police have passed over calls saying that the callers are trapped on the 16<sup>th</sup> and 17<sup>th</sup> floors. Over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02531).

**01:47:28** CU8 send a message to the Radio Operator at Brigade Control in response to message received at **01:47:13**.

"FN from Charlie, err, Charlie Uniform 8, FN, all received, over."

"Received."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17- 02532).

**01:47:28** NWFC call back the number given that is believed to originate from the abandoned call referenced at **01:45:00** (GTIRT17-01772) earlier in this report. The caller says she called earlier but that the Brigade have since told them to get out and they are now out of the Tower. Incident Number 014728, Call time 41 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00594).

**01:47:33** Golf 346, Chelsea's FRU book Status 3, in attendance, at Grenfell Tower. This is the second FRU in attendance (Source: 'Vision': GTIRT17-02791).

**01:47:44** OM Norman rings CU8 and passes over a request for the flats below to be checked (Source: 'Vision': GTIRT17-02791, NICE, Admin Phone Line Audio file: GTIRT18-00508).

Flat Number	Floor number	Number of people	Remarks
161*	23	10	FSG being given. *Flat 161 is not on the 23 <sup>rd</sup> floor. This information relates to a call taken by the NWFC and the caller states initially that she is from 161.
204	23	One	
14		One	In the call OM Norman states that the caller disappears. However in the call taken at <b>01:37:58</b> CRO Duddy doesn't ask the caller what flat she is in. The caller also says she has a baby with her.
9		Two adults three children	Wheelchair user
175	20	Five	

## OFFICIAL

- 01:47:49** CRO Gotts at Brigade Control takes a call from a person inside Grenfell Tower. The caller asks how they are going to get out. CRO Gotts confirms the floor number and the caller states they are on the 10<sup>th</sup> floor. The caller then repeatedly states that they are going outside. The phone is handed to a young child who states there is smoke in the corridor but other residents are leaving. The caller asks for advice on what to do and CRO Gotts advises that they block the doors up and she will tell the firefighters where they are however she is unable to advise the best thing as she is not there. CRO Gotts advises that the fire has started on the fourth floor. Incident Number 76131, Call Duration two minutes, 24 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00564).
- 01:47:52** Avelina Shah and Josephine Shah (flat 32, sixth floor) leave the building (Source: CCTV: Camera 4).
- 01:48:00** Essex FRS take a call from a BT Operator who passes a 999 call originally for London. The BT Operator explains that all of London's lines are busy and then transfers the call. The Essex CRO speaks to a female caller who states that they are on the 22<sup>nd</sup> floor and it is getting very smoky in the house. The caller gives her address as flat 193 Grenfell Tower. The Essex CRO confirms that the Brigade is in attendance and says she will pass on the information to London. Incident Number 76637, Call Duration one minute, 12 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00558).
- 01:48:23** CRO Fox at Brigade Control takes a call from the Surrey Police Contact Centre reporting a fire at Grenfell Tower. CRO Fox advises that there is a 25 pump fire going on. The Surrey Police Contact Centre Officer explains that they have had a caller reporting that his brother is trapped in his bathroom and smoke is filling the room. The flat number is given as flat 111 on the 14<sup>th</sup> floor and the name of the person trapped is given as Dennis Murphy. Incident Number 76127, Call Duration one minute, 39 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00561).
- 01:48:23** CRO Howson at Brigade Control takes a call from a female caller who repeatedly states that she is on the 14<sup>th</sup> floor in flat 115. CRO Howson advises the caller that the fire is on the fourth floor and the caller explains that there is smoke is coming into her flat via the door and windows. CRO Howson asks who is there and the caller confirms "me and my baby". CRO Howson asks if there are any rooms without smoke and the caller states that every room has smoke in it. CRO Howson then advises her to block the doors and windows to keep the smoke out and the caller advises that she has already done that. CRO Howson explains that she will tell crews to come and get her as soon as it is safe to do so and that the caller should stay where she is. Incident Number 76134, Call Duration four minutes, 50 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00568).

## OFFICIAL

- 01:48:30** Turufat Girma, Abraham Abebe and Abem Abraham (flat 44, seventh floor) leave the building (Source: CCTV: Camera 4).
- 01:48:32** The Officer of the Watch takes a call from Thames Water Authority who are calling to confirm that they are on their way and should be in attendance within the hour (Source: NICE, Admin Phone Line Audio file: GTIRT18-00882).
- 01:48:44** H222, Lambeth's Pump arrives at Grenfell Tower. This is the 20<sup>th</sup> fire engine in attendance (Source: approximate time using MDT GPS Data: GTIRT17-00943).
- 01:48:44** CRO Duddy at Brigade Control takes the call from a member of the public outside the Tower who reports a fire in Grenfell Tower in W10. The caller states that it is right to the top. Incident Number 76125, Call Duration 24 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00559).
- 01:48:53** Hotel 221, Lambeth's PL arrives at Grenfell Tower. This is the 21<sup>st</sup> fire engine in attendance (Source: approximate time using MDT GPS Data: GTIRT17-00943).
- 01:48:56** Suriya Nana and Tania Allcorn (flat 35, sixth floor) leave the building (Source: CCTV: Camera 4).
- 01:49** Firefighter O'Hanlon and Firefighter Barton enter the tower and proceed up the stairs (Source: CCTV: Camera 4 Contemporaneous Notes:, GTIRT17-00027, GTIRT17-00025, MPS Witness Statement: GTIRT18-00387, GTIRT18-00321).
- 01:49:13** Bravo Charlie 04, SOM Adam Crinion is paged about the 25 pump fire at Grenfell Tower (Source: 'Vision': GTIRT17-02791).
- 01:49:31** SM Loft enters the building via the main entrance. He goes to the ground floor lift lobby and photographs the lift and flat number plaque to assist him in identifying the floors that flats are located on (Source: CCTV: Cameras 4 and 5).
- 01:49:32** Branislav Lukic (Luca) (flat 84, 11<sup>th</sup> floor) Clarita Ghavimi (flat 75, 10<sup>th</sup> floor) and Miriam Lovsin (flat 84, 11<sup>th</sup> floor) leave the building (Source: CCTV: Camera 4).
- 01:49:44** Golf 291, Park Royal's PL book status 3, in attendance, at Grenfell Tower. This is the 22<sup>nd</sup> fire engine in attendance (Source: 'Vision': GTIRT17-02791).
- 01:50** BA Team 21: Firefighter Malik and Firefighter D Hill, report to the BAECF at the bridgehead, they state they queue along with approximately 30 other firefighters. They are tasked to go and get more equipment from outside. Firefighter D Hill and Firefighter Malik make approximately four trips to the fire engines, collecting fire hose and other equipment. They leave the equipment by a tree outside Grenfell Tower (Source: MPS Witness Statement: GTIRT18-00426, GTIRT18-00070).

## OFFICIAL

- 01:50** BA Team 24: Firefighter Bloxham and CM R Evans are tasked with rigging in BA, they then report to the holding area outside Grenfell Tower. They are then informed by an officer not to enter the building unless they have breaking in equipment (Source: MPS Witness Statement: GTIRT18-01038, GTIRT18-00926).
- 01:50:03** CRO Duddy at Brigade Control takes a call from a male caller who confirms that he is in flat 194 on the 22<sup>nd</sup> floor of Grenfell Tower. The occupant states that smoke is coming through the windows and that he cannot see anything. CRO Duddy advises the caller to close his windows and block his doors, get low on the ground and cover his face with a wet cloth if he needs to. Incident Number 76129, Call Duration one minute, 24 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00562).
- 01:50:09** WM De Silvo from Golf 341, Chelsea's PL, enters the building (Source: CCTV: Camera 4).
- 01:50:36** SM Loft leaves the building via the main entrance, putting his mobile phone in his leggings' pocket (Source: CCTV: Cameras 1, 3 and 4).
- 01:50:49** CRO Adams at Brigade Control makes a call on a landline to the mobile phone allocated to CU8 in order to pass on FSG calls. CRO Adams' police witness statement says she calls the CU at the scene to pass on details of the flats in trouble based on the calls that she has taken. She then explains that whilst this is normally done by message, a call is easier and quicker in these circumstances (Source: MPS Witness Statement: GTIRT17-01259, NICE, Admin Phone Line Audio file: GTIRT18-00506).

The CU Operator asks CRO Adams if there is a priority for the calls being passed to them and asks Brigade Control to indicate a priority by smoke density. CRO Adams explains that the caller in 182 is quite panicky, has smoke in the flat and is still on the phone. The CU Operator summarises that the smoke is heaviest on the 21st floor.

Flat number	Floor number	Number of people	Remarks
133	16	Unknown	Smoke coming in
182	21	Unknown	Cannot stop smoke coming through the front door so have gone into the living room.

- 01:50:57** BA Team Nine: Firefighter Merrion and Firefighter Sanders report to the BAECO and receive their briefing. They are tasked with going to flat 112, 14<sup>th</sup> Floor. It is believed they are told to team up with BA Team 10: Firefighter Cornelius and Firefighter D Murphy (Source: BA Data: GTIRT17-

## OFFICIAL

02820, Contemporaneous Notes: GTIRT17-00048, GTIRT17-00459, GTIRT17-00049, GTIRT17-00419 MPS Witness Statement: GTIRT18-01134, GTIRT18-00651).

**01:51** BA Team 10: Firefighter Cornelius and Firefighter D Murphy report to the BAECO and receive their briefing. They are tasked to go to flat 111,14<sup>th</sup> Floor. They are told to go up with BA Team Nine: Firefighter Merrion and Firefighter Sanders (Source: BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00020, GTIRT17-00021, MPS Witness Statement: GTIRT18-01416, GTIRT18-00993).

**01:51:36** Hotel 34 Sierra, SM Mulholland (ORT), books Status 3, in attendance, at Grenfell Tower. He is the first officer from ORT in attendance.

Hotel 34 Sierra: "FS Hotel 34 Sierra, Status 3. Over"

Brigade Control Room Radio Operator: "Status 3, re-"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02535).

**01:51:46** BA Team 11: Firefighter Campbell and Firefighter Mills report to the bridgehead. They then report to the BAECO, start breathing under air and remove their BA tallies. They are tasked with going to flat 175, 20<sup>th</sup> floor in response to a FSG call (Source: Contemporaneous Notes: GTIRT17-00046, GTIRT17-00034, MPS Witness Statement: GTIRT18-00967, GTIRT18-02051, GTIRT18-00402).

**01:51:46\*** *Firefighter Campbell from BA Team 11 states the stairs are now like a waterfall, Firefighter Campbell describes trying to move a casualty on the stairwell however with the amount of fire hose tangled up on the stairwell it was unbelievable like a birds nest making it very difficult. (Source: MPS Witness Statement: GTIRT18-00967).*

**01:51:47** Oscar Golf 61, SM Saunders books Status 3, in attendance, at Grenfell Tower. He is the fourth SM in attendance (Source: 'Vision': GTIRT17-02791).

**01:51:56\*** *Firefighter Mills from BA Team 11 states that he goes to the fourth floor, there is a fire hose coming in through the fire door, and there is heavy smoke logging, from the fourth floor up, its smoky all the way up. Firefighter Mills and his BA team go down to the 14th floor, which is not smoke logged, it is still smoky but not as bad as the 15<sup>th</sup>. Firefighter Mills states "we got to the 9th floor, it was mega hot, when you went past it there was like a heat barrier, I didn't even want to open doors, I could feel the heat on the way through. (Source: MPS Witness Statement: GTIRT18-00402).*

**01:52:09** NWFC take a call from BT in Nottingham who explain that they have a caller that they have tried to put through to the Brigade but the lines are all busy. The BT Operator states that the call has now cleared but that the caller says "they're here, they're here" before putting the phone down.

## OFFICIAL

The NWFC Operator says they will call back. Incident number 143565, Call Duration 40 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01607).

**01:52:11** The Radio Operator at Brigade Control sends a message to CU8.

"Golf – err, Charlie Uniform 8, Charlie Uniform 8, from - priority from M2FN, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02537).

**01:52:13** CRO Duddy at Brigade Control takes a call from a male caller reporting a fire in a tower block on fire near the A40. CRO Duddy advises that the Brigade is in attendance. Incident Number 76132, Call Duration 19 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00565).

**01:52:26** The Radio Operator at Brigade Control sends a message to CU8.

"Priority, Charlie Uniform 8 - Charlie Uniform 8 from M2FN. Over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02538).

**01:52:30** 12 firefighters carrying various pieces of equipment enter the main entrance (Source: CCTV: Camera 4).

**01:52:41** The Radio Operator at Brigade Control sends a message to CU8.

"Priority, priority, Charlie Uniform 8 - Charlie Uniform 8 from M2FN. Over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02539).

**01:52:53** Alpha 245, Soho's ALP, arrives in attendance at Grenfell Tower. This is the second aerial in attendance (Source: approximate time using MDT GPS Data: GTIRT17-00943).

**01:52:54** The Radio Operator at Brigade Control sends a message to CU8.

"Priority, priority, Charlie Uniform 8 - Charlie Uniform 8 from M2FN. Over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02540).

**01:52:56** CRO Gotts takes a call from the LAS who inform her they are making the Grenfell Tower fire a significant incident (Source: NICE, Admin Phone Line Audio file: GTIRT18- 00886).

The term Significant Incident is used within the ambulance service and not by the fire service or police. A significant incident is defined as any incident which from initial intelligence, will require an attendance of a number of resources along with a management presence or will require a specialist or dedicated response (Source; LAS: GTIRT18-03474).

**01:52:59** Bravo Charlie 04, SOM Adam Crinion responds to pager message and is informed of 25 pump fire at Grenfell Tower (Source: 'Vision': GTIRT17-02791, NICE, Admin Phone Line Audio file: GTIRT18-00885).

## OFFICIAL

**01:53** The following image was taken by an individual and shows the North Elevation at this time (Source: MPS External Fire Spread Report: GTIRT18-01590).



**01:53** BA Team 11: Firefighter Campbell and Firefighter Mills, are ascending the stairs between the third and fifth floors. While ascending the stairs they have to stop four or five times due to the congestion caused by approximately seven or eight firefighters passing them (Source: Contemporaneous Notes: GTIRT17-00034, GTIRT17-00046, MPS Witness Statement: GTIRT18-00967, GTIRT18-02051, GTIRT18-00402).

**01:53\*** *Firefighter Daoud and Firefighter O'Donoghue drop off their equipment near the holding area. They note there are at least 20 BA wearers (Source: MPS Witness Statement: GTIRT18-00393, GTIRT18-00046).*

**01:53\*** *Firefighter Campbell from BA Team 11 states the stairwell is congested and thin, movement is very slow going. He has to hunch himself up as people go past, it was not fit for purpose very crowded and very smoky. (Source: MPS Witness Statement: GTIRT18-00967).*

**01:53:02** CU8 respond to the Radio Operator at Brigade Control.

"FN from Charlie Uniform 8, go ahead. Over"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17- 02541).

**01:53:05** The Radio Operator at Brigade Control pass a message to CU8.

"Charlie Uniform 8, go ahead. Over"



## OFFICIAL

"Charlie Uniform 8. We're being advised that people on the 10<sup>th</sup> floor are asking to leave their flats. Are you able to go and check them? Um, and further, err, traffic, we've got info received from Surrey Police. Um, caller on the 14<sup>th</sup> floor in Flat 111 is in the bathroom with smoke entering the room and he's having difficulties breathing. Over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02542).

**01:53:11** NWFC take a call from a male caller reporting a fire in a large building in W10 which has about 20 floors all burning with people inside. The caller confirms that is Grenfell Tower when asked. The NWFC Operator reassures the caller that the Brigade are in attendance. Incident Number 76646, Call Duration 51 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00566)

**01:53:27** BA Team 20: Firefighter Alassad, Firefighter Bell and Firefighter J Wright enter the main entrance wearing SDBA and carrying a enforcer, a bag containing breaking in gear and a Halligan bar (Source: CCTV: Camera 4).

**01:53:31** CU8 respond to the message received at **01:53:05**:

"Okay, that was Flat 111. Can you confirm what floor that's on?." The control operator replies "14".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02543).

**01:53:40** CU8 respond to the Radio Operator at Brigade Control.

"Flat 111 on the 14th floor, received. Over

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02544).

**01:53:40** A firefighter (believed to be Firefighter Nuttall) enters the main lobby carrying a ECB (Source: CCTV: Camera 4).

**01:53:44** The Radio Operator at Brigade Control respond to CU8.

"Answer yes. And, um, people on the 10<sup>th</sup> floor are leaving their flat or asking to leave their flats. Over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02545).

**01:53:45** BA Team 12: Firefighter K Foster and Firefighter Lawson report to the bridgehead. They are instructed by WM O'Keeffe to get as far up the building as they can before they put their facemasks on to conserve air. They are instructed to go to the 18<sup>th</sup> floor to respond to a FSG call on that floor but they are not given a specific flat number (Source: BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00062, GTIRT17-00061, MPS Witness Statement: GTIRT18-00927, GTIRT18-00068).

## OFFICIAL

- 01:53:50\*** *Firefighter Lawson from BA Team 12 states he didn't go under air as he is trying to conserve air , he goes up two or three flights of stairs and starts up as it is smoky going up the stairs with zero visibility, there is shouting and screaming. He tries his best to make it up the stairs, it just seemed really busy at that point people are everywhere. Firefighter Lawson is asking other crews what floor they are on and if they had any idea, no one actually knows and he keeps trying to look at the wall pressing his nose against it to try to find the numbers. He reaches the 18th floor at 02:07:01. (Source: MPS Witness Statement: GTIRT18-00068).*
- 01:53:54** CU8 acknowledge the Radio Operator at Brigade Control.
- "All received, over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02546).
- 01:53:57** Bravo Charlie 02, Duty Brigade Control Senior Manager Joanne Smith is informed of the '25 pump fire' at Grenfell Tower (Source: 'Vision': GTIRT17-02791).
- 01:54:03** The Duty Press Officer, Catherine Allum, is informed of the incident (Source: 'Vision': GTIRT17-02791).
- 01:54:04** Foxtrot 4, DAC Fenton books Status 2, mobile to Brigade Coordination Centre (BCC) which is in the same building as Brigade Control at Stratford (Source: 'Vision': GTIRT17-02791).
- 01:54:14** CRO Duddy at Brigade Control takes a call from a male caller in flat 95, 12<sup>th</sup> floor, who says it is getting worse. The caller says the smoke is thick and they cannot get out, he has two children, aged eight and 12, with him and he can hear the fire in the flat next door. The caller asks if he should leave. The caller says that there is fire outside his flat and pleads with CRO Duddy to come and get him and his daughters. He reiterates that there is a fire next door and he can hear people screaming outside. At **02:31** the caller says that the fire has reached his flat. He says the window is on fire and they need to make a move. He says there is smoke all over the place. At **02:33:36** CRO Duddy says to the caller "right we are going to tell you to leave but you need to stay on the phone". At **02:34:32** a knocking can be heard then the caller is heard saying they are here and a voice saying "hello fire brigade". He then says "save us". Someone else is heard saying "hello mate, get out". Incident Number 76135, Call Duration 40 minutes (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00569).
- 01:54:23** CRO Gotts at Brigade Control takes a call from a female caller in flat 205 on the 23<sup>rd</sup> floor who states the fire is starting to rise and they have nowhere to go. The caller explains that the crews know already but that the flat is now full of smoke and there are seven of them in there. The caller says that the fire is going to come through the window and they do not know what to do. CRO Gotts checks with the caller that they cannot get out of the flat and says she will let the crews know

## OFFICIAL

urgently. Incident Number 76137, Call Duration one minute, 19 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00571).

**01:54:27** Golf 301, Wembley's PL book status 3, in attendance, at Grenfell Tower. This is the 23<sup>rd</sup> fire engine in attendance (Source: 'Vision': GTIRT17-02791).

**01:54:31** NWFC make a call back believed to be to the call that was abandoned and referenced at **01:52:09**. The call goes to EE voicemail with no number. The NWFC Operator does not leave a message. Linked to GTIRT17-01607 (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT18-02335).

**01:54:32** The Radio Operator at Brigade Control sends a message to CU8.

"Charlie Uniform 8, Charlie Uniform 8 from M2FN, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02548).

**01:54:43\*** *Firefighter D Murphy from BA Team 10 meets Firefighter Badillo from BA Team Five on the seventh floor. Firefighter D Murphy says it is difficult to identify floor numbers so Firefighter Badillo shows him where they are located but acknowledges the difficulty. The BA data shows a reduced breathing rate at this time for both wearers, consistent with these actions (Source: BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00009, GTIRT17-00431 and GTIRT17-00021, MPS Witness Statement: GTIRT18-01411, GTIRT18-00917 and GTIRT18-00993).*

**01:54:44** The Radio Operator at Brigade Control sends a message to CU8 again.

"Charlie Uniform 8, Charlie Uniform 8, from M2FN, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02547).

**01:54:44** The Radio Operator at Brigade Control relays information to CU8.

"Charlie Uniform 8, we've got a caller in Flat 115 on the 14<sup>th</sup> floor with a young baby, erm, and it's heavily smoke-logged, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02549).

**01:54:55** CU8 respond to the Radio Operator at Brigade Control.

"FN from Charlie Uniform 8, all received, over. Flat 115, over?" The Radio Operator at Brigade Control responds "Answer yes, over"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02550).

**01:54:30\*** *Echo 6, DAC O'Loughlin arrives at Grenfell Tower although he does not book in with Brigade Control on the radio or phone as both are busy and he does not want to interrupt the FSG calls.*

## OFFICIAL

*He notes the time on his phone when he arrives and puts this in his MPS Witness Statement. DAC O'Loughlin is the first DAC in attendance (Source: MPS Witness Statement: GTIRT18-01266).*

**01:55** Firefighter Okoh tasked by CM Codd to go back to Golf 346, Chelsea's FRU, and retrieve rescue equipment. Firefighter Okoh rushed back to Golf 346, Chelsea's FRU, where he came across Firefighter Butler (Golf 341, Chelsea's Pump) who was with other firefighters talking to an unidentified male who was on his mobile phone. The unidentified male was very emotional and was talking on the phone to one of his relatives who was on the 18<sup>th</sup> floor. Firefighter Okoh and Firefighter Butler advised the male to phone 999 so they could treat his relatives as an FSG (Source , MPS Witness Statement, GTIRT18-00053, GTIRT17-02935).

**01:55:00** SM Cook enters the main entrance wearing a press liaison surcoat (Source: CCTV: Camera 4).

**01:55:17\*** *Echo 109, GM Welch is booked Status 2, mobile to Grenfell Tower, from his home address in Erith. It is believed that he books this whilst already enroute due to the heavy telephone traffic being received by Brigade Control. He is shown Status 3, in attendance, two minutes later at 01:57 (Source: 'Vision': GTIRT17-02791).*

**01:55:25** Hotel 421, Richmond's PL, arrives at Grenfell Tower. This is the 24<sup>th</sup> fire engine in attendance (Source: approximate time of arrival using MDT GPS Data).

**01:55:29\*** *CM Secrett from BA Team 5 is in flat 176. The LPWA on his SDBA set begins actuate. He notes the temperature suddenly soars to being unbearable in both the flat and the lobby outside the flat (Source: Contemporaneous Notes: GTIRT17-00013 and MPS Witness Statement: GTIRT17-01551).*

*Hard data obtained from the BA bodyguard system shows the LPWA sounds at 01:55:29 and the team log off the ECB at 01:58:18 (Source: BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00013, MPS Witness Statement: GTIRT17-01551).*

**01:55:30** A nine metre ladder can be seen outside on the floor of the South elevation. Firefighter Abell and other unidentified firefighters move this to the walkway area and it is then hauled aloft onto the walkway above (Source: CCTV: Camera C31, this is underneath Grenfell Walk).

**01:55:31** The Radio Operator at Brigade Control sends a message to CU8 in relation to the National Police AirService (NPAS).

"Charlie Uniform 8, the police have a helicopter above the flat. Erm, the LFB are requested to monitor the cha... channel P-L-O-N Echo Sierra 3 radio channel to speak to the helicopter direct. Further traffic."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02551).

## OFFICIAL

- 01:55:40** BA Team Nine: Firefighter Merrion and Firefighter H Sanders are climbing the stairs to the 14<sup>th</sup> floor. The stairwell is congested and another firefighter bumps into firefighter Merrion causing his Automatic Distress Signal Unit (ADSU) to actuate. This needs to be reset or a Firefighter Emergency will be implemented. BA Team Nine then make their way back to the bridgehead. The BAECO can then reset it (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00651, GTIRT18-00945).
- 01:55:50** WM Williams, CM Batchelor, Firefighter D Hill, Firefighter Malik and Firefighter N Saunders enter the main entrance, all wearing SDBA (Source: CCTV: Camera 4).
- 01:56\*** *WM Dowden instructs WM Berry from Hotel 421, Richmond's PL to take his appliance to the North elevation to attempt to prevent further fire spread. He later finds out that Hotel 421, Richmond's PL is taken to the West face as there is no vehicle access to the North elevation and utilise their 13.5 metre ladder to effect rescues (Source: MPS Witness Statement: GTIRT18-01065, GTIRT18-01428).*
- 01:56:09** BA Team 13: CM Wigley, Firefighter A Harris, Firefighter Gillam, Firefighter Gonzalez and Firefighter D Roberts are the first EDBA crew to report to the bridgehead. They are briefed by WM Dowden to get to the roof with the line ops equipment and set up a drencher system to try and extinguish the fire from the outside. They are told (believed to be by WM O'Keeffe) to get as high as possible before starting up. Firefighter Gillam states that in front of them are BA Team 11: Firefighter Mills and Firefighter Campbell. BA Team 13 ascend to the fourth floor but they decide that the smoke is too thick to continue without their facemasks on. At this point they put their facemasks on and start to breathe under air. It is believed that they may have returned to the bridgehead to start their EDBA up, but this has not been corroborated (Source: BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00052, GTIRT17-00053, GTIRT17-00051, MPS Witness Statement: GTIRT18-01067, GTIRT17-02917, GTIRT17-01393, GTIRT18-00414).
- 01:56:20** CU8 acknowledge receipt of the information.  
"All received, go ahead with further traffic."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02552).
- 01:56:20** CRO Howson at Brigade Control takes a call from flat 165 on the 19<sup>th</sup> floor. The caller states it is him, his wife and their dog in the flat. The smoke alarm is audible in the background and the caller explains that smoke is visible outside the flat in the corridor but it is only in the flat because he opened the door to check. CRO Howson advises the caller to block the doors and stay where he is and explains that the Brigade will go door to door and make sure everyone is safe, advising that the fire is on the fourth floor. Incident Number 76138, Call Duration one minute 20 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00572).

## OFFICIAL

**01:56:23** The Radio Operator at Brigade Control passes on further information to CU8:

"Flat 95 on the 12<sup>th</sup> floor has flames coming in the window, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02553).

**01:56:29\*** *Firefighter Gillam from BA Team 13 states "we went up to the fourth (4th) floor. The conditions on the fourth (4th) floor when we first tried to go up there was thick grey smoke, not black but grey smoke, we couldn't breathe". "At floor eight (8) there was light wispy smoke, it hadn't pushed up yet. That smoke in the hallway is from the crews making entry to the hallways off of the stairwell and it hadn't cleared". "We got to about fifteen and it was getting really hot. It was smoky but you could see each other". "We got to twenty we couldn't find anyone. Andy Harris has opened the door that goes into the hallway of twenty, nothing, fully smoke logged". (Source: MPS Witness Statement: GTIRT18-00069).*

**01:56:34** CU8 acknowledge receipt of radio message sent at **01:56:23**:

"Flat 95 on the 12<sup>th</sup> floor received."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02554).

**01:56:27** Echo 61, GM Matthew Cook from the ORT books Status 2, mobile to Grenfell Tower, from his address in Bexley (Source: 'Vision': GTIRT17-02791).

**01:57\*** *SM Walton meets WM Dowden. They discuss that SM Loft is carrying out the FSG coordinator role, whilst WM Dowden remains in charge. SM Walton states he thought it was a 15 pump fire but WM Dowden informs him it is now a 25 pump fire. WM Dowden informs SM Walton the original fire that started in flat 16 on the fourth floor has been extinguished but that the fire has travelled into the external cladding. He also confirms they have water and it doesn't appear to be an issue. He takes the IC tabard off WM Dowden and puts it on. He radios the CU with the message that he is now IC but does not get a reply from the CU. A radio message should now be sent to Brigade Control informing them that SM Walton is now the Incident Commander, this is not sent.*

*SM Walton details WM Dowden to go to the bridgehead and see what the current situation is regarding BA wearers and FSG calls. SM Walton also wants know if the fire is getting back into the building. If it is, he is going to declare a major incident. As WM Dowden completes his hand over to SM Walton, DAC O'Loughlin arrives at their position (Source: Contemporaneous Notes: GTIRT17-01215, GTIRT17-00293, GTIRT17-00004, GTIRT17-00278, GTIRT17-01137, GTIRT17-01138, GTIRT17-01139, MPS Witness Statement: GTIRT18-01065, GTIRT18-01000).*

**01:57:02\*** *CM Wigley from BA Team 13 states, the conditions are bad around the fire floor as his BA team go through the heat barrier and for a few floors above, it is clear that smoke was escaping a bit, it*

## OFFICIAL

*is easing up as they are climbing the building. (Source: MPS Witness Statement: GTIRT18-01067).*

- 01:57:07** Oscar Kilo 13, WM Leaver (FIO), books Status 3, in attendance, at Grenfell Tower. He is the first Fire Investigator in attendance (Source: 'Vision': GTIRT17-02791).
- 01:57:14\*** *Firefighter Gonzalez from BA Team 13 states, that the first few floors are fine, and there is no issues with breathing. However upon getting up to the fifth floor it is smoke logged, this is the same with visibility. Proceeding up it starts to get worse. There is no way without air the team can proceed. Firefighter Gonzalez states he wasn't just going to start breathing in the smoke. Firefighter Gonzalez goes on to state, we were earlier advised to try and get to the roof without the use of air but we quickly realised that this would not be possible. (Source: MPS Witness Statement: GTIRT18-01835).*
- 01:57:15** BA Team Five: CM Secrett, Firefighter Badillo and Firefighter Dorgu return to ECB and close down; final pressures: CM Secrett 71 bar, Firefighter Badillo 117 bar and Firefighter Dorgu 129 bar (Source: BA Data: GTIRT17-02820).
- 01:57:16** CRO Fox at Brigade Control takes a call from a female caller who states that her aunt lives in Grenfell Tower. CRO Fox establishes that the aunt lives in flat 203 on the 23<sup>rd</sup> floor and the caller explains that her aunt is with her two daughters. CRO Fox says she will tell firefighters on the radio. Incident Number 76140, Call Duration one minute, 13 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00574).
- 01:57:21** Echo 109, GM Welch books Status 3, in attendance at Grenfell Tower. He is the first GM in attendance (Source: 'Vision': GTIRT17-02791).
- 01:57:21** SOM Joanne Smith calls Brigade Control by telephone and speaks to AOM May and asks for an update. AOM May explains that it is quite difficult to get a handle on things because it is so busy but says they are taking a lot of FSG calls. SOM Smith asks if callers are staying on the line and AOM May says he knows of at least one. She reports she is at the Elephant and Castle and enroute (Source: 'Vision': GTIRT17-02791, MPS Witness Statement: GTIRT17-02934, GTIRT17-01956).
- 01:57:24** BA Team 12: Firefighter K Foster and Firefighter Lawson go under air at this time, it is believed they are around the fourth floor level as the smoke becomes too thick to continue without BA (Source: BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00062, GTIRT17-00061, MPS Witness Statement: GTIRT18-00927, GTIRT18-00068).
- 01:57:24\*** *Firefighter K Foste from BA Team 12 r states the stairs are narrow and not wide enough to walk side by side. Initially the team are not wearing BA ,as they are reaching the fourth floor they come down slightly then wear BA, this was due to the smoke as they make their way up the stairs*

## OFFICIAL

*visibility was still as bad. Firefighter Firefighter K Foster can not recall which floor but states "the lighting in the stairwell did go out". They reach the 18th floor at about 02:07:01. Upon searching flats they encounter a family and tell them to put towels by the front door to stop the smoke coming in and open windows. The decision is made due to the stairwell being full of smoke and visibility being bad, and therefore think it will be impossible to get the family down the stairs. (Source: MPS Witness Statement: GTIRT18-00927).*

- 01:57:33** BA Team Six: CM Sephton, FFBroderick and Firefighter Brodrick return to ECB and close down their BA sets. CM Sephton draws a plan of flat 26 on a Forward Information Board when he returns to the bridgehead and also draws the plan on the wall (Source: BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00022, GTIRT17-00032, GTIRT17-00030, MPS Witness Statement: GTIRT18-01440, GTIRT17-01363, GTIRT18-01036).
- 01:57:33** Golf 251, Ealing's PL, arrives at Grenfell Tower. This is the 25<sup>th</sup> fire engine in attendance (Source: approximate time using MDT GPS Data GTIRT17-00943).
- 01:57:34** The Radio Operator at Brigade Control sends a message to CU8:  
"Charlie Uniform 8, the caller in Flat 205 on the 23<sup>rd</sup> floor reports that the fire is coming right up to their flat, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02558).
- 01:57:45** CRO Gotts at Brigade Control takes a call from a caller who reports that they have tried to get out but it is full of smoke and they cannot breathe. CRO Gotts asks the caller to confirm that they cannot get out several times which the caller confirms repeatedly. CRO Gotts then suggests that the caller block the doors to try and stop the smoke from getting in and double checks that the caller cannot leave the flat. She says the best thing to do is stay where he is and try and block the smoke. CRO Gotts asks the flat number and the caller states that it is flat 92 which is on the 12<sup>th</sup> floor. CRO Gotts then confirms that this message will be passed over and the Brigade will get to them as soon as they can. Incident Number 76141 (Linked to 076208: GTIRT17-00645), Call Duration two minutes, 14 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00575).
- 01:57:56** CRO Howson at Brigade Control takes a call from a caller reporting an enormous fire on the A40. The caller is advised that it is at Grenfell Tower and that the Brigade is in attendance. Incident Number 76139, Call Duration 19 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00573).
- 01:58** *Between 01:39 – 01:58 the following residents have either been rescued, assisted out or self-evacuated from Grenfell Tower (Source: MPS Residents' List: GTIRT18-01141, GTIRT18-01051).*

1. Tyroshondre Petralias (flat two, first floor)
--



2.	Rukeyatu Mamadu (flat 2, first floor)
3.	Kenny Smith (flat 13, fourth floor)
4.	John Beadle (flat 13, fourth floor)
5.	Sharon Haley (flat 24, fifth floor)
6.	Paul Menacer (flat 33, sixth floor)
7.	Kerry O'Hara (flat 34, sixth floor)
8.	Avelina Shah (flat 32, sixth floor)
9.	Saraya Nana-Tower (flat 35, sixth floor)
10.	Tania Allcorn (flat 35, sixth floor)
11.	Josephine Shah (flat 32, sixth floor)
12.	Turufat Girma (flat 44, seventh floor)
13.	Abraham Abebe (flat 44, seventh floor)
14.	Abem Abraham (flat 44, seventh floor)
15.	Clarita Ghavimi (flat 75, 10 <sup>th</sup> floor)
16.	Branislav Lukic (Luca) (flat 84, 11 <sup>th</sup> floor)
17.	Leroy (Barnaby) Augustus (flat 174, 20 <sup>th</sup> floor)
18.	Petra Doulova (flat 174, 20 <sup>th</sup> floor)
19.	Miran Lovsin (flat 84, 11 <sup>th</sup> floor).
20.	Aimen Mawia (Unknown)

**01:58:00** Firefighter Daoud and Firefighter Donoghue from Golf 371, Chiswick's PL, enter via the main entrance and proceed into the community room (Source: CCTV: Camera 4).

**01:58:01** The Radio Operator at Brigade Control confirms message sent at **01:57:34**:  
 "Yeah, she said the flame, err, the fire is coming up to the flat, over."  
 (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02609).

## OFFICIAL

- 01:58:04** Oscar Kilo 15, the second FIU book Status 2, mobile to Grenfell Tower. There are two WMs riding this investigation unit, WM David Reed and WM Steven Girling (Source: 'Vision': GTIRT17-02791).
- 01:58:28** BA Team Seven: CM Tillotson, CM Gallagher, Firefighter Bettinson, Firefighter Wolfenden, and Firefighter Felton, reach the ninth floor and Firefighter Bettinson and Firefighter Wolfenden go to flat 65 and enter. Inside are a woman and female child (Mrs S Laci and Miss C Laci). In order to talk to the Laci family CM Tillotson and CM Gallagher enter the flat and remove their facemasks so they can talk to them more easily and inform them they cannot take the family out due to heavy smoke logging. CM Tillotson, Firefighter Felton and CM Gallagher return to bridgehead and get two BA sets from two firefighters who are waiting to be committed, their intention is to provide respiratory protection for Mrs Laci and her daughter (Source: Contemporaneous Notes: GTIRT17-00042, GTIRT17-00037, GTIRT17-00036, GTIRT17-00035, GTIRT17-00028, MPS Witness Statement: GTIRT18-00064, GTIRT18-00929, GTIRT17-02925, GTIRT18-01002, GTIRT18-01110).
- 01:58:29** Firefighter Daoud in the main lobby identifies a box on the wall open on the left hand side wall, inside is a key fob. Firefighter Daoud takes the fob and uses it to open a door marked Grenfell Tower Community Room. This door leads to the West side of the building to a meeting room which has two narrow glass windows. According to Firefighter Daoud he identifies a smoke vent in another room, he states he notifies someone about this and then goes back to the lobby (Source: CCTV: Camera 4).
- 01:58:39** Oscar Foxtrot 67, SM Egan, books Status 3, in attendance at Grenfell Tower. He is the fifth SM in attendance (Source: 'Vision': GTIRT17-02791).
- 01:58:45** CU2, Islington's CU book Status 3, in attendance at Grenfell Tower. This is the third CU in attendance (Source: 'Vision': GTIRT17-02791).
- 01:58:57** The Radio Operator at Brigade Control sends a message to CU8.  
"Charlie Uniform 8, Charlie Uniform 8 from M2FN, over".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02612).
- 01:58:59** At this time BA Team Nine: Firefighter Merrion and Firefighter H Sanders report to the bridgehead having returned there due to an accidental actuation of Firefighter Merrion's ADSU. His BA tally is placed back into the ADSU and the alarm is turned off. Once reset they head back up the stairs to the 14<sup>th</sup> floor (Source: BA Data, Contemporaneous Notes: GTIRT17-00048 and GTIRT17-00459, GTIRT17-00049, GTIRT17-00419 , MPS Witness Statement: GTIRT18-00651, GTIRT18-01134).
- 01:59:00** WM Williams removes his BA set and takes it outside (Source: CCTV: Cameras 4 and 1).

## OFFICIAL

**01:59:05** CU8 reply to the Radio Operator at Brigade Control.

"Go ahead, over".

The Radio Operator at Brigade Control then sends information about flat 201.

"Charlie Uniform 8, a further call. We have 11 persons and a baby, err, who are trapped in Flat 201. That's Flat 201. That's 11 persons and a baby, over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02613).

**01:59:20** CU8 respond with a query to message received at **01:59:05**

"Eleven persons and one baby, flat 201; what floor is that?"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02614).

**01:59:42** BA Team 14: CM Eden and Firefighter Welch are briefed by WM O'Keeffe at the bridgehead. They are tasked to go to the 20<sup>th</sup> floor, assess the situation and inform the bridgehead. Firefighter Welch has one length of fire hose, a firefighting branch and a Halligan tool. CM Eden takes one length of fire hose and a TIC (Source: BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00065, GTIRT17-00063, MPS Witness Statement: GTIRT18-00309, GTIRT18-00099).

**01:59:42\*** *Firefighter Welch from BA Team 14 states, as we reach the fourth floor there is thick black smoke in the stairwell and the temperature is warm, the visibility is near zero as we carry on ascending. It is a slow process, the smoke is obscuring the teams visibility to the point that Firefighter Welch had to feel for a doorway leading to the lobby to know he is on a different floor. (Source: MPS Witness Statement: GTIRT18-00099).*

**01:59:49\*** *CM Eden from BA Team 14 states, the stairwell is full of wispy smoke, but it is not vision obscuring, until the team reach the fifth floor. At this point, it became much more smoky and CM Eden couldn't see the numbers on the wall and could just about see his feet, it was so smoky that the team can not see anything. It is really tight in the stairwell and it is full of thick black smoke and the team decide to lean on the wall to take a reference point. (Source: MPS Witness Statement: GTIRT18-00309).*

**02:00** Two firefighters wearing BA with FRU helmet markings appear on the seventh floor and both then leave. The only two firefighters in the building at the time that have FRU markings on their fire helmets and match the timings are Firefighter Cuthbert and Firefighter Shaw, who go to the fifth to seventh floors for search and rescue (Source: CCTV: Camera C15, BA Data: GTIRT17-02820).

**02:00:06** The Radio Operator at Brigade Control responds and also passes on further information about flat 203.

## OFFICIAL

"Yeah, we believe it's about the 23<sup>rd</sup> - it's the 23<sup>rd</sup> floor; and we've had a further call received, a person with two children trapped in 203, and that's on the 23<sup>rd</sup> floor, over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02615).

**02:00:11** CRO Fox at Brigade Control takes a call from a female caller who states that they called 10 minutes before to ask what they should do about the fire at Grenfell Tower. CRO Fox asks which floor and flat number they are in and the caller answers that it is flat 74 on the 10<sup>th</sup> floor. CRO Fox then explains that they are passing the information to crews and asks if there is any smoke in the flat. The caller states that there is and CRO Fox then advises them to block the doors to prevent the smoke coming in and assures them that the Brigade is there and dealing with it. CRO Fox then asks how many people there are and the caller confirms that there are two. Incident Number 76143, Call Duration one minute and 11 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00577).

**02:00:20** CU8 acknowledge receipt of radio messages **01:59:20** and **02:00:06**.

"All received".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02616).

**02:00:23** BA Team 15: Firefighter Fernandes and Firefighter Williams both remove their BA tallies and receive their briefing from WM De Silvo. They are to proceed to the 20<sup>th</sup> floor, flat 175 for a FSG call, they are to search and rescue. They state WM De Silvo does not provide specifics to how many people, ages or location within the property there may be. It is now believed that this call is linked to Incident Number 76644 timed at 01:43:14 stating that the female calling has said there are "five in the flat, me, my husband and three children, a baby as well" (Source: MPS Witness Statement: GTIRT18-01105, GTIRT18-00041, BA Data: GTIRT17-02820 and 'Vision': GTIRT17-02791).

**02:00:23\*** *Firefighter Williams from BA Team 15 states, his BA team start to make their way up which was pretty slow going to start with as there is a lot of fire hose laid out in places and people are walking up in front of them. The stairwell is quite narrow so you can't overtake people. Firefighter Williams can notice it is smoky straight away and it is getting thicker and thicker and the team are struggling to identify people. By the fourth floor it is getting really smoky and it's getting worse to the point where you the team cannot tell which floor they are on. At the 13th and 14th floor the smoke is starting to get very thick and it is difficult for the team to know where and what floor they are on. From the 14th floor up to the 20th the smoke starts to become lighter. (Source: MPS Witness Statement: GTIRT18-01105).*

**02:00:28** CRO Gotts at Brigade Control takes a call from a female caller who asks if anyone is aware of a big fire in Latimer Road. CRO Gotts confirms that the Brigade is at Grenfell Tower and are in

**OFFICIAL**

attendance. Incident Number 76142, Call Duration 27 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00576).

**02:00:33** CRO Howson at Brigade Control takes a call from a male caller who says he has been waiting 15 minutes and that his flat is getting worse. The caller explains that it is black in the flat and that he cannot see anything. He then advises CRO Howson that he is a pensioner and she checks that he is preventing smoke from getting into the flat, which the caller states that he is. CRO Howson asks if there is another room in the flat which is less smoky and the caller suggests that the front room is probably the best one. CRO Howson tells him to sit on the floor as the air will be cleaner and asks for the flat number which the caller gives this as 194 on 22<sup>nd</sup> floor. A smoke alarm is audible in the background. CRO Howson confirms the Brigade will be there as soon as they can. The caller sounds very similar to an earlier call taken by CRO Fox at **01:30:08**. Incident Number 76145, Call Duration one minute and 32 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00579).

At this point the Brigade Control Room have received calls from a number of flats and floors. The information has come from residents themselves, the MPS and other control rooms. A summary is included below of the information received in Brigade Control up to **02:00:33**

Time of call	Flat Number	Floor number	Number of people confirmed by caller	Remarks
01:43:14	175	20	2 adults 3 children and a baby	Caller says there is black smoke in the hallway
01:43:19	82	11		Caller states she has a daughter but it is not clear if she is in the flat.
01:44:33	95	12	One adult two children	Caller says that embers have come up and in the window and started a fire in the kitchen of flat 96 next door
01:46:18	133	16		Smoke coming from the front door
01:47:49		10		The young child states there is smoke in the corridor but other residents are leaving
01:48:00	193	22		Call taken by Essex Fire and Rescue Service. It is not clear at this point if this is passed to London
01:48:23	111	14		This is a second call. The name of the person trapped is given

				as Dennis Murphy . This first call is passed at <b>01:43:13</b> but just as floor 14. There is no firm evidence that this is the same person. It does sound very similar but no names are collected to be able to verify. This flat detail is also passed at <b>01:53:05</b> as one male who is trapped in his bathroom and is having difficulty breathing
01:48:23	115	14	One adult and one baby	Caller explains that there is smoke is coming into her flat via the door and windows
01:50:03	194	22		Caller states that smoke is coming through the windows and that he can't see anything
01:54:14	95	12	One adult and two children	Caller says he can hear the fire next door.
01:54:23	205	23	Seven people	Caller says that the fire is going to come through the window
01:56:20	165	19	Two adults and a dog	Caller explains that smoke is visible outside the flat in the corridor
01:57:16	203	23		Caller from outside says aunt and her two daughters are trapped in the flat
01:57:45	92	12		Caller reports that they have tried to get out but it was full of smoke and they couldn't breathe
02:00:11	74	10	Two people	Caller states there is smoke in the flat
02:00:33	194	22		Caller explains that it is black in the flat and that he cannot see anything

**02:00:34** CRO Adams phones CU8 on the team leader mobile number to pass information about calls that have been received which are summarised in the table below. The CU operator summarises by suggesting that floors 21 to 23 are the most affected and CRO Adams agrees that they seem to be the most worrying (Source: NICE, Admin Phone Line Audio file: GTIRT18-00509).

**OFFICIAL**

<b>Flat Number</b>	<b>Floor number</b>	<b>Number of people</b>	<b>Remarks</b>
182	21	Three children, two adults	Fire is next door to them and the smoke is pouring in to the flat
201	23	11	People are stuck in bedroom including a two year old
92	12		Smoke coming in
165	19	Two adults and one baby	Not too bad at the moment
194	22	One male	Pensioner with heavy smoke

**02:00:36** Foxtrot 113, GM West books Status 3, in attendance at Grenfell Tower. He is the second GM in attendance.

"Received; Foxtrot 113 status 3, over."

(Source: 'Vision': GTIRT17-02791, NICE, Radio Message Audio file and Transcript: GTIRT17-02617).

**02:00:39** Oscar 208, the Salvation Army welfare vehicle is assigned to the incident (Source: 'Vision': GTIRT17-02791).

**02:00:44** Oscar Echo 69, SM Kipling books Status 3, in attendance at Grenfell Tower. He is the sixth SM in attendance.

Control Room Radio Operator: "- head, over." Oscar

Echo 69: "Oscar Echo 69 now status 3." Control

Room Radio Operator: "Status 3, received."

(Source: 'Vision': GTIRT17-02791 and NICE, Radio Message Audio file and Transcript: GTIRT17-02618).

**02:01** BA Team 14: CM Eden and Firefighter Welch start climbing the stairs to the 20<sup>th</sup> floor. They follow the EDDBA wearers, believed to be part of BA Team 13, as no other EDDBA wearers are currently in the building (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00309, GTIRT18-00099).

**02:01:14** CRO Gotts takes a call at Brigade Control from a caller who states they are in W11 watching the fire at Grenfell Tower and wants to report that the lights are being flicked on and off on floor 23. CRO Gotts explains that the Brigade is in attendance and dealing with it and that says she will let

## OFFICIAL

them know. Incident Number 76144, Call Duration one minute and 27 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00578).

- 02:01:37** Alpha 39 Alpha, Finchley's OSU book status 3, in attendance at Grenfell Tower. This is the second OSU in attendance (Source: 'Vision': GTIRT17-02791).
- 02:01:53** Firefighter Ferguson enters the building via the main entrance, followed by three BA wearers from Hotel 331, Wandsworth's PL crew. They are carrying a second set bag. A second set bag has a spare BA set in it and is used for firefighter emergencies (Source: CCTV: Camera 4).
- 02:01:55** A Respiratory Protective Equipment (RPE) officer is paged informing them of the incident (Source: 'Vision': GTIRT17-02791).
- 02:02:00** SM Walton, wearing the IC Surcoat, WM Williams and WM Dowden enter the main entrance and walk to the stairs (Source: CCTV: Cameras 2 and 4).
- 02:02:09** SM Walton starts to go upstairs with WM Williams and WM Dowden. All three stop and have a discussion and then come back down the stairs (Source: CCTV: Camera 2).
- 02:02:20** Alpha 431, Kentish Town's PL, arrives at Grenfell Tower. This is the 26<sup>th</sup> fire engine in attendance (Source: MDT GPS Data).
- 02:02:22** Firefighter Broderick from BA Team 6 descends the stairs into the stair lobby, wearing SDBA (Source: CCTV: Camera 2).
- 02:02:29** SM Walton, WM Williams and WM Dowden exit the stair lobby into the main lobby and WM Dowden looks at the AFA panel (Source: CCTV: Cameras 3 and 4).
- 02:02:29** Firefighter Badillo from BA Team 5 descends the stairwell into the stair lobby, wearing SDBA (Source: CCTV: Camera 2).
- 02:02:30** BA Team 16: Firefighter Roots and Firefighter A Johnson, report to the bridgehead on the second floor and start breathing under air. They receive a briefing from WM De Silvo, who tells them to proceed to flat 14 on the fourth floor for a FSG call. They take an enforcer, Halligan tool and TIC (Source: Contemporaneous Notes: GTIRT17-00108, GTIRT17-00115, MPS Witness Statement: GTIRT18-01842, GTIRT18-00935).
- 02:02:30\*** *Firefighter Roots from BA Team 16 states, the team head up to the fourth floor and the visibility is quite clear, but there is light smoke in the stairwell. The BA team make it to the 19th floor, conditions have now deteriorated considerably on the way up, at around the 10th or 12th floor the fire door has given way, the fire protection has given out and there are flames in the stairwell with really thick black smoke. It is thick black smoke and very difficult to see, we were going down by feel (Source: MPS Witness Statement: GTIRT18-01842).*



## OFFICIAL

- 02:02:32** BA Team 11 reach the 15<sup>th</sup> floor and do a gauge check, Firefighter Mills has 150 bar. Firefighter Campbell has 160 bar. Firefighter Mills notices the DRM is charged but do not use it as their task is to rescue people from flat 175 on the 20<sup>th</sup> floor (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00402, GTIRT18-00967, GTIRT18-02051).
- 02:02:33** Firefighter Dorgu, CM Secrett and CM Sephton walk down the stairs into the stair lobby and proceed into the main lobby, wearing BA (Source: CCTV: Camera 2).
- 02:02:36** BA Team 14: CM Eden and Firefighter Welch, are ascending the stairs. CM Eden's motion pre-alarm sounds on his BA set. CM Eden states there was significant congestion on the stairs after the fifth floor but he doesn't mention which floor they were on when the alarm sounded (Source: BA Data Pre-Alarm Time: GTIRT17-01627 and MPS Witness Statement: GTIRT18-00309).
- 02:02:46** SM Walton and WM Williams enter the stair lobby and go upstairs (Source: CCTV: Camera 2).
- 02:02:47** CRO Fox takes a call at Brigade Control from a female caller in flat 82 on the 11th floor who is asking how long it will be before the Brigade can come and get them. She explains that she has rung before and confirms that there are two adults and one child. The caller says the smoke alarm has not gone off yet. CRO Fox reiterates the FSG information about blocking doors if the smoke comes in and the caller confirms they have done all of this. Incident Number 76147, Call Duration one minute and 51 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00581).
- 02:02:53** BA Team 5: CM Secrett, Firefighter Badillo and Firefighter Dorgu leave the stair lobby and proceed into the main lobby. They have just returned from the bridgehead after their attempt to find Jessica Urbano Ramirez from the 20<sup>th</sup> floor. They are seen talking to numerous other firefighters (Source: CCTV: Cameras 3 and 4).
- 02:02:56** CRO Howson takes a call at Brigade Control from a female caller who reports that she can see people waving for help at Grenfell Tower and that they are on top of the tower on the opposite side to the fire. CRO Howson tries to clarify if the people waving are actually outside and on top of the building and the caller states that they are. CRO Howson confirms that the Brigade is in attendance and that she will pass this information on. Incident Number 76148, Call Duration one minute and two seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00582).
- 02:02:58** CRO Gotts takes a call at Brigade Control from a caller who says she can see a huge tower block on fire and that she can see people in the building at the top. CRO Gotts confirms that it is Grenfell Tower and the caller offers their camera footage. CRO Gotts states that the Brigade is in attendance and dealing with it. Incident Number 76146, Call Duration 41 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00580).

## OFFICIAL

- 02:03** BA Team 11: Firefighter Mills and Firefighter Campbell, located on the 15<sup>th</sup> floor make a decision not to progress to the 20<sup>th</sup> floor due to the amount of air they have consumed up to this point. They calculate that if they continue to climb to the 20<sup>th</sup> floor they won't have enough air to get back to the bridgehead, so they withdraw (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00402, GTIRT18-02051, GTIRT18-00967).
- 02:03\*** *Before leaving the 15<sup>th</sup> floor BA Team 11 knock on the doors of all the flats but get no answer. They then proceed to the 14<sup>th</sup> floor, they knock on all the front doors. One flat has its front door open so they check this flat and they do a search of it. They state they don't find anyone in the flat, so proceed down the stairs to the bridgehead* (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00402).
- 02:03** BA Team 8: Firefighter Cuthbert and Firefighter Shaw, are on the fifth floor. Firefighter Cuthbert states "Graham and I went up to the fifth floor and was doing a sweep of the floor. We come across a flat with two gentlemen inside. They were of Middle Eastern appearance and spoke perfect English. They were in the flat on the far right hand corner." (*This is believed to be Flat 23, containing Mr Rebin Sabir and Mr Milad Kareem - later rescued via 135 ladder: Sabir at **02:22:00** and Kareem at **02:25:00***). One of the males was on the phone to Brigade Control on a fire survival call (currently unable to identify this call). Firefighter Cuthbert states the male says, "I'm on the phone to the fire brigade". The man on the phone tells Brigade Control that two firefighters are here and says that the CRO "is telling us to stay put". Once this is done they make their way back to the bridgehead, they both state that it was difficult to find their way back to the stairwell as the smoke in the lobby was really thick and black. Once at the bridgehead they speak to WM O'Keeffe and confirm that they have completed their task (Source: MPS Witness Statement: GTIRT18-01844, GTIRT18-01534).
- 02:03** Firefighter Daoud and Firefighter O'Donoghue exit the building. They both state that at this time they go and assist other firefighters to haul aloft a 13.5 metre ladder to the walkway above (Source: CCTV: Camera 4, MPS Witness Statement: GTIRT18-00393, GTIRT18-00046).
- 02:03** WM Collins, WM Ashe, Firefighter Abell and Firefighter W Murphy pitch a 9 metre ladder to attempt to rescue the occupants of Flat 23 on the 5<sup>th</sup> floor (now known to be Rebin Sabir and Milad Kareem). When this is unsuccessful WM Ashe recommends to WM Collins that they haul aloft a 135 ladder and they are assisted by Firefighter Daoud, Firefighter O'Donoghue and members of the public (now known to be Mr Karim El Ansari from flat six, second floor). The 135 ladder is later successfully used to rescue the aforementioned residents at 02:22:00 and 02:25:00 (Source: MPS BWV and MPS Witness Statement: GTIRT18-00046, GTIRT18-00393, GTIRT18-01412, GTIRT18-00920, GTIRT18-00043, BSR Witness Statement: IWS00000088).

## OFFICIAL

- 02:03:12** BA Team 17: Firefighter Cook and Firefighter Flanagan, are tasked to take two BA sets to BA Team Seven on the ninth floor. The sets are required to assist in the rescue of two casualties. Before they could commit, three members of BA Team Seven (CM Tillotson, CM Gallagher and Firefighter Felton) report back to the bridgehead and collect the two BA sets (Source: MPS Witness Statement: GTIRT18-00392, GTIRT17-01958).
- 02:03:12\*** *Firefighter Flanagan states, BA team 17 reach the stairwell on the fourth floor and suddenly come into very thick black smoke. Firefighter Flanagan describes it to be like there is a duvet over your head and he can not see anything, even his hand in front of his face. Firefighter Flanagan then goes on to explain it impossible to see exactly where he is going. The stairwell is the same the whole way up, and the team have lost track of exactly what floor they are on, as they are going up, they reach to about the 15th floor and the smoke suddenly clears. The BA team can see clearly again and there is no smoke at all. (Source: MPS Witness Statement: GTIRT17-01958).*
- 02:03:13** CU7 sends an assistance message to the Radio Operator at Brigade Control.  
"FN from Charlie Uniform 7, make pumps 40, further traffic, over".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02619).
- 02:03:14** WM Dowden enters the stair lobby and goes up the stairs (Source: CCTV: Camera 2).
- 02:03:44** CU7 sends an incident ground update to the Radio Operator at Brigade Control.  
"Charlie Uniform 7, Group Manager Welch is now incident commander. Charlie Uniform 7, over".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02621).
- 02:03:47** CRO Gotts takes a call at Brigade Control from a caller that reports that they are trapped in flat 192 on the 22<sup>nd</sup> floor. The caller is very quiet and difficult to hear but they do state that there is smoke in the corridor and they cannot get out. During the call the caller says she can see the fire but it is not in the flat and CRO Gotts suggests that they open a window to get fresh air if they can. CRO Gotts explains that the Brigade is there and dealing with it and that she will let them know the caller's location. Incident Number 76149, Call Duration two minutes and 36 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00583).
- 02:04** BA Team 16: Firefighter Roots and Firefighter A Johnson, are on the fourth floor and find flat 14, the front door is wide open. They carry out a search of the property but find no occupants. They attempt to radio back to the bridgehead but there is heavy radio traffic, so they make the decision to return to the bridgehead for re-tasking (Source: MPS Witness Statement: GTIRT18-01842, GTIRT18-00935).

## OFFICIAL

- 02:04** BA Team 10: Firefighter D Murphy and Firefighter Cornelius, are on the 14<sup>th</sup> floor. They are doing a left hand search and come to a flat door, believed to be flat 111. They knock on the door and a male occupant answers the door (now known to be Denis Murphy). The flat is full of smoke (Source: MPS Witness Statement: GTIRT18-00993, GTIRT18-01416).
- 02:04\*** *Firefighter Cornelius from BA Team 10 enters flat 111, 14<sup>th</sup> floor and searches it because he believes Mr Murphy says his children are inside but Firefighter Cornelius doesn't find anyone else in flat 111 (Source: MPS Witness Statement: GTIRT18-01416).*
- 02:04** Firefighter D Murphy from BA Team 10 states that as he takes Mr Murphy out of the flat, the door to flat 112, 14<sup>th</sup> floor opens and two men (*believed to be the Alhaj-Ali brothers*) ask the firefighters to help them. Firefighter D Murphy comments on how clear of smoke flat 112 is and asks if Mr Murphy can take refuge in their flat with them. They agree and all three residents go back into flat 112 and are told to keep the door shut (Source: MPS Witness Statement: GTIRT18-00993, BSR Witness Statement: IWS00000781).
- 02:04\*** *Firefighter Cornelius from BA Team 10 states that when he comes out of flat 111 on the 14<sup>th</sup> Floor there are four or five residents in the lift lobby. He radios down to the ECO to tell them they have located Mr Murphy but cannot bring him down due to the unsafe air in the lobby and stairwell preventing them from bringing Mr Murphy out of the building. He states "it was difficult to communicate over the radio, which was weird so I tried on my handheld radio and nothing was going through"* (Source: Contemporaneous Notes: GTIRT17-00020, MPS Witness Statement: GTIRT18-01416).
- 02:04:21** Foxtrot 118, GM Goodall books Status 3 in attendance. He is the third GM in attendance.  
Foxtrot 118: "FN from Foxtrot 118 status 3, over."  
Brigade Control Room Radio Operator: "Status 3, received"  
(Source: 'Vision': GTIRT17-02791, NICE, Radio Message Audio file and Transcript: GTIRT17-02623).
- 02:04:41\*** *Firefighter A Nelson from BA Team 18 states, the stairwell is busy with other Firefighters as he progressed to ninth floor, it is hot but believes this is more due to his kit than the heat of the building, however it is smoky and the visibility is poor especially between floors four and seven. (Source: MPS Witness Statement: GTIRT18-00409).*
- 02:04:43** BA Team 18: CM Yeoman, Firefighter A Nelson, Firefighter Stavely and Firefighter J Saunders, report to the bridgehead on the second floor, start breathing under air and remove their BA tallies. They are briefed to proceed to flat 65 on the ninth floor. The occupants are now known to be Sharon and Chloe Laci (Source: MPS Witness Statement: GTIRT17-02924, GTIRT18-00409).

## OFFICIAL

- 02:04:43\*** Firefighter Yeoman from BA Team 18 states, two or three floors up, the stairwell itself is really smoked logged, and by the fourth floor it is so smoked logged that his BA Team can not see anything around them. Leading from the front Firefighter Yeoman was thinking how easy it could be to get lost and miss the ninth floor. BA Team 18 make their way up the stairwell and get to the seventh floor, they recognise this is the seventh floor as there is a light shining through the dense smoke. The light does not help conditions and Firefighter Yeoman can not see anything, but when he gets closer to the wall the sign read Seventh floor. From there Firefighter Yeoman is able to recognise the upper floor knows that it is only four flights of stairs to the ninth floor. There is no real heat, just very thick smoke. (Source: MPS Witness Statement: GTIRT17-02924).
- 02:04:49** BA Team 19: Firefighter Desforges and Firefighter R Mitchell, report to the bridgehead. They start up their BA sets and receive their briefing. They are tasked to go to the third floor and respond to a FSG call (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT17-02932, GTIRT18-00652).
- 02:04:51** Debris is starting to fall down around Golf 271, North Kensington's PL, situated outside the south elevation (Source: CCTV: Camera 4).
- 02:05** BA Team 16: Firefighter Roots and Firefighter A Johnson, return to the bridgehead on the second floor and explain to WM De Silvo that they have completed their task and cannot find anyone. They ask if they can be given another task. WM De Silvo tells them to go to flat 161 on the 19<sup>th</sup> floor to respond to a FSG call. Firefighter Roots states "we were slightly surprised" as he wasn't sure they would make it to the 19<sup>th</sup> floor. WM De Silvo says it is at their discretion (Source: Contemporaneous Notes: GTIRT17-00108, GTIRT17-00115, MPS Witness Statement: GTIRT18-00935, GTIRT18-01842).
- 02:05:00** CU8 send an assistance message to the Radio Operator at Brigade Control.  
"FN from Charlie Uniform 8, err, make CUs four. Charlie Uniform 8, over".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02624).
- 02:05:04** At Brigade Control the details on 'Vision' change from a 25 pump fire persons reported two aerials, two FRUs, high rise procedure implemented, FSG in progress to a 40 pump fire persons reported, two aerials, two FRUs, high rise procedure implemented, FSG in progress (Source: 'Vision': GTIRT17-02791).
- 02:05:25** CRO Howson takes a call at Brigade Control from a female caller stating she is on the 23<sup>rd</sup> floor of Grenfell Tower. CRO Howson asks which flat number and the caller confirms it is 203 and that there are five adults and two children. The caller confirms they have smoke in the flat but have closed the doors and they are in the living room/kitchen area. CRO Howson tells them they need to stay there and explains that there is a fire is on the fourth floor which is being dealt with and

## OFFICIAL

that once it has been dealt with, the firefighters will come up through the building to make sure everyone is safe. The caller asks if the fire is going up the building and CRO Howson replies that Brigade Control are not sure exactly what is happening at the moment, but that there is a lot of smoke in the communal areas and in the stairwells, so it is not safe to go outside. CRO Howson advises that the doors should be blocked up with blankets and says she will let the crews know where they are. Incident Number 76152, Call Duration two minutes 36 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00586).

**02:05:25** The Radio Operator at Brigade Control sends a message to CU8.

"Charlie Uniform 8, priority".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02626).

**02:05:28** CU8 respond to the Radio Operator at Brigade Control.

"Err, Charlie Uniform 8, go ahead".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02627).

**02:05:32** The Radio Operator at Brigade Control provides information to CU8.

"Yeah, we've got reports of people on the roof of the building, and we have two persons trapped in Flat 74 on the 10th floor, over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02628).

**02:05:32\*** One firefighter wearing BA appears on the seventh floor goes to flat 46. The firefighter then returns from flat 46 and leaves the seventh floor lift lobby. *It is believed from the diamonds on the firefighter's helmet that this is Firefighter A Nelson from BA team 18* (Source: CCTV: Camera C15).

**02:05:47** CU8 acknowledge receipt of the information received from the Radio Operator at Brigade Control.

"FN from Charlie Uniform 8, all received, over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02629).

**02:05:50** Brigade Control deploy the PDA for the 40 Pump Fire. The following fire engines from 13 different fire stations around London are mobilised: Alpha 401, Alpha 311, Golf 382, Golf 302, Foxtrot 241, Hotel 351, Hotel 352, Alpha 402, Golf 382, Hotel 242, Hotel 241, Foxtrot 331, Echo 351, Echo 371 and Echo 341 (Source: 'Vision': GTIRT17-02791).

### Operational Response to the incident at Make Pumps 40

Golf 272, North Kensington's Pump

Golf 271, North Kensington's PL

Golf 331, Kensington's PL  
Golf 362, Hammersmith's Pump  
Golf 361, Hammersmith's PL,  
Alpha 212, Paddington's Pump  
Golf 331, Kensington's PL,  
Alpha 211, Paddington's PL  
Golf 261, Acton's PL Golf  
371, Chiswick's PL Golf  
281, Willesden's PL Golf  
341 Chelsea's PL Golf  
351, Fulham's PL Golf  
291, Park Royal's PL  
Alpha 411, West Hampstead's PL  
Alpha 231, Euston's PL  
Alpha 241, Soho's PL  
Alpha 242, Soho's Pump  
Hotel 271, Battersea's PL  
Golf 251, Ealing's PL  
Hotel 331, Wandsworth's PL  
Alpha 412, West Hampstead's Pump  
Hotel 421, Richmond's PL  
Hotel 221, Lambeth's PL  
Hotel 222, Lambeth's Pump  
Golf 301, Wembley's PL  
Alpha 431, Kentish Town's PL  
Alpha 401, Hendon's PL  
Alpha 402, Hendon's Pump  
Golf 381, Heston's PL  
Golf 382, Heston's Pump  
Alpha 311, Holloway's PL  
Golf 302, Wembley's Pump  
Foxtrot 241, Shoreditch's PL  
Hotel 351, Tooting's PL  
Hotel 352, Tooting's Pump  
Hotel 241, Brixton's PL  
Hotel 242, Brixton's Pump  
Foxtrot 331 Whitechapel's PL

Echo 351, Old Kent Road's PL  
Echo 371, Peckham's PL  
Echo 341, Dockhead's PL  
Oscar Kilo 13, WM Leaver (as FIO)  
Oscar Kilo 15, WM Girling (as FIO)  
Alpha 213, Paddington's TL  
Alpha 245, Soho's ALP  
Alpha 216, Paddington's FRU  
Golf 346, Chelsea's FRU  
CU7  
CU8  
CU2  
Hotel 41 Sierra SM Walton (as SM)  
Golf 22 Sierra SM Loft (as SM)  
Oscar Golf 61, SM Saunders (as SM)  
Alpha 40 Sierra, SM Wolfenden (as SM)  
Oscar Echo 69, SM Kipling (as SM)  
Hotel 33 Sierra, SM McConochie (as SM)  
Foxtrot 115, GM Goulbourne (as GM)  
Foxtrot 113, GM West (GM) (ORT Shadowing)  
Echo 109, GM Welch (BMA)  
Foxtrot 118, GM Goodall (as GM)  
Echo 63, GM O'Neill (as GM)  
Oscar Golf 54, SM Cook (as PLO)  
Echo 6, DAC O'Loughlin  
Oscar Foxtrot 67, SM Egan (as FSO)  
Hotel 34 Sierra, SM Mulholland (as ORT)  
Bravo Mike 8, AC Roe  
Echo 61, GM Cook (as ORT)  
Hotel 27 Sierra, SM Myatt  
Golf 25 Alpha, Ealing's OSU (BA Unit)  
Alpha 39 Alpha, Finchley's OSU (Damage Control Unit)

**02:05:50** BA Team 14: CM Eden and Firefighter Welch, have to wait approximately 30 seconds as they believe the EDDBA team in front of them are gaining access to the 12<sup>th</sup> floor. CM Gillam from BA Team 13 (the EDDBA team) has stopped to talk to BA Team 11: Firefighter Campbell and Firefighter Mills, which is why there is a hold up. The motion pre-alarm for CM Eden and Firefighter Welch go off at 02:05:20 and 02:05:50. This indicates a period of non-movement of at



## OFFICIAL

least 30 seconds by both wearers. They state the conditions in the stairwell are very bad with firefighters walking into each other in the darkness (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00309, GTIRT18-00069).

**02:05:50** BA Team 11: Firefighter Campbell and Firefighter Mills, are descending the stairs and are around the 10<sup>th</sup> floor (they are unsure because visibility is poor). They meet BA Team 13: CM Wigley, Firefighter A Harris, Firefighter Gillam, Firefighter Gonzalez, Firefighter D Roberts, all wearing EDBA. BA Team 11 explain to BA Team 13 that their brief was to go to flat 175, 20<sup>th</sup> floor, to rescue a female. But due to their consumption rate they felt they were going to run out of air so had to turn back. BA Team 13 agree to try and get to the 20<sup>th</sup> floor to rescue the women. BA Team 11 give BA Team 13 their TIC (Source: Contemporaneous Notes: GTIRT17-00034, GTIRT17-00046, MPS Witness Statement: GTIRT18-00402, GTIRT18-02051, GTIRT18-00967).

**02:05:51** CRO Adams takes a call at Brigade Control from a female caller reporting a fire at Grenfell Tower. The caller is very upset and says that there are people on the top floor waving. CRO Adams assures her that there are 40 fire engines in attendance. Incident Number 76150, Call Duration 35 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00584).

**02:06:00** SM Oliff (OOD) opens a telephone call to CU8. This call lasts for 15 minutes and 58 seconds. There is no record of the contents of the discussion. He has been tasked by DAC Fenton to coordinate the sending of fire survival calls to the incident ground. It is not known exactly what time he starts this work but his first call to the team leader mobile on CU8 is at **02:06:00**. The system that is set up is that the CROs are recording details on slips of paper, flat and floor numbers and then SM Oliff (OOD) is marking them up on white boards and passing this information to CU8. The team leader from CU8 moves to CU7 and takes the mobile phone with him (Source: MPS Witness Statement: GTIRT18-01532).

**02:06** BA Team Eight: Firefighter Cuthbert and Firefighter Shaw, encounter a female standing in the stairwell between the fifth and sixth floor. She is described as being 40 to 50, possibly Asian wearing a dressing gown and very confused. She explains to the firefighters that she is worried about her cat. The firefighters escort her downstairs to the bridgehead (Source: MPS Witness Statement: GTIRT18-01844, GTIRT18-01534).

**02:06** BA Team Nine: Firefighter Merrion and Firefighter H Sanders, reach the 14<sup>th</sup> floor. They meet BA Team 10: Firefighter D Murphy and Firefighter Cornelius, who are searching the 14<sup>th</sup> floor (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00651, GTIRT18-00993, GTIRT18-01134, GTIRT18-01416).

**02:06:03** CU8 sends informative message to the Radio Operator at Brigade Control.

"FN from Charlie Uniform 8, from Group Manager Welch, err, declare this a major incident. Charlie Uniform 8.

## OFFICIAL

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02630).

**02:06:13** The Radio Operator at Brigade Control acknowledges receipt of message.

"Major incident received".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02631).

**02:06:14** CRO Fox takes a call at Brigade Control from a caller outside Grenfell Tower who reports a woman on the upper floors on the tower shouting for help although the caller is unsure which floor. CRO Fox tries to find out what side of the building they can see and the caller confirms they are near Silchester Road which is the other side of the school. Incident Number 76151, Call Duration two minutes 32 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00585).

**02:06:37** BA Team Nine: Firefighter Merrion and Firefighter H Sanders split up Firefighter Merrion states he goes into what is believed to be flat 112 where he takes his facemask off to reassure the two male occupants (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00651, GTIRT18-01134).

**02:06:37** Firefighter Felton from BA team Seven returns to the bridgehead and closes down his BA set. (Source GTIRT17-01627).

**02:06:37\*** *Firefighter H Sanders from BA team Nine knocks on the door of flat 113 and the door opens. He goes straight in and sees the flat is almost completely clear of smoke. He identifies a male, a female and a child (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00651, GTIRT18-01134, BSR MPS Witness Statement IWS 00000523).*

**02:06:45** Alpha 213, Paddington's TL, the ladder is now back at ground floor level (Source: CCTV: Camera 4).

**02:06:51** Alpha 301, Islington's PL contacts the Radio Operator at Brigade Control and asks for verification of call that they are attending.

*"FN from Alpha 301, can you re-contact caller please with regards to this incident? Are they calling from this block or from the 20 pump that's going on behind us".*

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02632).

**02:06:55** CRO Gotts takes a call at Brigade Control from a female caller who says she is in Grenfell Tower. The caller says they are on the 12th floor in flat 92 and that she has two children with her. She explains that they tried to get down but there is a lot of smoke and they cannot continue. CRO Gotts states that she will pass the information to the crews. Incident Number 76393, Call Duration one minute 17 seconds (Source: BOSS Viewer and 999 Audio files : GTIRT18-02860).

## OFFICIAL

- 02:07** BA Team 13: CM Wigley, Firefighter A Harris, Firefighter Gillam, Firefighter Gonzalez and Firefighter D Roberts are at the 15<sup>th</sup> floor. They decide at this point due to the priority to rescue the person from the 20<sup>th</sup> floor and because they say they feel they will not get to the roof due to the deteriorating conditions. They leave the line operations equipment in the stairwell. They state they leave it to the side to avoid congesting the stairs (Source: MPS Witness Statement: GTIRT18-01835, GTIRT18-00069).
- 02:07\*** *Firefighter Campbell from BA Team 11 states that he and Firefighter Mills enter the ninth floor. He states they go past the lifts and enter what he believes is a one bedroom flat. Possibly flat 64 (the only one bedroom flat on the West side of the building). He says they search the flat but find no one there. He then says they proceed to knock on two further flat doors (Source: MPS Witness Statement: GTIRT18-01470).*
- 02:07** BA Team 18: CM Yeoman, Firefighter A Nelson, Firefighter Stavely and Firefighter J Saunders, are ascending stairs to the ninth floor and report that the stairs are heavily smoke logged (Source: MPS Witness Statement: GTIRT17-02924, GTIRT18-00409).
- 02:07** BA Team 12: Firefighter Lawson and Firefighter K Foster, reach the 18<sup>th</sup> floor. They enter the lobby area and commence a left hand search of the floor. They knock on the door of the first flat they come to, believed to be flat 151, there is no answer. They then move onto the next flat (Source: MPS Witness Statement: GTIRT18-00927, GTIRT18-00068).
- 02:07:00** WM Mark Kentfield from CU8 enters the main entrance (Source: CCTV: Camera 4).
- 02:07:09** The Radio Operator at Brigade Control responds to a message received from Alpha 301, Islington's PL at **02:06:51**.
- "Erm, Alpha 301, I'm really sorry but we're not gonna be able to re-contact that caller. We have got multiple fire survival calls going on at the moment. All we can do is just – that – obviously that, that caller was calling from Foreland House and could see smoke but it could, it could be the same. Unfortunately at this moment, we can't re-contact them. We don't have the manpower."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02633).
- 02:07:21** BA Team 12: Firefighter Lawson and Firefighter K Foster, move to the next flat (believed to be flat 152) and knock on the door. The door opens and the flat is relatively clear of smoke. Both firefighters enter the flat and close the door behind them preventing further smoke entering. Both firefighters remove their BA facemasks (at 02:07:21) and start to talk to the family, which consists of one female and three children. The firefighters explain that the conditions in the stairwell are not safe. This is due to the thick black smoke. They tell them that they are safer in

## OFFICIAL

their flat (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00927, GTIRT18-00068, BSR Witness Statement GTIRT18-03191 IWS00000498).

- 02:07:30** Golf 381, Heston's PL book status 2, mobile to Grenfell Tower. Golf 381 is riding with four firefighters. WM Helen Christmas, Firefighter Christopher Lang, Firefighter Suzanne Pursey and Firefighter Carrie Wright (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 02:07:38** BA Team 14: CM Eden and Firefighter Welch reach the 20<sup>th</sup> floor. CM Eden carries out a BA gauge check which reads 190 bar for himself and 210 bar for Firefighter Welch. They carry out door procedure which is a safe method of making entry into a compartment which is suspected to be involved in a fire and enter the 20<sup>th</sup> floor and try to locate the DRM outlet. They struggle to throw the hose out so that it doesn't have any kinks which would restrict the flow of water through the fire hose (Source: BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00065, GTIRT17-00063, MPS Witness Statement: GTIRT18-00309, GTIRT18-00099).
- 02:07:39** Kohana, Auzora and Taiyou Toyoshima-Lewis and David Lewis (flat 9, third floor) come down the stairs and exit into the main lobby (Source: CCTV: Camera 2).
- 02:07:43\*** Alpha 213, Paddington's TL, elevates back up after being repositioned. *It is believed that this happened after the TL was housed back onto the appliance to allow the firefighters to reverse the TL to avoid the falling debris* (Source: CCTV: Cameras 2 and 4, MPS Witness Statement: GTIRT18-01016).
- 02:07:46** Foxtrot 241, Shoreditch's PL book status 2, mobile to Grenfell Tower. Foxtrot 241 is riding with five firefighters: WM Shaun Coltress, Firefighter April Cachia, Firefighter Paul Desmond, Firefighter Terence Lowe and Firefighter Jon Wharnsby (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 02:07:46\*** *Firefighter Cook from BA team 17 states, he finds the stairwell to be narrow and congested hence it being difficult to go up. When reaching the floor, there is smoke and heat. BA team 17 continue up, they cannot identify which floor they are on, due to visibility. Eventually after going past the 10th floor the traffic is better as there are not so many residents and Firefighters. They reach the 14th floor and visibility is much better and can see the floor number without having to go up close to the number.* (Source: MPS Witness Statement: GTIRT18-01829).
- 02:07:54** Kohana, Auzora and Taiyou Toyoshima-Lewis and David Lewis (flat 9, third floor) exit the building via the main entrance (Source: CCTV: Camera 4).
- 02:07:57** Echo 351, Old Kent Road's PL book status 2, mobile to Grenfell Tower. Echo 351 is riding with six firefighters. WM Matthew Hayward, Firefighter Ian Atmore, Firefighter Roger Cummings, Firefighter Kieron Laws, Firefighter Steven Ngo and Firefighter Denis O'Brien (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).

## OFFICIAL

- 02:08\*** Alpha 402, Hendon's Pump are status 2, mobile to Grenfell Tower. Alpha 402 is riding with four firefighters: CM Lee Willsdon, Firefighter Thomas Neary, Firefighter Shaun Powell and Firefighter Adam Bucknell (Source: approximation from 'Vision': GTIRT17-02791).
- 02:08** DAC O'Loughlin states he leaves the South elevation of the Tower and goes to CU8 where he meets GM Welch. They have a quick discussion and confirm that DAC O'Loughlin is the IC. GM Welch is then informed by DAC O'Loughlin that he is now the Fire Sector Commander and orders him to go to the bridgehead and take charge of the Fire Sector (The fire sector is located from the floor below the fire, the fire floor and the floor above. At this time the fire sector is from the fourth floor to the 23<sup>rd</sup> floor) (Source: MPS Witness Statement: GTIRT18-01266, GTIRT17-01107).
- 02:08:09** Foxtrot 331, Whitechapel's, PL book status 2, mobile to Grenfell Tower. Foxtrot 331 is riding with five firefighters. WM Paul Godber, Firefighter Jon Aldridge, Firefighter Richard Benaicha, Firefighter Alan Hanlon and CM Damian Magee (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 02:08:11** Hotel 242, Brixton's Pump book status 2, mobile to Grenfell Tower. Hotel 242 is riding with five firefighters. Firefighter Joe Dean, CM Marcus Johnson, Firefighter Richard Knight, Firefighter Dean Lawrence and Firefighter Michael Wood (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 02:08:23\*** *CM Tillotson from BA Team Eight , It has been established from CM Tillotson's witness statement that he undertakes an 'Exchange Of Air' procedure at this time [BA data confirms the time of this action] and connects to a second unidentified BA set (Source: MPS Witness Statement: GTIRT18-00064).*
- 02:08:45** CRO Howson takes a call at Brigade Control from a female reporting a fire in Grenfell Tower. The caller states that she is nearby and CRO Howson thanks her for the call and explains she needs to take other calls. Incident Number 76154, Call Duration 43 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00588).
- 02:08:48** CRO Fox takes a call at Brigade Control from a female caller who explains that she is in Grenfell Tower and there is a fire on the floor below them, the caller is in Flat 175 on the 20<sup>th</sup> floor. CRO Fox asks how many people there are in the flat and the caller replies that there is her, her husband and three kids, one baby. CRO Fox confirms this and states that she is passing all the details on to our CU that is on scene. The caller says there is smoke coming into the flat and CRO Fox provides FSG about blocking the doors to keep the smoke out and the caller advises she has already done that. CRO Fox confirms that she has passed on the information to the crews to come and get them and tells the caller to call back if she needs to. Incident Number 76157 Call Duration two minutes 47 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00593).

## OFFICIAL

**02:08:52** A large piece of burning debris falls from the building and lands outside the exit door on the East elevation by the stair lobby. It narrowly misses the TL which can also be seen in the left of the picture. Firefighter M Singh from Golf 261, Acton's PL, with pieces of paper in his hand, (possibly improvised FSG slips, he confirms in his statement that his role was FSG runner) can also be seen returning to the main lobby. See picture below (Source: CCTV: Camera 2).



Camera 2 ... Adjusted Time Approx 02:08:52:350

**02:08:56** The Radio Operator at Brigade Control sends a message to CU8.

"Charlie Uniform 8, priority, over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02638).

**02:09** BA Team Nine: Firefighter H Sanders, Firefighter Merrion and BA team 10: Firefighter D Murphy, Firefighter Cornelius discuss and decide from the information they have, the safest place for all eight residents is in flat 113, so move them all into this flat. Firefighter Merrion tries to contact the bridgehead but cannot get through (Source: BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT18-00651, GTIRT18-00993, GTIRT18-01134, GTIRT18-01416, BSR Witness Statement: IWS 00000523).

**02:09** BA Team 18: CM Yeoman, Firefighter A Nelson, Firefighter Stavely and Firefighter J Saunders, are on the ninth floor. They carry out a left hand search to locate flat 65. The firefighters do not knock on other doors as they are searching as their brief is for a FSG in flat 65. They locate flat 65 and CM Yeoman knocks on the door. The door is opened by a CM from Paddington who was already responding to a FSG to that flat (now known to be CM Tillotson, CM Gallagher, Firefighter Bettinson, Firefighter Wolfenden, and Firefighter Felton) (Source: MPS Witness Statement: GTIRT18-02356, GTIRT17-02924).

## OFFICIAL

- 02:09:05** Brigade Control mobilise CU1 from Alpha 34, Edmonton and CU4 from Echo 21, Lewisham (Source: 'Vision': GTIRT17-02791).
- 02:09:05** The Radio Operator at Brigade Control sends a message to CU8.  
"Charlie Uniform 8, Charlie Uniform 8, priority, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02639).
- 02:09:17** The Radio Operator at Brigade Control sends a message to CU8.  
"Priority, priority, Charlie Uniform 8, Charlie Uniform 8 from M2FN, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02640).
- 02:09:19\*** *BA Team 11: Firefighter Campbell and Firefighter Mills return to the bridgehead and brief WM O'Keeffe. They tell him the best way to get to the 20<sup>th</sup> floor is with EDBA. Firefighter Mills draws a quick sketch of the floor layout on the wall. They collect their BA tallies and close down their BA sets (Source: BA Data , MPS Witness Statement GTIRT18-00967, GTIRT18-00402).*
- 02:09:19** CM Stern enters the building via the main entrance and goes up the stairs (Source: CCTV: Cameras 4 and 2).
- 02:09:23** CU8 respond to the Radio Operator at Brigade Control.  
"Charlie Uniform 8, go ahead, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02641).
- 02:09:24** BA Team 12: Firefighter Lawson and Firefighter K Foster start breathing under air again and leave flat 152, 18<sup>th</sup> floor and tell the female to close the door and block up around the door to stop any smoke getting in (Source: MPS Witness Statements GTIRT18-00927, GTIRT18-00068, BSR Witness Statement: IWS00000498).
- 02:09:25** CRO Gotts takes a call at Brigade Control from the MPS Control Room reporting that they have received an abandoned call from a female who is trapped with her son in flat 115 and states that she does not know where the exits are. The MPS CRO gives a CAD reference number of 543. The MPS CRO informs CRO Gotts that his supervisor is reporting that they are getting lots of calls from people trapped in the building and asks if there is any advice that they can give to callers. CRO Gotts states to close windows, block up doors but if windows offer air – open them. The MPS then confirm that the Brigade are not directing people to fire exits and CRO Gotts explains that they do not know where the exits are and that she has spoken to a few people who have left but have had to return to their flats because of the amount of smoke. CRO Gotts explains that as fire is unpredictable, the Brigade do not generally tell people to leave but if they think they can leave safely then they should do so. The MPS CRO asks CRO Gotts if she can arrange for the

## OFFICIAL

Brigade CRO supervisor to speak to the MPS supervisor in the MPS Control Room. CRO Gotts says she will try but says it is very busy at the moment. Incident Number 76156, Call Duration three minutes six seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00592).

**02:09:25** The Radio Operator at Brigade Control sends further information to CU8, in response to message received at **02:09:23**.

"We've had further calls, err, we've got two adults and one child trapped inside flat 82 on the 11th floor. We've got a caller in flat 192 on the 22nd floor unable to leave. We've got a fire in the corridor on floor 12. Caller trapped in flat 95. And a caller has attempted to leave from the 22nd floor but they've had to go back. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02642).

A table of this information is shown below.

Flat Number	Floor number	Number of people	Remarks
82	11	Two adults and one child	(Call received at 02:02:47)
192	22	Only the caller is referred to	Unable to leave their flat (Call received at 02:03:47)
95	12	Only the caller is referred to	Fire in the corridor (Call received at 01:54:14)
	22		Caller attempted to leave their flat but had to go back

**02:09:26** Echo 341, Dockhead's PL book status 2, mobile to Grenfell Tower. Echo 341 is riding with five firefighters. Firefighter Trezanda Caesar-Aaron, Firefighter Stephen Hayward, WM Ben Horn, Firefighter Stephen Hoyle and Firefighter Christopher James (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).

**02:09:30** BA Team 12: Firefighter Lawson and Firefighter K Foster continue their left hand search and come to what is believed to be flat 153 in the South West corner of the 18<sup>th</sup> Floor. They knock on the door of the flat and the door opens on the chain. They are met by a black male who is with his family, he says there are five people. The firefighters try to explain that there is a fire, but the male tells them that they are ok and that they are to go away and he closes the door. BA Team 12 then



## OFFICIAL

continue with their left hand search (Source: MPS Witness Statement: GTIRT18-00068, GTIRT18-00927).

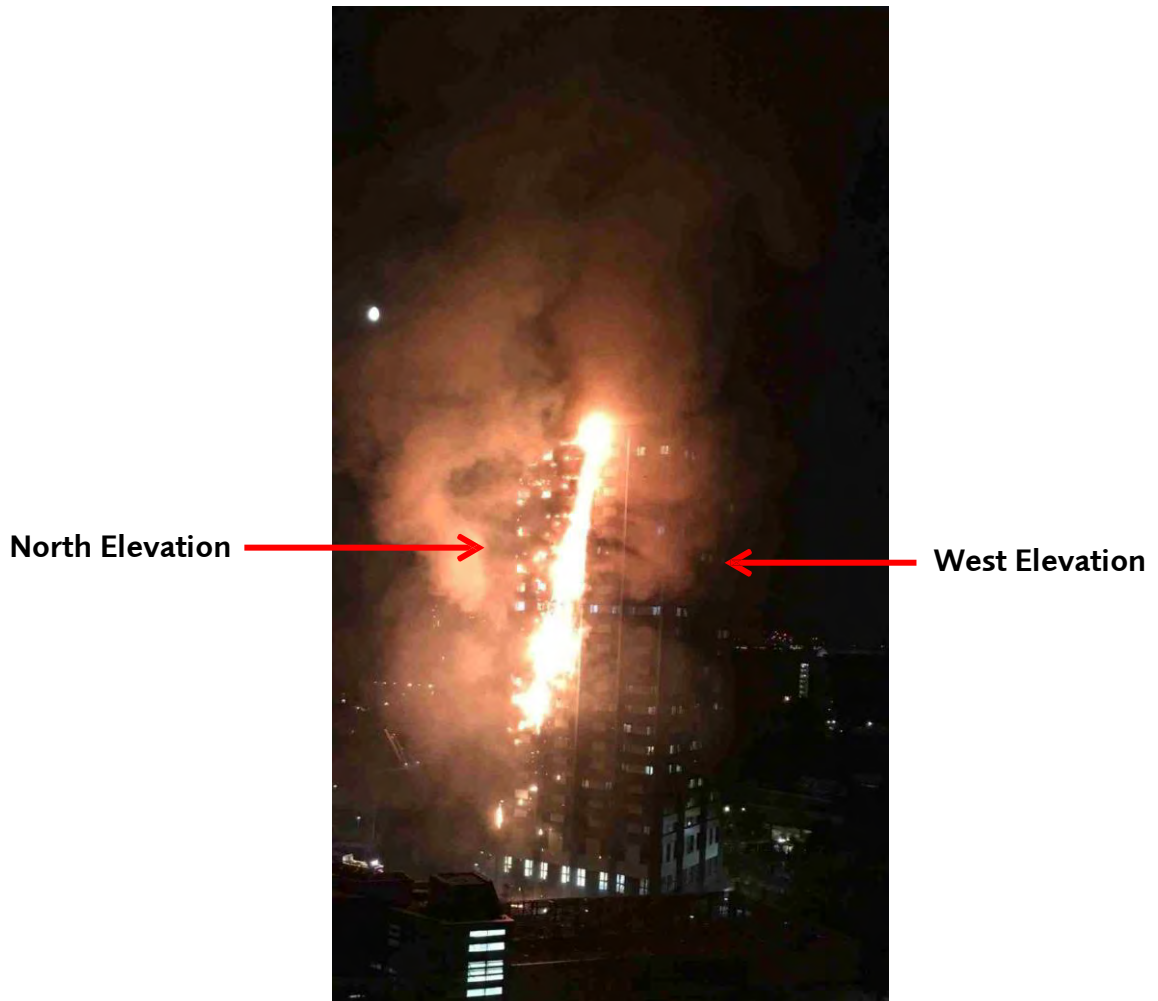
**02:09:35** CRO Howson takes a call at Brigade Control from a female caller who is outside the block and she says there is someone in a top floor flat and they are waving their phone light. CRO Howson confirms that she will pass this information to crews. Incident Number 76155 Call Duration 44 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00589).

**02:09:44** Hotel 352, Tooting's Pump book status 2, mobile to Grenfell Tower. Hotel 352 is riding with five firefighters. Firefighter Scott Elliott, Firefighter Oliver Henley, Firefighter James Hiscock, CM Daniel Morrison and Firefighter Adrian Toppin (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).

**02:09:47** At around this time, BA Team 19: Firefighter R Mitchell and Firefighter Desforges get to the third floor, they go to a flat and notice a ramp and mobility scooter outside. They knock on the door and a male answers the door, there is a female in a wheel chair (now known to be Mariko Toyoshima-Lewis), and three children. At 02:09:47 - The firefighters remove their facemasks (they state 'to look less intimidating'), the female tells the firefighters to take the children. Firefighter Desforges assists the children and is followed by the male to the bridgehead and he hands them over to some other firefighters. Firefighter Campbell and Firefighter Mills meet Firefighter R Mitchell at third floor level. Firefighter R Mitchell is carrying a female (Mariko Toyoshima-Lewis, from flat nine, third floor). BA Team 11 help Firefighter R Mitchell carry her and her wheelchair to the bridgehead where they hand her over to Firefighter Ferguson and Firefighter Repas from Golf 341, Chelsea (Source: BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00046, GTIRT17-00112, GTIRT17-00109, GTIRT17-00034, MPS Witness Statement: GTIRT18-00402, GTIRT17-02932, GTIRT18-00967, GTIRT18-00652).

Rationale: We know this event happens as the BA Data shows that Firefighter Desforges' breathing rate returns to 0 LPM, indicating that he has taken off his facemask. The breathing rate starts again at 02:11:07. This has been taken as the time that both Firefighter Desforges and Firefighter R Mitchell remove their facemasks to talk to the family. What this information does prove is that there is an approximated two minute difference between the CCTV cameras in the stair lobby and the BA Data. The reason we believe this is that Kohana, Aozora and Taiyou Toyoshima-Lewis and David Lewis come down the stairs and leave the building and are seen on CCTV: Camera 2 at 02:07:49.

**02:10** The image below shows the fire spread at Grenfell Tower. The picture shows the North elevation alight.



(Source: MET000085877).

- 02:10\*** BA Team 16: Firefighter Roots and Firefighter A Johnson, are climbing the stairs and have reached either the seventh or eighth floor. They enter the lift lobby to try and identify which floor they are on. *According to Firefighter Roots it turns out to be the seventh floor (Source: MPS Witness Statements: GTIRT18-01842, GTIRT18-00935).*
- 02:10\*** BA Team 12: Firefighter Lawson and Firefighter K Foster, are in the 18<sup>th</sup> floor lobby and are searching for people. They walk past the lifts and get to the next flat, which is believed to be either flat 154 or flat 156. The door is open and the temperature is extremely hot (Source: MPS Witness Statement: GTIRT18-00068).
- 02:10** BA Team 15: Firefighter Fernandes and Firefighter Williams are struggling to identify which floor they are on. They make a decision to enter the next lobby. Visibility is almost zero, but they manage to identify they are on the 14<sup>th</sup> floor. They then go back to the stairs and start to climb again to find the 20<sup>th</sup> floor (Source: MPS Witness Statements: GTIRT18-00041, GTRIT18-01105).

## OFFICIAL

- 02:10:03** Mariko Toyoshima-Lewis (flat nine, third floor) is carried down stairs into foyer by Firefighter Ferguson and Firefighter Repas. CM Stern carries down Mrs Lewis's wheelchair (Source: CCTV: Camera 2).
- 02:10:03** CU8 acknowledge receipt of the information message sent by the Radio Operator at Brigade Control at **02:09:25**.  
"Charlie Uniform 8 received, over".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02643).
- 02:10:05** BA Team Eight: Firefighter Shaw and Firefighter Cuthbert return to the bridgehead and close down their BA sets (Source: BA Data: GTIRT17-02820).
- 02:10:10** Echo 371, Peckham's PL book status 2, mobile to Grenfell Tower. Echo 371 is riding with five firefighters: WM Paul Meyrick, CM Thomas Sharp, Firefighter James Geapin, Firefighter Duane Harris and Firefighter Adam Wilson (Source: 'Vision': GTIRT17-02791 and Stars Rota Book).
- 02:10:13** Firefighter Ferguson and Firefighter Repas help Mrs Mariko Toyoshima-Lewis back into her wheelchair (Source: CCTV: Camera 2).
- 02:10:16** CM Stern then goes back upstairs (Source: CCTV: Camera 2).
- 02:10:24\*** *Firefighter Bell from BA team 20 states, the first floor is not smoky but the other floors are smoky from the beginning, the smoke is becoming progressively heavier and heavier as BA team 20 climb the tight stairwell. It is described by Firefighter Bell to be quite disorientating and hard to work out what floor he is on, as the floors are not marked very well. The visibility gets worse and worse as they go up, by the time they arrive on the 10th floor, Firefighter Bell had to place his face around 6 inches from the wall to read the floor numbers. (Source: MPS Witness Statement: GTIRT18-02061).*
- 02:10:25** BA Team 20: Firefighter Alassad, Firefighter Bell and Firefighter J Wright report to the bridgehead. They receive their briefing from WM Watson who tells them they are to go to the 23<sup>rd</sup> floor where they have received FSG calls from two families (although the statements do not state which flats, through our call logs we have identified we had received 12 FSG calls from the 23<sup>rd</sup> floor at this time). BA Team 20 start breathing under air (Source: BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT18-02054, GTIRT18-02061, GTIRT18-00042).
- 02:10:25\*** *Firefighter Alassad from BA team 20 states, he and the rest of BA team 20 go up several floors and see no one on the stairs, as they move higher, it is getting smoked logged. Firefighter Alassad feels it is worse on the 10th floor when he first went in. The BA team reach the 12th floor and Firefighter J Wright manages to see what floor they are on. The smoke is very thick from the floor*

## OFFICIAL

*to ceiling, as the team carry out a gauge check it suddenly gets very hot. (Source: MPS Witness Statement: GTIRT18-02054).*

- 02:10:26** NWFC take a call via a BT Operator who pass over a female caller outside the tower in W10 who is reporting a 20-25 storey tower block on fire. The caller states that there are people on the 14th floor on the West side of the building and specifically wants to clarify that there is a woman who is screaming and banging on the windows with her two kids. The NWFC Operator states that he will pass the information to the Brigade. Incident Number 76649 Call Duration two minutes 16 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00590).
- 02:10:31** CRO Howson at Brigade Control takes a call from a caller who is in flat 192 on the 22<sup>nd</sup> floor reporting a fire in her kitchen. CRO Howson clarifies if it is smoke or fire and the caller confirms that it is fire. CRO Howson advises her to shut the kitchen door and get into another room. The caller is heard talking to other people in the flat and CRO Howson advises the caller that the Brigade is dealing with a fire on the fourth floor. CRO Howson passes the flat and floor number to someone in Brigade Control, stating that there is a fire in the kitchen. CRO Howson then asks the caller how many people are in the flat. It is difficult to hear this clearly in the call but sounds like five people, three children then an inaudible word. CRO Howson then advises that caller to put blankets or cushions at the bottom of the door to stop the smoke coming through. At approximately **02:14** the caller confirms again that the fire is in the kitchen and CRO Howson explains that the Brigade is advising people to stay in their flats but if the fire is in the flat they may have to try and leave. CRO Howson then tries to find out how near to the stairs they are but the caller stops responding, voices can be heard but CRO Howson cannot raise the caller. CRO Howson is passing information to other people in the Brigade Control Room throughout. At **02:16:55** the BT Operator comes on the line and says the line has dropped out. Incident Number 76164 Call Duration six minutes 24 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: 76164 GTIRT17-00606).
- 02:10:33** NWFC take this call from the BT Operator in Glasgow introducing the call as originally for the Brigade but the lines are all busy. The call is taken by a Team Leader in the NWFC. A male caller says he is at 133 Grenfell Tower. A smoke alarm is sounding in the background. The caller says they are stuck in the flat. He says they have blocked the doors but the smoke is still coming in. He then says he is on the 16<sup>th</sup> floor. The NWFC Team Leader asks if they can get to a room furthest away from the smoke and confirms with the caller that there are two people. The caller says the smoke is in the room they are in now and they have tried everything to stop the smoke. The Team Leader at NWFC then explains that they should get low to the floor. She then introduces herself as Team Leader at NWFC and asks for the caller's name. Names are given as Sener and Hanife. Sener asks if they should try and run outside. Team Leader NWFC explains that she "doesn't know what your policy would be", but she will try and keep them safe. The Team Leader at

## OFFICIAL

NWFC asks him to go and feel the door handle on the front door. The Team Leader at NWFC keeps providing reassurance. Sener explains that Hanife is running around and panicking. She tells Sener to get Hanife to calm down. The smoke becomes worse and the Team Leader at NWFC advises them to get wet towels and use them to cover their mouths and noses. Sener explains that earlier they tried to go out into the corridor but it was full of black smoke. The Team Leader at NWFC keeps the conversation going and she keeps checking on Hanife. Hanife is on another phone to her family including her daughter. The conditions appear to get worse and Sener starts coughing and gulping for air. At **02:31:06** the Team Leader at NWFC explains to Sener that they think the firefighters are working up from the 14<sup>th</sup> floor and should be on the 16<sup>th</sup> floor very soon. She reiterates the safety advice and makes sure they are close to the floor. Sener starts coughing more frequently. At **02:35:44** the Team Leader at NWFC tells Sener to get the towels they are using and make them as wet as they can and to cover themselves and leave the flat. The Team Leader at NWFC says that they have been told by the Brigade that is the safest option for them. There is a lot of shouting between Sener and Hanife in a foreign language. Eventually Sener comes back on the line and the Team Leader at NWFC confirms with Sener what she wants him to do. Sener says he is frightened. He says goodbye. The call ends at **02:38:24**. Incident Number 76655, Call Duration twenty seven minutes 32 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00591).

- 02:10:38** Hotel 241, Brixton's PL book status 2, mobile to Grenfell Tower. Hotel 241 is riding with five firefighter: WM John-Paul Stevens, Firefighter Kylei Holmes-Lewis, Firefighter Nicholas Kalirai, Firefighter Methusael Sonson and Firefighter Nicholas Whiting (Source: ORF Register: GTIRT17-02567, 'Vision': GTIRT17-02791).
- 02:10:38** GM Welch and SM Cook enter the building via the main entrance (Source: CCTV: Camera 4).
- 02:10:50** Mariko Toyoshima-Lewis (flat Nine, third floor) is taken out of the building by Firefighter Ferguson and Firefighter Repas who have put her in her wheel chair (Source: CCTV: Camera 4).
- 02:10:58** Hotel 351, Tooting's PL book Status 2, mobile to Grenfell Tower. Hotel 351 is riding with five firefighters: WM Thomas Furnell, CM Richard Morris, Firefighter Ian Davis, Firefighter Loxley Forbes and Firefighter David Lean (Source: ORF Register: GTIRT17-02567, 'Vision': GTIRT17-02791).
- 02:10:59** Mariko Toyoshima-Lewis is wheeled out of Grenfell Tower by Firefighter Ferguson and Firefighter Repas towards the leisure centre, however due to the charged fire hose they can not proceed out and return 20 seconds later past the main entrance (Source: CCTV Camera 4).
- 02:11** BA Teams Nine: Firefighter Merrion, Firefighter Sanders and BA Team 10 Firefighter Cornelius, Firefighter Murphy place all eight residents from the 14<sup>th</sup> floor in clean air in flat 113, 14<sup>th</sup> floor. The firefighters explain to the residents that they can't take them down the stairs due to the

## OFFICIAL

smoke so they should remain in the flat. The residents are told to call 999 and talk to the CRO if the situation changes. They also say that there are other firefighters here that will come and get them if it gets worse (Source: BA Data: GTIRT17-02820, MPS Witness Statements, GTIRT18-00651, GTIRT18-00993, GTIRT18-01134, GTIRT18-01416, BSR Witness Statement: IWS00000523).

**02:11:02** CU8 send an 'assistance' radio message to Brigade Control, '**Make Fire Rescue Units 6**'

"Charlie Uniform 8 can I confirm that FRU made 6? Charlie Uniform 8 over."

(Source: 'Vision': GTIRT17-02791 and NICE, Radio Message Audio file and Transcript: GTIRT17-02645).

**02:11:05** Bravo Charlie 02, SOM Smith is paged again about the incident (Source: 'Vision': GTIRT17-02791).

**02:11:07** Firefighter Desforges', from BA Team 19, BA set shows that he has recommenced breathing through his facemask (Source: BA Data: GTIRT17-02820).

**02:11:08** CM Sephton enters the building through the main entrance. He is carrying a Forward Information Board (FIB) (Source: CCTV: Camera 4, MPS Witness Statement: GTIRT18-01036).

**02:11:10** Alpha 401, Hendon's PL book status 2, mobile to Grenfell Tower. Alpha 401 is riding with four firefighters: CM Daniel Poullais, Firefighter Adam Bucknall, Firefighter Mark Hilditch and Firefighter David Smyth (Source: ORF Register: GTIRT17-02567, 'Vision': GTIRT17-02791).

**02:11:13** CM Sephton goes up the stairs carrying the FIB (Source: CCTV: Camera 2).

**02:11:21** Mariko Toyoshima-Lewis is wheeled back passed Grenfell Tower main entrance as the path to the leisure centre is covered with charged fire hose and they are unable to pass with the wheelchair, they take great care to lift the wheelchair over one length of charged 70mm fire hose and push Mariko towards the undercroft of Grenfell Tower (Source: CCTV Camera 4).

**02:11:26** Bravo Charlie 04, SOM Crinion is paged about the incident (Source: 'Vision': GTIRT17-02791).

**02:11:48** CU8 sends informative message to the Radio Operator at Brigade Control.

"Charlie Uniform 8 D-A-C O'Loughlin is now Officer in Charge of this incident, D-A-C O'Loughlin. Charlie Uniform 8 over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02648).

**02:11:51** CRO Fox at Brigade Control takes a call from a female caller reporting a fire in Grenfell Tower and confirms that the Brigade is on scene. The caller explains that she is calling because her friend who lives across the road has asked her to call. Incident Number 76159 Call Duration one minute eight seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00599).

## OFFICIAL

- 02:12\*** BA Team 16: Firefighter Roots and Firefighter A Johnson are climbing the stairs.. Whilst climbing the stairs Firefighter Roots notices that between the 10<sup>th</sup> and 12<sup>th</sup> floors the fire door has given way, the fire protection has given out and there are flames and thick black smoke in the stairwell (Source: MPS Witness Statement: GTIRT18-01842).
- 02:12\*** BA Team 13: CM Wigley, Firefighter A Harris, Firefighter Gillam, Firefighter Gonzalez and Firefighter D Roberts believe they are at the 20<sup>th</sup> floor level. Firefighter D Roberts and Firefighter Gillam locate a casualty in the corner of the stairwell. *Firefighter D Roberts states he leaves the casualty with Firefighter Gillam and proceeds up to the 21<sup>st</sup> and 22<sup>nd</sup> floors to see if he can locate further casualties. He opens the doors to each floor and finds the lobbies are heavily smoke logged. He then returns to Firefighter Gillam* (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00069, GTIRT18-00414 and BSR Witness Statement: IWS00000729).
- 02:12:00** Firefighter Daoud enters the building through the main entrance carrying an Entry Control Board (ECB). This is the fourth ECB to be taken into the building (Source: CCTV: Camera 4).
- 02:12:02** BA Team 12: Firefighter Lawson and Firefighter K Foster are still on the 18<sup>th</sup> floor. Firefighter Lawson's pre-alarm actuates, indicating a period of time that he is stood still. It is believed that a discussion takes place between Firefighter Lawson and Firefighter K Foster having searched flat 156. They agree to split up in the flats to speed up the search process. This is linked to the entry at **02:12:30** (Source: Contemporaneous Notes: GTIRT17-00062, GTIRT17-00061, MPS Witness Statement: GTIRT18-00927, GTIRT18-00068).
- 02:12:07** CRO Adams takes a call at Brigade Control from a member of the public who is outside the tower and asks for Brigade attendance at Grenfell Tower. CRO Adams reassures her that the Brigade are already in attendance and dealing with it. Incident Number 76158 Call Duration 25 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00597).
- 02:12:07** Firefighter Daoud goes up the stairs carrying the fourth ECB (Source: CCTV: Camera 2).
- 02:12:09** NWFC take a call from the BT Operator at Portadown. He says that they have received another critical call. He says that it seems to be that people are trapped at the top of the building but the call has dropped out. The mobile number of the caller is passed to the NWFC. The caller is a man saying his sister and nephew are trapped in the building. The NWFC Operator says he will give them a call back. The NWFC Incident Log has an entry that states they are unable to make contact on the number given. It should be noted that the NWFC receives a call from the same mobile at **02:17:24** (999 Audio file: GTIRT17-01831). Incident Number 76648, Call Duration 40 seconds (Source: BOSS Viewer, 999 Audio file: GTIRT18-02454).
- 02:12:14** Echo 63, GM O'Neill, books Status 3, in attendance at Grenfell Tower. He is the fourth GM in attendance.

## OFFICIAL

"FN from Echo 63 now Status 3, over."

(Source: 'Vision': GTIRT17-02791, NICE, Radio Message Audio file and Transcript: GTIRT17-02650).

**02:12:20** Hotel 33 Sierra, SM McConochie books Status 3 in attendance at Grenfell Tower. She is the seventh SM in attendance.

"FN, Hotel 33 Sierra status 3, over."

(Source: 'Vision': GTIRT17-02791, NICE, Radio Message Audio file and Transcript: GTIRT18-02652).

**02:12:30\*** BA Team 12 member Firefighter K Foster's pre-alarm actuates coinciding with Firefighter Lawson's actuation at 02:12:02. *Again it is believed they are having a discussion about splitting up on the 18<sup>th</sup> floor to speed their search up* (Source: BA Data GTIRT17-02820, Contemporaneous Notes: GTIRT17-00062, GTIRT17-00061, MPS Witness Statement: GTIRT18-00927, GTIRT18-00068).

**02:12:44** Mariko Toyoshima-Lewis is wheeled out through the undercroft of Grenfell Tower towards the leisure centre (Source: CCTV Camera 4).

**02:12:47** Alpha 331, Tottenham's PL, sends a radio message to Brigade Control asking if they are required to attend the 40 pump fire

"FN from Alpha 311, erm, getting messages coming through the pager. Can you confirm we're due to go on a 40 pump fire, over?"

(Source: 'Vision': GTIRT17-02791, NICE, Radio Message Audio file and Transcript: GTIRT18-02654).

**02:12:50** NWFC take this call from the BT Operator at Dundee who pass an abandoned call originally for the Brigade but the lines are all busy. The NWFC Operator says the caller is a lady trapped in a flat and there is a fire in the building, He does not have the flat number. The NWFC Operator says she will ring her back. Incident Number 76652 Call Duration 39 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00595).

**02:12:50** NWFC make a call back to the number given by the BT Operator in Dundee at **02:12:50** (GTIRT17-00595). The call starts with a female saying "hello". The NWFC Operator introduces herself as the "fire service" and the caller says "yeah". The NWFC Operator says "you have called the fire service" and asks if the woman wants to report a fire. The female shouts "the firemen are all in my block, Grenfell Tower". The resident gives her floor number as 14. The NWFC Operator asks for confirmation that the Fire Brigade are there. The resident says yes. She then gives her flat number as 115. The NWFC Operator asks if the fire crews are getting her out. The



## OFFICIAL

resident says, "I don't know, they are saying the fire is too big". The NWFC Operator asks, "If they are aware of where you are". The resident says yes. The NWFC Operator says okay and that the Brigade will be with her. The call cuts off at this point. Incident Number 1706004398, Call Duration one minute five seconds (Source: FRS Incident Log and Audio file: GTIRT18-02463).

**02:12:50** NWFC take this call from the BT Operator at Portadown trying to pass a call intended for the Brigade. The caller is reporting a fire in a tower block in London and the line has dropped out. Incident Number 76651, Call Duration 34 seconds (Source: BOSS Viewer, 999 Audio file and Transcript : GTIRT17-00596).

**02:12:54** BA Team Seven: CM Tillotson, CM Gallagher, Firefighter Bettinson and Firefighter Wolfenden are now together in flat 65 (Firefighter Felton returns to the bridgehead because when he reaches the sixth floor on his way back up to flat 65 he realises he is low on air). The firefighters place one of the spare BA sets onto the female adult (now known to be Sharon Laci) and the facemask from the other spare BA set is connected to Firefighter Bettinson's BA set. This BA facemask is then placed on a little girl (now known to be Chloe Laci). Before leaving the flat CM Tillotson realises he is also low on air, he decides to connect his face mask to the second spare set that he brought up with him, to ensure he has enough air to get out of the building safely. CM Tillotson then leads the firefighters and the two residents out of flat 65 and down the stairs to safety (Source: BA Data GTIRT17-02820, MPS Witness Statement: GTIRT18-00064 and GTIRT17-02925).

**02:12:58** Alpha 40 Sierra, SM Wolfenden books Status 3 in attendance at Grenfell Tower. He is the eighth SM in attendance (Source: 'Vision': GTIRT17-02791).

**02:13:00** Brigade Control send a radio message to Alpha 331, Tottenham's PL, confirming they are required to attend the 40 pump fire at Grenfell Tower

"Alpha 311 answer yes, it's a 40 pump fire, Grenfell Tower. Over."

(Source: 'Vision': GTIRT17-02791 and Radio Message: GTIRT17-02655).

**02:13** BA Team 12: Firefighter K Foster and Firefighter Lawson, enter another flat on the 18<sup>th</sup> floor, believed to be flat 155. They search the flat but they do not find anyone (Source: MPS Witness Statement: GTIRT18-00927, GTIRT18-00068).

*Rationale to it being flat 155, floor 18. Firefighter K Foster identifies the route that they both take on the floor and the layout of floor 18 by using a drawing that is referred to as exhibit KVF/1.*

**02:13\*** *Firefighter Flanagan from BA Team 17 states on reaching the 20<sup>th</sup> floor a BA Team of two firefighters come out of the door to the lobby (believed to be members of BA Team 13). Firefighter Flanagan asks the BA team if the fire hose he is carrying is for them, they say no and go down the stairs past him. Firefighter Flanagan, on seeing no other Firefighters on the floor states*

## OFFICIAL

*he thinks other BA Teams are following them so he leaves the fire hose in the stairwell for them to use (Source: MPS Witness Statement: GTIRT17-01958).*

**02:13\*** BA Team 17: Firefighter Cook and Firefighter Flanagan reach the 20<sup>th</sup> floor. Firefighter Cook states he thinks they are going to assist other BA Teams. Firefighter Cook states he has approximately 150 bar pressure left at this time (Source: MPS Witness Statement: GTIRT18-01829, GTIRT17-01958).

**02:13\*** Firefighter Cook from BA Team 17 says he goes left and Firefighter Flanagan goes right, they search the flats they find with open doors but find no one (Source: MPS Witness Statement: GTIRT18-01829).

**02:13** BA Team 18: CM Yeoman, Firefighter A Nelson, Firefighter Stavely and Firefighter J Saunders, continue to search the ninth floor. They approach flat 66 and radio the ECO asking if they wanted the BA team to break in, the ECO says yes (indicating handheld radios are working at this level). BA Team 18 set into the DRM outlet and then force the door using the Enforcer. CM Yeoman and Firefighter A Nelson enter the flat. Firefighter A Nelson was leading with a fire hose and firefighting branch and CM Yeoman had the TIC. Firefighter Stavely and Firefighter J Saunders remain outside the flat. CM Yeoman withdraws from the flat with Firefighter A Nelson and Firefighter Stavely and Firefighter J Saunders then enter the flat and try to search it but due to the heat they withdraw after one to two minutes. They close the door on flat 66 and knock on the other flats - nobody responds. CM Yeoman and Firefighter A Nelson mention flat numbers 65 and 66. Firefighter Stavely and Firefighter J Saunders mention knocking on three or four flats in total (Source: MPS Witness Statement: GTIRT17-02924, GTIRT18-00409, GTIRT18-02356, Contemporaneous Notes: GTIRT17-00111).

**02:13:03** CRO Adams at Brigade Control takes a call from a male caller, who says he is Nick Burton, reporting that his whole tower block is on fire and that he is in flat 165 on the 19<sup>th</sup> floor. CRO Adams asks how many people there are and the caller states that there are two adults and a dog. The caller explains that there is light smoke in the whole flat and CRO Adams confirms that he has blocked his doors. CRO Adams explains that the Brigade is in attendance and are trying to get to everyone but there are a lot of people trapped and asks the caller to call back if it gets any worse. Incident Number 76161 Call Duration one minute 22 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00601).

**02:13:06** BA Team 19: Firefighter Desforges and Firefighter R Mitchell report back to the bridgehead and inform the ECO that they have completed their task. They are then briefed to go to the 24<sup>th</sup> floor. They ascend the stairs but do not put on their facemasks (Firefighter Desforges' BA Data states he takes his facemask off for 20 seconds) as they are trying to conserve air (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT17-02932, GTIRT18-00652).

## OFFICIAL

- 02:13:07** Alpha 213, Paddington's TL, reverses back away from the falling debris at the East elevation (Source: CCTV: Camera 2).
- 02:13:09** Alpha 331, Tottenham's PL, confirm receipt of the message to mobilise to the 40 pump fire and ask to be booked Status 2, mobile to Grenfell Tower.
- "Yeah, all received. Now status 2, over."
- (Source: 'Vision': GTIRT17-02791 and NICE, Radio Message Audio file and Transcript: GTIRT18-02656).
- 02:13:12** Essex FRS take a call, via BT, who report there are delays in getting through to the Brigade. The caller reports there is a fire in her block and that the Brigade is aware and when asked by the Essex CRO, she confirms that she is in flat 82 on the 11th floor. The Essex CRO explains that there is a stay put policy unless the caller hears otherwise and asks for the caller's name which is given as Natasha Elcock. Natasha is worried because the fire seems to be spreading and asks them to hurry. The Essex CRO says she will pass on the details to the Brigade. Incident Number 76638 Call Duration one minute 17 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00598).
- 02:13:15** Alpha 311, Holloway's PL book status 2, mobile to Grenfell Tower. Alpha 311 is riding with five firefighters: WM Christopher Cooper, CM Paul Cother, Firefighter Albert Folivi, Firefighter Luke Goddard and Firefighter Tamara Wilkinson (Source: GTIRT17-02567, 'Vision': GTIRT17-02791).
- 02:13:17** Alpha 401, Hendon's PL, sends a radio message to Brigade Control asking for confirmation of address for the 40 pump fire as it hasn't appeared on their MDT or pager
- "Alpha 401 can you just confirm the address of this incident, please? We've got nothing through on the pagers or the MDT."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02657).
- 02:13:25** Brigade Control send a radio message to Alpha 401, Hendon's PL, confirming the address as Grenfell Tower
- "It's Grenfell Tower on the Lancaster West Estate, postcode W11 1 Tango Juliet. Erm, best access is Bomore Road, over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02658).
- 02:13:26** BA Team 19: Firefighter Desforges and Firefighter R Mitchell whilst climbing the stairs go under air as the conditions have deteriorated. *Firefighter Desforges states they are at the fifth floor* (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT17-02932).

## OFFICIAL

- 02:13:26** BA Team 19: Firefighter Desforges and Firefighter R Mitchell both attempt to send a radio message to the bridgehead to advise the ECO that they would not be able to reach the 21<sup>st</sup> floor or above but due to the radio being busy they could not get through. BA Team 19 state they decide to carry on up as far as they could, on the air they had, to save lives and get any casualties (Source: MPS Witness Statement: GTIRT17-02932, GTIRT18-00652).
- 02:13:30\*** *BA Team 19: Firefighter Desforges and Firefighter R Mitchell are both carrying a length of fire hose and are looking to plug it in to a DRM outlet but realise other firefighters have already plugged fire hose into the outlets. They decide to leave the fire hose around the fifth floor (Source: MPS Witness Statement: GTIRT17-02932).*
- 02:13:31** Alpha 213, Paddington's TL, stops reversing (Source: CCTV: Camera 2).
- 02:13:32** Firefighter Herrera, Firefighter Orchard and Firefighter Bloxham enter the building via the main entrance (Source: CCTV: Camera 4).
- 02:13:35** BA Team 26: Firefighter Juggins and CM McAlonen enter the building via the main entrance. Prior to entering, they are given a brief which is very basic , it includes details of where the main lobby is and what is happening. After the briefing Firefighter Juggins states that the crew were told that six firefighters are required as three crews of two. Firefighter Juggins teams up with CM McAlonen (BA Team 26) Firefighter Herrera and Firefighter Orchard (BA Team 25) Firefighter Bloxham and CM R Evans (BA Team 24). Firefighter Juggins and CM McAlonen are carrying an enforcer, TIC and a length of hose. On entering the main lobby CM McAlonen states that he sees WM Williams writing FSG calls on a wall. CM McAlonen states that WM Sadler takes over organising the FSG calls outside and relaying that information to WM Williams and then to a WM on the mezzanine (*believed to be WM Paul Watson*) who is briefing the crews before sending them to the ECP (Source: MPS Witness Statement GTIRT18-01417, GTIRT18-01010, CCTV: Camera 4).
- 02:13:40** CRO Fox takes a call at Brigade Control from a male caller who reports that Grenfell Tower is on fire and says he can see residents in flats moving around slowly as if they don't know what is going on. CRO Fox assures him that the Brigade is there and dealing with the incident. Incident Number 76163 Call Duration one minute five seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00603).
- 02:13:44** BA Team 14: CM Eden and Firefighter Welch, are on the 20<sup>th</sup> floor. They have completed connecting the fire hose to the DRM outlet and have charged the fire hose. CM Eden then takes a gauge check (120 bar) on his BA set. BA Team 14 then knock on the doors of flats 171,172 and 173 but get no answer (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00309, GTIRT18-00099).

## OFFICIAL

- 02:13:45** Alpha 401, Hendon's PL, send a radio message to Brigade Control confirming they have received the address to Grenfell Tower and are proceeding  
  
"Alpha 401 that's all received, Grenfell Tower, over."  
  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02659).
- 02:13:46** CRO Gotts takes a call from a female caller reporting a fire at Grenfell Tower. The caller asks how many fire engines are there because she does not think there are enough and CRO Gotts tells her there are 40. Incident Number 76160 Call Duration 29 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00600).
- 02:13:46\*** *BA Team 12: Firefighter Lawson and Firefighter K Foster return to flat 152 and knock on the door. They talk to the woman and three children again believed to be through the door. They explain more firefighters are on their way and they should stay where they are and not to worry. Rabia Yahya from flat 152 states that she doesn't see any other firefighters after the initial visit of BA Team 12. She also states she doesn't see any firefighters until she leaves the building. (Source: MPS Witness Statement: GTIRT18-00068, BSR Witness Statement: IWS00000498).*
- 02:14:10** GM Cook (ORT) enters the building via the main entrance (Source: CCTV: Camera 4).
- 02:14:12** SOM Smith calls in response to a paging notification and says she is "around the corner" (Source: NICE, Admin Phone Line Audio file: GTIRT18-00895).
- 02:14:13** BA Team 10: Firefighter D Murphy and Firefighter Cornelius, are in the stairwell descending to the bridgehead, Firefighter Cornelius' LPWA actuates, indicating he has 84 bar left and he should already be back at the bridgehead if complying with Brigade policy (Source: BA Data: GTIRT17-02820).
- 02:14:14** Hotel 351, Tooting's PL, send a radio message to Brigade Control, requesting the address for the 40 pump fire  
  
"Hotel 351, erm, incident has come through on our pager but not on the MDT. Erm, and we've been put status 2. Have you got the full address? Over."  
  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02660).
- 02:14:14** CU1, Edmonton's CU book status 2, mobile to Grenfell Tower. CU1 is riding with two WMs, WM Mark Dean and WM John Stewart (Source: 'Vision': GTIRT17-02791).
- 02:14:25** CRO Gotts at Brigade Control takes a call from a female caller who says there is a fire near Latimer Road station. CRO Gotts asks if it is Grenfell Tower and the caller confirms that is the one. She says "there are people right on the top floor waving lights" and CRO Gotts explains that the Brigade is aware and they are dealing with it. Incident Number 76162, Call Duration 25 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00602).

## OFFICIAL

- 02:14:25** Brigade Control send a radio message to Hotel 351, Tooting's PL, and confirm the address of Grenfell Tower
- "Yeah it's, err, Grenfell Tower, 40 pump fire. Standby. Charlie Uniform 8 go ahead, reply."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02661).
- 02:14:32** CU8 send assistance message to the Radio Operator at Brigade Control.
- "Charlie Uniform 8 from D-A-C O'Loughlin make CUs 6 tactical mode Oscar, Charlie Uniform 8 over".
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02662).
- 02:14:33** CU4, Lewisham's CU book Status 2, mobile to Grenfell Tower. CU4 is riding with two WMs, WM David Carroll and WM Christian Hall (Source: 'Vision': GTIRT17-02791).
- 02:14:40** The Radio Operator at Brigade Control acknowledges receipt.
- "Charlie Uniform 8, err, make CU6 received"
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02663).
- 02:15\*** *SOM Smith arrives at Brigade Control in Stratford (Source: MPS Witness Statement: GTIRT17-01956).*
- 02:15** BA Team 10: Firefighter D Murphy and Firefighter Cornelius, are in the stairwell around the eighth floor returning to the bridgehead, they meet firefighters assisting two residents down the stairs. The residents appear to have BA on. Firefighter Cornelius assists one of the firefighters and carries the resident down the stairs and out of the building. The resident is wearing BA now known to be Sharon Laci (Source: MPS Witness Statement: GTIRT18-01416, GTIRT18-00064).
- 02:15** BA Team 16: Firefighter Roots and Firefighter A Johnson, are on the 19th floor. The firefighters enter the lobby and attempt to locate flat 161. Whilst in the lobby they hear banging coming from a flat. They locate a flat which Firefighter A Johnson puts his face up against the door and identifies it as flat 165. He talks to the resident through the letterbox. The resident informs him there is one male, one female and a dog in the flat (this is now known to be Mr and Mrs Burton). Firefighter A Johnson tells the male to put wet towels over their heads, get ready and that they will come back for them (Source: MPS Witness Statement: GTIRT18-01842, GTIRT18-00935, BSR Witness Statement: IWS00000064).
- 02:15:07** CRO Gotts at Brigade Control takes a call from a male caller who begins by apologising for calling again but reports being very scared and states that they are on the 12<sup>th</sup> floor. He explains that when they open the front door there is a lot of smoke and CRO Gotts says that she is unable to advise but if the caller thinks its safe to try and leave then that is their choice, however, normally the Brigade

## OFFICIAL

would suggest blocking up anywhere that smoke can get in. CRO Gotts reassures the caller that the Brigade is there and will come and find them. The caller states that they can't breathe so CRO Gotts asks if there is a window in the flat that might provide some fresh air. The caller states that there are fire balls falling past the window and that there are three people in the flat. CRO Gotts suggests they try to block it up a bit more or go to the window to get some fresh air if they are unable to get out. CRO Gotts then confirms that the crews are aware that they are on the 12<sup>th</sup> floor. Incident Number 76167 Call Duration three minute 39 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00609).

**02:15:08** CU8 send assistance message to the Radio Operator at Brigade Control.

"Charlie Uniform 8 from DAC O'Loughlin. Make FRUs 10. RVP is CU at Bramley Road. Enter via Holland Park Avenue. Charlie Uniform 8 over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02664).

**02:15:08** BA Team 11: Firefighter Mills and Firefighter Campbell leave the building through the main entrance (Source: CCTV: Camera 2).

**02:15:08** On leaving the building Firefighter Mills states he notices what looks like a makeshift rope ladder made of sheets tied together coming out of a window. He shines his torch up to the eighth to 10<sup>th</sup> floors. Firefighter Mills informs a WM who tells Firefighter Mills that he will deal with it. (This is now believed to be Oluwaseun Talabai from Flat 113, 14<sup>th</sup> floor) (Source: MPS Witness Statement: GTIRT18-00402, BSR Witness Statement: IWS00000523).

**02:15:31** Mariko Toyoshima-Lewis is handed over to the LAS at the casualty handling area outside Kensington leisure centre by a unidentified Firefighter (Source: CCTV OPS1 Kensington leisure centre).

**02:15:33** The Radio Operator at Brigade Control requests repeat of message.

"Can you just repeat all that message? Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02665).

**02:15:42** Firefighter Bettinson from BA Team Seven returns to the bridgehead and closes down his BA set (Source: MPS Witness Statement: GTIRT17-01627).

**02:15:48** BA Team Nine: Firefighter Merrion and Firefighter H Sanders, return to the bridgehead and close down their BA sets. According to Firefighter Merrion the bridgehead has now moved but he is unsure to which floor. (Further investigation indicates that the bridgehead is moved to the third floor) (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00651).

**02:15:49** CU8 repeat message to the Radio Operator at Brigade Control.

## OFFICIAL

"Charlie Uniform 8 from station as you were D-A-C O'Loughlin make FRUs 10 entering via Holland Park Avenue. Tactical Mode Oscar. Charlie Uniform 8. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT18-02666).

**02:16\*** AC Roe rings AC Mills. AC Roe confirms AC Mills is aware of the major incident and 40 pump make up. AC Mills tells AC Roe that he will represent the LFB at the MPS Special Operations Room (SOR sometimes referred to as GT) when it gets set up. AC Roe confirms that BCC is being set up at Stratford and AC Daly is coming in to support the Commissioner's Group (Source: MPS Witness Statement: GTIRT17-01254, Mobile Phone Call Log: GTIRT18-01250).

**02:16:03\*** BA Team 14: CM Eden and Firefighter Welch, meet BA Team 15: Firefighter Fernandes and Firefighter Williams, on the 20<sup>th</sup> floor. BA Team 15 tell BA Team 14 that they have casualties in flat 175, 20<sup>th</sup> floor. (CM Eden states he is unsure of the exact flat number). CM Eden performs a gauge check at this time (101 bar) (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00099, GTIRT18-00309, GTIRT18-00041).

**02:16:06** The Radio Operator at Brigade Control repeats message received from CU8.

"Uh, Charlie Uniform 8, make FRUs 10, RVP I have Bramley Road enter via Holland Park Avenue. Is that all correct? Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02667).

**02:16:14** CRO Fox at Brigade Control takes a call from a female caller who says that she can see people leaning out of windows and flashing their phones from the top floor. The caller says they are on the left side of the building as you look from the front. CRO Fox confirms that the Brigade is aware, asks the caller to hold on and she is heard passing on the information in the Brigade Control Room and confirms to the caller that this has been passed via radio. The caller goes on to explain that she can also see other people waving their phone lights in a flat on the top floor at the front of the building as well. Incident Number 76165 Call Duration two minutes six seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00607).

**02:16:15** CU8 acknowledges receipt of message sent by the Radio Operator at Brigade Control at **02:16:06**.

"Charlie Uniform 8, answer, yes. Over"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02668).

**02:16:23** The PDA is mobilised as per the Make CUs Six and FRUs Six: Alpha 236, Euston's FRU; Hotel 276, Battersea's FRU; Golf 306, Wembley's FRU; Alpha 306, Islington's FRU; CU5 from Woodside and CU3 from Barking (Source: 'Vision': GTIRT17-02791).



Pre-determined Attendance for 'Make Fire Rescue Units Six' and 'Make Command Units Six'	Operational Response to the incident
<ul style="list-style-type: none"> <li>• 6 x FRUs</li> <li>• 6 x CUs</li> </ul>	<ul style="list-style-type: none"> <li>• Alpha 216, Paddington's FRU</li> <li>• Golf 346, Chelsea's FRU</li> <li>• Alpha 236, Euston's FRU</li> <li>• Hotel 276, Battersea's FRU</li> <li>• Golf 306, Wembley's FRU</li> <li>• Alpha 306, Islington's FRU</li> <li>• CU8, Fulham</li> <li>• CU7, Wembley</li> <li>• CU2, Islington</li> <li>• CU1, Edmonton</li> <li>• CU4, Lewisham</li> <li>• CU3, Barking</li> <li>• CU5, Woodside</li> </ul>

**02:16:28** WM Williams is in the main lobby and starts his FSG role, he starts to intercept FSG information and begins to write it on the wall (Source: CCTV: Camera 4).

**02:16:33** Oscar 207, the Salvation Army refreshment vehicle book Status 2, mobile to Grenfell Tower (Source: 'Vision': GTIRT17-02791).

**02:16:39\*** BA Team 21: Firefighter D Hill and Firefighter Malik, report to ECO, start breathing under air and remove their BA tallies. *They are briefed by WM De Silvo and are ordered to go to flat 95, 12<sup>th</sup> floor (FSGs for flat 95 are received at 01:26:58 and again at 01:38:37). Their brief is to carry out search and rescue on that floor. Firefighter D Hill asks for fire hose and a firefighting branch but is told to go up stairs, search and rescue, look for people and bring them down and get them out. Firefighter D Hill states he presumes it is a FSG but states he is not briefed on who or how many, just flat 95, 12<sup>th</sup> floor* (Source: BA Data: GTIRT17-02820, CCTV: Camera 2).

**02:16:39\*** *Firefighter D Hill from BA team 21 states, the first to the third floor are all look the same, it is clean air, but with wispy smoke, at the fourth floor the smoke quickly goes from wispy to fairly thick white smoke. BA team 21 get to the fourth or fifth floor and it is a little smoke logged. The higher up the team go it is smoke logged. The smoke is thicker on the sixth floor, they reach about the eighth or ninth floor and the smoke is getting dark, there are Firefighters coming down with casualties. The team get to the 11th floor and still couldn't find anyone but could still hear*

## OFFICIAL

*Firefighters on floors above. It is hot at this time with thick black smoke. They get to the 12th floor, and open the stairwell door to the floor and there is thick black smoke at this point, but it is not as hot as the previous floor. (Source: MPS Witness Statement: GTIRT18-00426).*

**02:16:46** Firefighter Nuttall and Firefighter Yamin enter the building via the main entrance (Source: CCTV: Camera 4).

**02:16:54** Firefighter Micheal Smith and Firefighter Whitley enter the building via the main entrance (Source: CCTV: Camera 4).

**02:16:58** CU8 send message to the Radio Operator at Brigade Control.

*"Charlie Uniform 8 request attendance of dangerous structures engineer, Gas and Electricity Board and the Local Authority Liaison Officer. Charlie Uniform 8 over".*

*(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02669).*

**02:17\*** *BA Team 15: Firefighter Fernandes and Firefighter Williams, are on the 20<sup>th</sup> floor. They report zero visibility as they search for flat 175. Firefighter Fernandes believes he has located flat 175 in the North West corner. Firefighter Fernandes states he shouts through a letter box and knocks on the door but gets no response. Both firefighters realise they are at the wrong flat. They finally identify flat 175. Firefighter Williams shouts through the letterbox and the door is opened by a male. Firefighter Williams enters the flat and is met by an adult male, an adult female and two female children, the adult female is screaming "my baby my baby". Firefighter Williams states he is unsure if the women is referencing the young females or an actual baby. Firefighter Williams asks the female if she has a baby or if she is calling her two daughters her babies. He states he could not see a sign of a baby in the flat. Visibility in the flat starts to worsen and he tells the family to get something to cover their mouths. Firefighter Welch from BA Team 14 states he goes with BA Team 15 while CM Eden remains in the stairwell. Firefighter Williams carries one of the daughters (now believed to be Tamzin Belkadi) out of the flat telling the others to follow him, he gets to the stairwell door where he says Firefighter Fernandes is waiting. They start to make their way down the stairs and Firefighter Fernandes states he can still hear a female screaming "my baby my baby" (Source: BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00063, GTIRT17-00060, GTIRT17-00058, MPS Witness Statement: GTIRT18-01105, GTIRT18-00309, GTIRT18-00041).*

**02:17\*** *BA Team 14: CM Eden and Firefighter Welch, are on the 20<sup>th</sup> floor and trying to assist BA Team 15: Firefighter Williams and Firefighter Fernandes. CM Eden states that he is standing in the stairwell and opens the door into the 20<sup>th</sup> floor lobby. He is expecting it to be clearer in the lobby than it is in the stairwell, but it is not. CM Eden states "it was horrendous - full of smoke and it felt*

## OFFICIAL

warm, hotter than on the way up". CM Eden quickly closes the door to prevent more smoke entering the stairwell. He isn't sure how long he stands at the door for but then hears someone shout "casualty". Firefighter Welch appears and says that there is a family of five and that they are going to try and bring them out. CM Eden tells Firefighter Welch that he is ready but they need to go soon because their air is running out. CM Eden is unclear if Firefighter Welch goes back to the flat or if he stands near to him. At this point according to Firefighter Welch he returns to flat 175 but as he gets six foot past the lobby door a casualty is either handed to him or the casualty self-evacuates into the lobby. CM Eden states he then hears a male's voice say, "Help us, you've got to help us, we've got to get out". CM Eden holds onto him and asks him some questions as to where he has come from and how many of them there are. The male (believed to be Omar Belkadi) responds by saying that it is him, his wife and kids, two kids and a baby. The male says that it is horrible and that he can not breathe. CM Eden tells him not to panic and asks him if he has something around his head. The male responds saying that he has as he has been told to do so by the person on the phone. CM Eden and Firefighter Welch both state they then hear a females voice shout, "My baby, don't forget my baby ". Firefighter Welch and CM Eden are together and CM Eden asks where the other casualties are. Firefighter Welch states that Firefighter Fernandes has them (Source: MPS Witness Statement: GTIRT18-00309, GTIRT18-00099).

**02:17:00** GM Cook (ORT) talks to WM Williams in the main lobby. WM Williams is recording FSG information on the lobby wall (Source: CCTV: Camera 4).

**02:17\*** Firefighter Malik from BA Team 21 states he couldn't see any fire inside the tower, however the higher he goes up the smokier it gets. Firefighter Malik can see the numbering on the walls, by the time he gets to what he believes is the 10th floor, he is not positive if it is the ninth ,10th or even 11th floor. It is so smoky that have he had to wipe the front of his visor to see as the smoke is obscuring his vision through it. As BA team 21 go up it gets hotter and hotter from the fire, by the time they get to the 10th floor firefighter Malik states he can not see more than a foot in front of him. (Source: MPS Witness Statement: GTIRT18-00070).

**02:17:11** CRO Howson takes a call at Brigade Control from Kent FRS who explain that they have an abandoned call, via BT, for London. He explains that he has tried to call the caller back but the phone keeps cutting off. The Kent CRO passes the mobile number to CRO Howson who says she will try and call back. Incident Number 143552 Call Duration 47 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01737).

**02:17:12** BA Team 22: CM Batcheldor and Firefighter N Saunders, are at the bridgehead on the third floor receive their briefing from the ECO. They are told to go to flat 74, 10<sup>th</sup> floor for a FSG (residents now known to be Lina Hamide and Meron Woldeselassie-Araya). The first FSG to Flat 74 is received at Brigade Control at 02:00:11. This message is relayed to CU8 at 02:05:00. BA Team 22 start breathing under air and ascend the stairs. CM Batcheldor states the stairs area is a mess with

## OFFICIAL

equipment and discarded clothing. Previous crews have marked the floor numbers on the walls with chinagraph pencils (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT17-01103, GTIRT18-00071).

**02:17\*** *CM Batcheldor from BA Team 22 states, from the fourth floor upwards it is smoky. The stairway is a complete mess, it is littered with pieces of equipment which firefighters have abandoned in order to help get people out of the building. There is a lot of discarded clothing. He expects this clothing is used by people to wrap around their faces in order to protect themselves from the smoke. BA team 22 finally reach the 10th floor and CM Batcheldor and Firefighter N Saunders are the only people there, the lobby door is closed and they open the lobby door to assess the conditions. As they cracked it open they were met with a rush of thick black acrid smoke. (Source: MPS Witness Statement: GTIRT17-01103).*

**02:17:20** The Radio Operator at Brigade Control acknowledges receipt of message sent by CU8 at **02:16:58**.

"Charlie Uniform 8 all received".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02670).

**02:17:24** NWFC receive another 999 call in relation to Grenfell Tower. A CRO takes the call. The call is from a male outside Grenfell Tower. The caller is the brother of Zainab Deen, (now known to be Francis Deen). Zainab Deen is from flat 115, 14<sup>th</sup> floor. Incident Number 76654, Call Duration two minutes, five seconds (Source: 999 Audio file and Transcript: GTIRT17-01831).

**02:17:35\*** *Firefighter N Saunders from BA Team 22 states, it is very difficult going up because of the condition in the stairwells. The stairwell is not wide enough, and it was a struggle to walk past people. The visibility is clear on the lower floors but when getting nearer to the eighth floor, visibility is poor at this stage due to smoke logging - the smoke is thick. There is a constant stream of casualties descending the stairwell which is congested with a lot of people. Firefighter N Saunders get to the 10th floor, and opens the door that leads into the 10th floor, a thick big black smoke comes out, and the smoke is from the floor to the ceiling. It was very difficult to see anything because it was total darkness. It became apparent that every floor above 10th floor was smoky. (Source: MPS Witness Statement: GTIRT18-00071).*

**02:17:38** Hotel 276, Battersea's FRU book status 2, mobile to Grenfell Tower. Hotel 276 is riding with five firefighters: CM Aldo Diana, CM Jamie Mayne, Firefighter Robert Chart, Firefighter Marcus Lundquist and Firefighter Dean Nelson (Source: ORF Register: GTIRT17-02567, 'Vision': GTIRT17-02791).

**02:17:44** Alpha 402, Hendon's Pump book status 3, in attendance, at Grenfell tower. This is the 27<sup>th</sup> fire engine in attendance (Source: 'Vision': GTIRT17-02791).

## OFFICIAL

- 02:17:45** CM Batterbee enters the building via the main entrance (Source: CCTV: Camera 4).
- 02:17:46** Firefighter Wolfenden from BA Seven returns to the bridgehead and closes down his BA set. (Source: BA Data: GTIRT17-01627).
- 02:17:49** Brigade Control send Hotel 351, Tooting's PL, a radio message calling them up  
"Hotel 351 from M2FN. Over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02671).
- 02:17:50** GM Cook (ORT) leaves the building via the main entrance (Source: CCTV: Camera 4).
- 02:17:54** Hotel 351, Tooting's PL, respond to Brigade Control's radio message  
"Go ahead. Over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02672).
- 02:17:57** Brigade Control confirm with Hotel 351, Tooting's PL, that they have received the new RVP  
"Yeah, did you hear the RVP was Bramley Road, uh, enter via Holland Park Road. Over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02673).
- 02:17:57** CM Gallagher from BA team Seven returns to the bridgehead and closes down his BA set. (Source: BA Data: GTIRT17-01627).
- 02:18\*** *BA Team 19: Firefighter Desforges and Firefighter R Mitchell are in the stairwell. Firefighter Desforges believes he is between the 10<sup>th</sup> and 14<sup>th</sup> floors and Firefighter R Mitchell believes he could be on the 13<sup>th</sup> or 14<sup>th</sup> floor. Firefighter Desforges decide to have a look into one of the floor lobbies. Firefighter Desforges feels the door from the stairs to the lobby and describes it as red hot. Firefighter Desforges opens the door and hot black smoke pours out, it is so hot that it starts to melt his fire helmet (Source: MPS Witness Statement: GTIRT17-02932, GTIRT18-00652).*
- 02:18** BA Team 20: Firefighter J Wright, Firefighter Alassad and Firefighter Bell, are ascending the stairs towards the 23<sup>rd</sup> floor. At around the 12<sup>th</sup> floor Firefighter Alassad and Firefighter J Wright state they notice a rise in temperature and conditions worsen. Firefighter Bell is at the rear of the team and overhears a BA Team below shout 'door procedure'. The conditions worsen as the temperature is increasing. Firefighter J Wright and Firefighter Alassad decide to retreat down the stairs to a lower floor due to the conditions. They encounter a firefighter on the 10<sup>th</sup> floor (Source: MPS Witness Statement: GTIRT18-02054, GTIRT18-00042).
- 02:18** BA Team 16: Firefighter Roots and Firefighter A Johnson, are on the 19<sup>th</sup> floor. They locate flat 161 and force the door with an Enforcer which they state takes multiple attempts. Once inside they search the flat using a TIC. The flat is on fire but not fully alight. They do not have any water but continue to search the flat however no one is located. (It is now known that the occupants of

## OFFICIAL

flat 161 on the night were Deborah Lamprell and Gary Maunders. Miss Lamprell was found deceased in flat 201 and Mr Maunders was found deceased in flat 203, both on the 23<sup>rd</sup> floor) (Source: MPS Witness Statement: GTIRT18-01842, GTIRT18-00935 DVI Presentation: GTIRT18-01470).

**02:18:01** Alpha 306, Islington's FRU book status 2, mobile to Grenfell Tower. Alpha 306 is riding with four firefighters: CM Melchizedek Anderson, Firefighter Dean Abbess, Firefighter Paul Howard and Firefighter Parvinder Singh (Source: ORF Register: GTIRT17-02567, 'Vision': GTIRT17-02791).

**02:18:02** BA Team 13: CM Wigley, Firefighter D Roberts, Firefighter Gillam, Firefighter Gonzalez and Firefighter A Harris, are descending the stairs at this time with a casualty (*believed to be Fadumo Ahmed*). The BA Data indicates all five BA wearers are at their highest breathing rate indicating they are working extremely hard (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00069, GTIRT18-00414).

**02:18:03** Hotel 351, Tooting's PL, confirm they have received the new RVP

"Hotel 351 received. Over"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02674).

**02:18:05** Mariko Toyoshima-Lewis is removed from the LAS casualty area outside Kensington leisure centre by a unidentified Police officer and wheeled towards Bormore road (Source: CCTV OPS1 Kensington leisure centre).

**02:18:06** CRO Howson at Brigade Control takes a call from a female caller on the 22<sup>nd</sup> floor in flat 192. The caller first speaks to the Brigade at **01:34:50** (GTIRT17-00513). She says there are five of them, two adults and three children and reports that there is a fire in the kitchen. CRO Howson states that if they need to move to get away from the fire then they should and the caller asks if CRO Howson has the landline number for flat 191 to which she replies that she does not. She tells the caller they need to make their way to somewhere safe if the fire is in the flat and then goes on to say they should make their way to the stairwell or somewhere where the smoke is less heavy. She says they should cover themselves with towels and move to a safe place but tells them to keep the mobile phone with them and asks if they would like her to stay on the phone. The caller becomes difficult to hear but banging and screaming are audible and CRO Howson repeatedly asks if they have left the flat and if the caller has all of the children with her. She tries to get the answer several times and the caller confirms that she is still in the flat. The caller asks when is the Brigade coming and CRO Howson explains that the crews are making their way up to them. CRO Howson ends the call because she says she needs to take other calls. The caller says okay. Incident Number 76176 Call Duration six minutes 39 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00618).

## OFFICIAL

- 02:18:07** Golf 306, Wembley's FRU book status 2, mobile to Grenfell Tower. Golf 306 is riding with four firefighters: CM Paul Charity, Firefighter Paul Harris, Firefighter Nicky Sanders and Firefighter Leslie Tucker (Source: ORF Register: GTIRT17-02567, 'Vision': GTIRT17-02791).
- 02:18:11** Hotel 242, Brixton's Pump, send Brigade Control a radio message confirming they are Status 2 on radio channel 4 (Radio channel 4 is the radio channel that is used for incidents on the North side of the river Thames. Channel 2 is for the South side of London).
- "Hotel 242 now Status 2 on this channel. Over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02675).
- 02:18:19** BA Team 10: Firefighter D Murphy and Firefighter Cornelius, are descending the stairs. Firefighter D Murphy's LPWA actuates at this point, indicating he has 84 bar left and he should already be back at the bridgehead if complying with Brigade policy (Source: BA Data: GTIRT17-02820).
- 02:18:20** Echo 351, Old Kent Road's PL send Brigade Control a radio message confirming they are Status 2 on radio channel 4
- "FN, Echo 351 now Status 2 on this channel. Over"
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02676).
- 02:18:32** CM Stern carries Chloe Laci (flat 65, 9<sup>th</sup> floor) down the stairs into the main lobby and out of the building via the main entrance (Source: CCTV: Cameras 2 and 4).
- 02:18:32** Brigade Control send Alpha 281, Dowgate's PL, a radio message to go ahead with their message, but get no response. This is because Alpha 281 have pressed the number seven on their MDT which requests that Brigade Control contact them via the main scheme radio
- "Alpha 281 go ahead. Over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02677).
- 02:18:39** Brigade Control send Alpha 281 a second radio message, but still get no response
- "Alpha 281 from M2FN, go ahead. Over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02678).
- 02:18:47** CRO Fox at Brigade Control takes a call from Kent FRS who asks for the reference number of the incident. CRO Fox also asks if they have any further details of callers and reminds the Kent CRO that if they take any calls then they should take flat and floor numbers and pass to London so that the information can be passed on to the Command Unit. Incident Number 76168 Call Duration 52 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00610, GTIRT17-01534 ).

## OFFICIAL

- 02:18:47** Brigade Control send Echo 341, Dockhead's PL, a radio message, but get no response. This is because Echo 341 have pressed the number seven on their MDT which requests that Brigade Control contact them via the main scheme radio
- "Echo 341, go ahead. Over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02679).
- 02:18:54** Brigade Control send Echo 341, Dockhead's PL, a second radio message, but get no response
- "Echo 341 from M2FN, go ahead. Over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02680).
- 02:18:55** CRO Adams at Brigade Control takes a call from Essex FRS who pass the details of a caller in flat 82 on the 11<sup>th</sup> floor and that her name is Natasha Elcock. This call information is originally taken by Essex FRS at **02:13:12** (GTIRT17-00598). CRO Adams asks if there is just one adult but the Essex CRO is unsure. CRO Adams then asks about conditions like smoke in her flat and the Essex CRO says that the caller seems okay. The Essex CRO then reports a further call from the 22<sup>nd</sup> floor but does not have the flat number. The caller has reported that it has started to get smoky. The Essex CRO then states that they are telling people to stay put and checks that this is correct which CRO Adams confirms. Incident Number 76170, Call Duration one minute 16 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00612).
- 02:19** BA Team 19: Firefighter Desforges and Firefighter R Mitchell are in a lobby (between 10<sup>th</sup> and 14<sup>th</sup> floor) and they have no firefighting media. Firefighter R Mitchell holds the door open and Firefighter Desforges crawls into the lift lobby on his stomach. Firefighter Desforges starts to feel around the lobby floor and finds a cat and hands it to Firefighter R Mitchell. He then hands it to another BA Team (now known to be Firefighter Bell from BA team 20) (Source: MPS Witness Statement: GTIRT17-02932, GTIRT18-00652, GTIRT18-02061).
- 02:19** BA Team 14: CM Eden and Firefighter Welch start to descend from the 20<sup>th</sup> floor. CM Eden's LPWA actuates indicating he has 84 bar left and he should already be back at the bridgehead if complying with Brigade policy (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00309, GTIRT18-00099).
- 02:19:04** Brigade Control send Echo 341, Dockhead's PL a third radio message
- "Echo 341, go ahead. Over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02681).
- 02:19:08** Echo 341, Dockhead's PL send Brigade Control a radio message confirming they are Status 2 on radio channel 4



## OFFICIAL

"Echo 341, switching to channel 4. Over"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02682).

**02:19:19** Brigade Control send Hotel 241, Brixton's PL a radio message

"Hotel 241 go ahead. Over"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02683).

**02:19:22** Hotel 241 send Brigade Control a radio message confirming they are Status 2 on Channel 4

"FN from Hotel 241, Hotel 241 now Status 2 on this channel."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02684).

**02:19:27** Brigade Control send Alpha 381, Mill Hill's PL a radio message

"Received. Alpha 381 go ahead. Over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02685).

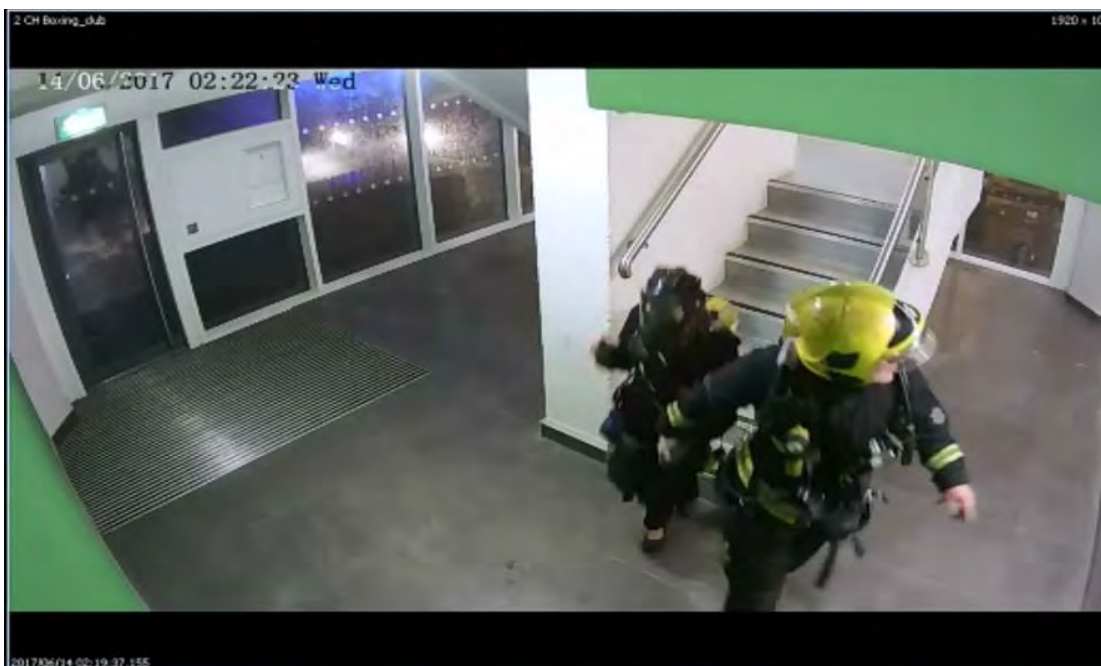
**02:19:36** Brigade Control correct this message and confirm it is Alpha 281, Dowgate's PL they are trying to send the radio message to

"As you were, Alpha 281 from M2FN, go ahead, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02686).

## OFFICIAL

**02:19:37** Sharon Laci (flat 65, ninth floor) wearing a SDBA set is escorted down the stairs by a firefighter Benjamin Felton, as shown in the image below. A large quantity of debris is falling outside the East elevation (Source: CCTV: Camera 2).



Camera 2 02:19:37

**02:19:39** Alpha 281, send a radio message to Brigade Control confirming if they need to be Status 6 (available for incidents, returning to base station) or are they required to attend the 40 pump fire at Grenfell Tower

"FN from Alpha 281, Alpha 281 was mobilised to smoke issuing from scene of 40 pump fire. Is now Status 6. Do you wish to attach us? Over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02687).

**02:19:40** BA Team 18: CM Yeoman, Firefighter A Nelson, Firefighter Stavely and Firefighter J Saunders make the decision to withdraw from the ninth floor and return to bridgehead, this is due to the extreme heat (Source: MPS Witness Statement: GTIRT18-02356, GTIRT17-02924).

## OFFICIAL

**02:19:41** A large piece of burning debris lands outside the East elevation exit door, as shown in the image below. The TL has been withdrawn from its original position because of the increase in falling debris and its headlights are still visible to the right of the flames (Source: CCTV: Camera 2).



Camera 2 ... Adjusted Time Approx 02:19:41:625

**02:19:44** Sharon Laci (flat 65, ninth floor) wearing SDBA is escorted into the main lobby by a unidentified firefighter (Source: CCTV: Camera 4).

**02:19:48** Golf 302, Wembley's Pump book status 2, mobile to Grenfell Tower. Golf 302 is riding with four firefighters: CM Jason Hunter, Firefighter Lawrence Pitt, Firefighter Colin Dowdall and Firefighter Mark Beer (Source: ORF Register: GTIRT17-02567).

## OFFICIAL

**02:19:52** Sharon Laci (flat 65, ninth floor) wearing a SDBA set is stood in the main lobby with a unidentified firefighter and WM Williams places his fire helmet (white helmet) on her head to protect her from falling debris. She then leaves with a firefighter, as shown in the image below (Source: CCTV: Camera 4).



Camera 4 02:19:52

- 02:19:54** BA Team 10: Firefighter Cornelius and Firefighter D Murphy, return to the bridgehead and ECO and retrieve their BA tallies and close down their BA sets (Source: BA Data: GTIRT17-02820).
- 02:20\*** *Firefighter Desforges from BA Team 19 then attempts to search the lift lobby whilst on his stomach. He proceeds to the left hand side and locates a casualty. He states that he could not tell if the unconscious casualty was male or female due to the smoke. He drags the casualty to the doorway where Firefighter R Mitchell is located and Firefighter Desforges states that it is a male casualty. Firefighter R Mitchell states the casualty is female (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT17-02932, GTIRT18-00652).*
- 02:20\*** *Firefighter Bell from BA Team 20 puts the cat he is handed down in the stairwell and hears a shout of "Casualty" (indicating a firefighter, now known to be Firefighter Desforges, BA Team 19 has located a casualty). Firefighter Bell then crawls into the lift lobby to assist. He simultaneously tries to radio the ECO from his BARIE radio (Source: MPS Witness Statement: GTIRT18-02061).*
- 02:20** BA Team 16: Firefighter Roots and Firefighter A Johnson, leave their breaking in gear in the lift lobby and return to flat 165, 19<sup>th</sup> floor having been to flat 161. They enter the flat. They assist a male and a female out of the flat. It is unclear in which order the male and female come out of the flat. On exiting the flat the female stumbles immediately and Firefighter A Johnson helps her up. Firefighter Roots is with the male and is behind Firefighter A Johnson who is leading them to the stairwell. He finds the exit door on the left and proceeds into the stairwell where the smoke is

## OFFICIAL

black and thick (Source: MPS Witness Statement: GTIRT18-01842, GTIRT18-00935, BSR Witness Statement: IWS00000064).

- 02:20\*** BA Team 17: Firefighter Cook and Firefighter Flanagan, believe they are still on the 20<sup>th</sup> floor. They make the decision to go to the floor below and reassure residents that the fire brigade were dealing with the fire and that they should stay in their flats (Source: MPS Witness Statement: GTIRT17-01958).
- 02:20:02** CM Batterbee exits the building via the main entrance. It is believed he is going to the CU with and for further FSG information (Source: CCTV: Camera 4).
- 02:20:03** SM Cook enters the building via the main entrance (Source: CCTV: Camera 4).
- 02:20:08** CRO Gotts at Brigade Control takes a call from a female caller who reports that she can see a whole block on fire but the caller doesn't know the address or the name of the tower. CRO Gotts suggests Grenfell Tower and asks if it is near Latimer Road station. The caller thinks that is the one and CRO Gotts confirms that the Brigade is in attendance. Incident Number 76171, Call Duration one minute 23 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00613).
- 02:20:09** Alpha 236, Euston's FRU book status 2, mobile to Grenfell Tower. Alpha 236 is riding with four firefighters: CM Charlie Rawlings, Firefighter Andrew Brooks, Firefighter John Joseph and Firefighter James Morcos (Source: ORF Register: GTIRT17-02567, 'Vision': GTIRT17-02791).
- 02:20:09** CRO Fox at Brigade Control takes a call from a female caller reporting a fire near Latimer Road station. CRO Fox tries to confirm that this is Grenfell Tower and reassures her that the Brigade is there. Incident Number 76169, Call Duration 34 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00611).
- 02:20:22** Golf 382, Heston's Pump send a radio message to Brigade Control
- "FN Golf 382 can you confirm if we have been booked on to the 40 pump fire. Uh, we are unable to book Status 25 at Chiswick Golf 382. Over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02688).
- 02:20:34** CU3, Barking's CU book status 2, mobile to Grenfell Tower. CU3 is riding with two WMs, WM Dean Dillard and WM Gary Johnston (Source: ORF Register: GTIRT17-02567, 'Vision': GTIRT17-02791).
- 02:20:42** BA Team 23: Firefighter O'Donoghue and Firefighter Daoud report to the bridgehead. They start breathing under air and remove their BA tallies. They are briefed by WM Watson to proceed to flat 95, 12<sup>th</sup> floor for a FSG (The occupants are now known to be Ray Smith, Kristina Smith, Georgina Smith and Katarzyna Dabrowska). The first FSG call from flat 95 was received at **01:26:58** and passed to G271, North Kensington's PL, at **01:40:50**. At **01:43:13** CU8 asked to

## OFFICIAL

receive FSG info for G271, North Kensington's PL, (Source: MPS Witness Statement: GTIRT18-00046, GTIRT18-00393).

- 02:21\*** BA Team 14: CM Eden and Firefighter Welch are making their way down the stairs with a casualty. The casualty is making gurgling noises and becomes unconscious. The casualty falls onto CM Eden causing him to also fall over. CM Eden gets up and helps Firefighter Welch carry the casualty (Source: MPS Witness Statement: GTIRT18-00099).
- 02:21** BA Team 16: Firefighter Roots and Firefighter A Johnson are making slow progress down the stairs. They reach the first half landing and Firefighter A Johnson is getting no response from the female and she falls over several times. Firefighter Roots is still behind Firefighter A Johnson with the male. They get down one more floor and the lady's arm becomes stuck in the stair rails. At this point Firefighter A Johnson pulls her arm free and then has to turn around and lead the female to bring her down (Source: MPS Witness Statement: GTIRT18-00935, GTIRT18-01842, BSR Witness Statement: IWS00000064).
- 02:21** BA Team 15: Firefighter Fernandes and Firefighter Williams are descending the stairs. They believe they are at the ninth or 10<sup>th</sup> floor. Firefighter Williams hands the child to Firefighter Fernandes. They recall bumping into another BA Team who are struggling with an unconscious adult casualty. They continue to carry the child out (Source: MPS Witness Statement: GTIRT18-00041, GTIRT18-01105).
- 02:21** Firefighter Bell and Firefighter J Wright from BA Team 20 are carrying an adult male down the stairs. Firefighter Bell states, "our casualty was unconscious. He was a black male, and he had a Chinese symbol tattoo on his chest, small, couple of inches, that I noticed as his t-shirt kept riding up. In the end we just took it off. I don't recall any other descriptive details of the male" (Source: MPS Witness Statement: GTIRT18-02061, GTIRT18-00042).
- 02:21:00** CM Batterbee enters the building via the main entrance and hands WM Williams sheets of paper. The pieces of paper appear to be the F6178 which is the Control Information Form carried on all fire engines (Source: CCTV: Camera 4).
- 02:21:00** Alpha 401, Hendon's PL book status 3 in attendance, at Grenfell tower. This is the 28<sup>th</sup> fire engine in attendance (Source: 'Vision': GTIRT17-02791).
- 02:21:00** Foxtrot 241, Shoreditch's PL book status 3 in attendance, at Grenfell tower. This is the 29<sup>th</sup> fire engine in attendance (Source: 'Vision': GTIRT17-02791).
- 02:21\*** BA Team 23: Firefighter Daoud and Firefighter O'Donoghue are ascending the stairs. They state the stairs are busy with firefighters and people coming out. *Firefighter Daoud states he sees some children wearing firefighters BA masks* (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00393, GTIRT18-00046).

**OFFICIAL**

**02:21:03** Brigade Control send Golf 382, Heston's Pump, confirmation that they are to attend the 40 pump fire.

"Yeah, Golf 382 you are attached to the 40 pump fire. Um, proceed to Grenfell Tower. Over."

(Source: Radio Message and Transcript: GTIRT17-02689).

**02:21:03** PDA mobilised as per request for make FRUs 10: Golf 386, Heston's FRU; Foxtrot 266, Millwall's FRU; Hotel 346, Wimbledon's FRU and Echo 216, Lewisham's FRU (Source: 'Vision': GTIRT17-02791).

<b>Attendance for 'Make Fire Rescue Units Ten.</b>	<b>Operational Response to the incident</b>
<ul style="list-style-type: none"><li>• 10 x FRUs</li></ul>	<ul style="list-style-type: none"><li>• Alpha 216, Paddington's FRU</li><li>• Golf 346, Chelsea's FRU</li><li>• Alpha 236, Euston's FRU</li><li>• Hotel 276, Battersea's FRU</li><li>• Golf 306, Wembley's FRU</li><li>• Alpha 306, Islington's FRU</li><li>• Golf 386, Heston's FRU</li><li>• Foxtrot 266, Millwall's FRU</li><li>• Hotel 346, Wimbledon's FRU</li><li>• Echo 216, Lewisham's FRU</li></ul>

**02:21:04** CRO Fox takes a call from a male caller who states that he is still on the 21<sup>st</sup> floor of Grenfell Tower in flat 183. The caller states that they cannot get out and explains that there is him, his wife, three children and his neighbour in the flat. The caller states that his wife is seven months pregnant. CRO Fox explains that they are passing information to CUs so that they can come and get them and asks if the caller has put towels down to stop the smoke coming in. The caller confirms he has done. Incident Number 76172 Call Duration one minute 28 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00614).

**02:21:12** Golf 382, Heston's Pump, acknowledges receipt.

"FN Golf 382, all that received, now Status 6, Golf 382. Over".

((Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02690 ).

**02:21:20** Brigade Control send informative message to Golf 382, Heston's Pump.

"That's Status 2 do you mean to the 40 pump fire? Over".

## OFFICIAL

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02691).

- 02:21:22** CRO Adams takes a call at Brigade Control from the LAS Control Room stating that they have had a call from someone inside the building. The flat number is given as flat 102 and it is on the 23<sup>rd</sup> floor. The Ambulance CRO says the message from the residents is that they are still alive but the caller is very distressed and angry. The Ambulance CRO goes on to state that they have had reports of people jumping out of windows. The Ambulance CRO then passes on a query from St Marys Hospital who are enquiring about the fire at "Grenfell Park". Incident Number 76173 Call Duration one minute 39 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00615).
- 02:21:26** Golf 382, Heston's Pump book status 2, mobile to Grenfell Tower. Golf 382 is riding with four firefighters: CM Paul Marks, Firefighter Steven Duncan, Firefighter Russell Hall and Firefighter Daniel Knapman (Source: ORF Register: GTIRT17-02567,'Vision': GTIRT17-02791).
- 02:21:32** CRO Gotts takes a call from a female caller who reports being stuck on the 23<sup>rd</sup> floor in flat 203 and reports that the flat next door is now on fire. CRO Gotts asks if the caller can get out of the flat and reiterates the need to block the doors and stay away from the side of the flat that is on fire. The caller states that the Brigade need to get them out now and CRO Gotts explains that the Brigade are on the lower floors on their way up. The caller asks why isn't there a helicopter to get them out and CRO Gotts explains that there is a helicopter but just so that the Brigade can see it from the air. CRO Gotts summarises the call by repeating the address as 22<sup>nd</sup> floor, flat 192. Incident Number 143546 Call Duration three minutes 19 secs (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01731).
- 02:21:38** CM Batterbee exits the main lobby into the stair lobby and ascends the stairs (Source: CCTV: Cameras 2 and 4).
- 02:21:41** Sharon Laci (flat 65, ninth floor) wearing a SDBA set is escorted passed Kensington leisure centre by a unidentified Firefighter heading towards Bormore Road (Source: CCTV Camera OPS1 Kensington leisure centre).
- 02:21:43** Firefighter Bettinson from BA Team Seven descends the stairs into the stair lobby and exits into the main lobby (Source: CCTV: Camera 2).
- 02:21:47** CM Gallagher from BA Team Seven descends the stairs into the stair lobby and exits into the main lobby (Source: CCTV: Camera 2).
- 02:21:50** Brigade Control send Alpha 281, Dowgate's PL a radio message.
- "Yeah, Alpha 281, we're showing you as Status 6, um, just, sort of, go home for the minute, um, and I'll, uh, we're so busy. The officers of the watch are so busy tied up, we're taking lots of fire survival calls. o you're not attached at the moment, but I will tell him you're available. Over".



## OFFICIAL

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02693).

- 02:21:59** CM Stern enters the building via the main entrance (Source: CCTV: Camera 4).
- 02:22** Rebin Sabir is rescued from flat 23, fifth floor via a 135 ladder from the South elevation (Source: Contemporaneous Notes: GTIRT18-00043, GTIRT17-00050).
- 02:22:05** CM Tillotson from BA Team Seven descends the stairs wearing a BA set and carrying one BA set. The set he is wearing has the facemask removed and the set he is carrying has a facemask attached, and exits into the main lobby (Source: CCTV: Camera 2).
- 02:22:09** BA Team 13: CM Wigley, Firefighter D Roberts, Firefighter Gillam, Firefighter Gonzalez and Firefighter A Harris, carry a casualty down the stairs, swapping positions as they descend. The casualties condition deteriorates and the BA Team attempt to give the casualty air from their BA facemasks. This is based on BA Data which shows that at this time the team have their highest breathing rates (Source: BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT17-02820, GTIRT18-00069, GTIRT18-01067, GTIRT18-01835).
- 02:22:10** Alpha 281, Dowgate's PL confirm receipt of the last radio message.  
"M2FN from Alpha 281, all received, over".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02694).
- 02:22:16** BA Team 21: Firefighter Malik and Firefighter D Hill, believe they reach the eighth or ninth floor, they make contact with another BA Team withdrawing with a casualty shouting for help. Firefighter D Hill tells Firefighter Malik that he wants to carry on with their brief but Firefighter Malik states he wants to help the other BA Team with their casualty. Firefighter Malik decides to help with the casualty and Firefighter D Hill states he continues to the 12<sup>th</sup> floor with a view of meeting BA Team 22: CM Batcheldor and Firefighter N Saunders to make up a BA team of three (Source: MPS Witness Statement: GTIRT18-00070, GTIRT18-00426).
- 02:22:17** Hotel 345, Wimbledon's ALP book status 2, mobile to the incident. Hotel 345 is riding with two firefighters, CM Grant Evans and Firefighter Paul Medina (Source: 'Vision': GTIRT17-02791, ORF Register: GTIRT17-02567).
- 02:22:17** Oscar Foxtrot 59, SM Andrew Williams books Status 2. Mobile to Brigade Control. (Source: 'Vision': GTIRT17-02791).
- 02:22:25** Fadumo Ahmed (flat 164, 19<sup>th</sup> floor) is brought onto the mezzanine floor by a GM and laid on the ground. Several firefighters and a WM perform CPR (Source: CCTV: Camera 1, Boxing Club).
- 02:22:28** Oscar Kilo 15, WM Reed and WM Girling book status 3, in attendance, at Grenfell tower. This is the second FIU in attendance.

## OFFICIAL

"M2FN from Oscar Kilo 15 now Status 3, over".

(Source: 'Vision': GTIRT17-02791, Radio Message and Transcript: GTIRT17-02695).

**02:22:38** CM Stern exits the building via the main entrance (Source: CCTV: Camera 4).

**02:22:39** BA Team 12: Firefighter Lawson and Firefighter K Foster are descending to the bridgehead. They believe they are between the fourth or fifth floor, they hear children screaming from above them. They stop, turn around and start to climb to reach where the screaming is coming from. By the time they reach the sixth or seventh floors the screaming stops and they start to descend to the bridgehead again (Source: MPS Witness Statement: GTIRT18-00927, GTIRT18-00068).

**02:22:50** CU5, Woodside's CU book status 2, mobile to Grenfell Tower. CU5 is riding with two WMs, WM Russell Lewry and WM Mark Templeman (Source: 'Vision': GTIRT17-02791).

**02:22:54** CU7 send informative message to the Radio Operator at Brigade Control.

"FN from Charlie Uniform 7, uh, can you run all FSG through scor..., uh, through us now please, Charlie Uniform 7".

The Radio Operator at Brigade Control acknowledges receipt of message:

"Charlie Uniform 7, all received"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02696).

**02:22:58** Echo 216, Lewisham's FRU book status 2, mobile to Grenfell Tower. Echo 216 is riding with four firefighters: CM Ian Barritt, Firefighter David De Costa, Firefighter Robbie Gentry and Firefighter Donovan Reid (Source: 'Vision': GTIRT17-02791).

**02:23\*** *BA Team 17: Firefighter Cook and Firefighter Flanagan are descending the stairs they state they reach the 17<sup>th</sup> or 16<sup>th</sup> floor and enter the lobby. There is no smoke visible in the lobby. Firefighter Cook and Firefighter Flanagan then knock on some flat doors. Only one was answered (in a statement they claim it was flat 113 or 133) they described the occupants as a black male, two black women one wearing a fuchsia dressing gown, the other female being described as having a large build, two children asleep on the bed and two young Middle Eastern men. BA Team 17 decide it would be better for the residents to stay in their flat due to the conditions in the stairwell. Firefighter Flanagan gives them advice on how to stay safe, he tells them to put towels around the door frames, and to hang something from the window so their flat could be seen from the outside" (Source: MPS Witness Statements GTIRT17-01958 and BSR Witness Statement IWS00000523).*

Rationale as to why it is believed this is flat 113, 14 <sup>th</sup> floor. CCTV shows Rosemary Oyewole and Keziah Talabi leave the building at 02:46:39. Rosemary Oyewole is wearing a fuchsia coloured dressing gown. She is the registered resident of flat 113, 14 <sup>th</sup> floor. It is also known that the
--

persons that Firefighter Cook and Firefighter Flanagan describe are in flat 113, the only person they do not mention is Denis Murphy.

- 02:23\*** *Firefighter D Hill from BA Team 21 goes up to the 10<sup>th</sup> floor to meet up with BA Team 22, he was assisting them to get water to work and trying to find hose. Firefighter D Hill stayed on the floor below and BA Team 22 went up. Firefighter D Hill found a charged firefighting branch inside a doorway and he shouted to see if another crew was using it but couldn't hear anything, but did hear a beeping sound, he realised that this was a smoke alarm, he tugged the hose but it wasn't giving way. Firefighter D Hill came back out. Firefighter D Hill had lost contact with BA Team 22 he could hear voices above so went up to the next floor but they were not there, he did hear a female Firefighters voice on the floor above, he continued up but no one was there (Source: MPS Witness Statement: GTIRT18-00426).*
- 02:23** BA Team 14: CM Eden and Firefighter Welch are descending the stairs carrying the casualty. Firefighter Welch believes they are still around the 19<sup>th</sup> floor when he falls down a few steps. He gets back up and continues to carry the casualty. Shortly after this at **02:23:02** Firefighter Welch's LPWA actuates indicating he has 84 bar left and he should already be back at the bridgehead, if complying with Brigade policy. CM Eden states that at this point he takes a gauge check to see how much air they have left he notes that he has 50 bar (**02:23\***) and Firefighter Welch has 70 bar (**02:23\***). Both firefighters have a quick discussion and although they are both low on air they agree to continue with trying to get the casualty out (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00099, GTIRT18-00309).
- 02:23\*** *Firefighter K Foster from BA Team 12 believes she is on the fifth floor and notices other Firefighters passing down a female casualty. Firefighter K Foster describes her as wearing a burka and her face was covered by a cloth (Source: BA Data: GTIRT17-02820, MPS Witness Statement, GTIRT18-00927).*
- 02:23:00** SM Oliff (OOD) at Brigade Control makes a call to CU8 that lasts for two minutes and 40 seconds. There is no record available of the contents of the discussion (Source: Mobile Phone Call Log: GTIRT18-03467).
- 02:23:00** SM Myatt enters the building via the main entrance (Source: CCTV: Camera 4).
- 02:23:12** BA Team 13: CM Wigley, Firefighter D Roberts, Firefighter Gillam, Firefighter Gonzalez and Firefighter A Harris, return to bridgehead and close down their BA sets (Source: BA Data: GTIRT17-02820, CCTV: Camera 2).
- 02:23:14** WM Dowden runs through the main lobby and exits through the main door (Source: CCTV: Camera 4).

## OFFICIAL

**02:23:22** Brigade Control receive another 999 call in relation to Grenfell Tower. CRO Gotts takes the call. The caller is from the LAS, informing the LFB that they declared this as a significant incident.

Incident Number 76175 Call Duration 25 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01750).

The term 'Significant Incident' is used within the LAS and is not used by the LFB or MPS. LAS define a 'significant incident' as any incident which from initial intelligence will require an attendance of a number of resources along with a management presence or will require a specialist or dedicated response (Source: LAS Deputy Director of Operations: GTIRT18-03474).

**02:23:30** CRO Adams at Brigade Control takes this call which is from the MPS Control Room passing a CAD message that is from a caller on the 23<sup>rd</sup> floor. The caller says that there are persons trapped on the 23<sup>rd</sup> floor. The MPS do not have a flat number as the caller cuts off before they can get any more information. Incident Number 76174 Call Duration 42 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00616).

**02:23:37** Foxtrot 266, Bethnal Green's FRU book status 2, mobile to Grenfell Tower. Foxtrot 266 is riding with four firefighters: CM Sean Murphy, Firefighter Craig Edwards, Firefighter Ian Moore, and Firefighter Anthony Welden (Source: 'Vision': GTIRT17-02791).

**02:23:43** Alpha 301, Islington's PL, requests information from Brigade Control.

"FN, Alpha 301 we are now Status 6 around the corner from the 40 pump fire, do you require us to attend or do you require us to return to the station? Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02697).

**02:23:51** WM Dowden runs into the building followed by CM Stern. WM Dowden heads towards the stairs (Source: CCTV: Camera 4).

**02:23:54** Foxtrot 87, GM Mark Hazelton the Duty National Inter-Agency Liaison Officer (NILO) is paged to inform him of the incident at Grenfell Tower (Source: 'Vision': GTIRT17-02791).

**02:24** Firefighter Desforges from from BA Team 19 crawls back into the lobby and discovers another casualty on the left hand side. He drags the casualty to the stairwell and leaves the casualty with Firefighter R Mitchell and Firefighter Alassad. Firefighter Desforges enters the lobby for the third time and attempts to search the left hand side, he is concerned that there might be children in there. He returns to the stairwell and talks to Firefighter R Mitchell. Firefighter R Mitchell decides to make a quick search on the right hand side as he has some air left. Firefighter R Mitchell

## OFFICIAL

returns to the stairwell with no additional casualties. The three of them start to carry the casualty down the stairs (Source: MPS Witness Statement: GTIRT17-02932, GTIRT18-00652).

**02:24\*** BA Team 22: CM Batcheldor and Firefighter N Saunders, are ascending the stairs. Firefighter N Saunders states he was informed that the bridgehead would be moved, he believes it was to the ground floor (it is now known that at this time the bridgehead had actually been moved up to the third floor) (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00071).

**02:24** BA Team 15: Firefighter Fernandes and Firefighter Williams, are descending the stairs. Firefighter Williams passes the child he is carrying (now known to be Tamzin Belkadi) to Firefighter Fernandes (possibly on floor nine or 10). However it is believed that the firefighter was actually Firefighter J Saunders from BA Team 18. Due to the congestion on the stairs, Firefighter Williams takes the girl back from the firefighter. As they continue to descend the light starts to improve and Firefighter Williams can see the girl is bubbling at the mouth, unconscious and non responsive. Firefighter J Saunders states he is carrying the casualty with another firefighter. When they get to the bridgehead they hand the child to WM Ashe who removes her from the building (Source: BA Data: GITRT17-02820, MPS Witness Statement: GTIRT18-01105, GTIRT18-00041, GTIRT18-00071).

**02:24** BA Team 16: Firefighter Roots and Firefighter A Johnson, reach what they believe is the half landing on the 18<sup>th</sup> or 17<sup>th</sup> floor and find what they believe is another casualty. Firefighter A Johnson tells Firefighter Roots to continue down past him with the male and women while he feels for the other casualty. Firefighter Roots believes that the casualty is actually the female they are bringing down who has fallen past Firefighter A Johnson. Firefighter Roots makes his way past Firefighter A Johnson and continues down. Firefighter Roots has the male by the shoulders and is guiding him down. Firefighter A Johnson picks up the casualty (which is the female from flat 165) and starts to carry her down the stairs backwards. Firefighter A Johnson has now lost contact with Firefighter Roots (Source: MPS Witness Statement: GTIRT18-01842, GTIRT18-00935, BSR Witness Statement: IWS00000064).

**02:24** BA Team 13: CM Wigley, Firefighter A Harris, Firefighter Gillam, Firefighter Gonzalez and Firefighter D Roberts arrive at the mezzanine level bridgehead carrying a casualty (*believed to be Fadumo Ahmed*), they lay her down and commence CPR. BA Team 13 use their BA face masks on the casualties face to give her some air and they continue with CPR. *A short while later the casualty starts to breathe again* (Source: BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT18-01067, GTIRT17-02917, GTIRT18-00069, GTIRT18-01835, GTIRT18-00414).

**02:24:01** Brigade Control send an informative radio message to Alpha 301.

"Alpha 301, uh, 301 we have got you Status 6 just proceed back to the station for the moment. Over".

## OFFICIAL

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02698).

**02:24:01** The LPWA on Firefighter J Wrights BA set starts to actuate (BA Team 20) indicating that Firefighter J Wright has 84 bar left and should be back at the bridgehead by this time if complying with Brigade policy (Source: BA Data: GTIRT17-02820).

**02:24:04** CBA group are paged, this is the CBRN Tactical Advisors group (Source: 'Vision': GTIRT17-02791).

**02:24:07** Golf 302, Wembley's Pump book Status 3, in attendance. This is the 30<sup>th</sup> fire engine in attendance (Source: 'Vision': GTIRT17-02791).

**02:24:08** The call between Brigade Control and Jessica Urbano Ramirez ends after 55 mins (Source: 999 Audio File and Transcript: GTIRT17-00570).

**02:24:09** Alpha 301, Islington's PL, confirm receipt of the radio message from Brigade Control to return to Islington Fire Station.

"FN, Alpha 301 all received, many thanks, Alpha 301, over"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02699).

**02:24:18** Golf 381, Heston's PL book status 3, in attendance, at Grenfell tower. This is the 31<sup>st</sup> fire engine in attendance (Source: 'Vision': GTIRT17-02791).

**02:24:19** CRO Fox takes a call at Brigade Control from a female who reports a fire in Grenfell Tower and states that she is on the 12<sup>th</sup> floor in flat 94. CRO Fox asks how many people there are and the caller confirms that there are two adults and pleads for someone to come and save them. CRO Fox gives guidance on how to stop the smoke coming in the flat. She tells the caller to put towels at the bottom of the door. CRO Fox confirms that she will pass the caller's information over to the CU. Incident Number 76178 Call Duration one minute six seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00620).

**02:24:24** BA Team 24: CM R Evans and Firefighter Bloxham report to the mezzanine level. CM R Evans states that before they leave the mezzanine they are shown a drawing on the wall of the layout of the floors. They are then told to go to the bridgehead on the second floor. They are briefed by a WM to proceed to flat 75 for a FSG. They are then told to wait while the bridgehead is moved up to the third floor. Once this is done BA Team 24 are re-tasked and told to go to flat 205, 23<sup>rd</sup> floor to multiple people. CM R Evans repeats the brief back to the ECO and then informs Firefighter Bloxham. They then both start breathing under air and remove their BA tallies (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01038, GTIRT18-00926).

**OFFICIAL**

It is now known that Flat 205 belonged to the Neda family. The first FSG from this flat was received at **01:38:16**, it was then relayed to CU8 at **01:40:50** stating there were seven individuals in flat 205, 23<sup>rd</sup> floor, some of whom had moved up from the 22<sup>nd</sup> floor because their kitchen was alight. It is believed that Mariem Elgwahry and Eslah Elgwahry were the two referred to in the call as they were from flat 196, 22<sup>nd</sup> floor. They were also found deceased in flat 205, 23<sup>rd</sup> floor. A further call was received from flat 205 at **01:54:23** and **02:25:38** during which the LFB CRO tells the caller to get out. The caller states "they cant get out as the corridor is too black".

**02:24:25** CRO Adams takes a call from a caller who is shouting that he is jumping out the window and that he is very frightened. The caller is shouting and pleading for someone to do something. He says he is in flat 194 and that he has been waiting in his flat for 45 minutes. The caller first spoke to the Brigade at **01:50:03** (GTIRT17-00562). CRO Adams asks him to repeat the flat number but the line drops out. A smoke alarm is audible in the background. Incident Number 76177, Call Duration 42 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00619).

**02:24:31** The Radio Operator at Brigade Control sends a message to CU7.

*Priority, Priority, Charlie Uniform 7 from M2FN, over".*

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02700).

Time of call	Flat Number	Floor number	Number of people confirmed by caller	Remarks
02:02:47	82	11	Two adults, one child	This was passed to CU8 at 02:09:25
02:03:47	192	22		Passed to CU8 at 02:09:25
02:05:25	203	23	Five adults, two children	
02:08:48	175	20	Two adults, two children and one baby	
02:10:31	192	22	Two adults, three children	
02:10:33	133	16	Two adults named as Sener and Hanife	Call taken by NWFC

**OFFICIAL**

02:13:03	165	19	Two adults and one dog	Caller gives his name as Nick Burton.
02:13:12	82	11		Caller gives her name as Natasha Elcock.
02:15:07		12	Three people	
02:17:24	115	14		Caller is from outside the tower and the is brother of the resident. He says his sister and her son are trapped.
02:18:06	192	22	Two adults, three children	
02:18:55	82	11	One Adult	Name given to Essex Fire and Rescue Service as Natasha Elcock.
02:21:04	183	21	Three adults, three children. One adult is pregnant	Neighbour is in the flat.
02:21:32	*192	22		*The caller gave their flat number as 203 on the 23 <sup>rd</sup> floor. However when the CRO summarised the call and says she would pass on the details she says 192 on the 22 floor.
02:24:19	94	12	Two Adults	
02:24:25	194			

**02:24:39** Golf 386, Heston's FRU book Status 2, mobile to Grenfell Tower. Golf 386 is riding with five firefighters: CM Paul Gray, Firefighter Gary Hiscock, Firefighter Benjamin Holehouse, Firefighter Alan Hudson and Firefighter Daniel Pegram (Source: 'Vision': GTIRT17-02791).

**02:24** The Radio Operator at Brigade Control sends informative message to CU

"Charlie Uniform 7. Flat 183 on the 21<sup>st</sup> floor. Three adults, one pregnant lady and three children are still trapped inside their flat. Over".

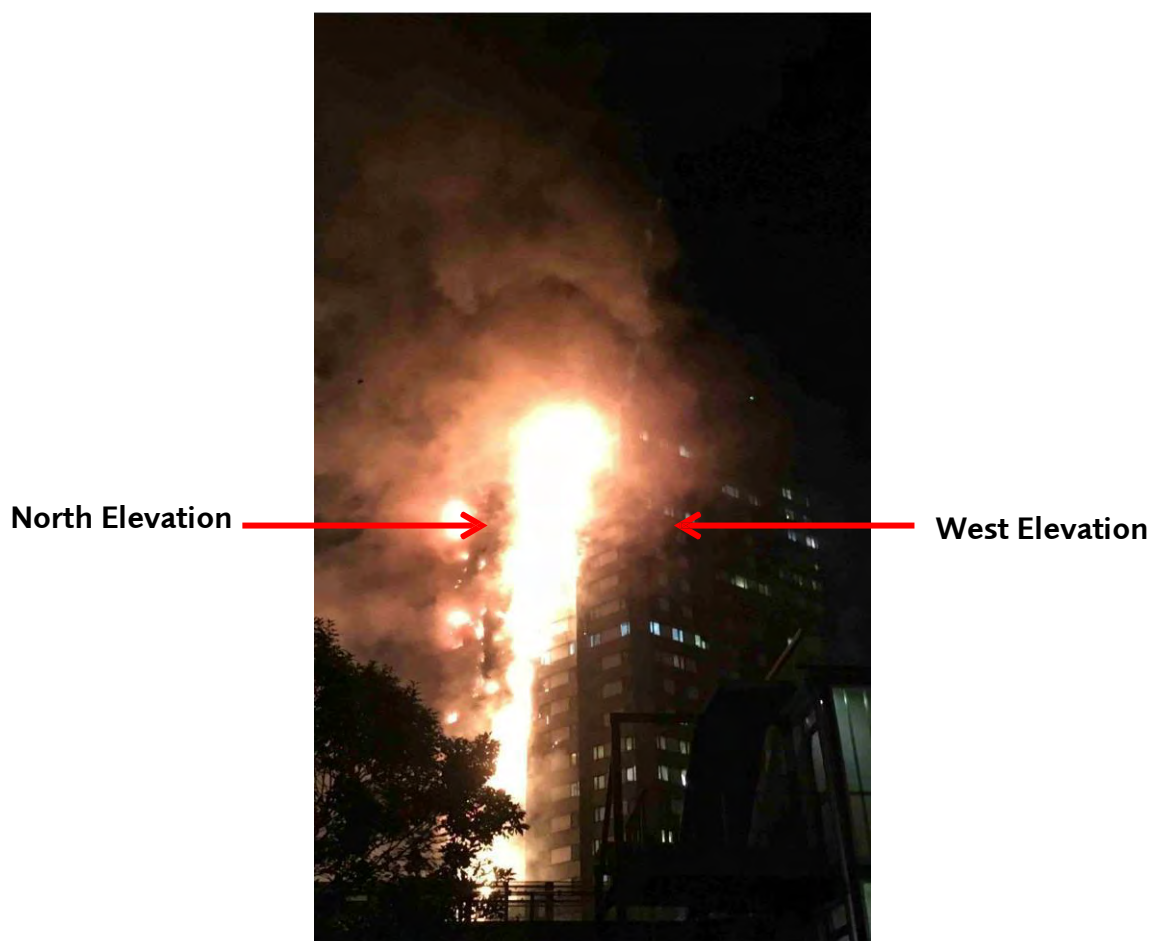
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02701).



**OFFICIAL**

Flat Number	Floor number	Number of people	Remarks
183	21	Three adults, one pregnant female and three children.	Trapped in their flat.  (Call received at 02:21:04)

**02:25** The image below shows the fire spread at Grenfell Tower. The picture shows the North elevation alight.



(Source: MET00006510)

**02:25:00** Milad Kareem is rescued via a 13.5 metre ladder from flat 23, fifth floor (Source: Mr Kareem's own mobile phone).

**02:25:00** CU7 request confirmation from the Radio Operator at Brigade Control.

"... three. And the floor please"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02705).

## OFFICIAL

- 02:25\*** BA Team 24: Firefighter Bloxham and CM R Evans are ascending the stairs. Firefighter Evans states "the stairwell was mayhem, so congested and so small". Firefighter Bloxham states their ascent is delayed by a couple of minutes due to other firefighters waiting to go ahead and others evacuating casualties. Firefighter Bloxham says at about the sixth floor visibility was down to zero and CM R Evans loses radio communications (Source: MPS Witness Statements of Firefighter Bloxham and Firefighter Evans: GTIRT18-01038, GTIRT18-00926).
- 02:25** BA Team 18: CM Yeoman, Firefighter A Nelson, Firefighter Stavely and Firefighter J Saunders are descending the stairs to the bridgehead. Whilst doing this Firefighter A Nelson and CM Yeoman see BA Team 17: Firefighter Cook and Firefighter Flanagan, exiting down the stairs. CM Yeoman notices a BA Team carrying an unconscious female and male and assists this crew. When they reach the bridgehead they hand the casualties over to another team of firefighters (Source: MPS Witness Statement: GTIRT18-02356, GTIRT17-02924).
- 02:25\*** BA Team 26: Firefighter Juggins and CM McAlonen. On ascending the stairs from the mezzanine to the bridgehead CM McAlonen states "there is a constant stream of casualties and firefighters coming out" . CM McAlonen can see firefighters giving CPR to a female (believed to be Fadumo Ahmed). Firefighter Juggins states that they are told to wait in a single line in the stairwell to allow casualties out. They believe they stay on the stairwell for five to ten minutes (Source: CCTV: Camera 1, Boxing Club, MPS Witness Statement: GTIRT18-01417).
- 02:25\*** BA Team 23: Firefighter Daoud and Firefighter O'Donoghue, believe they are at the fourth or fifth floor when four firefighters come through the smoke carrying a male, one firefighter on each limb. They describe the male as wearing a short sleeved shirt and trousers and was in his 50s or 60s (believed to be Mohamednue Tuccu) . The conditions on the stairs are reported as very dark and hot (Source: MPS Witness Statement: GTIRT18-00046).
- 02:25:01** BA Team 12: Firefighter Lawson and Firefighter K Foster are descending the stairs approaching what they believe is the seventh, sixth or fifth floor. Firefighter Lawson's LPWA actuates, telling him he has 84 bar left and he should already be back at the bridgehead if complying with Brigade policy. (Source: BA Data: GTIRT17-02820).
- 02:25:03** Hotel 352, Tooting's Pump book status 3, in attendance, at Grenfell tower. This is the 32<sup>nd</sup> fire engine in attendance (Source: 'Vision': GTIRT17-02791).
- 02:25:03** The Radio Operator at Brigade Control provides further information to CU7  
"21<sup>st</sup>, that's two-one. Over".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02706).
- 02:25:08** CRO Russell at Brigade Control takes a call from a male caller reporting a fire and stating that there is someone stuck on the top floor. CRO Russell confirms that the caller is referring to Grenfell

## OFFICIAL

Tower. The caller says there is someone flashing their light on the top floor and that they are so close to the fire that they are going to die. CRO Russell says the Brigade is aware and have lots of people trapped all over the building. Incident Number 76180 Call Duration one minute 16 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00622).

**02:25:09** CU7 request further information from the message sent by the Radio Operator at Brigade Control at **02:25:03**.

"Confirm the persons again please, Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02707).

**02:25:12** The Radio Operator at Brigade Control repeats message.

"It's Flat 183. One hundred and eighty-three, 21<sup>st</sup> floor. Three adults, one pregnant lady and three children. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02708).

**02:25:30** BA Team 22: CM Batcheldor and Firefighter N Saunders reach the 10<sup>th</sup> floor and make entry from the stairwell into the lobby, they have to crawl in due to the extreme temperature. Both team members are shouting "can anyone hear us". CM Batcheldor has seen a diagram of the floor layout at the bridgehead so states he knows they had to go diagonally from the lobby door. Once in the lobby they shut the door behind them, they are unable to find the DRM outlet and can't see anything. Firefighter N Saunders calls out to establish if anyone is there. There is no response so they return to the lobby door and then go in the opposite direction. On both occasions CM Batcheldor states that they didn't get further than 15 foot before Firefighter N Saunders said he was burning. Due to the heat BA Team 22 return to the stairwell and close the lobby door. CM Batcheldor radios the ECO to explain that they can't reach Flat 74, 10<sup>th</sup> floor as they require water. CM Batcheldor states he doesn't hear back from the ECO (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT17-01103, GTIRT18-00071).

**02:25:37** Firefighter D Murphy, exits the stair lobby into the main lobby wearing SDBA. He stops and talks to WM Williams and then exits the building via the main entrance (Source: CCTV: Cameras 2 and 4).

**02:25:38** CRO Howson at Brigade Control takes a call from a BT Operator at Portadown who explains that she has a female caller on the line who has told the BT Operator that they are on the 23<sup>rd</sup> floor in flat 205, they cannot get out and they are running out of oxygen. CRO Howson speaks to the caller who confirms that the flat is black and that they are cornered by the kitchen. CRO Howson asks how many people there are and the caller confirms there are seven adults. At **02:27:48** the caller shouts that there is fire in the flat and reports it is in the bedroom. CRO Howson tells them to shut the bedroom door and tries to explain about blocking up doors. The caller then explains that

## OFFICIAL

they have tried to get out before and the corridor is full of smoke and CRO Howson responds by telling them that they need to decide but if the fire is in the flat then they need to get out. At **02:30:05** the caller says she needs to go. The line goes quiet, CRO Howson tries to raise the caller but the phone is silent. At **02:30:28** the BT Operator comes on the line which indicates the line has gone dead. Incident Number 143553 Call Duration four minutes 54 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01738).

**02:25:43** CRO Gotts at Brigade Control takes a call from a male caller who gives an address of Grenfell Tower, Latimer Road. The caller reports that there is a fire and CRO Gotts asks if the caller is inside or outside of the building. The caller responds that they are outside and suggests that some helicopters are needed. CRO Gotts tells him that the Brigade is there dealing with the incident. Incident Number 76179, Call Duration 33 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00621).

**02:25:49** Hotel 346, Wimbledon's FRU book status 2, mobile to Grenfell Tower. Hotel 346 is riding with five firefighters: CM Adam Clarke, Firefighter David Friend, Firefighter Matthew Harold, Firefighter Richard Peacock and Firefighter Lewis Rice (Source: 'Vision': GTIRT17-02791).

**02:26** BA Team 14: CM Eden and Firefighter Welch are descending the stairwell with the casualty. CM Eden states that around the 16<sup>th</sup> or 15<sup>th</sup> floor he takes another gauge check to see how much air he has. He has 23 bar (**02:26**) and Firefighter Welch has 50 bar (**02:25:50**). At this time they have a quick discussion. CM Eden says they have to leave and Firefighter Welch tells CM Eden to go and he will continue to bring the casualty down. CM Eden tries to persuade Firefighter Welch to leave but Firefighter Welch tells him that he has enough air to continue. CM Eden is about to run out of air and makes the decision to leave. He tells Firefighter Welch that he will get another BA crew to assist him with the casualty (Source: BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT18-00099, GTIRT18-00309).

**02:26\*** *BA Team 17: Firefighter Cook and Firefighter Flanagan are descending the stairs from the 14<sup>th</sup> floor to the bridgehead. They encounter four firefighters carrying an unconscious female (believed to be Khadija Khalloufi, flat 143, 17<sup>th</sup> floor). Firefighter Cook assists them and helps get the casualty to the bridgehead (Source: MPS Witness Statement: GTIRT18-01829).*

**02:26** BA Team 22: CM Chris Batcheldor and Firefighter N Saunders are ascending the stairs to the 11<sup>th</sup> floor. They meet Firefighter D Hill who is on his own and joins them to make a crew of three. Firefighter N Saunders rolls out a length of 45 mm fire hose in an attempt to get water to the 10<sup>th</sup> floor. CM Batcheldor hears another Firefighter screaming for help, he recognised him as coming from Soho (*believed to be Firefighter Adam A Johnson from BA Team 16*). The firefighter has a female who is unconscious with him (known to be Mrs Burton from flat 165) (Source: MPS Witness Statements: GTIRT17-01103, GTIRT18-00071, GTIRT18-00935).

## OFFICIAL

**02:26:01** The Radio Operator at Brigade Control sends a message to CU7.

"Charlie Uniform 7, Charlie Uniform 7 from M2FN. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02709).

**02:26:12** Firefighter Badillo, Firefighter Yamin, Firefighter D Roberts and Firefighter Okoh carry a female (*believed to be Fadumo Ahmed*) down the stairs into the main lobby (Source: CCTV: Cameras 2 and 4).

**02:26:13** The Radio Operator at Brigade Control sends a message to CU again.

"Priority, priority. Charlie Uniform 7, Charlie Uniform 7 from M2FN. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02710).

**02:26:13** RVP updated on 'Vision' to Bramley Road enter via Holland Park Avenue (Source: 'Vision': GTIRT17-02791).

**02:26:14** Tamzin Belkadi (flat 175, 20<sup>th</sup> floor) is carried down the stairs into the main foyer by Firefighter Michael Smith (Source: CCTV: Cameras 2 and 4, MPS Witness Statement GTIRT18-02869).

**02:26:19** BA Team 11: Firefighter Campbell and Firefighter Mills, go back to their fire engine Alpha 212, Paddington's Pump, and get a full BA cylinder. They carry out a fire ground 'A' test ensuring that their BA sets work properly and can be worn again when required (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00967, GTIRT18-00402).

**02:26:22** The Radio Operator at Brigade Control sends an informative message to CU7.

"We have persons trapped in Flat 192 on the 22<sup>nd</sup> floor. They say that the fire is in the flat next door to them. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02711).

Flat Number	Floor number	Number of people	Remarks
192	22		Caller says the fire is in the flat next door to them

**02:26:23** Tamzin Belkadi is carried out of the building via the main entrance by Firefighter Michael Smith (Source: CCTV: Camera 4).

**02:26:27** CM Wigley from BA team 13 descends the stairs and exits into the main lobby (Source: CCTV: Camera 2).

**02:26:31** Fadumo Ahmed from flat 164, 19<sup>th</sup> floor is carried out of the building by firefighters (Source: CCTV: Camera 4).

## OFFICIAL

- 02:26:37** BA Team 16: Firefighter A Johnson and Firefighter Roots, have split up. Firefighter A Johnson is carrying the female down the stairs and gets to the 11<sup>th</sup> or 10<sup>th</sup> floor when the door between the lobby and the stairwell bursts open with two firefighters with LPWA sounding. The firefighters are BA Team 22: CM Batcheldor and Firefighter N Saunders, and he asks them to help him with the casualty, which they do. BA Team 22's LPWAs are actuating which means they have less than 84 bar and should already be back at the bridgehead if complying with Brigade policy. Firefighter D Hill is with them but continues up the building on his own (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT17-02820, GTIRT17-0110, GTIRT18-0093, GTIRT18-00071).
- 02:26:44\*** BA Team 25: Firefighter Orchard and Firefighter Herrera report to the bridgehead. *Firefighter Orchard states they are briefed to go to flat 113,14<sup>th</sup> floor, where six people are believed to be. WM De Silvo states "They were alright, but they're not alright now we need to get them out". Firefighter Herrera states the same address but remembers them being told it was to rescue an adult male, female and child (now believed to be Rosemary Olewule, her husband and child). They report to the ECO, start breathing under air and remove their BA tallies. (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00647, GTIRT18-01020).*
- 02:26:48** Hotel 241, Brixton's PL book status 3, in attendance at Grenfell Tower. This is the 33<sup>rd</sup> fire engine in attendance (Source: 'Vision': GTIRT17-02791).
- 02:26:48** CRO Russell at Brigade Control takes a call from a female caller reporting that she is inside Grenfell Tower in flat 173 on the 20<sup>th</sup> floor in her living room with her mum. CRO Russell checks if there is smoke in the flat and the caller says there is some smoke. CRO Russell advises they have two choices, if it is safe to do so they can leave but if not they should stay and the caller responds to say that she is too high to leave. The caller explains that she has opened the front door and it is very smoky outside. CRO Russell provides FSG including blocking the smoke and keeping away from the doors, shutting any windows that are letting in smoke and advises moving to other rooms as required, keeping low and covering their faces. CRO Russell confirms the floor number and explains that the Brigade is in attendance and she will pass the information onto the crews. She ends the call by saying if anything changes they should call back. Incident Number 76183 Call Duration two minutes 51 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00624).
- 02:26:51** The Radio Operator at Brigade Control asks CU7 if they received radio message sent at **02:26:22**.  
"Charlie Uniform 7, did you receive that? Over".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02712).
- 02:26:55** CU7 acknowledges receipt.  
"FN from Charlie Uniform 7, received. Do we know how many people in the flat? Over".

## OFFICIAL

The Radio Operator at Brigade Control responds

"Answer no, over"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02713).

- 02:26:59\*** *CM Eden from BA Team 14 is descending the stairs and it is believed he is around the 15<sup>th</sup> or 14<sup>th</sup> floors when he meets another BA Team and explains to them about Firefighter Welch and tells them to go and help him. CM Eden then shouts up to Firefighter Welch to let him know help was on the way. CM Eden then continues down the stairs due to the lack of air in his BA set (Source: MPS Witness Statement: GTIRT18-00309).*
- 02:27** GM Cook (ORT) enters the building via the main entrance (Source: CCTV: Camera 4).
- 02:27:05** Hotel 351, Tooting's PL book status 3, in attendance at Grenfell Tower. This is the 34<sup>th</sup> fire engine in attendance (Source: 'Vision': GTIRT17-02791).
- 02:27:10** BA Team 15: Firefighter Fernandes and Firefighter Williams return to the ECO at the bridgehead. They relay all the information about the rescue and where they have been. They then close down their BA sets (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01105, GTIRT18-00041).
- 02:27:12** CRO Fox at Brigade Control takes a call from a female caller in flat 142 on the 17<sup>th</sup> floor who states that no one has come to help them and she thinks they are going to die. The caller states that the fire is right next to the window and confirms that there are five adults, including two elderly people. She asks for help and says they have been waiting over an hour. CRO Fox confirms that she is going to pass the information to the CU on scene. Incident Number 76182 Call Duration one minute (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00623).
- 02:27:21** The Radio Operator at Brigade Control sends message to CU7.
- "Charlie Uniform 7 from M2FN. Over".
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02714).
- 02:27:22** Firefighter Nutall exits the stairs carrying a second BA set and enters the main lobby (CCTV: Camera 2).
- 02:27:29** The Radio Operator at Brigade Control sends informative message to CU7.
- "Charlie Uniform 7, we've got two adults trapped inside Flat 94, 9-4 on the 12<sup>th</sup> - 1-2, 12<sup>th</sup> floor. Over".
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02715).

## OFFICIAL

Flat Number	Floor number	Number of people	Remarks
94	12	Two adults	

- 02:27:36** BA Team 12: Firefighter Lawson and Firefighter K Foster report back to the bridgehead and retrieve their BA tallies and close down their BA sets (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00068, GTIRT18-00927).
- 02:27:44** CU7 acknowledges receipt.  
"Received"  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02716).
- 02:27:54** Firefighter Malik from BA Team 21 reports to the bridgehead with the casualty he has helped carry down and hands them over to firefighters carrying out casualty handling. Firefighter Malik informs the ECO about him splitting from his BA partner Firefighter D Hill. He collects his BA tally and closes down his BA set (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00070).
- 02:28** Firefighter Bell and Firefighter J Wright from BA Team 20 bring their casualty down and go past the bridgehead onto the mezzanine floor. Once there they hand the casualty over to a SM. Whilst ascending back to the bridgehead BA Team 20 are in the stairwell and they meet a white male approximately 60 years old. He has a wet towel over his head and states that his wife is still in their flat and suffers with dementia. They then return to the bridgehead and close down their BA sets (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-02061, GTIRT18-00042).
- 02:28** BA Team 25: Firefighter Orchard and Firefighter Herrera proceed up the stairwell. Firefighter Herrera is leading and they both describe the conditions as being completely smoke logged with thick black smoke. Firefighter Herrera states it was "pitch black" the stairwell was narrow and between the wall and the handrail Firefighter Herrera could stretch out his arms and touch both sides (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00647, GTIRT18-01020).
- 02:28:00** GM O'Neill enters the building via the main entrance and walks towards the stairs, He is wearing the 'Senior Safety Officer' surcoat (Source: CCTV: Camera 4).
- 02:28:08** Firefighter Desforges' from BA Team 19, LPWA actuates, indicating he has 84 bar left and should have already returned to the bridgehead if complying with Brigade policy (Source: BA Data: GTIRT17-02820).



## OFFICIAL

- 02:28:09** CRO Gotts at Brigade Control takes a call from a caller inside Grenfell Tower on the 10<sup>th</sup> floor in flat 73. The caller asks for information and explains that when she last called (**01:41:21** GTIRT17-00535) she is told to stay put. CRO Gotts states that if the caller feels that they can leave then that is their choice but if not then they should block up the doors. The caller explains that they have blocked the doors but that it is getting very hot. CRO Gotts asks if there is a window they can open without letting in more smoke to help it cool down and the caller says that there may be. The caller then asks if they should wait for someone to come and get them and CRO Gotts explains that the Brigade is currently fighting the fire. Incident Number 76184 Call Duration one minute 36 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00625).
- 02:28:09** CM Stern enters the building and heads towards the stairs (Source: CCTV: Camera 4).
- 02:28:23** Hotel 242, Brixton's Pump book Status 3 in attendance, at Grenfell tower. This is the 35<sup>th</sup> fire engine in attendance (Source: 'Vision': GTIRT17-02791).
- 02:28:26** WM Watson and WM Williams are talking in the main lobby. It is believed from their statements and their roles they are discussing FSGs (Source: CCTV: Camera 4 and MPS Witness Statement: GTIRT18-00073, GTIRT18-00047).
- 02:28:27** A213, Paddington's TL, is seen reversing out from the East elevation and parks under the covered walkway (Source: CCTV: Camera 2).
- 02:28:27** CRO Adams rings CU8 and passes the information in the table below. At **02:22:54** CU7 advises the Brigade Control Room to pass all FSG information to them. CRO Adams is at a call taker's position and dials direct to CU8. She passes on the following;

Flat Number	Floor number	Number of people	Remarks
205	23	Seven adults	Fire is in the living room of their flat.

During the discussion CRO Adams tells the CU that the caller is being told to leave and the CU Operator repeats this back by way of confirmation. In the background a male voice can be heard asking "who by". CRO Adams confirms that Brigade Control are trying to persuade them to leave (Source: NICE, Admin Phone Line Audio file: GTIRT18-00512).

- 02:28:30** GM O'Neill enters the stair lobby (Source: CCTV: Camera 2).
- 02:28:31** Fadouma Ahmed (flat 164, 19<sup>th</sup> floor) is on a wheeled ambulance stretcher and moved by four unidentified Firefighters and one ambulance paramedic passed Kensington leisure centre towards Bomore road (Source: CCTV Camera OPS1 kensington leisure centre).
- 02:28:32** Firefighter Dorgu from BA Team Five exits the stair lobby in to the main lobby (Source: CCTV: Camera 2).

## OFFICIAL

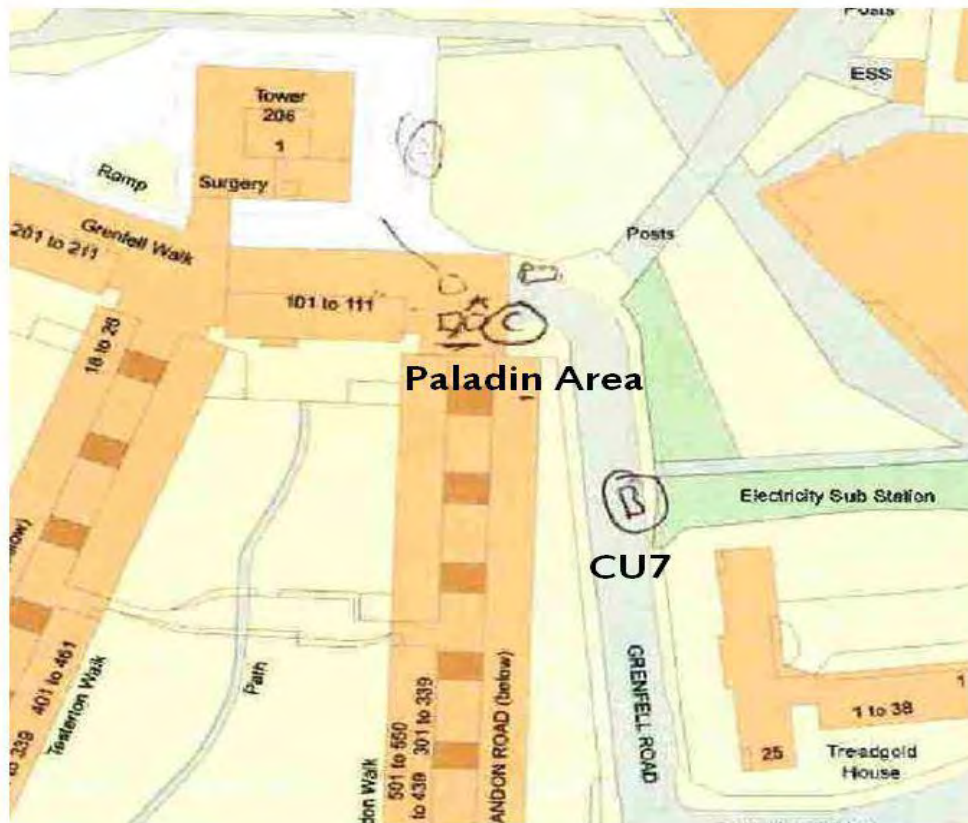
- 02:28:34** BA Team 18: CM Yeoman, Firefighter A Nelson, Firefighter Stavely and Firefighter J Saunders return to the bridgehead, report to the ECO, collect their BA tallies and close down their BA sets (Source: BA Data: GTIRT17-02820).
- 02:28:35** BA Team 12: Firefighter Lawson and Firefighter K Foster return to the bridgehead, report to the ECO and collect their BA tallies and close down their BA sets. Firefighter Lawson remains at the bridgehead and draws a plan of the 18<sup>th</sup> floor, detailing the flats where they have searched and where the remaining people were (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00927, GTIRT18-00068).
- 02:28:45** Foxtrot 87, GM Mark Hazelton, who is the Duty NILO confirms he will monitor the incident remotely (Source: 'Vision': GTIRT17-02791).
- 02:28:48** GM Goulbourne enters the building through the main entrance (Source: CCTV: Camera 4).
- 02:28:51** GM O'Neill exits the building via the main entrance (Source: CCTV: Camera 4).
- 02:28:51** *Firefighter Welch from BA Team 14 whilst descending the stairs dragging a casualty is joined by two firefighters wearing BA (currently not identified). He tells them he has run out of air and has to leave. He removes his fire helmet, fire hood and BA facemask. (These are later discovered on the 10<sup>th</sup> to 12<sup>th</sup> floors). He then begins to run down the stairs to find his way out (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00099).*
- 02:28:53** Surrey FRS take a call from a female caller reporting that her father-in-law is trapped on the 22<sup>nd</sup> floor of Grenfell Tower. She explains that says he is 70 years old and gives the full address as Flat 194 Grenfell Towers, W11 1TQ. The caller explains that it is Grenfell Tower and that it is on the BBC news. The Surrey CRO says she will contact London but they are not aware of the incident in Surrey because it is not on their ground. The Surrey CRO states that she will pass on the information to London. Incident Number 22853 Call Duration two minutes 16 seconds (Source: FRS Incident Log and Audio file: GTIRT17-01610).
- 02:29** BA Team 23: Firefighter Daoud and Firefighter O'Donoghue continue to ascend another flight of stairs and believe they are between the fifth and sixth floors, two firefighters come past them with a female who is unconscious being dragged. Firefighter Daoud and Firefighter O'Donoghue both state that a firefighter then comes past them with no fire helmet or BA facemask on and asks for directions to the bridgehead (*believed to be Firefighter Welch*) (Source: MPS Witness Statements: GTIRT18-00393, GTIRT18-00046).
- 02:29** BA Team 24: Firefighter Bloxham and CM R Evans are climbing the stairs and state that visibility on the stairs had worsened as they ascended and at the 10<sup>th</sup> floor visibility is zero. Whilst at the 10<sup>th</sup> floor BA Team 24 decide to leave the Enforcer and fire hose behind as they are using a lot of

## OFFICIAL

air, they then continue up the stairs (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01038, GTIRT18-00926).

- 02:29:00** BA Team 27: Firefighter Dwyer and Firefighter Perez enter the building wearing BA sets and carrying an axe and a TIC (Source: CCTV: Camera 4).
- 02:29:00** GM Goulbourne enters the stair lobby and goes upstairs (Source: CCTV: Camera 2).
- 02:29:08** Mohamednue Tuccu (flat 166, 19<sup>th</sup> floor) is carried by four firefighters, believed to be WM Dowden, SM Walton, GM Cook (ORT) and Firefighter Dorgu down the stairs and they then proceed into the main lobby (Source: CCTV: Camera 2, MPS Resident Exit Times: MET000080463).
- 02:29:15** Khadija Khalloufi (flat 143, 17<sup>th</sup> floor) is carried down the stairs by two firefighters, believed to be CM Stern and SM Myatt, and then proceed into the main lobby (Source: CCTV: Camera 2, MPS Resident Exit Times: MET000080463).
- 02:29:15** Mohamednue Tuccu (flat 166, 19<sup>th</sup> floor) (bare chested wearing black bottoms) is then carried by four firefighters believed to be WM Dowden, SM Walton, GM Cook (ORT) and an unidentified firefighter from the building through the main entrance (Source: CCTV: Camera 4 and MPS Resident Exit Times: MET000080463).
- 02:29:19** An unidentified firefighter descends the stairs into the stair lobby with a FIB board and proceeds into the main lobby then leaves the building via the main entrance. It is believed to either relay the information to the FSG point by the paladins (large bins) or back to CU7. The picture below is the exhibit from WM Sadler as to where the paladins and CU7 were located (Source: CCTV:

Cameras 2 and 4, MPS Witness Statement: GTIRT18-03702).



- 02:29:23** Firefighter Michael Smith enters the bottom of the stairs (Source: CCTV: Camera 2).
- 02:29:29** Khadija Khalloufi (flat 143, 17<sup>th</sup> floor) is carried from the building by two firefighters via the main entrance (Source: CCTV: Camera 4, Resident Exit Times: GTIRT18-02515).
- 02:29:34** CRO Fox from Brigade Control takes a call passed by a BT Operator in Nottingham who reports that they took a call from a man with a baby who is asking for the fire service. There is a smoke alarm audible in the background but the line drops out. CRO Fox asks for more information including flat number and the BT Operator offers to play back the call. The call is heard and it is a man who says what is thought to be, he is on the 14th floor and he has a baby. He then says fire, fire and the call ends. The BT Operator believes it was the 13<sup>th</sup> however CRO Fox believes he says the 14<sup>th</sup>. CRO Fox says she will call him back. Incident Number 76187 Call Duration one minute 30 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00627).
- 02:29:50** Alpha 236, Euston's FRU book status 3 in attendance, at Grenfell tower, at Grenfell tower. This is the third FRU in attendance (Source: 'Vision': GTIRT17-02791).
- 02:30** Between 02:00 and 02:30 in the table below the following residents have either been rescued, assisted out or self-evacuated from Grenfell Tower (Source: MPS Resident Exit Times: MET000080463).

Taiyou Toyoshima-Lewis (Flat 9,third floor)
Kohana Toyoshima-Lewis (Flat 9, third floor)
Aozara Toyoshima-Lewis (Flat 9, third floor)
David Lewis (Flat 9, third floor)
Mariko Toyoshima-Lewis (Flat 9, third floor)
Chloe Laci (Flat 65, ninth floor)
Sharon Laci (Flat 65, ninth floor)
Milad Kareem (Flat 23, fifth floor via 135 ladder)
Rebin Sabir (Flat 23, fifth floor via 135 ladder)
<i>(Believed to be) Fadumo Ahmed (Flat 164, 19<sup>th</sup> floor)</i>
Tamzin Belkadi (Flat 175, 20 <sup>th</sup> floor)

**02:30\*** *Firefighter Okoh whilst walking back from retrieving equipment was approached by a black male who was concerned about his family on the 14<sup>th</sup> floor. Firefighter Okoh states "I gave some advice as before, informing the male to phone 999 and that we will do the best we can" (Source. MPS Witness Statement: GTIRT18-00053).*

**02:30\*** *SOM Smith states in her MPS witness statement that "the decision was made to change the 'stay put' guidance and that decision was mine". Her rationale was the duration of the calls, the contents of the calls and the resources available. She also states that the information coming back from her staff and the conditions the residents were in, meant they had no way of waiting to be rescued. She then says that this information was passed to the incident ground by Brigade Control Room staff (Source: MPS Witness Statement, GTIRT17-01956).*

**02:30\*** *DAC Fenton, is working at Brigade Control in charge of the Brigade Coordination Centre (BCC). He explains that he discusses with SOM Smith "I have seen the pictures on the television and it shows the tower fully engulfed in fire". The television referred to in DAC Fenton's statement is the one located in the BCC. He also has the information that the crews are unable to go above the*

## OFFICIAL

15<sup>th</sup> floor. At that time there has not been an 'informative' message from the incident ground since 01:14:21. He states he discusses with SOM Smith about changing the FSG guidance from 'stay put' to 'leave'. He asks her advice and views. Following a discussion around what he had seen on the BCC television, the information about the crews being unable to get above the 15<sup>th</sup> floor and the large number of FSG calls being taken by Brigade Control, they both agree that the guidance needs to be changed. In DAC Fenton's statement he states "It was at that point the advice changed". He goes on to say that on making the decision SOM Smith went around Brigade Control and told all the CROs of the change in guidance instructing the CROs to inform people to get out of the tower. At the same time, DAC Fenton asks a CRO to speak to the incident ground via the main scheme radio channel to inform them that the advice from Brigade Control and the Duty DAC is that Brigade Control has changed the stay put guidance (Source: MPS Witness Statement: GTIRT18-00396).

**02:30\*** DAC O'Loughlin states, I was informed by one of the CU Team, that the 'Stay Put' Advice has been changed by DAC Fenton at Brigade Control. Although no new information had been received from either the Fire Sector or the FSG Sector which had been in place for about 25 minutes and because I hadn't been able to assess the conditions within the tower for myself. I accepted DAC Fenton's decision and didn't try to change it. DAC O'Loughlin further states that he then asks for a message be sent to all sectors informing them of the change in advice (Source: MPS Witness Statement: GTIRT18-01266).

**02:30:12** GM O'Neill enters the building via the main entrance and talks to WM Williams (Source: CCTV: Camera 4).

**02:30:15** Echo 351, Old Kent Road's PL book status 3, in attendance, at Grenfell tower. This is the 36<sup>th</sup> fire engine in attendance (Source: 'Vision': GTIRT17-02791).

**02:30:22** CM Yeoman, Firefighter Cook and Firefighter J Saunders from BA Team 18 come down the stairs into the ground floor and enter the main lobby (Source: CCTV: Camera 2).

**02:30:23** WM Dowden enters the building via the main entrance (Source: CCTV: Camera 4).

**02:30:25** BA Team 29: Firefighter Nuttall and Firefighter Whitley enter the stair lobby and go up the stairs to the mezzanine floor, wearing BA sets (Source: CCTV: Camera 2).

**02:30:31** The Radio Operator at Brigade Control sends message to CU7.

*"Priority Charlie Uniform 7 from M2FN. Over".*

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02978).

**02:30:38** CU7 respond to the Radio Operator at Brigade Control.

*"FN from Charlie Uniform 7, go ahead. Over".*

## OFFICIAL

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02979).

**02:30:40** Firefighter Stavely from BA Team 18 descends the stairs to the stair lobby (Source: CCTV: Camera 2).

**02:30:41** Firefighter Desforges and Firefighter R Mitchell from BA Team 19 and Firefighter Alassad from BA Team 20 return to the bridgehead, which is currently on the third floor. They hand a casualty (*believed to be Khadija Khalloufi*) over to firefighters carrying out casualty handling and report to the ECO. They report their actions and explain why they hadn't done this earlier due to radio communication issues. They then close down their BA Sets (Source: BA Data: GTIRT17-02820 and MPS Witness Statements: GTIRT17-02932, GTIRT18-00652).

**02:30:42** The Radio Operator at Brigade Control sends informative message to CU7.

"Charlie Uniform 7, erm, Flat 142, 142 on the 17<sup>th</sup> - 1-7, 17<sup>th</sup> floor level. Five adults including two elderly persons are trapped inside. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02980).

Flat Number	Floor number	Number of people	Remarks
142	17	Five adults including two elderly persons	Trapped inside flat

**02:30:43** In the main lobby Firefighter Flanagan from BA Team 17 is talking to WM Dowden and appears to be very animated. He also talks to several other firefighters (Source: CCTV: Camera 4).

**02:30:45** CRO Russell at Brigade Control takes a call from Surrey FRS who report taking a call from a woman whose grandfather is in flat 194 on the 22<sup>nd</sup> floor of Grenfell Tower. CRO Russell says she will pass it on to crews and provides the incident reference. This call relates to that taken by Surrey FRS at **02:28:53** (GTIRT17-01610) above. CRO Russell asks if it is just one person trapped and the Surrey CRO states that it is believed to be. Surrey confirm their call reference as 12115. Incident Number 76186 Call Duration one minute six seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00626).

**02:30:51** CRO Howson at Brigade Control takes a call from the MPS who are calling to pass some information. The MPS CRO states that they have had a call from a lady who is ringing to report that her friend, her friend's husband and three children are stuck in flat 192 on the 22<sup>nd</sup> floor (MPS CAD 796). CRO Howson confirms that she thinks London have spoken to them but will pass the info to the crews. The MPS CRO then explains that on the 29<sup>th</sup> floor (although he doesn't think the building is that high) there is someone waving blankets or sheets out of the window and then passes brief information about persons waving on 12<sup>th</sup> and 14<sup>th</sup> floors. Incident

## OFFICIAL

Number 143554 Call Duration one minute 43 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01739).

- 02:30:51** CM Batterbee descends the stairs to the stair lobby then proceeds into the main lobby (Source: CCTV: Camera 2).
- 02:30:52** Khadija Khalloufi (flat 143, 17<sup>th</sup> floor) is carried by CM Stern , two unidentified Firefighters and one ambulance paramedic passed Kensington leisure centre, two unidentified Firefighters relieve CM Stern and the paramedic and continue with the casualty towards Bomore road (Source: CCTV Camera OPS1 Kensington leisure centre).
- 02:31:00** CU7 acknowledges receipt of message sent by the Radio Operator at Brigade Control at **02:30:42**.
- "FN from Charlie Uniform 7 received".
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02981).
- 02:31** BA Team 26: Firefighter Juggins and CM McAlonen report to the bridgehead and receive their briefing. They are briefed to go to flat 111, 14th floor to a female and a child (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01417, GTIRT18-01010).
- 02:31:05** A CM enters the stair lobby and climbs the stairs to the mezzanine carrying an IEC pack (Source: CCTV: Camera 2).
- 02:31:06** Firefighter Bell and Firefighter J Wright from BA Team 20 report to the ECO at the bridgehead. They collect their BA tallies and close down their BA Sets. Firefighter J Wright tells the ECO "As we were making our way to the ECO I met a male coming down the stairs. He was on his own, I assisted him down the remaining steps. The male was white, approximately 60 years old. He had a wet towel over his head. He spoke in an Eastern European accent. The male told me his wife was still in their flat, she suffers from Alzheimers or dementia. He told me his wife would not leave with him and asked me to go to his flat and rescue her. The male told me his flat number, I cannot remember it now, but once we had reached the safety of the Mezzanine floor, I left him as he said he was ok to walk and I returned to the ECO. I told the ECO the flat number and ensured he was aware that the male's wife was still in there. I collected my BA tally and made my way back down the stairs" (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00042, GTIRT18-02061).
- 02:31:17** WM Dowden enters the stair lobby and runs up the stairs to the mezzanine level (Source: CCTV: Camera 2).
- 02:31:18** Bravo Mike 8, AC Andy Roe books Status 3, in attendance, at Grenfell tower. He is the first AC in attendance (Source: 'Vision': GTIRT17-02791).



## OFFICIAL

- 02:31:19** WM Moore enters the building carrying several A4 size pieces of paper believed to be Control Information Forms (Source: CCTV: Camera 4).
- 02:31:19** The Radio Operator at Brigade Control sends a message to Command Unit.  
"Charlie Uniform 8, go ahead. Over".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02982).
- 02:31:22** CU8 send assistance message to the Radio Operator at Brigade Control.  
"Charlie Uniform 8. Can we confirm that aeriels have been made 4 for this incident? Charlie Uniform 8, over".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02984).
- 02:31:28** CM Eden from BA Team 14 descends the stairs wearing his BA Set having completed his BA wear and enters the main lobby (Source: CCTV: Camera 2).
- 02:31:29** Firefighter K Foster from BA Team 12 descends the stairs wearing her BA Set having completed he BA wear and enters the main lobby (Source: CCTV: Camera 2).
- 02:31:35** CRO Fox at Brigade Control tries to call back the number passed by the BT Operator during the call at 02:29:34. CRO Fox rings the number and it goes to an O2 messaging service. No message is left (Source: NICE, Admin Phone Line Audio file: GTIRT18-02370).
- 02:31:35** Foxtrot 331, Whitechapel's PL book Status 3, in attendance, at Grenfell tower. This is the 37<sup>th</sup> fire engine in attendance (Source: 'Vision': GTIRT17-02791).
- 02:31:40** CM Eden from BA Team 14 leaves the building via the main lobby followed by Firefighter K Foster (Source: Camera 4 CCTV).
- 02:31:49** CRO Gotts at Brigade Control takes a call from a female who says she is on the 14th floor and that there is now a fire on the top. CRO Gotts tries to confirm if she means the fire is at the top of the building or the top of her flat and the caller states it is at the top of my flat. There is a loud scream then a man moans then another scream. The caller then shouts look at the fire and CRO Gotts tries to confirm if the fire is in the callers flat. The caller explains that they can't go out because they were told to stay inside but she goes on to explain but that the fire will come in to the flat. CRO Gotts advises that if they can get out then they should, if not to block up the exits and move away from where the smoke is. The line clears without any further response from the caller. Incident Number 76190, Call Duration one minute 56 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00628).

## OFFICIAL

- 02:31:49** Firefighter Welch from BA Team 14 descends the stairs wearing his BA Set but his facemask and fire helmet are missing. He has just run out of air in the main stairwell. He proceeds to the main lobby (Source: CCTV: Camera 2).
- 02:32\*** *BA Team 23: Firefighter Daoud and Firefighter O'Donoghue are still climbing the stairs to the 12<sup>th</sup> floor. Firefighter O'Donoghue states "the conditions are very hot and getting hotter as we ascended". On every floor they open the door into the lobby area to see if there are any casualties, the lobbies are hotter than the stairs, some of the doors are open because of discarded equipment (believed to be LFB equipment left in situ) which is letting smoke into the stairwell. Firefighter O'Donoghue estimates the temperature is around 200 degrees Fahrenheit (Source: MPS Witness Statement: GTIRT18-00046).*
- 02:32:12** WM Moore, Firefighter Flanagan and Firefighter Dorgu are having a discussion in the stair lobby. WM Moore is stood on the stairs and has a handful of Control Information Forms in his hand. Once the discussion finishes WM Moore goes up stairs onto the mezzanine level. (*Firefighter Dorgu states in his SAI statement that he is a FSG runner during this period. He says he is running between the paladin bins outside and the FSG CU (CU7), he doesn't state he is running specifically into the tower with FSG information but does say he was running everywhere.*) (Source: CCTV: Camera 2 and SAI statement: GTIRT18-00570).
- 02:32:22** Firefighter Power and Firefighter Barker enter the building carrying a FIB each. WM Moore enters the building carrying Control Information Forms (Source: CCTV: Camera 4).
- 02:32:30** CRO Adams at Brigade Control takes a call from a male caller shouting for help. He explains that he is inside Grenfell Tower on the 18th floor in flat 153. CRO Adams tries to establish what is happening but the caller is speaking erratically and it is difficult to hear. The caller explains that the fire was in flat 154 and it is now in their flat. CRO Adams asks how many people there are and the caller explains that his neighbour is with him as well and that there are four adults. CRO Adams asks if he can get out and the caller states that they cannot so CRO Adams advises that they should get to the safest room and asks where they are. The caller states that they are in the living room and CRO Adams advises she will inform crews and that the caller should ring back if it gets worse. Incident Number 76193, Call Duration three minutes 51 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00630).
- 02:32:41** CRO Russell at Brigade Control takes a call from a female caller in flat 82 on the 11<sup>th</sup> floor who asks if someone is coming for them. CRO Russell advises her that the fire is bad but that there are lots of firefighters present and making their way through the building. CRO Russell asks about the conditions and the caller advises that they are okay for the moment but that it seems to be getting worse. CRO Russell then asks the caller if it is safer to for her to stay or to make her own way out and the caller confirms she cannot leave. CRO Russell advises her to keep away from windows and

## OFFICIAL

doors and explains that if smoke starts to come in then the caller should move to a different room and block that up too. The caller states that there is no smoke yet and they have already put towels down but that it is spreading quickly and that she thinks the fire is in the flat next door. CRO Russell confirms that she will pass the message to crews. Incident Number 76191, Call Duration two minutes 30 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00629).

- 02:32:43\*** *BA Team 29: Firefighter Whitley and Firefighter Nuttall enter the stair lobby and are making their way to the bridgehead. Firefighter Nuttall states he sees a small naked female being carried out by firefighters. He also witnesses a couple of children believed to be female about eight or nine years old in pyjamas being brought out by firefighters. A number of firefighters drop their BA sets and help pass the casualties along a human chain. Firefighter Nuttall states he believes he sees Firefighter Yamin performing CPR on one of the casualties on the mezzanine floor (Firefighter Yamin states he performs "assisted breathing" on a casualty). (Source: CCTV: Camera 1, MPS Witness Statement: GTIRT18-01296).*
- 02:32:47** Firefighter Power, Firefighter Moore and Firefighter Barker all exit the building via the main entrance. Firefighter Power and Firefighter Barker take their FIBs with them (Source: CCTV: Camera 4).
- 02:33:00** CM Batcheldor, Firefighter N Saunders from BA Team 22 and Firefighter A Johnson from BA Team 16 carry Mrs Burton (Flat 165) down the stairs and take her into the main lobby (Source: CCTV: Camera 2).
- 02:33:00** SM Oliff (OOD) at Brigade Control makes a telephone call to CU8 on his Brigade issue mobile phone. There is no record available of the contents of the call. In his MPS witness statement he describes that he was instructed by DAC Fenton to take responsibility for passing the FSG calls. He states he was specifically tasked to relay the information coming into Brigade Control to CU7 at the incident. He also describes how he used white boards in Brigade Control to write down the details of the calls that were coming from the 999 calls being received. He explains that normally a specific template called a Control Information Form would be completed by the CROs but on this occasion because of the speed and frequency of information, he was being handed slips of paper with information written on them. He states he was speaking to CU7 but he actually dials the number allocated to the mobile phone number of the Team Leader on CU8. WM D Meyrick was the Team Leader on CU8. In his MPS witness statement WM D Meyrick describes how he was on CU8 and taking details of FSG calls and then he moved to CU7 to continue his role on the dedicated FSG CU (CU8) call duration eight minutes, 44 seconds (Source: MPS Witness Statement: GTIRT17-01948, GTIRT18-01532).

## OFFICIAL

- 02:33:06** Mr Burton (flat 165, 19<sup>th</sup> floor) walks down the stairs and through into the main lobby following his wife Mrs Burton who is being carried out by firefighters (Source: CCTV: Camera 2).
- 02:33:09** Alpha 311, Holloway's PL book Status 3, in attendance at Grenfell Tower. This is the 38<sup>th</sup> fire engine in attendance (Source: 'Vision': GTIRT17-02791).
- 02:33:11** Mrs Burton (flat 165, 19<sup>th</sup> floor) is carried out of building via the main entrance by firefighters (Source: CCTV: Camera 4).
- 02:33:16** Hotel 345, Wimbledon's ALP book Status 2 mobile to Grenfell Tower. Hotel 345 is riding with two firefighters. CM Grant Evans and Firefighter Paul Medina (Source: 'Vision': GTIRT17-02791).
- 02:33:23** BA Team 17: Firefighter Cook and Firefighter Flanagan exit the building via the main entrance (Source: CCTV: Camera 4).
- 02:33:23** Mr Burton (flat 165, 19<sup>th</sup> floor) exits the building unaided via the main entrance (Source: CCTV: Camera 4).
- 02:33:31** Debris is continually falling from the building outside the stair lobby on the East elevation. The side exit is compromised and cannot be used (Source: CCTV: Camera 2).
- 02:33:32** Hotel 276, Battersea's FRU book Status 3 in attendance at Grenfell Tower. This is the fourth FRU in attendance (Source: 'Vision': GTIRT17-02791).
- 02:32:32** WM Dowden enters the building via the main entrance and goes into the stair lobby (Source: CCTV: Camera 4).
- 02:33:36** CRO Duddy at Brigade Control is in the middle of a call that started **1:51:14**. The male caller is from Flat 95, 12<sup>th</sup> floor. The caller informs CRO Duddy that there is smoke everywhere. CRO Duddy says to the caller "right we are going to tell you to leave but you need to stay on the phone". At **02:34:32** a knocking can be heard then the caller is heard saying they are here and a voice saying "hello fire brigade". He then says "save us". Someone else is heard saying "hello mate get out". Incident Number 76135, Call Duration 40 minutes (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00569).
- 02:33:50** BA Team 22: CM Batcheldor and Firefighter N Saunders return to the bridgehead and report to the BAECO, collect their BA tallies and close down their BA sets. They explain to the ECO they were unable to gain entry to the 10<sup>th</sup> floor and carry out their brief. Whilst stood there a firefighter carrying a young girl falls on top of them. CM Batcheldor picks the girl up and proceeds to take her out of the building (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT17-01103, GTIRT18-00071).
- 02:33:58** Echo 341, Dockhead's PL book Status 3, in attendance, at Grenfell tower. This is the 39<sup>th</sup> fire engine in attendance (Source: 'Vision': GTIRT17-02791).

## OFFICIAL

- 02:34** BA Team 20: Firefighter J Wright, Firefighter Bell and Firefighter Alassad exit the building via the main entrance (Source: CCTV: Camera 2 and Camera 4, MPS Witness Statement: GTIRT18-02061).
- 02:34\*** *Firefighter D Hill from BA Team 21 reaches the 12<sup>th</sup> floor and enters the lobby, he is looking for flat 95. He carries out a right hand search and finds a door which won't open, he thinks it is an electricity cupboard. He then feels the wall around to the left and discovers what he believes is a red door. Firefighter D Hill knocks on the door but gets no answer so knocks again and the door is answered by a male who is on the phone to Brigade Control. The male puts the phone down on seeing Firefighter D Hill. Firefighter D Hill goes into the flat and explains that he is going to get them out, but explains that it is very dark and heavily smoke logged. He tells the family to get some wet towels and put them over their mouths as it will be hard to breath. He then lines them up and tells them to hold onto each other and follow him* (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00569, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00426).
- 02:34** BA Team 16: Firefighter Roots and Firefighter A Johnson having completed their rescues return to the bridgehead. They retrieve their BA tallies and close down their BA sets. They talk to WM O'Keeffe and the FSG co-ordinator who writes the information on the wall (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01842, GTIRT18-00935).
- 02:34** BA Team 24: Firefighter Bloxham and CM R Evans reach what they believe is the 20<sup>th</sup> floor. Firefighter Bloxham is grabbed by a male and a female trying to exit the building down the stairs. They are described by Firefighter Bloxham as elderly, although CM R Evans states the female is in her forties with long curly dark hair and is of small, thin build, with a younger looking male. BA Team 24 take the casualties back into the lift lobby where the air quality is slightly better and talk to them. The only information they get from the male and female is that there are an unspecified number of people on one of the floors above. The elderly female is begging the firefighters to rescue her family. She is on her mobile phone to the rest of the family on the 23<sup>rd</sup> floor. On hearing this Firefighter Bloxham states she is going to go and rescue them. CM R Evans calls Firefighter Bloxham back and tries to radio through to the ECO. He states he sends their BA call sign and also tells the ECO of the need to send a crew to Flat 205, 23<sup>rd</sup> floor. CM R Evans cannot confirm if the ECO receives the message or whether he gets a response (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01038, GTIRT18-00926, BSR Witness Statement: IWS00000704).
- 02:34\*** BA Team 26: Firefighter Juggins and CM McAlonen are ascending the stairs in the stairwell. *Firefighter Juggins states "floors three to six are relatively smoke free. The seventh floor however has zero visibility". However CM McAlonen states "that visibility is poor from the fourth floor"* (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01417, GTIRT18-01010).

**OFFICIAL**

**02:34:03** Echo 371, Peckham's PL book Status 3 in attendance at Grenfell Tower. This is the 40<sup>th</sup> fire engine in attendance (Source: 'Vision': GTIRT17-02791).

**02:34:16** CRO Howson at Brigade Control takes a call from a caller in flat 192 on the 22<sup>nd</sup> floor who reports that there is a fire in their flat. CRO Howson asks who is in the flat and the caller states that there are two adults and three kids. CRO Howson then asks the caller to hold the line and in the background a female in the Brigade Control Room is heard to state that if they are affected by fire and flames and smoke then they have got to get out. CRO Howson comes back to the caller and asks very specifically is there is fire in the flat and the caller responds that there is. CRO Howson gives explicit instructions that the caller needs to get out. She advises them to stay together and hold hands, advising them to keep their mouths covered with wet towels. CRO Howson then states that she will tell crews so they can come and meet them. Incident Number 76195, Call Duration two minutes 19 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00632).

At this point Brigade Control have received additional calls to the following flats;

Time of call	Flat Number	Floor number	Number of people confirmed by caller	Remarks
02:25:38	205	23	7 adults	Told to leave by Brigade Control Operator
02:26:48	173	20	Two	The caller explains that she has opened the front door and it is very smoky outside
02:27:12	142	17	Five Adults including two elderly people	The caller states that the fire is right next to the window
02:28:09	73	10		The caller explains that they have blocked the doors but that it is getting very hot
02:28:53	194	22	One elderly male	Call is from daughter in law. Call is taken by Surrey Fire and Rescue Service. Resident is trapped.
02:29:34		14	One adult and one baby	There is some confusion between the BT operator and the Brigade Control which floor he was on.
02:30:45	194	22		Daughter in Law reports Father in Law is trapped
02:30:51	192	22		This is a call from the MPS to the LFB to pass on information.

**OFFICIAL**

				<p>The MPS CRO states that a lady rang to report that her friend, her friends husband and three children were trapped.</p> <p>Caller is friend from outside the tower and says three adults and three children are trapped.</p>
02:31:49		14		
02:32:30	153	18	4 adult	
02:32:41	82	11		
02:34:16	192	22		Told to leave by Brigade Control Operator

**02:34:22** Maria Del-Pilar Burton (flat 165, 19<sup>th</sup> floor) is on a wheeled stretcher being pushed by three unidentified firefighters and a paramedic outside Kensington leisure centre towards Bomore road (Source CCTV: Camera OPS1 Kensington leisure centre).

**02:34:35** Firefighter Desforges from BA Team 19 descends the stairs to the stair lobby and proceeds into the main lobby (Source: CCTV: Camera 2).

**02:34:37** Firefighter R Mitchell from BA Team 19 follows his BA partner down the stairs into the main lobby (Source: CCTV: Camera 2).

**02:34:42** CRO Fox takes a call from a female caller on the 18<sup>th</sup> floor in flat 153 reporting that her flat is on fire and that she has come in to her neighbours. CRO Fox pauses and in the background, a female voice is heard to say 'Get Out'. CRO Fox tells the caller to cover themselves with towels, cover their mouth and nose and that they need to get out. CRO Fox then asks how many people there are and the caller replies that there are four adults and five children. The caller explains that there is a fire in flat 152 and that she can't get out because there is thick black smoke outside the flat and that "the fire brigade said he was going to come back for us and he hasn't". CRO Fox asks the age range of the children and the caller explains that they are between three and 11 years old and that she is pregnant. CRO Fox says she will contact the CU and get them to send someone up to them and asks the caller to call back if the situation gets worse. Incident Number 76198, Call Duration three minutes 13 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00635).

**02:34:52** The Radio Operator at Brigade Control sends message to CU7.

"Charlie Uniform 7, priority, priority. Over"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02990).

## OFFICIAL

- 02:34:54** SM Myatt enters the building via the main entrance. He then goes back outside through the main entrance (Source: CCTV: Camera 4).
- 02:34:58** CU7 respond to the Radio Operator at Brigade Control.  
"FN from Charlie Uniform 7, go ahead. Over".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02991).
- 02:35** BA Team 15: Firefighter Fernandes and Firefighter Williams go to the BA staging area on the grass immediately outside the leisure centre and rehydrate and cool down (Source: MPS Witness Statement: GTIRT18-00041, GTIRT18-01105).
- 02:35** BA Team 19: Firefighter Desforges and Firefighter R Mitchell return to their fire engine and rehydrate, cool down and get some replacement BA cylinders (Source: MPS Witness Statement: GTIRT17-02932, GTIRT18-00652).
- 02:35:00\*** SM Walton enters the building via the main entrance and stands by the front door (*From SM Walton MPS Witness Statement it would appear that due to the amount of debris and smoke coming in through the front door he felt this needed managing*) (Source: CCTV: Camera 4, MPS Witness Statement: GTIRT18-01000).
- 02:35** BA Team 24: Firefighter Bloxham and CM R Evans who are on the 20<sup>th</sup> floor begin to descend the stairs with the male and the female that have been self-presented to them. The male is holding onto Firefighter Evans and the female is with Firefighter Bloxham. Both firefighters comment on how thick the smoke is in the stairwell. The female is struggling to breathe and then collapses falling onto Firefighter Bloxham (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01038, GTIRT18-00926).
- 02:35:00\*** BA Team 29: Firefighter Whitley and Firefighter Nuttall. Firefighter Nuttall states he sees GM Goulbourne and GM Welch organising the firefighters, telling them their briefings and what equipment they need to take with them (Source: MPS Witness Statement: GTIRT18-01296).
- 02:35:03** The Radio Operator at Brigade Control provides information to CU7.  
"Charlie Uniform 7, erm, we've been informed that there is a rope ladder on the southern aspect of the building and it's very close to falling debris. Over".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02992).
- 02:35:24** CU7 request repeat of message.  
"FN from Charlie Uniform 7. Can you repeat message? Over".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02993).
- 02:35:27** The Radio Operator at Brigade Control repeats message.



## OFFICIAL

"We've been informed there is a rope ladder on the southern aspect very close to falling debris. There's people on it. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02994).

**02:35:31** CRO Duddy at Brigade Control takes a call from a caller shouting "firefighters please help us". He keeps shouting 152, 18th floor, followed by "hello" repeatedly. CRO Duddy tries to talk to the caller but is not able to get a response. The BT Operator then comes back on the line to advise that the line has dropped out and that they tried to get a number but the caller is just screaming. CRO Duddy responds by saying that at least they have a location for the caller. Incident Number 76194, Call Duration one minute one second (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00631).

**02:35:31** SM Myatt enters the building via the main entrance and walks to the stair lobby (Source: CCTV: Camera 4).

**02:35:42** CU7 acknowledges receipt of message sent by the Radio Operator at Brigade Control at **02:35:27**.

"FN from Charlie Uniform 7, received".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02995).

**02:35:45** The Radio Operator at Brigade Control sends further message to CU7.

"Erm, further traffic".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02996).

**02:35:58** CU7 acknowledge receipt.

"FN from Charlie Uniform 7. Go ahead with further traffic".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02997).

**02:36\*** *Firefighter D Hill from BA Team 21 states as soon as a male, female and two children leave flat 95 the children are screaming that they can't breath. They get to the stairwell and the male is shouting at Firefighter D Hill that his children can't breath. Firefighter D Hill removes his fire helmet and BA facemask and tries to give the four people some air from his BA set (The BA Data shows that this happens three times between 02:34\* and 02:36\*). Firefighter D Hill thinks he is going to pass out because he is breathing in the smoke. He puts his BA facemask back on and they then start to descend the stairs. Firefighter D Hill believes he is around the ninth or eighth floor and decides to pick up one of the daughters and run with her down the stairs to clean air, where he hands her to another firefighter ((Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00426).*

## OFFICIAL

- 02:36** BA Team 25: Firefighter Orchard and Firefighter Herrera are climbing the stairs and trying to find flat 113, 14<sup>th</sup> floor. They reach what they believe is the right floor and start to search it. Firefighter Orchard states she identifies flat 94 (now known to be the 12<sup>th</sup> floor). Firefighter Herrera states they knock on all the doors on this floor but there is no answer. Firefighter Herrera states he realises that they are not at the flat that they were briefed to go to so decides they need to go up and locate the flat they are looking for (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01020, GTIRT18-00647).
- 02:36:01\*** *BA Team 17: Firefighter Cook and Firefighter Flanagan close down their BA sets (Source: BA Data, this data is an approximation as there is limited data on the system for BA Team 17 due to the non removal of the BA Tallies: GTIRT17-02820).*
- 02:36:02** The Radio Operator at Brigade Control sends informative message to CU7.  
"Erm, caller is saying that there's fire coming through to their flat from the 15th floor down to the 14th floor. I don't have a flat number but it's coming through the 15th down to the 14th. Over".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02998).
- 02:36:07** CRO Russell takes a call from a caller in flat 204 on the 23rd floor of Grenfell Tower who reports that smoke is coming in and that it is very difficult to breathe. CRO Russell asks if the caller thinks it would be better to cover themselves and leave the building but he explains that he has a disability and needs help to get to the stairs. CRO Russell advises the caller to block the doors and shut the windows and the caller confirms that he has but smoke is still coming in. The caller says he is in the sitting room and CRO Russell undertakes to pass on the location of the caller to crews and tell them he needs help to leave. She advises that that he should stay as low to the ground as possible and cover his nose and mouth. Incident Number 76202, Call Duration three minutes 59 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00639).
- 02:36:12** CRO Gotts at Brigade Control takes a call from a female caller who is outside the Tower. The caller reports a fire in a building near Bramley Road and CRO Gotts asks if it is a very large fire in Grenfell Tower and the caller confirms that it is. The caller then states that her dad is in flat 204 on the top floor and that she has spoken to him and there is a lot of smoke in the flat. CRO Gotts explains that the Brigade is aware and will be making their way up the building. The caller asks how the fire will be put out and if they are going to use a helicopter. CRO Gotts says that the experts are there and trying to work out the best way of dealing with it. Incident Number 76196, Call Duration one minute nine seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00633).
- 02:36:16** CU7 acknowledge receipt of message sent by the Radio Operator at Brigade Control at **02:36:02**.

## OFFICIAL

"FN from Charlie Uniform 7, received".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02999).

**02:36:46** The Radio Operator at Brigade Control sends message to CU7.

"Priority, priority Charlie Uniform 7"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03000).

**02:36:47** CRO Duddy at Brigade Control takes a call from a female caller who reports that she thinks that the fire is going up beyond the fourth floor. The caller is in flat 73 on the 10th floor and states that there is smoke coming in to her flat. CRO Duddy asks how many people are there and the caller states that there are four of them. CRO Duddy asks if the doors are blocked and explains that the caller needs to make their way to a room furthest from the smoke. He advises wet towels to keep them cool. The caller asks if they should stay put and CRO Duddy says the Brigade is clearing the building as they go but asks the caller if they can see a way out and the caller says that it is pitch black outside her front door. CRO Duddy states that he will pass on the information to crews who will come and get them. Incident Number 143562, Call Duration two minutes 59 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01747).

**02:37:00** CRO Adams at Brigade Control takes a call from a female caller in flat 193 on the 22nd floor who is reporting that a lot of smoke is coming into the flat and that she has blocked up the door. The caller states that there are six adults and two children and CRO Adams tries to confirm that it is just smoke at the moment. CRO Adams advises the caller to keep safe, go to a room that has the least smoke and to ring back if the fire comes into their flat. CRO Adams explains that she needs to go as there is a high volume of calls and states that she will let the crews know where they are. The caller starts to get agitated and says the smoke is in this room and CRO Adams advises them to shut the windows. The caller appears to drop the call. Incident Number 76199, Call Duration three minutes eight seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00636).

**02:37:02** The Radio Operator at Brigade Control sends message to CU7.

"Priority, priority, Charlie Uniform 7, Charlie Uniform 7 from M2FN over"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03001).

**02:37:14** The Radio Operator at Brigade Control sends message to CU7 again.

"Priority, priority, Charlie Uniform 7, Charlie Uniform 7 from M2FN over"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03002).

**02:37:21** CU7 respond to the Radio Operator at Brigade Control.

## OFFICIAL

"FN from CU7, go ahead, over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03003).

**02:37:23** Golf 305, Wembley's ALP book Status 2, mobile to Grenfell Tower. Golf 305 is riding with two firefighters: CM Darren Bennett and Firefighter John Reynolds (Source: 'Vision': GTIRT17-02791).

**02:37:23** SM Cook enters the building via the main entrance (Source: CCTV: Camera 4)

**02:37:25** CU7 request repeat of message.

"FN from Charlie Uniform, err, can you repeat last part of message over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03005).

**02:37:25** The Radio Operator at Brigade Control sends informative message to CU7.

"We've had a report that the south-east corner of the building is completely alight, and the Western aspect is completely smoke-logged over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03004).

**02:37:26** AOM Real at Brigade Control makes a call to the LAS Control Room to inform them that a Major Incident has been declared by the London Fire Brigade (Source: NICE, Admin Phone Line Audio file: GTIRT18-00903).

**02:37:30** BA Team 25: Firefighter Orchard and Firefighter Herrera and BA Team 26: Firefighter Juggins and CM McAlonen are both on the 14<sup>th</sup> floor. BA Team 25 are looking for Flat 113 and BA Team 26 locate Flat 111. BA Team 26 enter Flat 111 as the front door is wide open and undertake a search of the flat and find it empty. BA Team 25 find Flat 113 and knock on the door. The people inside refuse to open the door. Firefighter Herrera tells them they have to come with them, but the voice from the other side of the door says "no" (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00647, GTIRT18-01020, GTIRT18-01010, GTIRT18-01417).

**02:37:32** CRO Gotts at Brigade Control takes a call from a female caller who reports being able to see someone at the top of the tower in Latimer Road flashing a light on what appears to be a phone. CRO Gotts acknowledges that the Brigade is aware of people at the top of the tower. Incident Number 76197, Call Duration 33 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00634).

**02:37:45** The Radio Operator at Brigade Control repeats information requested in message sent by CU7 at **02:37:25**.

"Yeah, the Western aspect is, err, filling up with smoke - or filled up with smoke, over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03006).

## OFFICIAL

**02:37:45** CU7 acknowledges receipt.

"FN from Charlie Uniform 7 received".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03007).

**02:37:45** Large pieces of burning debris are falling around the main entrance (Source: CCTV: Camera 4)

**02:37:56** CRO Howson at Brigade Control takes a call from flat 82 on the 11<sup>th</sup> floor stating that the fire is on the landing outside although she has not exited her flat so is not completely sure. CRO Howson asks if there is fire in the flat and the caller confirms that there is not. CRO Howson states that if the flat is not on fire then the caller should stay there and try and keep the smoke out and that she will pass the information onto the crews. CRO Howson then asks how many people there are and the caller confirms that there are three people in the flat; herself, her husband and her six year old daughter. Incident Number 76200, Call Duration one minute 41 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00637).

**02:38\*** *Firefighter D Hill from BA team 21, is carrying down one of the children from flat 95. He gives the child to a firefighter around the bridgehead area makes his way back up the stairs to try and locate the rest of the family . As Firefighter D Hill is climbing the stairs he locates the male from flat 95 who is running down the stairs. Firefighter D Hill then continues climbing the stairs and locates a casualty. He is unsure who they are but thinks it maybe the youngest child from flat 95. He picks up the casualty and starts to help her down the stairs. Whilst descending the stairs Firefighter D Hill believes the casualty is very heavy and can't work out why. Firefighter D Hill states "he is flustered, exhausted and struggling to breathe at this point". Firefighter D Hill's LPWA actuates at this time as he only has 84 bar left in his BA cylinder and should already be back at the bridgehead if complying with Brigade policy. Firefighter D Hill whilst carrying the casualty down realises that he is rescuing the mother not the daughter. Firefighter D Hill gets her to clean air and then tries to go back and find the other girl from Flat 95. Firefighter D Hill states that he talks with another BA Team (now known to be BA Team 24: Firefighter Bloxham and CM R Evans) (Source: BA Data, MPS Witness Statement: GTIRT18-00426).*

**02:38\*** *BA Team 24: Firefighter Bloxham and CM R Evans are descending the stairs, with the male and female they found at around the 20<sup>th</sup> floor. CM R Evans leads the male down the stairs followed by Firefighter Bloxham who is assisting the female. The conditions become worse and the female is struggling to breath and then collapses pulling Firefighter Bloxham down with her, who twists her ankle. CM R Evans picks up the female and carries her over his shoulder and continues down the stairs. Firefighter Bloxham believes at around the 10<sup>th</sup> floor she is handed a firefighters helmet by another firefighter. Firefighter Bloxham shouts to CM R Evans to try and use his BARIE radio to contact the ECO that they may have an injured firefighter nearby. Once out of the smoke, a firefighter (now known to be Firefighter D Hill) appears with no fire helmet on and tries to help*

## OFFICIAL

*Firefighter Bloxham and CM R Evans with their female casualty. Firefighter Bloxham states that the firefighter appears confused and unable to talk coherently. CM R Evans who now has the fire helmet hands it back to the firefighter (Firefighter D Hill) who is still trying to help them with their casualty. Firefighter Bloxham decides to treat Firefighter D Hill as a casualty and grabs him in a partial headlock to get him under control and helps him down the stairs) (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01038, GTIRT18-00926, GTIRT18-00426).*

**02:38:06** AOM Real at Brigade Control makes a call to the MPS Control Room and inform them that a Major Incident has been declared by the Brigade (Source: NICE, Admin Phone Line Audio file: GTIRT18-00904).

**02:38:54** CRO Jones at Brigade Control takes a call from flat 92 although it is very difficult to hear the caller. CRO Jones establishes that they can't get out and advises the caller to shut the window to stop smoke getting in. The caller explains that there is a bit of smoke and there are "fire balls" at the window and CRO Jones tries to establish where these are coming from. The caller advises that these are falling from above. CRO Jones states that if the caller cannot get out then they should stay there and keep safe. CRO Jones states that the caller should call back if the smoke starts affecting them or if they get scared. Incident Number 76208, Call Duration three minutes 43 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00645).

**02:39** BA Team 23: Firefighter Daoud and Firefighter O'Donoghue believe they are on the ninth floor they take a gauge check to see how much air they have. Firefighter O'Donoghue has 90 bar and Firefighter Daoud has almost 120 bar. They continue to climb up the stairs, Firefighter O'Donoghue believes they are now at the 11<sup>th</sup> floor when he sees Firefighter Daoud bump into a male and a women. Both firefighters put their equipment down for other firefighters to use and Firefighter Daoud states that he hands his TIC to another crew ascending the stairs. Firefighter Daoud then states that he holds the male by the arm and leads him out and Firefighter O'Donoghue picks up a girl and carries her down (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00393, GTIRT18-00046).

**02:39\*** BA Team 22: CM Batcheldor and Firefighter N Saunders are located at the bridgehead. A firefighter appears from the stairwell with a young girl and falls on top of BA Team 22. CM Batcheldor leads the girl downstairs (Source: MPS Witness Statement: GTIRT17-01103).

**02:39** BA Team 26: Firefighter Juggins and CM McAlonen move onto Flat 112, 14<sup>th</sup> floor and force entry into the flat. On entry they find the lights are on and there is no smoke. They undertake a search of the flat, finding it empty, and once completed go back into the lobby. On returning to the lobby BA Team 26 meet BA Team 25: Firefighter Orchard and Firefighter Herrera. CM McAlonen recognises Firefighter Herrera's voice, but they cannot see each other. Firefighter Herrera explains to CM McAlonen that the occupants will not leave Flat 113. They both go to the door of

## OFFICIAL

Flat 113 and knock and kick the door and tell the occupants that they are there to take them out (Source: MPS Witness Statement: GTIRT18-00647, GTIRT18-01020, GTIRT18-01010, GTIRT18-01417).

**02:39:17** CU8 send informative message to the Radio Operator at Brigade Control.

"Charlie Uniform 8, informative message from D-A-C O'Loughlin.

Fire on all floors, from 2nd to 27th floor. Large number of persons involved. FSG Calls being dealt with. Major incident declared. High-rise procedure implemented. TL, ALP, EDDBA,

Main control. F-S-G, ground monitor, five jets, safety cordon in place. Tactical mode Oscar, Charlie Uniform 8, over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03012, GTIRT17-03013, GTIRT17-03014, GTIRT17-03015, GTIRT17-03016, GTIRT17-03017, GTIRT17-03018, GTIRT17-03019).

**02:39:34** BA Team 23: Firefighter O'Donoghue and Firefighter Daoud reach the bridgehead with their casualties and hand them over to firefighters undertaking casualty handling. They report to the ECO and inform them that they did not make it to flat 95, 12<sup>th</sup> floor. Whilst at the bridgehead Firefighter O'Donoghue's LPWA actuates (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00393, GTIRT18-00046).

**02:39:43** BA Team 27: Firefighter Dwyer and Firefighter Perez report to the bridgehead on the third floor. They are briefed to proceed to flat 74, 10th floor for a FSG call. They are carrying a length of 45 mm fire hose, TIC, enforcer and a firefighting branch (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01548, GTIRT18-03108).

**02:39:45** SM Walton enters the building via the main entrance (Source: CCTV: Camera 4).

**02:39:47** Georgina Smith (flat 95, 12<sup>th</sup> floor) carrying a pink towel is escorted from the stairs at ground floor level into the main lobby by CM Batcheldor (Source: CCTV: Camera 2).

**02:39:48** CRO Gotts at Brigade Control takes a call from a caller reporting a whole building on fire near Silchester Road and confirms with the caller that this is Grenfell Tower. CRO Gotts confirms the Brigade is in attendance with 40 fire engines and the caller asks if there are any more that could come. The caller asks if they can hurry up. Incident Number 76201, Call Duration 47 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00638).

**02:39:49** Firefighter N Saunders from BA Team 22 descends the stairs without a fire helmet to the stair lobby and proceeds into the main lobby (Source: CCTV: Camera 2).

**02:39:54** Georgina Smith (flat 95, 12<sup>th</sup> floor) is escorted out of the building via the main entrance by CM Batcheldor (Source: CCTV: Camera 4).

## OFFICIAL

- 02:40** BA Team 25: Firefighter Orchard and Firefighter Herrera and BA Team 26: Firefighter Juggins and CM McAlonen are all now outside Flat 113. Firefighter Herrera is still knocking on the door and the other three firefighters are behind him. One of the occupants answers the door and *Firefighter Herrera believes it is a male, but Firefighter Orchard believes it is a female*. Firefighter Herrera enters the flat and the first person he sees is a female. He grabs hold of her and pushes her out of the flat and hands her to CM McAlonen. Behind the female is a mixed race male carrying a female child. The male who is carrying the child runs out of the flat following the female. Firefighter Herrera is still standing by the front door when he notices a silhouette of a male in the flat and walks towards the person. As he gets closer to the silhouette Firefighter Herrera realises that this is an adult male and calls out "fire brigade lets go". Firefighter Herrera asks the male if there is anyone else in the flat to which the male replies "no I'm the last one". Firefighter Herrera makes the conscious decision not to search the rest of the flat as the male was clear there was no one else in the premises. Firefighter Herrera then leads the male out of the flat and shuts the door to the flat behind him (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01020, GTIRT18-01417, GTIRT18-01010, BSR Witness Statement: IWS00000523, IWS00000852).
- 02:40\*** BA Team 31: CM Hoare and Firefighter Tanner are in the stairwell leading to the bridgehead between the mezzanine and third floor. CM Hoare can hear the noise of panic from members of public that are being escorted down the stairs by firefighters. The casualties appear to be suffering from smoke inhalation. CM Hoare remarks on how the stairs above the mezzanine become more enclosed than the first set of stairs. CM Hoare states that the visibility is good and there is no smoke. He can also see personal belongings including purses and items of clothing in the stairwell. He states there are no fire hose on the stairs between the mezzanine and bridgehead (Source: MPS Witness Statement: GTIRT17-01959).
- 02:40** BA Team 31: CM Hoare and Firefighter Tanner both see who they believe is Firefighter D Hill. Firefighter Tanner states "Then a fireman came in in a right state his name was Hills or Mills, I don't know where he was based. He was proper exhausted, just all floppy, eyes rolling, people were helping him, trying to take his set off." CM Hoare from BA Team 31 is waiting for their brief and also states he sees a female firefighter (known to be Firefighter Bloxham, BA Team 24 ) assisting Firefighter D Hill (Source: MPS Witness Statements: GTIRT17-01959, GTIRT18-00998).
- 02:40\*** BA Team 24: Firefighter Bloxham and CM Richard Evans are in the stairwell and believe they are around the sixth floor when Firefighter Bloxham meets a Senior Officer. The Senior Officer instructs Firefighter Bloxham to take Firefighter D Hill (described as delirious) to the bridgehead as there is oxygen available there. The Senior Officer then assists Firefighter Evans with the casualty down to the main lobby. Firefighter Evans, whilst in the lobby, hears someone shout "she is from Flat 205" (Source: MPS Witness Statement: GTIRT18-01038).



## OFFICIAL

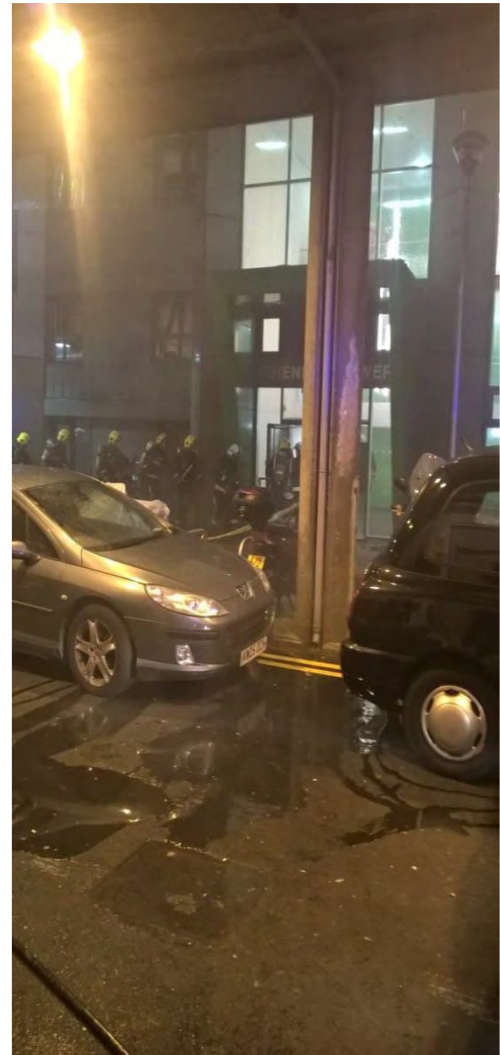
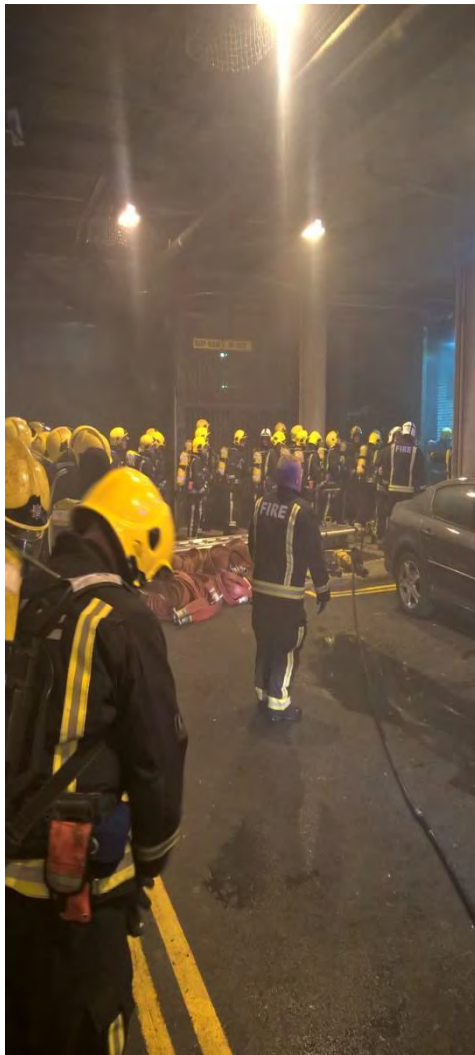
- 02:40\*** *At about this time, WM Aston-O'Donovan walks towards Grenfell Tower with Firefighter Green and they are held under the covered section under Grenfell Walk outside the South elevation of Grenfell Tower. WM Aston-O'Donovan and Firefighter Green are taken to the bridgehead on the third floor, at about this time WM Aston-O'Donovan was with WM Cardy. WM Aston-O'Donovan states "Senior Officer Richard Welch was in charge, but he didn't give us the briefing, this was done by another officer". WM Aston-O'Donovan further states that "There were a lot of crews gathered on this floor and you were held here in the que until you were given an initial briefing from a diagram that was sketched (china graphed) on the wall" (Source: MPS Witness Statement: GTIRT18-00045).*
- 02:40:08** Golf 386, Heston's FRU book Status 3, in attendance, at Grenfell tower. This is the fifth FRU in attendance (Source: 'Vision': GTIRT17-02791).
- 02:40:18** At this time a loud bang is heard in the playground area outside the West elevation. Mr Mohammed Neda (flat 205, 23<sup>rd</sup> floor) is found on the ground and is apparently dead (Source: MPS BWV PC Martin Hart).
- 02:40:30** CRO Duddy at Brigade Control takes a call from a BT Operator in Glasgow who passes the mobile number of a caller who requested the Brigade but the line dropped out. CRO Duddy says he will call back. Incident Number 76203A, Call Duration 18 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT18-01599).
- 02:40:39** CRO Gotts at Brigade Control takes a call from a member of the public who can see a whole building on fire but they do not know the location. CRO Gotts asks if there is a lot of fire coming from it and whether it is Grenfell Tower, near White City and the caller states that he thinks that is correct. CRO Gotts advises that Brigade is dealing with the incident. Incident Number 76205, Call Duration one minute 22 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00642).
- 02:40:40** CRO Howson at Brigade Control takes a call from a female caller who can see a whole building on fire and hear people screaming for help. CRO Howson states that the Brigade is there and dealing with the incident. Incident Number 76204, Call Duration 55 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00641).
- 02:40:47** NWFC take a call from a BT Operator in Portadown who is passing details of a critical caller who is trapped in the fire. The BT Operator states that the caller is in flat 194 and cannot breathe. The NWFC Operator states that he will pass the information on. Incident Number 76656, Call Duration 49 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01832).
- 02:40:48** CRO Duddy at Brigade Control calls back the number given to him by the BT Operator at 02:40:30 and the caller states that he wants to report a fire in Grenfell Road. CRO Duddy

**OFFICIAL**

confirms the Brigade is in attendance. Incident Number 762038, Call Duration 31 seconds  
(Source NICE, Admin Phone Line Audio file GTIRT18-01598)

## OFFICIAL

**02:41** SM Loft is under the covered walkway outside the South elevation. Whilst there he takes two below photos of the BA Teams waiting to be committed into Grenfell Tower. (Source: SM Loft Images, Ref 972382).



**02:41** BA Team 26: Firefighter Juggins and CM McAlonen are with BA Team 25: Firefighter Orchard and Firefighter Herrera are descending the stairs. They reach the bridgehead with the four people from flat 113, 14<sup>th</sup> floor and hand them over to other firefighters (Source: MPS Witness Statement: GTIRT18-01417, GTIRT18-01010, GTIRT18-01020).

**02:41:03** Brigade Control repeat back the 'informative' radio message sent to them by CU8 at **02:39:17**

"Charlie Uniform 8, informative message from DAC O'Loughlin. A residential block of flats, 27 floors, 25 metres by 25 metres, fire on all floors from 2nd floor to 27th floor. Large number of persons involved, FSG calls being dealt with, major incident declared, high-rise procedure implemented, P-L, A-L-P, E-D-B-A, main control FSG, ground monitor, five jets, safety cordon in place, tactical mode Oscar, is that all correct? Over"

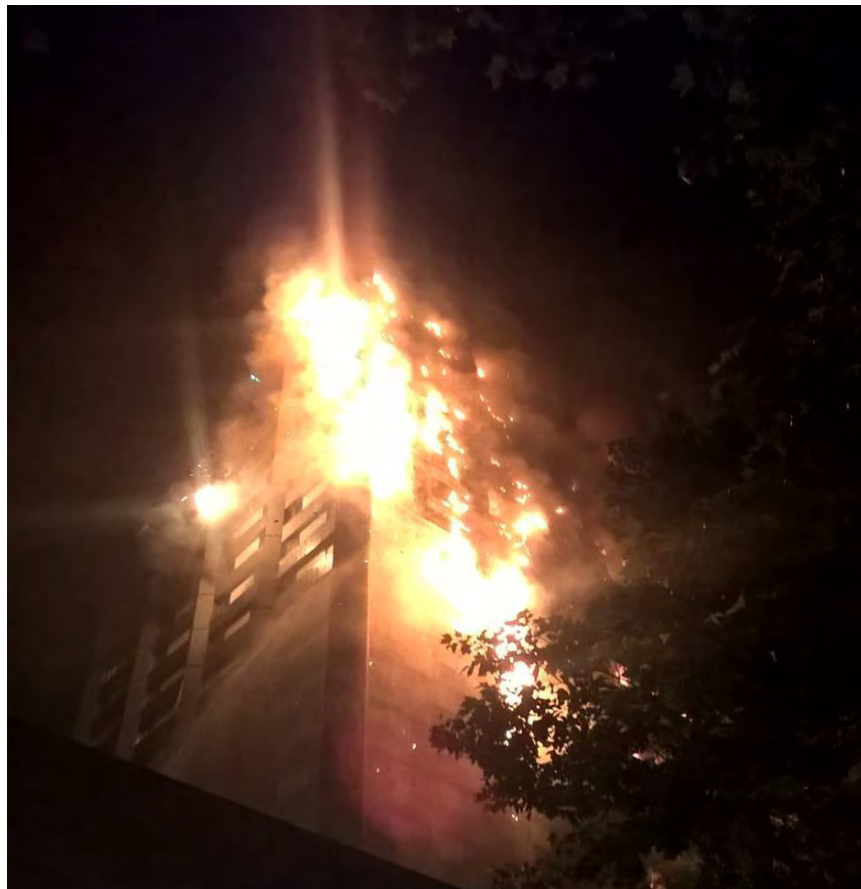
## OFFICIAL

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03020).

- 02:41:08** Katarzyna Dabrowska (flat 95, 12<sup>th</sup> floor) with a pink towel, is being escorted by SM Mulholland (ORT) from the stairs into the main lobby (Source: CCTV: Camera 2).
- 02:41:09** GM Cook (ORT) enters the building via the main entrance and stops and talks to SM Mulholland (ORT) (Source: CCTV: Camera 4).
- 02:41:24** Katarzyna Dabrowska (flat 95) is escorted out of building via the main entrance by a Firefighter through the main door. (Source: CCTV: Camera 4).
- 02:41:31** Kristina Smith (flat 95, 12<sup>th</sup> floor) is carried by GM Goulbourne from stairs to the main lobby (Source: CCTV: Camera 2).
- 02:41:31** CRO Fox takes a call from a male caller who reports he is in Grenfell Tower in flat 133 on the 16<sup>th</sup> floor. CRO Fox asks how many people are there and the caller states that there are two adults in the flat. The caller states that they have already attempted to leave the flat but had to turn back. CRO Fox advised the caller to put wet towels around themselves and the doors if it is definitely not safe to get out and states that she will pass on the callers location details to the command unit. She confirms that the crews are getting to people as quickly as they can. Incident Number 76210, Call Duration one minute 54 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00647).
- 02:41:42** CU8 respond to the Radio Operator at Brigade Control.
- "Charlie Uniform 8, all correct, standby for further traffic, over".
- (Source: Radio Message and Transcript, GTIRT17-03021).
- 02:41:44** Mr Roy Smith from flat 95, 12<sup>th</sup> floor is escorted down the stairs into the main lobby by a Firefighter O'Hanlon (Source: CCTV: Camera 2).
- 02:41:45** GM O'Neill enters the building via the main entrance and proceeds to the stair lobby (Source: CCTV: Camera 4).
- 02:41:46** CRO Russell takes a call from an MPS CRO who gives details of a call they have taken from Flat 192 in Grenfell Tower where there are two adults and three children. The MPS CRO states that they are in the bedroom and the fire is in the living room. CRO Russell confirms this information and asks if the MPS CRO knows the floor number which he does not. CRO Russell states that she will pass it on to the crews. Incident Number 76212, Call Duration 51 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00649).
- 02:41:48** BA Team 23: Firefighter O'Donoghue and Firefighter Daoud are at the bridgehead where they collect their BA tallies and close down their BA sets (Source: BA Data: GTIRT17-02820).

## OFFICIAL

- 02:41:52** GM O'Neill enters the stair lobby and goes up the stairs to the mezzanine floor (Source: CCTV: Camera 2).
- 02:41:53** Kristina Smith (flat 95, 12<sup>th</sup> floor) is carried out of building via the main entrance by GM Goulbourne who places his fire helmet on her to protect her from falling debris (Source: CCTV: Camera 4).
- 02:41:58** GM Cook (ORT) leaves the building via the main entrance (Source: CCTV: Camera 4).
- 02:42** BA Team 27: Firefighter Perez and Firefighter Dwyer are in the stairwell and reach what they believe is the fifth floor where they state "the smoke is thick". Firefighter Dwyer he notices "There were many objects, a lot of stuff on the stairwell" (Source: MPS Witness Statement: GTIRT18-03108, GTIRT18-01548).
- 02:42** SM Loft is standing outside the south elevation takes the below photo of the south east corner showing the south and east elevations.. Debris is falling from the building and the flames are wrapping around from the East elevation to the South elevation. A jet of water can be seen in the bottom left hand corner and it is believed that this is coming from a monitor on Grenfell Walk above (Source: LFB Image: 972384).



## OFFICIAL

- 02:42:03** Golf 382, Heston's Pump book Status 3, in attendance, at Grenfell tower. This is the 41<sup>st</sup> fire engine in attendance (Source: 'Vision': GTIRT17-02791).
- 02:42:06** The Radio Operator at Brigade Control request further information from CU8.  
"Go ahead with further traffic".  
(Source: Radio Message, GTIRT17-03022).
- 02:42:06** CRO Howson at Brigade Control takes a call from a female caller in flat 203 on the 23rd floor. The caller explains that there is no fire in the flat yet but that the flat next door is on fire and the smoke is getting quite strong. CRO Howson asks if the caller has taken action to stop the smoke coming in and the caller confirms that they have put blankets by the front doors and have closed the windows. CRO Howson suggests that they could block around the windows and states that they should keep low. The caller explains that there are five adults and two children under five. CRO Howson explains she will pass the information onto crews and tells the caller to ring back if things get worse. The caller asks what she should call back on and states that the next call might not be possible. CRO Howson explains that the safest place for the caller at the moment is in the flat as long as there aren't any flames. She also suggests dampening tea towels and putting them over their mouths to help them stop inhaling smoke. Incident Number 76214, Call Duration two minutes 23 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00651).
- 02:42:07** Hotel 346, Wimbledon's FRU book status 3, in attendance, at Grenfell Tower. This is the sixth FRU in attendance (Source: 'Vision': GTIRT17-02791).
- 02:42:08** CRO Duddy at Brigade Control takes a call from a female caller . A smoke alarm can be heard in the background. The caller is in flat 94 on the 12th floor. The caller confirms there is smoke coming in the flat. There are two people, the caller is with her sister. She says the whole flat is full of smoke. A conversation can be heard between CRO Duddy and a female. The female says to CRO Duddy "get out ?". CRO Duddy then embarks on advising the caller that they have to leave the building. The caller starts crying and saying there is too much smoke. CRO Duddy tells them to go out the front door. The caller says that they can't leave because they can't see anything. The caller asks how can they see where they are going. The caller says she has opened the door and there is a lot of smoke. The caller insists they can't go out. She says she opened the door and smoke smothered her. CRO Duddy says feel along the walls. CRO Duddy is really insistent on trying to get them out. He repeats that they need to get to the stairs. At approximately 02:50 CRO Duddy says "if you don't do what I tell you, you are going to die in that flat". The caller says she will try. No more is heard from the caller and the BT Operator comes on the line and confirms the caller has cleared the line. Incident number 76206, Call Duration ten minutes 49 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01751). This is the call time but has been

## OFFICIAL

referenced using the BOSS Created time. Therefore the Transcript time is not identical to the BOSS call time.

**02:42:08** CU8 send additional informative message to the Radio Operator at Brigade Control.

"Go head with further traffic."

"Charlie Uniform 8. 58 Adults - 5-8 adults and 16 - 1-6 children believe involved. Tactical mode Oscar, Charlie Uniform 8 over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03023).

**02:42:14** CRO Gotts at Brigade Control takes a call from a male caller who asks for a helicopter to rescue them as they are going to die. He states that there are nine people in flat 153 on the 18th floor and that 152 is alight. CRO Gotts asks if the caller can move away from the side of the flat next to 152 and suggests that the caller blocks up where the smoke is coming in. The caller states that they are trying but that no one is helping them and that they need to be evacuated. The caller says that smoke is coming into the flat and CRO Gotts states that if they cannot leave then they need to block up where the smoke is coming in from. CRO Gotts explains that she will pass the information to the crews. The caller says thank you and goes off the line. Incident Number 76209, Call Duration three minutes 38 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00646).

**02:42:16** Farhad Neda (flat 205, 23<sup>rd</sup> floor) descends the stairs into the stair lobby and proceeds into the main lobby (Source: CCTV: Camera 2).

**02:42:17** Mr Roy Smith (flat 95, 12<sup>th</sup> floor) is escorted out of the main entrance by a Firefighter O'Hanlon, Mr Smith is wearing a probationers fire helmet, indicated by diamonds on the fire helmet (Source: CCTV: Camera 4).

**02:42:21** The Radio Operator at Brigade Control acknowledges receipt of message sent by CU8 at **02:42:08**.

"Charlie Uniform 8. 58 adults and 16 - 1-6 children believed involved, received. Err tactical mode Oscar, received."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03024).

**02:42:31** CU8 request repeats message.

"Charlie Uniform 8, that's 58 - 5-8 adults. Charlie Uniform 8 over"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03025).

**02:42:32** *Whilst being assisted out, Firefighter D Hill believes he is trying to find the bridgehead but thinks it may have moved. He believes he goes to try and find the bridgehead but is finding it difficult to*

## OFFICIAL

*breath. His ADSU then actuates, another firefighter nearby who is wearing a BA set and waiting to be committed up the tower removes their BA Tally and puts it into Firefighters D Hill ADSU resetting it and stopping the alarm. A WM who can see that Firefighter D Hill is struggling tells him to take off his BA set and fire tunic (Source: BA Data: GTIRT17-02820, MPS Witness Statement:, GTIRT18-00426).*

**02:42:36** The Radio Operator at Brigade Control acknowledges receipt.

"All received"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03026).

**02:42:38** AOM Real at Brigade Control makes a call to the Royal Borough of Kensington and Chelsea (RBKC) to report the Major Incident declaration. The RBKC Operator says that they are aware and asks if the Brigade need anything from them. AOM Real explains that she is required to inform the Borough Duty Officer. The RBKC Operator gives the reference as T1585687 (Source: NICE, Admin Phone Line Audio file: GTIRT18-00905).

**02:42:46** Farhad Neda (flat 205, 23<sup>rd</sup> floor) is escorted out of building via the main entrance by firefighters (Source: CCTV: Camera 4).

**02:42:46** SM Walton is positioned at the front door watching for falling debris to ensure firefighters and residents don't get hit by debris when they exit (Source: CCTV: Camera 4).

**02:42:57** Alpha 306. Islington's FRU book Status 3, in attendance, at Grenfell Tower. This is the seventh FRU in attendance (Source: 'Vision': GTIRT17-02791).

**02:43\*** *WM D Meyrick who was Team Leader on CU8, states in his MPS witness statement that he was asked by SM Oliff (OOD) to confirm with AC Roe that Brigade Control could change their advice to callers. He states that he did that and relayed back to SM Oliff (OOD) that the advice had been changed. He states he cannot recall what time that was. DAC O'Loughlin states in his MPS witness statement. When AC Roe meets DAC O'Loughlin on CU8, AC Roe says they need to change 'stay put' advice and DAC O'Loughlin says this has already been done (Source: MPS Witness Statement: GTIRT17-01948, GTIRT18-01266).*

**02:43** BA Team 17: Firefighter Cook and Firefighter Flanagan are at their fire engine and complete their 'A' Test and return to Grenfell Tower for redeployment. Both Firefighter Cook and Firefighter Flanagan are refused entry by the WMs in charge of BA deployment as they could see they had already worn BA (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT17-01958, GTIRT18-01829).

**02:43** AC Roe is on CU8 and takes over the incident from DAC O'Loughlin, AC Roe asks SM McConochie to act as his loggist from this point onwards noting all key decisions and recording



## OFFICIAL

the minutes of any Tactical Coordination Group meeting's (TCG). DAC O'Loughlin gives AC Roe a brief, he confirms that Grenfell Tower is alight from the third floor to the 24th floor, with multiple people trapped inside, GM Welch and GM Goulbourne are in charge of the fire sector (Source: MPS Witness Statement: GTIRT17-01254, GTIRT18-03107).

- 02:43:08** CRO Jones at Brigade Control takes a call from a caller in flat 73 on the 10th Floor who reports that they think the fire is coming up to their floor. The caller confirms there are four of them in the flat. CRO Jones asks if the caller can get out of the flat and they reply that they do not think they can as the fire is below them. CRO Jones then asks if there is smoke and the caller confirms there is a lot and the front door is hot. CRO Jones suggests that the caller go into a room where it is safe and there is a window to get fresh air. CRO Jones then asks if they can try to get out of the flat and the caller asks if it is the best thing to do. CRO Jones states that current advice is that they should get out. She suggests wetting towels and putting them over their bodies and then trying to get out. The original caller says to CRO Jones that she thinks the fire department are on the phone and there is a brief three way discussion following which the caller states that they must leave now and the line goes silent. Incident Number 76211, Call Duration four minutes 26 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00648).
- 02:43:21** Firefighter Broderick and Firefighter Cornelius enter the building via the main entrance carrying an axe and a sledgehammer (Source: CCTV: Camera 4).
- 02:43:22** GM Goulbourne enters the main lobby via the main entrance (Source: CCTV: Camera 4).
- 02:43:24** Alpha Tango 1 are paged. They are the Rapid Response Team (RRT) based at Lambeth. They are a team of WMs that carry a small amount of EDDBA on their vehicle (Source: 'Vision': GTIRT17-02791).
- 02:43:26** Flora Neda (flat 205, 23<sup>rd</sup> floor) is carried down the stairs by Firefighter Evans still in his BA set and under air with GM O'Neill. They are followed by SM Cook and all proceed into the main lobby (Source: CCTV: Camera 2).
- 02:43:51** CU8 send informative message to the Radio Operator at Brigade Control.  
"Charlie Uniform 8, for your information AC Andy Roe is now incident commander of this incident. Tactical Mode Oscar. Charlie Uniform 8 over".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03029).
- 02:43:53** There are 16 firefighters in the main lobby and all enter the stair lobby and go up the stairs. *(It is believed they are going to report to the bridgehead for deployment into the building)*. They are led by SM Cook (Source: CCTV: Camera 2).

## OFFICIAL

**02:43:54** CRO Fox at Brigade Control takes a call from a female reporting that she is stuck in her house in flat 182 on the 21<sup>st</sup> floor opposite the front door. The caller confirms that there are two adults and three children. There is a lot of shouting in the background and a man can be heard shouting "we are dying". CRO Fox asks if the caller is able to get out and they say no so she starts to provide FSG advice but the line goes dead. Incident Number 76213, Call Duration 54 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00650).

**02:43:55** CRO Adams at Brigade Control takes a call from a male caller in flat 193 on the 22<sup>nd</sup> floor. She asks if the fire is in the caller's flat and the caller explains that the fire is next door and that there are eight people present. CRO Adams asks if they can get out and the caller responds to say they cannot but asks if the Brigade can send a helicopter and CRO Adams explains that the Brigade do not have helicopters. CRO Adams asks again if they can get out and the caller explains that they cannot because there is so much smoke in the corridors. CRO Adams states again that if the conditions get very bad they should get themselves out of the flat, covering themselves with wet towels. At the end of the call, CRO Adams states to the caller that he should make the decision whether to leave or not. Incident Number 76215, Call Duration two minutes 23 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00652).

**02:44:00** SM Oliff (OOD) who is at Brigade Control phones CU7 who are dealing with the FSG coordination at the scene. He contacts CU7 using his Brigade mobile and spends the next hour and 35 minutes passing FSG call information to CU7. This call was not recorded (Source: Mobile Phone Call Log: GTIRT18-03467).

**02:44:01** The Radio Operator at Brigade Control confirms receipt of message sent by CU8 at **02:43:51**.

"Erm, AC Roe now incident commander received"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03030).

At this stage Brigade Control have received multiple calls from several flats throughout Grenfell Tower. These are listed below. These calls are in addition to the previous tables earlier in this report.

Time of call	Flat Number	Floor number	Number of people	Remarks
02:34:42	153	18		
02:35:31	152	18	Caller	Shouts for help and gives flat number. Not totally clear if they are in the tower.
02:36:07	204	23	One adult	Male is disabled and has difficulty moving on his

OFFICIAL

				own
02:36:12	204	"Top"		
02:36:47	73	10		
02:37:00	193	22	Six adults and two children	
02:37:56	82	11	Two adults one child	Caller says they are spraying her windows
02:38:54	92			
02:40:30	94	12	One adult who is the caller	
02:40:47	194			This call was taken by British Telecom and passed to the NWFC
02:41:31	133	16	Two adults	Tried to leave but had to turn back because of the smoke
02:41:46	192		Two adults and three children	
02:42:06	133	16	Two adults	
02:42:06	203	23	Five adults two children	
02:42:14	153	18		
02:43:08	73	10		
02:43:54	182	21		
02:43:55	193	22		

**02:44:07** BA Team 28: Firefighter Reddington and Firefighter Upton report to the bridgehead on the third floor. They report to the ECO, start breathing under air and remove their BA tallies. They are briefed to go to the 21<sup>st</sup> floor and take with them an enforcer and write the details of their brief on the item of equipment (*In her witness statement Firefighter Upton says they are tasked with going to Flats 183 and 184 but in her contemporaneous note she states flats 182 and 183*). BA Team 28 are leaving the bridgehead when they hear firefighters shouting that a firefighter (Firefighter D Hill) is missing (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT17-01715, Contemporaneous Notes: GTIRT17-00158).

## OFFICIAL

- 02:44:08** Flora Neda from Flat 205, 23<sup>rd</sup> floor carried out of the building by a group of firefighter via the main entrance (Source: CCTV: Camera 4).
- 02:44:09** SM Mulholland (ORT) enters the building via the main entrance (Source: CCTV: Camera 4).
- 02:44:20\*** BA Team 30: Firefighter Pole, Firefighter Cheesman, Firefighter N Mitchell and Firefighter Bate are on the mezzanine floor waiting to be committed. *Firefighter Bate states "we were told to stop letting crews go past us into the stairwell, firefighters were ignoring us and making their way up into the stairwell". Firefighter Bate further states "on the mezzanine level there were people shouting and screaming. There were so many residents trying to get out of the building, which was being made harder due to the amount of firefighters. One female was stumbling and screaming". Firefighter Bate asks the female what floor are you from? Firefighter Bate believes the female says she's from flat 113, 14<sup>th</sup> floor. Firefighter Bate also states "the children being carried out are coughing and are clearly affected by smoke" (Source: CCTV: Camera 1, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-02865).*
- 02:44:32\*** BA Team 29: Firefighter Whitley and Firefighter Nuttall are tasked to go to flat 122, 15th floor for a FSG rescue. They are told to take a firefighting branch and wait five minutes to get one. BA Team 29 have a TIC, an enforcer and a length of 45 mm fire hose. BA Team 29, have already started up their BA sets and are under air. Firefighter Nuttall states that he is under air for a while, waiting for the firefighting branch. He is aware that he may not have enough air to complete the task he had been allocated to do and was annoyed about this (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01296).
- 02:44:39\*** Firefighter Upton from BA Team 28 states, BA Team 28 climbed the first set of stairs which is already filled with smoke. Even the bridgehead is not completely clear at this point, by the fourth floor they can not see anything. Firefighter Upton believes there is emergency lighting and the BA team also have their torches on, but the density of the smoke is causing visibility loss, they can not see a thing. The smoke is lighter on the third floor and gets denser and darker as they go up. it is coming from everywhere , there is not a single corner that is clear and there is no obvious source, such as an open doorway. There is debris all over the stairs which they can not just walk past in case it is a person. The BA team take their time to make sure they do not miss anyone. Firefighter Upton is feeling her way with her feet and hands. When reaching a pile Firefighter Upton gets down on her hands and knees to check it. They can not see anything so they are doing everything blind. It is really hard work. The BA team go back to the stairwell and carry on climbing up the tower. Firefighter Upton believes Firefighter Reddington is leading the way. They rest a couple of times as the conditions are so hot and difficult. (Source: MPS Witness Statement: GTIRT17-01715).

## OFFICIAL

- 02:44:41** CRO Russell at Brigade Control takes a call from a female caller in flat 82 on the 11th floor reporting that the front door is hot and making popping noises. CRO Russell explains that this may mean there is a fire the other side and takes time to give clear instructions on what to do to keep safe. She tells the caller to move to another room where there is less smoke and that when they get to the room they need to close the door and block the gaps around the doors and windows. CRO Russell tells the caller to keep low to the ground and cover their mouths and noses with some material. The caller keeps pleading with CRO Russell. They move to the back bedroom next to the front door and CRO Russell continues to reassure the caller and provide support and guidance. The caller then states that it is coming in through the kitchen window and CRO Russell tells the caller to stay where they are and keep themselves safe. CRO Russell says she needs to leave the caller explaining that she wants to contact the crews at the scene to let them know where they are and that the caller should call back if it gets worse. Incident Number 76216, Call Duration five minutes 23 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00653).
- 02:44:41** Kent FRS take a call from a BT Operator in Nottingham connecting a call that cannot be put through to London because all the lines are busy. The caller is reporting a fire at Grenfell Tower that he is watching live on "Periscope". Incident Number 1276, Call Duration one minute 11 seconds (Source: FRS Incident Log, Audio file and Transcript: GTIRT17-01618).
- 02:44:44** Omar Alhaj-Ali (flat 112, 14<sup>th</sup> floor) descends the stairs to the stair lobby and proceeds into the main lobby holding a towel around his face (Source: CCTV: Camera 2).
- 02:44:47** Omar Alhaj-Ali (flat 112, 14<sup>th</sup> floor) runs out of main lobby and exits building via main entrance. As he leaves he is stopped by WM Williams and WM Moore before he leaves and they are seen to talk for a short while (Source: CCTV: Camera 4).
- 02:45** BA Team 24: Firefighter Bloxham and CM R Evans collect their BA tallies from the ECO and close down their BA sets. Firefighter Evans sits down and tells a group of firefighters and an Officer at the ECP that his crew had rescued two people but need someone to go back to flat 205. Firefighter Evans further states "we did not make it to floor 23" (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01038, GTIRT18-00926).
- 02:45\*** BA Team 35: Firefighter Lowe and Firefighter Wharnsby enter Grenfell tower and walk up the stairs to the mezzanine level. Firefighter Wharnsby states he changes his radio channel to 6. Firefighter Wharnsby states he notices drawings on the wall "*the drawings were made using chalk and contained a plan of the general layout of the floors*" Firefighter Lowe, on reaching the bridgehead states "*it was very busy, lots of writing on the walls with notes scribbled down*" (Source: MPS Witness Statement: GTIRT18-00433, GTIRT17-02939).

## OFFICIAL

- 02:45:01** The Protective Equipment Group (PEG) acknowledge their pager message by calling into Brigade Control. They are informed of the incident (Source: 'Vision': GTIRT17-02791).
- 02:45:06** SM Mulholland (ORT) enters the stair lobby and goes up the stairs to the mezzanine floor (Source: CCTV: Camera 2).
- 02:45:22** CRO Fox at Brigade Control takes a call from a female caller in flat 192 on the 22nd floor who shouts that they are dying. The caller says there are five people, and then it is unclear how the caller describes the break down of this number. It sounds like she says there are three children and four adults. CRO Fox asks if they are able to get out and the caller says that they cannot get out, that they have opened the door and almost died. CRO Fox tells them they need to get out of the flat, covering their bodies with towels. A male caller then comes on the phone. He says that the corridor is full of smoke. CRO Fox insists that they need to get out of the flat and the caller says okay. Incident Number 76220, Call Duration two minutes 55 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00656).
- 02:45:23** Keziah Talabai (flat 113, 14<sup>th</sup> floor) is carried down the stairs into the main lobby by SM Cook. Rosemary Oyewole also from Flat 113 is with them (Source: CCTV: Camera 2).
- 02:45:32** Oluwaseun Talabai (flat 113, 14<sup>th</sup> floor) is escorted down the stairs into the main lobby by WM Dowden (Source: CCTV: Camera 2).
- 02:45:34** BA Team 26: CM McAlonen and Firefighter Juggins report to the ECO at the bridgehead and collect their BA tallies and close down their BA sets. They brief the ECO and explain that flats 111 and 112 are empty and they have brought three residents down from flat (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01417, GTIRT18-01010).
- 02:45:35** CRO Howson at Brigade Control takes a call from the MPS who pass on information about a call they have taken from flat 152 on the 18th floor. The caller states that there are four persons, three children and a pregnant lady. Incident Number 76218. Call Duration 38 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00654).
- 02:45:45** Surrey FRS take a call via a BT Operator from the daughter-in-law of a resident on the 22<sup>nd</sup> floor. This caller has spoken to Surrey FRS at 02:28:53. The Surrey CRO takes a mobile phone number of the resident and says she will pass it to London and ask them to call him. Incident Number 024545, Call Duration one minute 28 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01611).
- 02:45:51** Keziah Talabi (flat 113, 14<sup>th</sup> floor) is carried out of stair lobby by SM Cook into the main entrance and handed to SM Walton who proceeds out of the tower (Source: CCTV: Camera 4)
- 02:46\*** *BA Team 28: Firefighter Reddington and Firefighter Upton are in the stairwell making their way up the stairs where they meet another BA Team who are coming down the stairs to exit.*

## OFFICIAL

*Firefighter Upton states there is a brief discussion and the BA Team exiting ask BA Team 28 if they have a TIC. Firefighter Upton says "no" and the other BA Team tell them to take theirs or they won't be able to see anything due to the conditions above the fourth floor (Source: MPS Witness Statement: GTIRT17-01715).*

- 02:46:04** CU4, Lewisham's CU book Status 3, in attendance, at Grenfell Tower. This is the fourth CU in attendance (Source: 'Vision': GTIRT17-02791).
- 02:46:26** Golf 306, Wembley's FRU book Status 3, in attendance, at Grenfell Tower. This is the eighth FRU in attendance (Source: 'Vision': GTIRT17-02791).
- 02:46:39** Rosemary Oyewole and Oluwaseun Talabai (flat 113, 14<sup>th</sup> floor) are escorted out of the building by WM Dowden via the main entrance (Source: CCTV: Camera 4).
- 02:46:42** CRO Adams at Brigade Control takes a call from a female caller who shouts that she is stuck in flat 182 on the 21st floor and that there are five of them in the flat. The caller is coughing and struggling to make herself heard but explains that they can't leave because it is too smoky and she cannot breathe. CRO Adams repeatedly tells them they must leave the building. Coughing and choking sounds are audible and CRO Adams explains that they need to make their way out along the corridor, covering themselves with wet towels and sheets as the Brigade are not going to get to them. She waits for a response but she doesn't get any. There is more coughing and choking heard. CRO Adams states that she has to leave the call because there are so many calls coming in. Incident Number 76221, Call Duration two minutes 38 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00657).
- 02:46:42** Merseyside FRS takes a call via a BT Operator in Nottingham who states that they are passing the call because all the lines are busy in London. The caller says he is calling regarding the fire in Grenfell Tower and that the Brigade are present and have told him to call 999 and report that there is someone that needs to be evacuated. He explains that his grandfather is stuck in the toilet in flat 81 on the 11th or 14th floor. The Merseyside CRO takes the details. Merseyside Incident number 009192, Call Duration two minutes 42 seconds, (Source: FRS Incident Log and Audio file: GTIRT18-02885).
- 02:46:43** Bravo Charlie 01, the Principal Operations Manager (POM) Scott Hayward books Status 3, in attendance, at Brigade Control (Source: 'Vision': GTIRT17-02791).
- 02:46:43** Bravo Charlie 04, SOM Adam Crinion books Status 3, in attendance, at Brigade Control. He is the second SOM in attendance at Brigade Control (Source: 'Vision': GTIRT17-02791).
- 02:46:48** WM Dowden re-enters the main lobby and proceeds up to the mezzanine floor (Source: CCTV: Cameras 2 and 4).

## OFFICIAL

- 02:46:58** CRO Howson takes a call from flat 183 and the caller says they are still waiting but the fire has already reached them. CRO Howson asks if the fire is in his flat. He says no but it is next door. CRO Howson says that if he feels it is unsafe then he should leave the building. She tells him to cover his face and wrap towels around himself and his family and leave the building. Incident Number 143555, Call Duration one minute 15 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01740).
- 02:47** Firefighter Daoud and Firefighter O'Donoghue are unable to leave via the main entrance due to the amount of falling debris. In the main lobby they are talking to firefighters who are waiting to be committed. They enter through the door leading to the community room. They assist Firefighters Broderick and Firefighter Cornelius to break through a window, side door and some shutters using a sledgehammer to create a new entrance and exit point. (This becomes the only access in and out of the building from around 02:55) (Source: MPS Witness Statement: GTIRT18-00393, GTIRT18-00046).
- 02:47** The change in the 'stay put' advice was logged on CU8 at 02:47 hours (Source: AC Roe Decision Log: GTIRT17-02438).
- 02:47:00** SM Cook descends the stairs to the stair lobby and proceeds into the main lobby where he meets GM Goulbourne who hands him three firefighting branches. SM Cook then proceeds back up the stairs to the mezzanine floor (Source: Cameras 2 and 4, CCTV).
- 02:47:07** CRO Gotts at Brigade Control takes a call from a female caller who says her niece and sister-in-law are stuck in Grenfell Tower. The caller says they are on the 18th floor. CRO Gotts says she has just spoken to someone on the 18th floor and she is going to pass the information to crews. The caller asks what they should tell them. CRO Gotts tells the caller that if she speaks to the family again they should cover themselves with wet towels and try and get out if they can. Incident Number 76219, Call Duration one minute 16 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00655).
- 02:47:13** BA Team 27: Firefighter Dwyer and Firefighter Perez are climbing the stairs and are at what they believe is the 10<sup>th</sup> floor level. Firefighter Perez states "I could hear crying, it was faint and I did not know where it was coming from. As I got to the tenth floor, I heard spluttering and crying". The smoke is thick. So he starts to use the TIC and sees a female coming towards them. They grab hold of the female and try to assist her down the stairs but before they can move her down she tells them that her dad is in flat 122, 15<sup>th</sup> floor. Firefighter Perez and Firefighter Dwyer then attempt to send a message to the ECO and tells them about finding the women and the male in Flat 122, 15<sup>th</sup> floor. They then run down the stairs with the female holding an arm each. The TIC footage shows BA Team 27 meeting Miss Ross and also shows the amount of hose on the





01:51:58 GMT + 55:18 ... Adjusted Time 02:47:16

ce: TIC Video Footage: CV035802, MPS Witness Statement: GTIRT18-01548, GTIRT18-03108, GTIRT18-00641).

**02:47:23** BA Team 25: Firefighter Orchard and Firefighter Herrera return to the bridgehead and close down their BA sets (Source: BA Data: GTIRT17-02820).

**02:47:37** CRO Jones at Brigade Control takes a call from Merseyside FRS who report that they have had a call put through to them by the BT Operator. The Merseyside CRO explains that they have had a call from a man who says his grandfather is stuck in the toilet in one of the flats. The Merseyside CRO then says that it is flat 81 on the 11th or 14th floor and CRO Jones states that they are not going to get to people and are telling people to leave. The mobile number for the caller is then

## OFFICIAL

passed to CRO Jones. CRO Jones says she will call him back. Incident Number 76222, Call Duration one minute 39 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00660).

**02:47:47** WM Dowden descends the stairs into the stair lobby and proceeds into the main lobby (Source: CCTV: Camera 2).

**02:47:56** The Radio Operator at Brigade Control sends message to CU7.

"Charlie Uniform 7, priority, over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03031).

**02:48\*** *BA Team 29: Firefighter Whitley and Firefighter Nuttall are at the bridgehead and waiting for a firefighting branch. They are shown a drawing on the wall of the lobby, which details the layout of the flats in relation to the stairs, the lifts, the bin chute and the DRM outlet* (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01296).

**02:48** Firefighter Dwyer relays the information to an officer about Miss Ross's father still being in flat 122, 15<sup>th</sup> floor. He states that he also explains "that BA Team 27 has not completed their brief and another BA Team will need to go up" (Source: MPS Witness Statement: GTIRT18-01548, GTIRT18-03108).

**02:48:03** CU7 respond to the Radio Operator at Brigade Control.

"FN from Charlie Uniform 7 go ahead, over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03032).

**02:48:07** The Radio Operator at Brigade Control provides information to CU7.

"Charlie Uniform 7, err, we've got a caller who's trapped in their flat, erm, on - flat 153, on the 18th floor, over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03033).

**02:48:20** CU7 request further information from the Radio Operator at Brigade Control.

"FN from Charlie Uniform 7, how many persons are there".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03034).

**02:48:22** Alpha Tango 1, confirms they are monitoring the incident over the radio (Source: 'Vision': GTIRT17-02791).

**02:48:22** CRO Howson at Brigade Control takes a call from a child resident in flat 153 on the 18th floor who explains that the fire is in the flat next door. CRO Howson asks to speak to an adult and the child passes the phone to her Mum. The female caller explains that she has called before and been told

## OFFICIAL

someone would be sent up and CRO Howson responds by telling them if the fire is in the flat next door that they need to leave as the Brigade will not be able to get up to them. She gives instructions to cover their mouths with wet towels and make their way down. CRO Howson asks the caller if they understand but the line cuts off. Incident Number 76228, Call Duration two minutes 11 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00666).

**02:48:32** WM Williams enters the stair lobby and ascends the stairs to the mezzanine floor (Source: CCTV: Camera 2).

**02:48:35** The Radio Operator at Brigade Control respond to message sent by CU7 at **02:48:20**.

"Err, we don't know how many but about four, approximately. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03035).

**02:48:41** CU7 acknowledges receipt.

"FN from Charlie Uniform 7, received".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03036).

**02:48:42** WM Dowden enters the stair lobby ascends the stairs to the mezzanine floor (Source: CCTV: Camera 2).

**02:48:48** Firefighter M Singh enters the main lobby via the community room door carrying a clear plastic bag with what appears to be a bag of the yellow rescue sheets, which he has been given by the LAS. He has a brief discussion with SM Walton then proceeds into the stair lobby and ascends the stairs to the mezzanine level (Source: CCTV: Camera 4).

**02:48:49** CRO Gotts takes a call from Surrey FRS who have had another call from the daughter-in-law of a resident who is trapped on the 22nd floor. The Surrey CRO passes the mobile phone number of the resident and asks if CRO Gotts could give him a ring. CRO Gotts confirms that we have just been told to tell people to put wet cloths over their mouths and try to get out and the Surrey CRO responds by explaining that the resident is 70 years old. Incident Number 76226, Call Duration one minute 43 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00664).

**02:49** BA Team 23: Firefighter Daoud and Firefighter O'Donoghue leave the building via the community room (Source: CCTV: Camera 4).

**02:49** Firefighter Bloxham administers oxygen to Firefighter D Hill on the way down the stairs to the mezzanine. Firefighter Evans meets them both on the mezzanine level (Source: MPS Witness Statement: GTIRT18-01038, GTIRT18-00926).

## OFFICIAL

- 02:49\*** BA Team 29: Firefighter Whitley and Firefighter Nuttall ascend the stairs. The stairs up to the fifth floor are congested with firefighters and the stairs are blocked by fire hose (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01296).
- 02:49** BA Team 27: Firefighter Dwyer and Firefighter Perez proceed past the bridgehead to try and complete their brief of getting to flat 74, 10<sup>th</sup> floor. They are in the stairwell climbing the stairs not far up as the smoke is not thick, when they meet a family consisting of a female, a male and a child being carried by the male. The male appears to have secured the child to him by tying a jumper around the child (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01548, GTIRT18-03108).
- 02:49:05** CRO Fox at Brigade Control takes a call from a male caller who explains that he is in flat 133 on the 16th floor and still waiting with his wife. CRO Fox gives instructions that they need to get safely out of the flat by wrapping sheets and towels around their body and a damp towel around their face. The caller asks if there is smoke on the stairs and CRO Fox says she doesn't know but that they still need to try and get outside. The caller says they will try and CRO Fox ends the call. Incident Number 76225, Call Duration one minute 31 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00663).
- 02:49:10** BA Team 19: Firefighter Desforges and Firefighter R Mitchell are at their fire engines Alpha 241 and Alpha 242 and carry out a fire ground 'A' Test giving them a replacement BA cylinder to allow them to re-commit into the building (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT17-02932, GTIRT18-00652).
- 02:49:14** WM Williams descends the stairs into the stair lobby and proceeds into the main lobby. He is carrying sheets of white A4 paper believed to be the Control Information Forms (Source: CCTV: Camera 2).
- 02:49:20** CRO Adams at Brigade Control takes a call from a male caller that shouts that he can see the flames coming out of the top of the building and down to his flat and that he has been waiting an hour. CRO Adams asks if he can get out the building but the caller says that he cannot as it is too dark and there's too much smoke. The caller explains that he is 67 years of age and cannot go running down the stairs. He is on his own on the 22nd floor and screams for the Brigade to come and get him. CRO Adams says that he needs to leave the building and starts to give advice about wrapping sheets around him but the line clears. Incident Number 76223, Call Duration one minute nine seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00661).
- 02:49:20** BA Team 26: Firefighter Juggins and CM McAlonen come down the stairs into the stair lobby and proceed into the main lobby (Source: CCTV: Camera 2).
- 02:49:37** NWFC take a call via a BT Operator explaining that the call is originally for London but the lines are busy. Once the caller is passed, they report a fire close to Latimer Road and the CRO asks if it

## OFFICIAL

is a high rise building of flats. The caller explains that she does not live there but cannot bear seeing people dying like this. Incident Number 143566, Call Duration one minute 31 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01608).

**02:49:50** Foxtrot 266, Bethnal Green's FRU book Status 3, in attendance, at Grenfell Tower. This is the ninth FRU in attendance (Source: 'Vision': GTIRT17-02791).

**02:50\*** *Firefighter D Hill is being administered oxygen and is assisted down the stairs, but he does not collect his BA tally from the ECO. Firefighter D Hill states "Then I thought if the dad didn't have the youngest girl then she's still in there". On realising he hasn't told the ECO he radios through to the bridgehead and informs them he has been to flat 95, 12<sup>th</sup> floor and the flat is clear but there might be a girl on the 6<sup>th</sup> or 7<sup>th</sup> floor* (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00426).

**02:50** BA Team 27: Firefighter Dwyer and Firefighter Perez escort a family down to the bridgehead where they untie the child (who is secured to the male by a jumper) and take them down to the mezzanine floor. All three are described as being of black heritage and the child is approx. 6-7 years old (Source: MPS Witness Statement: GTIRT18-01548, GTIRT18-03108).

**02:50:01** CRO Jones at Brigade Control makes a call back to the mobile passed by Merseyside FRS at 02:47:37. The call rings for 18 seconds and CRO Jones ends the call (Source: NICE, Admin Phone Line Audio file: GTIRT18-02577).

**02:50:04** SM Mulholland (ORT) descends the stairs to the stair lobby and then proceeds into the main lobby (Source: CCTV: Camera 2).

**02:50:07** WM Dowden descends the stairs to the stair lobby and proceeds into the main lobby (Source: CCTV: Camera 2).

**02:50:17** A large amount of debris is falling from the building outside the East elevation (Source: CCTV: Camera 2).

**02:50:19** CRO Jones at Brigade Control takes a call from a member of public who is reporting that his friend is stuck in flat 173 on the 20<sup>th</sup> floor. CRO Jones says the advice that Brigade Control are currently giving is that they need to try and get out of the building. The caller says he will tell his friend now. Incident Number 76224, Call Duration 39 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00662 and GTIRT17-01533).

**02:50:21** SM Egan is in the main lobby and is taking pictures (on his mobile phone) of the wall where the FSG call information is being recorded by WM Williams (Source: CCTV: Camera 4).

**02:50:32\*** *BA Team 28: Firefighter Reddington and Firefighter Upton are climbing up the stairwell and have to take several 20 second breaks due to the extreme heat and conditions. (The BA Data supports*

## OFFICIAL

*this as it can be seen that periodically BA Team 28 breathing rates slow and the pre-alarm on Firefighter Reddington's BA set actuates). Firefighter Upton states that as they climb the stairs they come across piles of discarded clothing, which slow them down as they get on their hands and knees to ensure they were not stepping over any casualties. The visibility in the stairwell is zero (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT17-01715).*

- 02:50:33** SM Cook escorts Firefighter D Hill down the stairs into the stair lobby. SM Cook is carrying an oxygen cylinder and Firefighter D Hill is wearing the oxygen mask. They proceed into the main lobby (Source: CCTV: Camera 2).
- 02:50:35** Firefighter Bloxham descends the stairs into the stair lobby carrying Firefighter D Hill's BA set (Source: CCTV: Camera 2).
- 02:50:48** CRO Howson at Brigade Control takes a call from a caller on the 12th floor. The caller says that the fire is coming into the flat by the window and that they are going to die. The caller states that he has a brother and a mum with him. CRO Howson explains that if the fire is in the flat they need to leave the flat and tells him to cover their mouths with wet towels and get out. The caller asks if they should use the lift and CRO Howson tells them not to use the lift. Incident Number 143556, Call Duration one minute 46 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01741).
- 02:50:48** BM1, The Brigade Commissioner Dany Cotton books status 3, in attendance, at Grenfell Tower with the Radio Operator at Brigade Control:

"Bravo Mike One now Status 3. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03038).

At this time Brigade Control have received a further 13 FSG calls since 02:44. These are shown in the table below.

Time of call	Flat Number	Floor number	Number of people confirmed by caller	Remarks
02:44:41	82	11	Two adults and one child	
02:45:22	192	22	Two adults and three children	Caller told to leave the building
02:45:35	152	18	One pregnant adult and three children	This is a call from the MPS to the Brigade to pass on information

OFFICIAL

02:45:45		22		Surrey FRS receive a call from the daughter in law of Anthony Disson. CRO says she will pass mobile number to London and also will ask them to ring resident
02:46:42	182	21	Five people	Caller told to leave the building
02:46:58	183			Caller told to leave the building
02:47:37	81	11 or 14		Merseyside Control call about a father stuck in the flat. They say 11th or 14th floor.
02:48:22	153	18		Caller is a child who passes phone to their mum during the call.  Caller told to leave the building
02:48:49		22		Information about a 70 year old male passed by Surrey fire and rescue service to London
02:49:05	133	16	Two adults	Caller says he is with his wife. Caller told to leave the building.
02:49:20		22	One adult	Caller told to leave the building
02:50:48		12	One adult and two children	Caller says he has a brother and mum with him. He is told to leave the building

**02:50:51** Brigade Control send the Commissioner a radio message confirming she is Status 3, in attendance, at Grenfell Tower:

Status 3 received.

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03039).

## OFFICIAL

- 02:50:57** CM Diana is outside Kensington leisure centre wearing EDBA looking up at Genfell Tower (Source: CCTV Camera OPS1 kensington leisure centre).
- 02:51\*** *Firefighter Nuttall from BA Team 29 notices that the floor numbers by the lifts don't appear to be correct he believes they aren't the right number for the floor he is on. Firefighter Nuttall states "from the fifth floor upwards there was dense smoke and we couldn't see much" (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01296).*
- 02:51** CM Yeoman and Firefighter A Nelson from BA Team 18 return to their fire engine Alpha 411, West Hampstead's PL, and carry out a fire ground 'A' test on their BA sets (Source: BA Data: GTIRT17-02820).
- 02:51:00** A large amount of smoke is entering the building through the front door and firefighters are being directed to exit via the community room (Source: CCTV: Camera 4).
- 02:51:00** BA Team 26: Firefighter Juggins and CM McAlonen have been waiting at the main entrance for nearly two minutes. They are waiting to exit the building but because of the amount of debris falling they have been unable to. WM Watson instructs them to leave via the community room (Source: CCTV: Camera 4).
- 02:51:00** The Essex CRO calls back the resident in flat 153 on the 18th floor and tells the caller that he has spoken to the Brigade who confirmed that they are in attendance. The Essex CRO states that the Brigade have told him that current advice is that they should cover themselves in wet bed sheets and make their way to the nearest fire exit. The caller says there is no fire exit and suggests that maybe they could jump onto some sort of sponge but the Essex CRO states that they do not have them. The Essex CRO asks how many people there are and the caller says that there are about four adults and five children. The Essex CRO states that he understands that it will be hard for them to get out. The caller explains that the fire is closer now and that his neighbour is with them and the Essex CRO advises that they should try and get out if they can. The caller states that the front door is full of smoke and the Essex CRO advises the caller to block the smoke if there is no way out. The caller then suggests again that they could jump and the Essex CRO is very clear that the caller must not jump from the 18th floor. He tells them to get together in the same room and he will try and get the London crews to them. Incident Number 73310, Call Duration two minutes 13 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00658). Please note: the transcript time for this call is incorrect and contains a typing error.
- 02:51:06** CRO Adams at Brigade Control takes a call from a caller on the 21st floor who says they are dying. CRO Adams explains that the Brigade is advising people to leave the building and explains that they should cover themselves with wet towels and run. Several voices and coughing can be heard. She goes on to explain that they should open the door carefully and make a run for it. The caller confirms they are going to try and a different voice to the callers is heard in the background



## OFFICIAL

saying that it is too smoky. The caller is not engaging in the conversation, CRO Adams tries to get some acknowledgment that they have understood her but the line goes dead. Incident Number 76227, Call Duration one minute 43 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00665).

- 02:51:09** CRO Russell at Brigade Control speaks to a female caller in flat 193 on the 22nd floor who is asking for advice. The caller asks if they should stay where they are or run downstairs. CRO Russell asks the caller to explain what the conditions are and the caller says it is very smoky outside the flat. CRO Russell explains that there are two options and proceeds to state that they can either move to a room that is less smoky and close the door and block the smoke, or try to leave the building but that the caller will have to decide which is safer. There is a lot of shouting in the background and the caller asks CRO Russell what they should do. CRO Russell asks how many people there are and the caller states that there are 10 of them and that they are in the living room. The line goes quiet for a period of time and when CRO Russell returns, she explains to the caller to get wet towels and blankets and cover themselves and get out. She says that there are lot of people in the building and the firefighters are struggling to get to everyone. The BT Operator comes on the line which indicates that the line has been dropped. Incident Number 76237, Call Duration five minutes 32 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00675).
- 02:51:22** AOM Real at Brigade Control makes a call to the Health and Safety Executive to report the Major Incident at Grenfell Tower and the current advice of telling residents to get out of the building. She tells them that it is a 40 pump fire. The name of the Health and Safety Executive is given as Paul Monaghan (Source: NICE, Admin Phone Line Audio file: GTIRT18-00910).
- 02:51:25** WM Dowden and SM Mulholland (ORT) enter the stair lobby, go up the stairs to the mezzanine level (Source: CCTV: Camera 2).
- 02:51:28** BA Team 30: Firefighter Bate, Firefighter Pole, Firefighter N Mitchell and Firefighter Cheesman are at the bridgehead and receive their briefing from WM De Silvo who briefs the crew to go to the 23<sup>rd</sup> floor. The crew are told to take fire hose, firefighting branches, a TIC and breaking in gear. WM De Silvo also tells BA Team 30 to stop and look on the fourth floor to familiarise themselves with the layout of the floor. Firefighter N Mitchell states he is briefed "to go to the 23<sup>rd</sup> floor and search two flats", Firefighter Pole states they were detailed to make their way to the 23<sup>rd</sup> floor for search and rescue, Firefighter Cheesman states "we are briefed as a crew of four to take two lengths of hose, a firefighting branch, TIC and breaking in gear to the 23<sup>rd</sup> floor". BA Team 30 then start breathing under air and remove their BA tallies (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-02865, GTIRT17-00076, GTIRT17-00077).

## OFFICIAL

- 02:51:31** CM Batcheldor is at the casualty handling area outside Kensington leisure centre and hands over Georgina Smith (flat 95, 12<sup>th</sup> floor) to her father Ray Smith and mother Katarzyna Dabrowska who are being treated by the LAS (Source , MPS BWV: GTIRT18-04610).
- 02:51:35** CU8 request to send a radio message to Brigade Control. Brigade Control ask CU8 to send their radio message
- Charlie Uniform 8 from M2FN, go ahead. Over.
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03040).
- 02:51:38** CU8 send a radio message to Brigade Control requesting the attendance of two BA Support Units and they are to go straight to the leisure centre
- FN Charlie Uniform 8. Can you make BA Support Unit 2 and to send them directly to the leisure centre. Charlie Uniform 8 over.
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03041).
- 02:51:38** CRO Gotts makes a call to the mobile number given to her by Surrey FRS at 02:48:49. A male answers the phone and is very distressed and shouts that the flames are coming from next door. CRO Gotts tells him to cover himself with wet towels and get out. He asks if she is serious and states that he is 67 years of age. CRO Gotts asks if a neighbour can help him but the caller says there is no one up there and the call cuts off (Source: NICE, Admin Phone Line Audio file: GTIRT18-02374).
- 02:51:54** Brigade Control send a message to CU8 confirm that the two BA support Units are to go to the leisure centre
- Was that BA Support Unit 2 to send to a leisure centre? Over.
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03042).
- 02:51:55** Firefighter Herrera from BA Team 25 descends the stairs to the stair lobby and proceeds into the main lobby (Source: CCTV: Camera 2).
- 02:51:59** CU8 send a radio message to Brigade Control confirming the last radio message is correct
- FN Charlie Uniform 8. All correct. Over.
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03043).
- 02:52:01** Firefighter Orchard from BA Team 25 descends the stairs to the stair lobby and then proceeds into the main lobby (Source: CCTV: Camera 2).
- 02:52:20** CRO Fox takes a call at Brigade Control from a female reporting that her friend is stuck in her flat, cannot get out and that the fire is outside the front door. They are in flat 73 but the caller does not

## OFFICIAL

know what floor. CRO Fox explains that the advice is to wrap themselves in wet towels and try and get out. She explains that crews are on lots of floors and they can assist them down. CRO Fox asks the caller to get her friend to ring 999 and they can advise her how best to get out. Incident Number 76231, Call Duration one minute 17 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00669).

- 02:52:35** Firefighter Okoh descends the stairs into the stair lobby and removes his EDDBA set (Source: CCTV: Camera 2).
- 02:52:40** SM Mulholland (ORT) descends the stairs to the stair lobby and proceeds into the main lobby (Source: CCTV: Camera 2).
- 02:52:41** BA Team 25: Firefighter Herrera and Firefighter Orchard leave the main lobby, proceed into the community room and exit the building (Source: CCTV: Camera 4).
- 02:52:51** CRO Adams at Brigade Control takes a call from Essex FRS who have had a call from a resident in flat 153 on 18th floor. This relates to the call at 02:51:00 above. CRO Adams tells the Essex CRO that the advice they are giving to everyone is to leave the building. The Essex CRO says he has told the caller that but they are saying it is not safe to do so because the fire is in the flat next door and the smoke is coming through the windows. CRO Adams reiterates the current advice and that the fire has spread throughout the building. CRO Adams also tells the Essex CRO that if Essex FRS receive any more calls from Grenfell Tower they should tell them to leave the building. Incident Number 76230, Call Duration one minute six seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00668).
- 02:52:57** GM Goulbourne and SM Cook enter the stair lobby and go up the stairs to the mezzanine level and believed onto the bridgehead (Source: CCTV: Camera 2).
- 02:53\*** *BA Team 29: Firefighter Whitley and Firefighter Nuttall believe they reach the seventh or eighth floor. They go into the lobby area to try to find any door numbers which will help them identify the flats position, the lobby layout and see how far they have left to go to reach the 15<sup>th</sup> floor. BA Team 29 get lost in the lobby and are feeling their way around for the floor number or flat numbers. Firefighter Whitley finds the doorway and the BA team make their way back onto the stairwell. Firefighter Nuttall decides to take a gauge check because he thinks they are going to run out of air. BA Team 29 then decide to run up the stairs to whichever floor they can reach and then come off into a lobby and see where they are. Firefighter Nuttall states "I think it was still around the seventh floor that I stood on what I thought was a hose but in fact it was a body."* (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01296, Contemporaneous Notes: GTIRT17-00120).
- 02:53:14** CRO Duddy takes a call at Brigade Control from a female member of the public who says she is watching a massive block of flats on fire. CRO Duddy confirms the Brigade is in attendance.

## OFFICIAL

Incident Number 76229, Call Duration 21 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00667).

- 02:53:17** CRO Jones at Brigade Control takes a call from a caller in flat 192 who states that they cannot leave. CRO Jones asks if there is smoke coming into the flat and the caller says yes. CRO Jones says that they need to try and get out and explains that they need to get wet towels. The caller states that they have no water because they are in the bedroom and CRO Jones again states that they have to try and get out. CRO Jones keeps trying to raise the attention of the caller who can be heard talking in the background but the line cuts off. Incident Number 76232, Call Duration two minutes 32 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00670).
- 02:53:17** WM Dowden descends the stairs to the stair lobby and proceeds into the main lobby (Source: CCTV: Camera 2).
- 02:53:40** Firefighter Okoh from BA Team 39 goes back up the stairs towards the bridgehead (Source: CCTV: Camera 2).
- 02:53:57** CRO Howson takes a call at Brigade Control from flat 182 on the 21<sup>st</sup> floor. The caller says the fire is in the flat and CRO Howson states that they must leave. The caller says they tried to leave before and CRO Howson explains that they need cover themselves with wet towels and get out. She explains that if the fire is in the flat the crews will not be able to get to them. There are discussions going on in the background and a voice is heard to say that they are trying to leave. Incident Number 76238, Call Duration three minutes three seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00676).
- 02:54** CM McAlonen from BA Team 26 and Firefighter Herrera from BA Team 25 exit the building via the entrance in the community room. On exiting the tower both firefighters see the male they brought down from Flat 113 (Omar Alhaj-Ali) in the play area to the West of the tower. The male looks at the firefighters and says to Firefighter Herrera "my brother is still in there, I'm on the phone to him, he is on his knees praying". He also says "I was mistaken" (Source: MPS Witness Statement: GTIRT18-01020, GTIRT18-01417).
- 02:54:21** CRO Fox takes a call at Brigade Control from a member of the public who is reporting a friend who is stuck in flat 194 on the 22nd floor. She says she can see him at the window and that the fire is all around him. CRO Fox explains they are telling people to leave and that the resident should call 999 but the caller explains that her battery has died and she can't ring him back. CRO Fox says she will contact crews at the scene and let them know. Incident Number 76234, Call Duration one minute four seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00672).
- 02:54:26** Rebecca Ross is escorted by a firefighter down the stairs to the stair lobby and into the main lobby. The firefighter then proceeds back up to the mezzanine floor because Firefighter

## OFFICIAL

O'Hanlon, who is in the main lobby, has indicated to him that he will escort Rebecca Ross out. (See picture below) (Source: CCTV: Camera 2).



Camera 2 ... Adjusted Time Approx 02:54:26

- 02:54:31** CRO Duddy at Brigade Control takes a call from a resident of Flat 153 on the 18th Floor who is outside of the building as he was not in when the fire started. The caller explains that his wife and three children are trapped and the fire is burning his children. CRO Duddy says that they need to get out of the flat but the caller explains that they can't get out because it is too smoky, they can't see where they are going and that one of his children has lost consciousness. CRO Duddy says he will get someone to them and asks if the caller has a phone number for them, the caller says he has a number. CRO Duddy tells the caller they should ring in to the Brigade or he should tell them to get out, using wet towels to cover themselves as it is their only option. The caller says he will try and call them and the line goes dead. Incident Number 76233, Call Duration one minute 17 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00671).
- 02:54:33** Rebecca Ross is escorted out of the main lobby into the community room by Firefighter O'Hanlon (Source: CCTV: Camera 4).
- 02:54:48** GM Goulbourne descends the stairs to the stair lobby and proceeds into the main lobby (Source: CCTV: Camera 2).
- 02:54:51** Firefighter Okoh from BA Team 39 descends the stairs to the stair lobby and proceeds into the main lobby (Source: CCTV: Camera 2).
- 02:54:51** CRO Adams at Brigade Control takes a call from a female caller that just repeats "Latimer Road station". The caller states that the fire brigade are not doing enough. CRO Adams assures her

## OFFICIAL

they are doing everything that they can. Incident Number 143564, Call Duration 46 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01749).

The picture below is of the view into the community room which is now where all entries and exits are being made due to the debris outside the East and South elevation doors. This picture was taken on a resident's phone as they were escorted out.



- 02:55** BA Team 23: Firefighter Daoud and Firefighter O'Donoghue return their BA sets to their fire engine. Whilst doing this they notice that first aid is required by members of the public so they take two IEC packs to the first aid handling area by the playground (West elevation) (Source: MPS Witness Statement: GTIRT18-00393, GTIRT18-00046).
- 02:55:05** BA Team 31: CM Hoare and Firefighter Tanner report to the bridgehead and are initially briefed by WM De Silvo to go to flat 74, 10<sup>th</sup> floor to assist a diabetic male. CM Hoare's BA tally is entered into the ECB and almost immediately WM De Silvo re-tasks them to go to the 12<sup>th</sup> floor for a declared 'firefighter emergency' (believed to be Firefighter D Hill of BA Team 21). CM Hoare states that they make up a BA Team of four with BA Team 32: WM Aston-O'Donovan and Firefighter Green who are also briefed to go to the 12<sup>th</sup> floor (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT17-01959, GTIRT18-00998).
- 02:55:05\*** *CM Hoare states, BA team 31 are climbing the stairs and as they do so CM Hoare notices more personal possessions in the stairwell. The conditions from the third to the fourth and fifth stairwell*

## OFFICIAL

*being the same as the team encounter on the lower floors, very little or no smoke. As the BA team approach the sixth floor the smoke is now obvious and reducing their visibility. CM Hoare states he can see his hands if he pulls them towards his face, make out the railings, and see maybe three steps ahead, but the general visibility is now impeded with the smoke albeit not thick smoke, the higher they go the visibility deteriorates and by the seventh floor the conditions change dramatically. It is thick heavy smoke, the smoke is increasing in heat and density. By the ninth floor CM Hoare has to wipe soot off of the walls to see what number of floor they are on, the conditions on the ninth, 10th and 11th floors are the same, no visibility, increased heat, thick smoke, if the lights are on or off it did not make any difference. (Source: MPS Witness Statement: GTIRT17-01959).*

- 02:55:08** CM Rawlings enters the main lobby via the community room. (Source: CCTV: Camera 4).
- 02:55:08** BA Team 27: Firefighter Dwyer and Firefighter Perez report to bridgehead and collect their BA tallies and close down their BA sets. Once this is done they inform the ECO that they did not reach flat 74, 10<sup>th</sup> floor as briefed. They inform the ECO that the female they rescued, her father is still in flat 122, 15<sup>th</sup> floor (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01548, GTIRT18-03108).
- 02:55:19** Firefighter Morcos enters the main lobby via the community room (Source: CCTV: Camera 4).
- 02:55:38** CRO Gotts takes a call from a male caller in flat 183 on the 21<sup>st</sup> floor who states that they cannot get out because it is too smoky. CRO Gotts says they need to put wet towels over themselves and leave the flat but the caller explains that they cannot. CRO Gotts then asks if they can block up where the smoke is coming in or get to a window that can provide fresh air and the caller states that is what they are doing but there are three kids, three adults and one heavily pregnant wife. CRO Gotts confirms and states that she will let the crews know. Incident Number 76248, Call Duration one minute 17 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00686).
- 02:55:44** CRO Adams takes a call from a caller says she can see people on one of the top floors that are flashing lights. She tries to describe the side of the building they are on and states that these people will die. CRO Adams states that the Brigade is aware and are trying to get to them as soon as possible. Incident Number 76236, Call Duration one minute eight seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00674).
- 02:55:47** CRO Jones takes a call from a caller who explains that Latimer Road is getting worse. She explains that there is a family with three children on the 18th floor who cannot get out. The caller asks if there is a helicopter available and CRO Jones explains that the Brigade is doing all they can and passes the advice to cover themselves in wet towels and try to get out. Incident Number 76235,

## OFFICIAL

Call Duration one minute 30 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00673).

- 02:55:59** CRO Duddy at Brigade Control answers a call to a woman screaming from the 22nd floor. Another female says that the fire is everywhere and they cannot see each other and asks for a helicopter. CRO Duddy tries to tell them to cover themselves in wet towels and get to the stairwell but is constantly interrupted and there is a lot of screaming and shouting. CRO Duddy keeps repeating that they need to get out and he explains that their only chance of survival is to get to the stairwell. The caller says okay and ends the call. Incident Number 76242, Call Duration two minutes 38 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00680).
- 02:56\*** *BA Team 29: Firefighter Whitley and Firefighter Nuttall believe they reach the 11th or 12th floor. Firefighter Nuttall and Firefighter Whitley have a discussion as the fire hose Firefighter Nuttall has brought with him doesn't have a carrying handle and has now become tangled in the balustrade. BA Team 29 carry on to what they believe is the 15<sup>th</sup> floor (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01296).*
- 02:56:04** CRO Fox at Brigade Control takes a call from a caller in flat 73 on the 10<sup>th</sup> floor who explains there are four adults still inside. CRO Fox states that the caller should try and get out safely by covering their mouths with wet towels. The caller asks if they should go up and CRO Fox states that they should not go up and explains that there are multiple fires on multiple floors. She tells them to cover themselves with wet towels and get out of the building. The caller confirms that they have to go and then he ends the call. Incident Number 76241, Call Duration one minute 47 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00679).
- 02:56:08** Firefighter Brooks enters the main lobby via the community room. (Source: CCTV: Camera 4).
- 02:56:39** WM Coltress enters the stair lobby with two firefighting branches and goes up the stairs to the mezzanine level (Source: CCTV: Camera 2).
- 02:56:50** *Firefighter Green states that he removed his Lung Demand Valve (LDV) just after leaving bridgehead and replaces it again on the sixth floor as conditions worsen (Source: MPS Witness Statement: GTIRT18-00306).*
- 02:56:50** BA Team 32: WM Aston-O'Donovan and Firefighter Green report to the bridgehead and meet the ECO, WM De Silvo. They are tasked to go to the 12<sup>th</sup> floor in response to a 'firefighter emergency' (known to be Firefighter D Hill BA Team 21). Firefighter Green states that "another crew were tasked to do the same task". WM Aston-O'Donovan states that the brief is very clear "we know where the stairwell and the doors are so we make our way to up the stairs to the 12<sup>th</sup> floor". Firefighter Green states "You are going to the 12<sup>th</sup> Floor. There is a Fire Fighter Emergency going on. Someone was unaccounted for". BA Team 32 then start breathing under air and



## OFFICIAL

remove their BA tallies (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00045, GTIRT18-00306).

- 02:56:51** CRO Adams takes a call at Brigade Control from a caller stating that his friend is stuck on 20th floor of Grenfell Tower. CRO Adams tells the caller to ring her back and tell her to leave. She goes on to say that the caller should advise her that she needs to cover herself with wet towels and leave. The caller says he will call her back. Incident Number 76240, Call Duration 34 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00678).
- 02:57\*** *AC Roe requests, via the Duty DAC, the attendance of Positive Pressure Ventilation (PPV) / Specialist Entry Recovery Team (SERT). This request is made via a mobile phone call to Brigade Control (Source: AC Roe Decision Log: GTIRT17-02438).*
- 02:57:10** Firefighter Herrera goes back into the tower and tells WM Williams about the people in Flat 113. WM Williams tasks Firefighter Herrera to go and get BA sets and go back to the flat 113. Firefighter Herrera says he can't because he is exhausted. Firefighter Herrera then states "We are now at the bridgehead and I de briefed WM De Silvo, with our actions concerning Flat 113 and the residents that we had brought down." Firefighter Herrera states that "WM De Silvo noted the information and said I will send someone straight away." On reviewing CCTV: Camera 4 Firefighter Herrera can be seen talking to WM Watson and can be seen clearly saying 113. WM Watson tells Firefighter Herrera to talk to WM Williams. WM Williams can be seen pointing at the wall and talking on his radio. WM Stevens and Firefighter O'Hanlon are also there. At one point they all turn and talk to someone on the mezzanine floor. Once this discussion is finished Firefighter Herrera then leaves through the community room door and he doesn't appear to go to the bridgehead) (Source: CCTV: Camera 4. MPS Witness Statement: GTIRT18-01020).
- 02:57:18** CRO Jones at Brigade Control takes a call from a female caller who says she is calling on behalf of her friend who cannot get through on 999. Her friend is stuck in flat 73 on 10<sup>th</sup> floor and there are four people in the flat. CRO Jones tells the caller that people are going to have to try and get out, using wet blankets to cover themselves. CRO Jones tells the caller to ask her friend to ring 999, but that the advice is to try and get out. The caller confirms the advice. Incident Number 76239, Call Duration two minutes (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00677).
- 02:57:32** Kent FRS take this call from the BT Operator in Nottingham because the lines are all busy in the London Brigade Control. The caller is in flat 73 on 10<sup>th</sup> floor and there are four people in the property. The Kent CRO confirms with the BT operator flat 73 and incorrectly the fourth floor, then begins talking with a female caller who confirms flat 73 on the 10th floor. The caller says the fire is getting worse and they cannot open the door and asks if someone can come to get them. The CRO gives advice to stay low and block the smoke using wet towels on their faces and to

move to another room. The caller states they have done that and asks if they can use the stairs. The CRO states he is Kent FRS and he will pass the caller's number to London and they can call her back. The CRO is heard passing information to a colleague who is on the line to London Brigade Control. The CRO comes back on the line to the caller and confirms details of their location have been passed to London crews and firefighters will be on their way to them. The caller says that she is confused because Kent FRS is telling them to stay and on the other line they are being told to evacuate. The CRO says that if it safe to evacuate then they should but the caller says it isn't safe. The CRO summarises that if there is flame in the corridor then it will not be safe to go outside. The caller says there is flame outside their front door. The caller explains that her brother is on the phone to "another emergency service" who is telling them to get out and the CRO is telling them to stay put. The CRO tries to explain that he agrees that they should get out if it safe to do so and explains that he is trying to keep them safe. The CRO asks the caller to find out who the other residents are talking to. There is a discussion in the flat and the caller says they are going to try and get out. A smoke alarm sounds and the caller says it is "too hot, we can't get out". There are long periods of silence during the call. The caller says they now cannot close the front door and does not know why the door will not close. The CRO continues to give FSG advice and the caller reports on the conditions within the flat and also reports seeing firefighters spraying water at the Tower and seeing debris falling.

The caller asks the CRO to hold on and she speaks with someone else on another phone, when she returns she says that they have been told by the Brigade to leave the premises, they have no choice but to leave. The caller says they are going to try and leave. The operator says he will stay on the line while they try and get out. A smoke alarm is heard and the caller comes back on the line and says they cannot get out. There is a lot of coughing and choking in the background and the smoke alarm continues to sound. The operator coaches the caller through staying safe again and the occupiers stay in the flat. At 04:15:52 the caller says to the control operator "I think someone's coming to help". There is a lot of noise in the background and the call continues with the operator waiting for a response. At 04:30:01 the caller tells the control operator that they are outside and all of them are safe. Incident Number 149817, Call Duration ninety six minutes 41 seconds (Source: FRS Incident Log, Audio File and Transcript: GTIRT17-01838, GTIRT17-01839).

**02:57:34** CRO Russell at Brigade Control take a call via a BT Operator in Dundee who tries to connect a call with a caller who is saying they are stuck. There is no response to CRO Russell when she tries to raise the caller. The line is closed by the BT Operator in consultation with CRO Russell. Incident Number 76243, Call Duration 52 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00681).

**02:57:37** A WM from a CU enters the stair lobby with paperwork in his hands and goes up to the mezzanine level (Source: CCTV: Camera 2).

## OFFICIAL

- 02:57:39** CRO Howson takes a call from a member of the public outside the Tower who says that there are people shouting from the building. CRO Howson confirms that the caller is not in the building and reassures her that the Brigade is there but needs to end the call because Brigade Control are trying to help people inside the building. Incident Number 143558, Call Duration 30 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01743).
- 02:57:45** BA Team 37: CM Rawlings, Firefighter Brooks and Firefighter Morcos leave the main lobby and make their way to the bridgehead which is located on the on the mezzanine floor level. (Source: Camera 4, CCTV).
- 02:57:53** The Radio Operator at Brigade Control sends message to CU7.  
"Charlie Uniform 7 from M2FN, over".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03045).
- 02:57:56** Echo 216, Lewisham's FRU book Status 3 in attendance at Grenfell Tower. This is the 10<sup>th</sup> FRU in attendance (Source: 'Vision': GTIRT17-02791).
- 02:57:57** CU7 respond to the Radio Operator at Brigade Control.  
"FN from Charlie Uniform 7. Go ahead. Over".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03046).
- 02:57:59** CRO Adams takes a call at Brigade Control from a caller in flat 92 on the 12th floor who states that they cannot get out. CRO Fox asks why they cannot leave and the caller confirms that the corridor is full of smoke. CRO Fox explains that the caller needs to try and get out of the building by covering themselves in wet towels and running through the smoke to the staircase. The caller asks what if they cannot get out and CRO Adams says the caller will have to decide what is safest but that she cannot guarantee that the Brigade will get to them as there are so many people trapped in the building. The caller confirms that they have heard this and says goodbye, CRO Fox tells them to run. Incident Number 76247, Call Duration two minutes 35 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00685).
- 02:58\*** *Around this time BA Team 28 Firefighter Reddington and Firefighter Upton are climbing the stairwell trying to reach the 23<sup>rd</sup> floor and have to stop and take a short break due to the challenging conditions (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT17-01715).*
- 02:58:01** The Radio Operator at Brigade Control responds to message received CU7 at **02:57:57**.  
"Charlie Uniform 7, we just had another call from persons trapped in Flat, erm, Flat 183 on the 21<sup>st</sup> floor. It's six persons with one, one of them's pregnant. Over".

## OFFICIAL

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03047).

Flat Number	Floor number	Number of people	Remarks
183	21	six persons, one female is pregnant	Trapped inside flat

**02:58:16** CU7 repeat of message from Radio Operator at Brigade Control:

"FN from Charlie Uniform 7. Err, six persons, one pregnant, is that correct? Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03048).

**02:58:17\*** *BA Team 32: WM Aston-O'Donovan and Firefighter Green are climbing the stairs in the stairwell making their way to the 12<sup>th</sup> floor to respond to a 'firefighter emergency'. Firefighter Green states that there are two firefighters ahead of them (believed to be BA Team 31: CM Hoare and Firefighter Tanner). He thinks they have the same brief as them. Firefighter Green believes he is on the fourth floor and removes his LDV from his BA facemask to save air. He then puts it back in on what he believes is the sixth floor as he states "It was that smoky I couldn't breathe " (BA data for BA set 585 does not support this action). WM Aston-O'Donovan states that visibility and air quality in the stairwell is OK until they reach the fifth floor where it becomes heavily smoked logged. WM Aston-O'Donovan further states that "In the briefing we were told that certain equipment was in certain areas and it became apparent that wasn't the case". WM Aston-O'Donovan notices that not every floor has a number on it. Firefighter Green states "that on the way up there is hose everywhere, there were crews everywhere and you pulling people out. Obviously you give priority to those people coming out. It was a battle to get to the 12<sup>th</sup> floor". Firefighter Green believes that around the ninth floor he can see firefighters with someone on the floor, which makes it difficult to go up the stairs (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00045, GTIRT18-00306).*

**02:58:22** Control confirm information message from CU7.

"Answeryes. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03049).

**02:58:42** CRO Howson takes a call at Brigade Control from a caller who is outside the building reporting that members of his family are in flat 203 on the 23rd floor. He states that the MPS will not let him into the building and that he was told to call 999 to tell the Brigade that his sister, two children and neighbour are in the flat. CRO Howson tells the caller if he gets a phone call from his sister then he should tell them to leave the building and asks if the caller has spoken to her recently. The caller says that he spoke to her one minute prior to this call and CRO Howson asks what the

## OFFICIAL

conditions are like in the flat. The caller states that there is smoke from the windows and CRO Howson says she will pass on the details to the crews. Incident Number 76250, Call Duration one minute 56 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00688).

**02:58:44** CRO Duddy at Brigade Control takes a call from a caller in flat 94 where there is a smoke alarm audible in the background. The caller states that it is very smoky and that they cannot see and CRO Duddy explains that the only chance of surviving is to cover themselves with wet towels and get out of the building. The caller thanks CRO Duddy and finishes the call. Incident Number 143563, Call Duration one minute 22 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01748).

**02:58:52** CRO Russell at Brigade Control takes a call from a female caller whose father-in-law is trapped in flat 83 on the 11th floor. He is blind, disabled and his hearing is not very good and he has told the caller that it is smoky in his flat. The caller explains that he will not be able to get out and that he is frantic. CRO Russell says she will pass the information to crews. The daughter explains that the smoke alarm is sounding in the background. CRO Russell advises that he should try and leave if he can but if not he should shut the windows, cover his face with wet towels, stay low and close the windows. Incident Number 76252, Call Duration three minutes 29 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00690).

**02:58:56** CRO Adams at Brigade Control takes a call from a member of the public who is reporting a block of flats on fire that they can see across on the Westway. CRO Adams confirms the Brigade is in attendance. Incident Number 76245, Call Duration 42 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00683).

**02:59** BA Team 31: CM Hoare and Firefighter Tanner believe they have reached the 12<sup>th</sup> floor. They describe the conditions on the way up the stairs as deteriorating beyond the seventh floor where conditions changed dramatically. CM Hoare states that *"it is thick, heavy smoke and I can't see much at all"*. CM Hoare believes that between the third and 12<sup>th</sup> floors he sees approximately 15 to 20 casualties pass him coming down the stairs. All of these casualties were walking or being assisted by firefighters and no one appeared to be slumped or unconscious (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT17-01959, GTIRT18-00998).

**02:59:04** CRO Gotts at Brigade Control takes a call from Kent FRS who is reporting that they have a caller on the line in flat 73 on the fourth floor with four persons trapped. CRO Gotts says the current advice to pass to them is to cover themselves with wet towels and leave the building. This call is linked to the call at 02:57:32 that Kent FRS are dealing with. Incident Number 143547, Call Duration one minute (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01732).

**02:59:10** CRO Jones at Brigade Control takes a call from a male caller stating that his dad is trapped in flat 72 on the 10th floor. The caller is outside the building. CRO Jones provides advice that he needs

## OFFICIAL

to try and get out and explains that if people are affected by smoke or fire then they should cover themselves with towels and try and get out. The caller says his dad is not affected at the moment. CRO Jones confirms that crews are in attendance but that the advice is for people to try and get out. Incident Number 76244. Call Duration one minute 37 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00682).

**02:59:26** CU1, Edmonton's CU book Status 3 in attendance, at Grenfell Tower. This is the fifth CU in attendance (Source: 'Vision': GTIRT17-02791).

**02:59:46** Brigade Control send a 'priority' radio message to CU8.

"Charlie Uniform 8 from M2FN. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03052).

**02:59:51** Golf 305, Wembley's ALP book Status 3, in attendance, at Grenfell Tower. This is the second ALP in attendance (Source: 'Vision': GTIRT17-02791).

**02:59:53** WM Coltress descends the stairs to the stair lobby and proceeds into the main lobby (Source: CCTV: Camera 2).

**02:59:59** WM Dowden enters the stair lobby and ascends the stairs to the mezzanine floor (Source: CCTV: Camera 2).

**03:00** Between 02:30 and 03:00 the following residents were either rescued, assisted out or self-evacuated from Grenfell Tower (Source: MPS Grenfell Tower Residents List by Flat and Floor Number: GTIRT18-01141 and MPS Grenfell Tower CCTV Named Exits spreadsheet: GTIRT18-01051).

Maria Del Pilar Burton (Flat 165, 19 <sup>th</sup> floor)
Nick Burton (Flat 165, 19 <sup>th</sup> floor)
Katarzyna Dabrowska (Flat 95, 12 <sup>th</sup> floor)
Youssef Khalloud (Flat 85, 11 <sup>th</sup> floor)
Roy Smith (Flat 95, 12 <sup>th</sup> floor)
Georgina Smith (Flat 95, 12 <sup>th</sup> floor)
Farhad Neda (Flat 205, 23 <sup>rd</sup> floor)
Flora Neda (Flat 205, 23 <sup>rd</sup> floor)

Omar Alhaj-Ali (Flat 112, 14 <sup>th</sup> floor)
Keziah Talabi (Flat 113, 14 <sup>th</sup> floor)
Rosemary Oyewole (Flat 113, 14 <sup>th</sup> floor)
Oluwaseun Talabi (Flat 113, 14 <sup>th</sup> floor)
Rebecca Ross (Believed to reside at Flat 122, 15 <sup>th</sup> floor, but this is <i>not</i> confirmed).

- 03:00** BA Team 33: WM Clark, Firefighter Beltrami and WM Cardy reach the bridgehead and meet WM O'Keeffe who briefs them to go to the ninth floor to undertake search and rescue (Source: MPS Witness Statement: GTIRT18-00918, GTIRT18-00308, GTIRT18-03104).
- 03:00\*** *CM Eden and Firefighter Welch assist in supplying water to aerial appliance Alpha 245, Soho's ALP, spraying water onto the East elevation of the tower. CM Eden states there is a man in his flat around the 11<sup>th</sup> floor level and the water is being used to protect his flat (Source: MPS Witness Statement: GTIRT18-00099, GTIRT18-00309).*
- 03:00** BA Team 24: CM R Evans and Firefighter Bloxham are outside the building where they meet WM Christmas who tells them to take their BA sets off and not go back in. CM R Evans and Firefighter Bloxham both notice an aerial spraying water on the East elevation of the building and a person in a flat. The water appears to be preventing the spread of the fire to the window where a person can be seen (Source: MPS Witness Statement: GTIRT18-01038, GTIRT18-00926).
- 03:00\*** BA Team 29: Firefighter Whitley and Firefighter Nuttall believe they have reached the 15<sup>th</sup> floor. *There is zero visibility and everything has to be done by touch and feel. Firefighter Nuttall looks through the TIC and sees smoke and flames flickering down the corridor, the TIC temperature reads 550 to 555 degrees centigrade. Firefighter Whitley connects the fire hose to the DRM outlet after smashing the glass door with the enforcer (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT17-01629, Contemporaneous Notes: GTIRT17-00120).*
- 03:00\*** *BA Team 31: CM Hoare, Firefighter Tanner and BA Team 32: WM Aston-O'Donovan and Firefighter Green enter the 12<sup>th</sup> floor lift lobby. CM Hoare states the self-closing door is shut and, although he is wearing gloves when touching the handle, it doesn't feel too hot. Before they go into the lobby WM Aston-O'Donovan finds a fire helmet on the stairs and believes it belongs to the missing firefighter. As the most senior firefighter there WM Aston-O'Donovan briefs both crews and tells CM Hoare and Firefighter Tanner to go along the left hand wall as soon as they enter the lobby and that he will go along the right hand wall with Firefighter Green. As CM Hoare opens the door, the heat hits him and there is zero visibility so they all get down on their hands*

**OFFICIAL**

and knees. BA team 31 search the lobby to the left hand side for the missing firefighter whilst BA Team 32 search to the right hand side. Both CM Hoare and WM Aston-O'Donovan intercept a radio message from the BAECO stating that the missing firefighter has been located. On hearing this, CM Hoare makes the decision to go back to his original task to which is to search flat 74, 10<sup>th</sup> floor. BA Team 32: WM Aston-O'Donovan and Firefighter Green decide to stay on the 12<sup>th</sup> floor to search the flats (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT17-01629, GTIRT17-01959, GTIRT18-00998, GTIRT18-00045, GTIRT18-00306).

**03:00** WM Dowden ascends the stairs from the stair lobby (Source: CCTV: Camera 2).

The table below is a summary of the calls that have been received by the control room between 02:50 and 03:00.

Time of call	Flat Number	Floor number	Number of people confirmed by caller	Remarks
02:51:00	153	18	Four adults five children	Told to leave the building.
02:51:06		21		Told to leave the building.
02:51:09	193	22	10 people	Told to leave the building.
02:52:20	73			Told to leave the building. Caller is friend outside. The caller is also told that they should tell their friend to dial 999 if they want more advice.
02:52:51	153	18		Told to leave the building. The call was taken by Essex County FRS.
02:53:17	192			Told to leave building.
02:53:57	182	21		Told to leave the building.
02:54:21	194	22		This is a friend of a resident calling from outside the building. She says she can see him at the window.
02:54:31	153	18	One adult and three children	This call is from a male outside the premises.
02:55:38	183	21	Three adults including one pregnant wife and three children	Told to leave building. Caller said they cannot. Told to get fresh air from a window.
02:55:59		22		Fire is in the flat. Told to leave building.



**OFFICIAL**

02:56:04	73	10	Four adults	Told to leave building.
02:56:51		20		Caller is from outside the Tower and is calling about her friend who is stuck.
02:57:18	73	10		This is a call from a friend outside the building and caller says four people in the flat. The CRO tells the caller to pass on advice to get out.
02:57:32	73	10		This is an FSG where Kent FRS are on-call until 04:30.
02:57:59	92	12		Told to get out and that it cannot be guaranteed that the fire service will get to you.
02:58:42	203			Brother calling from outside the building and he says his sister, two children and neighbour are in the flat. Told to pass on advice to leave the building.
02:58:44	94			Told to leave the building.
02:58:52	83			This is a call from the daughter of the resident. She says he is blind and disabled.
02:59:04	73	4*	Four people	This call was taken by Kent FRS. They speak to a resident from flat 73. *The Kent Radio Operator says the fourth floor but flat 73 is on the 10 <sup>th</sup> floor.
02:59:10	72	10		Caller is son, says the resident is not affected by the fire or smoke yet. Told that he needs to try and get out.
03:00:10	153	18	Four adults and five children	This is a call taken by Essex County FRS. The caller is adamant that he cannot leave because it is too smoky.
03:00:50	82	11		Told to leave the building and make a run for it.

**03:00:01** The Radio Operator at Brigade Control sends a message to CU8.

"FN Charlie Uniform 8. Go ahead. Over."

## OFFICIAL

"Yeah. Charlie Uniform 8, regarding –"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03053).

**03:00:05** The Radio Operator at Brigade Control sends a message to CU8.

"Yeah, Charlie Uniform 8, regarding the BA Support Units you've requested, can you confirm is it EDDBA or S –"

"Standard Duration"

"Or Standard Duration BA? Over."

"They require –"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03054).

**03:00:10** CRO Duddy takes a call from Essex County FRS who state that having seen the fire on the news and understand that the fire has spread through the whole building, CRO Duddy states that he has not seen it. The Essex County FRS Radio Operator explains that they have taken another call from an individual trapped in flat 153 on the 18<sup>th</sup> floor where there are four adults and five children. The CRO states that the caller cannot escape to an exit at all and is considering jumping. The Essex County FRS Radio Operator states that they have given safety advice about blocking the smoke and waiting for the Brigade. CRO Duddy explains that they are aware of this flat but informs the Essex County FRS Radio Operator that the current advice is to get out. He takes the mobile number for the caller and says he will give them a call. Incident Number 76249, Call Duration two minutes 27 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00687).

**03:00:18** CU8 send a radio message to the Radio Operator at Brigade Control.

"FN Charlie Uniform 8. It's both. It's SDBA and EDDBA, both. And, er, cleaning materials. Charlie Uniform 8 over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03055).

**03:00:23** Firefighter O'Hanlon ascends the stairs from the stair lobby (Source: CCTV: Camera 2).

**03:00:25** GM O'Neil is outside Kensington leisure centre on the east elevation of Grenfell Tower, he gathers and talks to a very large number of Firefighters (Source: CCTV Camera OPS1 kensington leisure centre).

**03:00:32** WM Williams is in the main lobby and is talking to SM Walton and WM Watson (Source: CCTV: Camera 4).

**03:00:33** The Radio Operator at Brigade Control confirms information message from CU8.

## OFFICIAL

"All received."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03056).

**03:00:50** CRO Adams takes a call from flat 82 on the 11<sup>th</sup> floor who states that the fire is by her front door. The caller says the door is popping, it is very hot and there is smoke everywhere. CRO Adams tells her that they need to leave the building and make a run for it, covering themselves with wet sheets. The caller says okay and can be heard preparing to move. CRO Adams explains that they should open the door slowly and if it is just some smoke they should make a run for it. The caller says thank you and goodbye. Incident Number 76251, Call Duration one minute 27 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00689).

**03:00:55** SM Walton is talking to several firefighters in the main lobby (Source: CCTV: Camera 4).

**03:01** BA Team 32: WM Aston-O'Donovan and Firefighter Green are searching the 12<sup>th</sup> floor. BA Team 32 open the door of a flat, believed to be flat 96, whilst on a right hand wall search, but it is 100% alight and compromises visibility in the lobby so they close the door immediately. They move on to the next flat on the 12<sup>th</sup> floor, believed to be flat 95, and attempt to kick the locked door open. At the same time, two women from flat 94 (believed to be Alemishet Demissie and Ethiopia Assefa), shout for help. WM Aston-O'Donovan and Firefighter Green enter flat 94 and talk to the two women whilst they stand in their bathroom. The women confirm there are no other people in flat 94. The fire is now spreading inside the flat. WM Aston-O'Donovan explains that it will take approximately 90 seconds for the women to leave their flat on the 12<sup>th</sup> floor and reach an area where they will be able to breathe, he explains the route they are going to take to the stairwell, confirms this with Firefighter Green and confirms the women's understanding what is going to happen (Source: MPS Witness Statement: GTIRT18-00045, GTIRT18-00306 and BA Data: GTIRT17-02820).

**OFFICIAL**

The images below are of BA team 32 above at 03:01 and show the conditions of flat 96 with the first image showing the door number and the second image showing the conditions within the flat. The times shown are incorrect and can not be confirmed as the TIC could not be calibrated to show Greenwich Mean Time (GMT).



03:12:21 GMT ... Camera Time.



03:12:20 GMT ... Camera Time.

## OFFICIAL

- 03:01\*** BA Team 28: Firefighter Upton and Firefighter Reddington continue to ascend the stairs. They are unsure of their location and so they enter a lobby to look at flat numbers to provide a point of reference. Firefighter Upton sees flat 164 and realises she has some way to go to the 21<sup>st</sup> floor. They continue to climb the stairs and find an unconscious adult female casualty (believed to be Farah Hamdan from flat 175, 20<sup>th</sup> floor) in the stairwell between the 19<sup>th</sup> and 20<sup>th</sup> floor with her leg trapped between the hand rail and the floor. Firefighter Reddington believes the female casualty is on the 18<sup>th</sup> floor. Both firefighters attempt to release the casualty but they cannot free her trapped leg. Firefighter Upton continues to the next landing to see if they can free the casualty's foot from above and she finds an unconscious female child on the landing (believed to be Malik Belkadi from flat 175, 20<sup>th</sup> floor). Firefighter Upton and Firefighter Reddington decide to evacuate the unconscious female child casualty as they believe spending more time trying to free the adult female casualty with her foot trapped would jeopardise the chance of the child's survival. They pick up the unconscious female child and begin to make their way down the stairs (Source: Witness Statement: GTIRT17-01715, Contemporaneous Notes: GTIRT17-00159, BA Data: GTIRT17-02820).
- 03:01:02** BA Team 27: Firefighter Perez and Firefighter Dwyer descend the stairs to the stair lobby (Source: CCTV: Camera 2).
- 03:01:12** BA Team 27: Firefighter Perez and Firefighter Dwyer leave the building via the community room (Source: CCTV: Camera 4, MPS Witness Statement: GTIRT18-01548, GTIRT18-03108).
- 03:01:13** BA Team 33: WM Clark, Firefighter Beltrami and WM Cardy go under air (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00918, GTIRT18-00308, and GTIRT18-03104).
- 03:01:14** GM Goulbourne ascends the stairs from the stair lobby (Source: CCTV: Camera 2).
- 03:01:20** CRO Fox takes a call from flat 194 on the 22<sup>nd</sup> floor who is pleading to be rescued. The caller shouts that the fire is in the next door flat and CRO Fox says he needs to wrap himself in wet towels and get out. The caller pleads for someone to come up and get him, explaining that he cannot get out because it's too dark and too hot. The line cuts out in mid-call. Incident Number 76255, Call Duration one minute 19 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00693).
- 03:01:23** WM Delaney enters the main lobby via the community room wearing a CU staff surcoat (Source: CCTV: Camera 4).
- 03:01:27** CRO Jones takes a call from the daughter of residents in Grenfell Tower. The caller explains that her parents are inside and there are a lot of people on the 16<sup>th</sup> floor. CRO Jones explains that they are telling people to get out, covering themselves in wet towels. The caller asks if the Brigade cannot get up there with oxygen masks and starts to cry on the phone. CRO Jones reiterates that

## OFFICIAL

they need to try and get down the building. The caller asks for a message to be passed to crews to tell them to take oxygen masks and CRO Jones confirms the current advice, stating that crews are aware that there are people in the building. Incident Number 76253, Call Duration two minutes, 44 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00691).

- 03:01:35** Firefighter D Hill ascends the stairs from the stair lobby (Source: CCTV: Camera 2).
- 03:01:42** Firefighter O'Hanlon descends the stairs to the stair lobby and proceeds into the main lobby (Source: CCTV: Camera 2).
- 03:01:46** WM Delaney (CU) descends the stairs to the stair lobby and proceeds into the main lobby (Source: CCTV: Camera 2).
- 03:02:06** CRO Howson takes a call from flat 193 on the 22<sup>nd</sup> floor in which the caller keeps shouting about sending up a helicopter as he cannot leave. He says there are 20 people in the flat and CRO Howson explains that the Brigade cannot rescue them with a helicopter and that they need to leave the building. She reassures the caller that there is only smoke in the stairwell, not fire. CRO Howson then explains about covering themselves with wet towels and blankets and leaving the building. The caller does not respond and the line drops out. Incident Number 76256, Call Duration one minute 52 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00694).
- 03:02:06** Kent FRS take a call from a BT Operator passing a call because the lines are all busy in London. The BT Operator explains that she can hear coughing and groaning. The Kent Radio Operator can hear a smoke alarm sounding in the background and keeps trying to raise the caller but no one comes on the line. Incident Number 1278, Call Duration one minute 42 seconds (Source: FRS Incident Log, Audio file and Transcript: GTIRT17-01619).
- 03:02:27** CRO Adams takes a call from a caller in flat 133 on the 16<sup>th</sup> floor where there are two people. The caller is very difficult to hear so CRO Adams explains that the advice is to leave the building. The caller explains that they tried to leave the flat but it was too smoky and they had to turn back. CRO Adams asks if they can cover themselves in wet toweling but the caller advises that they cannot get out. CRO Adams says that if they cannot get out then they should try and block the smoke from coming in and that she will pass a message to the crews. CRO Adams asks if they are sure that they cannot leave and the caller says they cannot. CRO Adams explains that if the fire starts coming into the flat they will need to make an attempt to leave the premises. Incident Number 76259, Call Duration one minute 53 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00697).
- 03:02:35** CRO Duddy makes a call back to the mobile number given to him by Essex County FRS at 03:00:10. The resident confirms that he is in flat 153 and CRO Duddy tells them to cover their faces with wet towels and get out of the building. The resident says okay and ends the call

## OFFICIAL

(Source: NICE, Admin Phone Line Audio file: GTIRT18-01597).

- 03:02:35** SM Mulholland (ORT) enters the main lobby via the community room followed by Commissioner Cotton, AC Roe and GM Cook (ORT) (Camera, CCTV: Camera 4).
- 03:02:40** Commissioner Cotton enters the main lobby with AC Roe and talks GM Cook (ORT) and SM Mulholland (ORT), whilst AC Roe addresses the assembled firefighters (Source: CCTV: Camera 4).
- 03:03\*** *BA Team 32: WM Aston-O'Donovan and Firefighter Green are on the 12<sup>th</sup> floor about to leave flat 94 with the two women (believed to be Alemishet Demissie and Ethiopia Assefa). WM Aston-O'Donovan takes one of the women (believed to be Ethiopia Assefa), and leaves the flat. When they reach the door of the stairwell WM Aston-O'Donovan turns around but cannot see Firefighter Green. WM Aston-O'Donovan makes the decision to continue down the stairs with Ethiopia Assefa (Source: MPS Witness Statement: GTIRT18-00045, GTIRT18-00306, BA Data: GTIRT17-02820).*
- 03:03** BA Team 33: WM Clark, Firefighter Beltrami and WM Cardy ascend the stairwell carrying two lengths of fire hose, a TIC, a Halligan bar and an enforcer. WM Cardy notices that firefighters have written floor numbers on the wall with chinagraph pencils (Source: MPS Witness Statement: GTIRT18-00918, GTIRT18-03104, GTIRT18-00308, CCTV: Camera 2).
- 03:03:02** GM O'Neill enters the main lobby via the community room (Source: CCTV: Camera 4).
- 03:03:05** CRO Gotts takes a call from a female who states that it is not possible to go out there as it is too hot. She cries briefly and CRO Gotts advises that current advice is that they need to leave the flat. The caller tells her she is in flat 82 on the 11<sup>th</sup> floor and CRO Gotts confirms she will make crews aware. The caller agrees to try and leave the flat. Incident Number 76254, Call Duration 40 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00692).
- 03:03\*** *BA Team 34: CM Codd and Firefighter Joseph are briefed at the bridgehead by WM De Silvo to go to the 22<sup>nd</sup> floor for search and rescue following receipt of a FSG call on that floor (Source: MPS Witness Statement: GTIRT18-01299, Contemporaneous Notes: GTIRT17-00229, BA Data: GTIRT17-02820).*
- 03:03:43** Oscar Foxtrot 72, SM Nicholas Harding books Status 2, mobile to Grenfell Tower (Source: 'Vision': GTIRT17-02791).
- 03:03:45** CRO Duddy takes a call from a male who says he has been trying to call about his family stuck on the 15<sup>th</sup> floor. The caller states that he has children and a wife. CRO Duddy tells him that he has to leave the building and emphasizes that it is their only option, he then tries to confirm that the caller is doing this, but the line drops out Incident Number 76258, Call Duration 50 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00696).

## OFFICIAL

**03:03:47** WM Dowden descends the stairs to the stair lobby and is talking on his handheld radio. He then proceeds into the main lobby (Source: CCTV: Camera 2).

**03:03:48** NWFC take a call via a BT Operator at Portadown who had a caller on the line but could not get through to the London Control Room. The BT Operator did get the address of the caller as flat 123 on the 15<sup>th</sup> floor. The NWFC Operator asks if the caller says if they were still in the tower and the BT Operator replies that they are and that they cannot breathe but then the line drops out. Incident Number 143567, Call Duration 38 seconds.

Following an ISP request the number of the caller has been identified as Christos Fairbairn (flat 124, 15<sup>th</sup> floor). It has not been established if Mr Fairbairn went into flat 123 to escape fire in his own flat. The occupant of flat 123, Reem Dedrich has already left the building (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01609 and ISP request: GTIRT18-04835).

**03:03:56** CRO Russell takes a call from Kent FRS reporting a caller in flat 73 on the 10<sup>th</sup> floor. The Kent FRS Radio Operator explains that they originally passed this to the London Fire Brigade control as the fourth floor (**02:59:04**). The Kent FRS Radio Operator explains that the caller has been advised to leave the building but has told them that the door handle is too hot to open and there are flames directly outside the flat. CRO Russell asks how many people there are and the Kent FRS Radio Operator confirms that there are four adults. CRO Russell states that she will pass it to the crews. This call is linked to the call at **02:57:32** being handled by Kent FRS. Incident Number 76260, Call Duration one minute 25 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00698).

**03:04\*** BA Team 30: Firefighter Bate, Firefighter Pole, Firefighter N Mitchell and Firefighter Cheesman reach the 12<sup>th</sup> floor where they meet another BA team who are descending the stairs (believed to be BA Team 28: Firefighter Upton and Firefighter Reddington). *Firefighter Upton tells BA Team 30 about the unconscious female casualty, (believed to be Farah Hamdan flat 175, 20<sup>th</sup> floor), that they had to leave behind further up the stairs as her leg was trapped. BA Team 30 leave Firefighter Upton and Firefighter Reddington and ascend the stairs (Source: MPS Witness Statements: GTIRT18-02865, GTIRT17-01715, BA Data: GTIRT17-02820).*

**03:04** Firefighter Bate from BA team 30 states that one of the BA teams (believed to be BA Team 28) passes the unconscious child (*believed to be Malak Belkadi from flat 175, 20<sup>th</sup> floor*), to her and she makes the decision to leave BA Team 30: Firefighter Pole, Firefighter N Mitchell and Firefighter Cheesman and assists BA Team 28 Firefighter Upton and Firefighter Reddington with taking the unconscious child down the stairs. Firefighter Bate struggles to pass the other BA crew due to the width of the stairwell. She begins to descend the stairs with BA Team 28: Firefighter Upton, Firefighter Reddington and the unconscious female child (Source: MPS Witness



## OFFICIAL

Statement: GTIRT18-02865, Contemporaneous Notes: GTIRT17-00074, GTIRT17-00077, GTIRT17-00076, BA Data: GTIRT17-02820).

- 03:04:00** NWFC make a call back to the number given to them by a BT Operator at Portadown in a call at **03:03:48** (GTIRT17-01609). The NWFC Operator introduces herself and asks if the male on the line is in flat 123 on the 15<sup>th</sup> floor. He states that he is on the 16th floor, and then says "They are here". The NWFC Operator explains that the London Fire Brigade advice is to get wet towels, cover themselves, and get out any way possible. She says explicitly that the person needs to get out, He replies "okay". She asks how many people are there. He just says "cool" and the call cuts off. Incident Number 1706004407, Call Duration 41 seconds (Source: FRS Incident Log and Audio file: GTIRT18-02464).
- 03:04:03** BA Team 35: Firefighter Wharnsby and Firefighter Lowe report to the BAECO on the third floor and are briefed to go to flat 113 on the 14<sup>th</sup> floor. Both firefighters start breathing under air and remove their BA tallies (Source: MPS Witness Statement: GTIRT18-00433, GTIRT17-02939, BA Data: GTIRT17-02820).
- 03:04:03** WM Delaney (CU) ascends the stairs from the stair lobby wearing a CU staff tabard (Source: CCTV: Camera 2).
- 03:04:03** Commissioner Cotton talks to Firefighter S Grant in the main lobby (Source: CCTV: Camera 4).
- 03:04:07** Commissioner Cotton talks to WM Dowden in the main lobby (Source: CCTV: Camera 4).
- 03:04:15** CRO Gotts takes a call from a member of the public who has seen reports that no one is in the tower but she can see people at the top of the building. CRO Gotts reassured the caller that the Brigade is in attendance and dealing with the incident. Incident Number 76257, Call Duration 27 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00695).
- 03:04:20** WM Dowden enters the community room from the main lobby (Source: CCTV: Camera 4).
- 03:04:25** CRO Howson takes a call from a member of the public who is communicating with his best friend on Facebook and that she is stuck on the 20<sup>th</sup> floor. CRO Howson asks the caller to ask the resident what is going on in her flat and while waiting for the answer CRO Howson asks the caller to pass on the advice to leave the flat, she explains that they need to cover themselves with wet towels and leave. She also explains that it will be smoky in the stairwell but on fire. The caller confirms he has passed on the information. There is no confirmation of which flat the resident is in. Incident Number 143559, Call Duration two minutes, 31 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01744).
- 03:04:38** Commissioner Cotton leaves the building via the community room (Source: CCTV: Camera 4).

## OFFICIAL

- 03:04:52** CRO Gotts takes a call from flat 82 on the 11<sup>th</sup> Floor. The caller says they cannot get out because it is too hot. CRO Gotts recognizes the caller, having given advice to get out previously. The caller says they cannot get out because it is too hot and asks if the Brigade can send the cherry picker up. CRO Gotts confirms attendance of aerial ladders. CRO Gotts confirms that there are three people and reiterates that she will let the crews know that they cannot get out. Incident Number 76262, Call Duration two minutes 11 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00700).
- 03:05** Detective Superintendent (DSI) Paul Warnett, from the MPS, is outside the leisure centre facing the East elevation of the building. He discusses the use of MPS riot shields to assist the LFB gaining access due to falling debris to Grenfell Tower and a PC states that he has some on his vehicle and he will go and get them (Source: MPS BWV, MPS Witness Statement: MET000080605).
- 03:05** BA Team 31: CM Hoare and Firefighter Tanner reach the 10<sup>th</sup> floor and open the lobby door from the stairwell. When the door opens, the incredible heat from the lobby forces both CM Hoare and Firefighter Tanner to dive onto the ground where they notice the smoke level is only one foot from floor level (Source: MPS Witness Statement, GTIRT17-01959, GTIRT18-00998, BA Data: GTIRT17-02820).
- 03:05:09** CRO Duddy takes a call from a BT Operator who has a caller on the line in flat 193 on the 22<sup>nd</sup> floor. A male caller then comes on the line and CRO Duddy passes the advice that they must cover themselves with wet towels or cloths and get to the stairwell. The caller says they cannot get there because they cannot see and it is full of smoke. CRO Duddy explains that it is the only option and they should feel their way along the corridor. The caller states that the stairs are full of smoke and CRO Duddy repeats that it is their only option and they must get to the staircase. Incident Number 76261, Call Duration two minutes, 14 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00699).
- 03:05:19** WM Dowden and WM Ashe meet in the stair lobby and talk briefly (Source: CCTV: Camera 2).
- 03:05** BA Team 29: Firefighter Whitley and Firefighter Nuttall are on the 15<sup>th</sup> floor charging a hose outside flat 122, when Firefighter Whitley's LPWA actuates and they decide to withdraw. They make sure the hose is straight and the equipment is safe to leave near the landing and begin to descend the stairs (Source: MPS Witness Statement: GTIRT18-01296, Contemporaneous Notes: GTIRT17-00120, BA Data: GTIRT17-02820).
- 03:05:33** WM Dowden and WM Ashe ascend the stairs to the mezzanine floor level (Source: CCTV: Camera 2).
- 03:05:38** Surrey FRS take a call from the daughter-in-law of the resident of flat 194 on the 22<sup>nd</sup> floor. She reports that the fire is in his flat and he is screaming that he is dying down the phone at her. The

## OFFICIAL

Surrey FRS Radio Operator states that the information has been passed and her colleague is on the phone to the London Fire Brigade at the moment passing this update about her father-in-law. The caller explains that her father-in-law cannot breathe and the Surrey FRS Radio Operator tells the caller to pass on the guidance to move to a room furthest away from the fire as well as keeping low and trying to block doors from smoke. Incident Number 030538, Call Duration one minute 25 seconds (Source: FRS Incident Log and Audio file: GTIRT17-01612).

**03:06\*** BA Team 28: Firefighter Upton and Firefighter Reddington arrive at the third floor with Firefighter Bate and an unconscious female child (believed to be Malak Belkadi from flat 175, 20<sup>th</sup> floor). WM Ashe takes the unconscious female child from them, WM Ashe administers a few rescue breathes to Malak Belkadi and carries her out of Grenfell Tower. WM Ashe hands Malak Belkadi over to CM Johnson (Source: MPS Witness Statements: GTIRT18-02865, GTIRT17-01715, BA Data: GTIRT17-02820).

**03:06:00** SOM Smith takes a call from Surrey FRS who are passing on details of a call that they received at **03:05:38** from flat 194 on the 22<sup>nd</sup> floor. The Surrey FRS Radio Operator tells SOM Smith that the fire is now in the flat. SOM Smith explains that the advice to all callers has changed and is now that they need to leave the building, covering themselves with wet clothes or towels. SOM Smith asks the Surrey FRS Radio Operator to pass this guidance to Essex County FRS and Kent FRS control rooms, who confirms that they will do this. Call Duration one minute 31 seconds (Source: FRS Incident Log and Audio file: GTIRT17-01770).

**03:06:05** The Radio Operator at Brigade Control sends CU7 a 'priority' radio message.

"Priority, priority. Charlie Uniform 7 from M2FN. Over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03057).

**03:06:06** CRO Russell takes a call from a resident in flat 113 on the 14<sup>th</sup> floor but it takes some time to ascertain the flat number. The female caller shouts that someone is unconscious and CRO Russell asks where she is in the flat but the caller's response is not clear. CRO Russell asks if there are flames in the flat and the caller says yes. CRO Russell tells the caller to try and get away from the flames and asks if they are able to leave. The caller says they cannot leave and then the line cuts off. Incident Number 76266, Call Duration two minutes, 51 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00704).

**03:06:14** CU7 send a radio message to the Radio Operator at Brigade Control.

"FN from Charlie Uniform 7. Go ahead. Over."

"Charlie Uniform 7 –"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03058).

## OFFICIAL

**03:06:18** The Radio Operator at Brigade Control send a radio message to CU7.

"Charlie Uniform 7, er, the police helicopter has informed us they've got a thermal image camera on the south west corner. There's a heat Source: of people on the 17th floor and second from the top floor, er, also people on the 21st balcony".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03059).

**03:06:35** CRO Adams takes a call from an individual outside of the tower, reporting that their dad is on the top floor in flat 204. The caller says there is smoke coming in from the corridor and that their dad is locked in the living room. CRO Adams provides guidance that he needs to leave the building, covering himself in wet towels, being careful to open the flat door cautiously, but he needs to leave. CRO Adams asks if he is able bodied, the caller confirms that he is. CRO Adams asks the caller to pass this advice on to their dad and the caller agrees. Incident Number 76264, Call Duration one minute 6 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00702).

**03:06:42** Firefighter Bate from BA Team 30 arrives at the bridgehead on the third floor without the remainder of BA team because she is assisting BA Team 28, but is unable to close down her BA set as the bridgehead is beginning to move location to the ground floor main lobby (Source: MPS Witness Statement: GTIRT18-02865, BA Data: GTIRT17-02820).

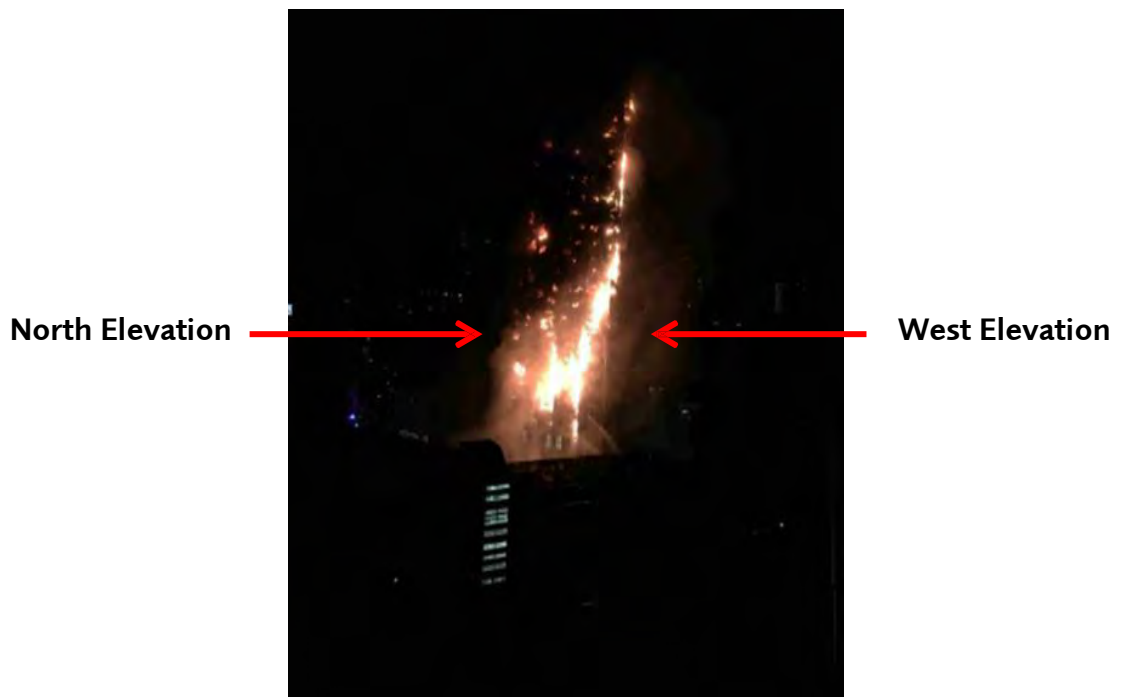
**03:06:57** CRO Fox takes a call from a male caller in flat 73 on the 10<sup>th</sup> floor who she recognises and reiterates her previous guidance about getting out of the building. The caller challenges this because he is concerned that there might be fires on floors between the 10<sup>th</sup> and the ground and CRO Fox explains that she doesn't know if that is the case. The caller says as soon as they open the door there is lots of smoke and asks if the best option is to go downstairs. The caller explains that there are two parents in the flat that are arguing with him and do not want to go outside and he then puts a female caller on the phone who explains that there is too much smoke outside in broken English. CRO Fox breaks off and comes back having spoken to her supervisor and communicates that they need to get out. CRO Fox asks to speak to the "son" again. Another female caller then comes on the phone and insists that they are not going to try and get out as there is fire outside and CRO Fox states that there is no one coming to get them so they need to get out. CRO Fox then asks to speak to the man again and repeats that there is no one coming for them which takes the male caller by surprise. CRO Fox explains to the caller that someone will try but that they need to persuade the female in the flat to get out and that the male caller needs to lead the way. During this call CRO Fox is not aware that another female resident is on the phone to Kent FRS (referenced at **02:57:32**). The Kent FRS Radio Operator is advising that they stay put if they cannot leave the flat because of the smoke outside the flat. Incident Number 76278, Call Duration eight minutes, 41 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00716).

## OFFICIAL

- 03:07\*** WM Aston-O'Donovan from BA Team 32 reaches the fifth floor with a female (believed to be Ethiopia Assefa from flat 94, 12<sup>th</sup> floor) and hands her to colleagues before he returns to look for his BA partner, Firefighter Green (Source: MPS Witness Statement: GTIRT18-00045).
- 03:07** BA Team 35: Firefighter Wharnsby and Firefighter Lowe ascend the stairs. They describe the conditions on the lower floors as being ok but the smoke gets thicker as they get higher. Their pace is slow as they want to preserve air supplies as they ascend. Firefighter Wharnsby tries to write the floor numbers on the wall with chalk as he ascends (Source: MPS Witness Statement: GTIRT18-00433, GTIRT17-02939, BA Data: GTIRT17-02820).
- 03:07:05** The Radio Operator at Brigade Control sends CU7 a radio message.
- "Is that correct? Over."
- "Answer yes. Over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03061).
- 03:07:13** CRO Howson takes a call from a person on the 22<sup>nd</sup> floor stating that there are 12 people in the flat and that the smoke is really bad now. CRO Howson tells them that they need to leave the building, cover themselves with wet towels and put sheets over their mouth and nose. The caller asks if the stairs are safe from fire and CRO Howson explains that it is smoke on the stairs and not fire. The caller acknowledges that they need to go and says okay and says bye. Incident Number 76265, Call Duration one minute 33 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00703).
- 03:07:43** Firefighter O'Hanlon ascends the stairs from the stair lobby to the mezzanine floor level (Source: CCTV: Camera 2).
- 03:07:49** Firefighter O'Hanlon descends the stairs to the stair lobby (Source: CCTV: Camera 2).
- 03:07:50** WM Ashe carrying an unconscious female child, (now known to be Malak Belkadi, from flat 175, 20<sup>th</sup> floor) exits the building via the community room (Source: CCTV: Camera 4).
- 03:07:52** BA Team 28: Firefighter Reddington and Firefighter Upton close down their BA sets and brief CM Morrison on their actions at the third floor bridgehead (Source: CCTV: Camera 4, MPS Witness Statement: GTIRT177-01715, BA Data: GTIRT17-02820).
- 03:07:53** An unidentified firefighter exits the stair lobby into the main lobby (Source: CCTV: Camera 2).
- 03:07:59** Firefighter W Boulton and a female casualty (known to be Ethiopia Assefa from flat 94, 12th floor) descend the stairs to the stair lobby where Firefighter W Boulton assists her into the main lobby (Source: CCTV: Camera 2).

## OFFICIAL

**03:08** The image below shows the fire spread at Grenfell Tower. The picture shows the North elevation completely alight with multiple internal fires, wrapping around the West elevation.



(Source: MET000085885)

**03:08\*** BA Team 37: CM Rawlings, Firefighter Brooks and Firefighter Morcos are waiting on the mezzanine floor level and note that the bridgehead is moved from the third floor to the ground floor main lobby (Source: Contemporaneous Notes: GTIRT17-00231, GTIRT17-00228, GTIRT17-00230).

**03:08:01** CRO Duddy takes a call from a caller who states "fire, fire" whilst coughing. The caller states that they are in flat 92 on the 12<sup>th</sup> floor and CRO Duddy advises the caller to get to the staircase as it is their only chance. There is one adult and two children. Shouting can be heard in the background and the caller tries to calm others, telling them not to panic. The caller explains that she has asthma and a heart problem and thinks that she is going to collapse but continues to reassure the children, telling them that they all have to go. The caller explains that she is trying to leave the flat but that she cannot do it and throughout the call, the caller sounds like she is trying to make attempts to get to the stairs. The caller states that the flat is full of smoke, she cannot leave the kids and she cannot get to the stairs. CRO Duddy repeats that this is the only option and they need to stay as low as they can and keep themselves covered with the wet towels. The caller is struggling to breathe and is panting heavily. The caller keeps encouraging others to get out. The caller then shouts out for her son, asking where he is. There is a lot of shouting in a language that does not seem to be English and it is unclear what is happening. The caller keeps repeating the phrase "my kids, my kids" and is making her way down the staircase. At **03:20** a male voice can be heard

## OFFICIAL

saying "come on, we are taking you out". The caller comes on the phone saying they are with the police and the Brigade. Incident Number 76263, Call Duration twelve minutes, 52 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00701).

- 03:08:01** An unidentified firefighter ascends the stairs from the stair lobby to the mezzanine floor level (Source: CCTV: Camera 2).
- 03:08:05** Ethiopia Assefa from flat 94, 12th floor is escorted through the main lobby by Firefighter W Boulton and exits the building via the community room (Source: CCTV: Camera 4).
- 03:08:13** Surrey FRS Control make a call to a person believed to be the resident of flat 194, 22<sup>nd</sup> floor. The call goes to voicemail after ringing for approximately 45 seconds (Source: FRS Incident Log, Audio File and Transcript: GTIRT17-01613).
- 03:08:16** WM Watson descends the stairs to the stair lobby and proceeds into the main lobby (Source: CCTV: Camera 2).
- 03:08:22** WM Dowden exits the main lobby via the community room (Source: CCTV: Camera 4).
- 03:08:27** CU8 send the Radio Operator at Brigade Control a 'priority' radio message.  
"Charlie Uniform 8, go ahead with priority."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03062).
- 03:08:30** CU8 send an assistance message to the Radio Operator at Brigade Control.  
"FN Charlie Uniform 8. Make, er, make DAC additional one, require additional one DAC from this incident. Erm, further traffic, over".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03063).
- 03:08:30** The Radio Operator at Brigade Control responds to the message.  
"Make additional DAC, one additional DAC. Received. Stand by".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03064).
- 03:08:46** SM Myatt descends the stairs to the stair lobby whilst carrying a fire ground held radio (Source: CCTV: Camera 2).
- 03:08:53** Firefighter Morcos descends the stairs to the stair lobby wearing EDDBA not under air and has not been committed due to the bridgehead being moved to the ground floor (Source: CCTV: Camera 2).
- 03:08:54** CM Rawlings descends the stairs to the stair lobby wearing EDDBA not under air and has not been committed due to the bridgehead being moved to the ground floor (Source: CCTV: Camera 2).

## OFFICIAL

- 03:08:56** CRO Gotts takes a call from a caller in flat 193 on the 22<sup>nd</sup> floor reporting that they are burning. The caller asks if they can escape through a big window on a helicopter and CRO Gotts explains the Brigade is sending big ladders. The caller says they can get out if CRO Gotts sends a helicopter or the 20 people will die and CRO Gotts tells the caller that she will let the crews know. The caller keeps screaming and shouting. CRO Gotts repeatedly tries to get the caller to leave the building, covering themselves with wet towels. Incident Number 76267, Call Duration three minutes, 15 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00705).
- 03:08:57** CU8 sends a further radio message to the Radio Operator at Brigade Control.
- "FN Charlie Uniform 8. Er, request additional, er, support unit with drinking water. Charlie Uniform 8, over".
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03065).
- 03:08:58** Firefighter Brooks descends the stairs to the stair lobby wearing EDBA not under air and has not been committed due to the bridgehead being moved to the ground floor (Source: Contemporaneous Notes: GTIRT17-00228, CCTV: Camera 2).
- 03:09** BA Team 31: CM Hoare and Firefighter Tanner are in the stairwell at the lobby entrance on the 10<sup>th</sup> floor. They open the door and Firefighter Tanner crawls into the lobby and sees a casualty by the lifts. He goes back into the stairwell to inform CM Hoare who agrees they should try and reach the casualty. Firefighter Tanner crawls back into the lobby, and reaches the casualty, (believed to be Ali-Yawar Jafari from flat 86, 11<sup>th</sup> floor) and manages to bring them back into the stairwell. Firefighter Tanner notes that every time he tries to get up into a kneeling position in the 10<sup>th</sup> floor lobby he can feel an intense increase in heat through his fire helmet (Source: MPS Witness Statement: GTIRT18-00998, GTIRT17-01959, BA Data: GTIRT17-02820).
- 03:09** Firefighter Dwyer and Firefighter Perez are outside Grenfell Tower. They are about to complete their fire ground 'A' Test and then return to the building for redeployment, when they are handed an unresponsive female child (believed to be Malak Belkadi from flat 175, 20<sup>th</sup> floor). They begin to administer first aid when CM Johnson tells them to take the child to a triage area that is set up 100 to 200 metres away. All three personnel run the child to the triage area where waiting paramedics confirm that she is in cardiac arrest and place her straight into an ambulance. CM Johnson then accompanies the child to hospital in the ambulance with the paramedics. CM Johnson continues to apply chest compressions to the child casualty throughout the journey to the hospital (Source: MPS Witness statement: GTIRT18-01548, GTIRT18-03108, GTIRT18-01071, Contemporaneous Notes: GTIRT17-00142, GTIRT17-00140, GTIRT17-00197, CCTV: Camera 4).
- 03:09\*** WM Aston-O'Donovan from BA Team 32 is ascending the stairs searching for his BA partner, Firefighter Green. He reaches the ninth or 10<sup>th</sup> floor and locates Firefighter Green with a female



## OFFICIAL

casualty (believed to be Alemishet Demissie from flat 94, 12<sup>th</sup> floor) (Source: MPS Witness Statement: GTIRT18-00045, Contemporaneous Notes: GTIRT17-00122, BA Data: GTIRT17-02820).

**03:09** BA Team 34: CM Codd and Firefighter Joseph are between the sixth and ninth floor when CM Codd realises that they have accidentally split up (Source: MPS Witness Statement: GTIRT18-01299, BA Data: GTIRT17-02820).

**03:09:03** A large piece of burning debris falls from the East elevation and lands outside the stair lobby (Source: CCTV: Camera 2).



**03:09:03** Surrey FRS make a call to Kent FRS to pass on the information about the change in guidance that London has passed to them. The Surrey FRS Radio Operator explains that the advice is to try and leave the building and that people need to cover themselves with wet clothes or towels and make their way out of the building. Incident Number 030903, Call Duration 59 seconds (Source: FRS Incident Log and Audio file: GTIRT17-01614).

**03:09:07** The Radio Operator at Brigade Control sends a radio message to CU8.

"Additional support unit with drinking water. Received."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03066).

**03:09:17** OM Norman at Brigade Control takes a call from NWFC. They are passing on information about a caller in flat 123 on the 15<sup>th</sup> floor. The caller has told the NWFC Radio Operator that they cannot breathe and then the line "went dead" on the BT Operator. OM Norman passes on the current advice that is being given to callers. She states the fire is out of control and callers should cover

## OFFICIAL

themselves with wet towels and try and get out. Call duration 54 seconds (Source: Audio File and Transcript: GTIRT17-01775).

- 03:09:17** Surrey FRS make a call to a member of the public who has previously contacted them at **02:28:53** (GTIRT17-01714). The Surrey FRS Radio Operator explains that they have spoken to London and they pass the information about the change of advice to the caller. The caller is the son of the resident on the 22<sup>nd</sup> floor and he says that his father is stuck and the fire is burning through his floor. He explains that there is thick black smoke in the flat and he is 70 years old. The Surrey FRS Radio Operator states that she will call the Brigade back and let them know he is stuck and should be a priority. Call Duration one minute 30 seconds (Source: Audio file: GTIRT17-01615).
- 03:09:18** CRO Adams takes a call from a resident in flat 142 on the 17<sup>th</sup> floor who state that their flat is on fire. The caller confirms that there are five of them and CRO Adams says they must leave the building by the stairs. The caller says that they cannot see anything because the smoke is too thick. The caller states that the fire is in the kitchen and hallway and CRO Adams repeats her advice that the caller must leave the building. Incident Number 76269, Call Duration two minutes, 25 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00707).
- 03:09:46** Firefighter Reddington from BA team 28 descends the stairs to the stair lobby wearing EDBA not under air, following a BA wear with his torch on (Source: CCTV: Camera 2).
- 03:09:49** Firefighter Bate from BA team 30 descends the stairs to the stair lobby wearing SDBA not under air, following a BA wear and remains in the stair lobby. She is holding two fire helmets and has her facemask off its retaining stud (Source: CCTV: Camera 2).
- 03:09:51** An unidentified firefighter descends the stairs to the stair lobby wearing SDBA not under air (Source: CCTV: Camera 2).
- 03:09:52** CRO Howson takes a call from a male in flat 183 on the 21<sup>st</sup> floor. The caller says there is now smoke inside and that they cannot get out. CRO Howson asks if there is fire in the flat and the caller explains that there is not but there is a fire next door. She tells the caller that the advice being given is to leave the building and the caller says they cannot get out because there is too much smoke. CRO Howson tries to provide options including covering themselves with wet towels but the caller is insistent that they cannot get out. CRO Howson says she will pass on their location to crews but she repeats that the advice is to try and leave as it may be sometime before any one reaches them. The caller states that there are three children, three adults and a heavily pregnant wife. Incident Number 76276, Call Duration four minutes, 58 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00714).
- 03:09:53** An unidentified firefighter descends the stairs to the stair lobby wearing SDBA not under air, whilst carrying a sledge hammer (Source: CCTV: Camera 2).

## OFFICIAL

- 03:09:54** Firefighter Errington descends the stairs to the stair lobby wearing a SDBA not under air and has not been committed due to the bridgehead being moved to the ground floor, whilst carrying a TIC (Source: CCTV: Camera 2).
- 03:10** BA Team 20: Firefighter Alassad, Firefighter Bell and Firefighter J Wright collect some fresh BA cylinders from an OSU and take these to the BA holding area to carry out a fire ground 'A' Test to return to Grenfell Tower for redeployment (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00042, GTIRT18-02054, GTIRT18-02061).
- 03:10** BA Team 29: Firefighter Whitley and Firefighter Nuttall are descending to the bridgehead and note visibility remains poor in the stairwell. They encounter other crews with casualties but cannot assist them as they have hardly any air left. They reach the third floor and realise the bridgehead has moved further down the Tower (Source: MPS Witness Statement: GTIRT18-01296, Contemporaneous Notes: GTIRT17-00120).
- 03:10** BA Team 31: CM Hoare and Firefighter Tanner are in the stairwell on the 10<sup>th</sup> floor with a casualty (believed to be Ali-Yawar Jafari from flat 86, 11<sup>th</sup> floor). CM Hoare sends a radio message to the BAECO to inform them they have not been able to reach flat 74 as they have found an unresponsive casualty before reaching their objective. CM Hoare does not confirm if the BAECO responds to his radio message (Source: MPS Witness Statement: GTIRT18-00998, GTIRT17-01959, BA Data: GTIRT17-02820).
- 03:10** BA Team 30: Firefighter Pole, Firefighter N Mitchell and Firefighter Cheesman (originally a crew of four but Firefighter Bate has left them to assist with a rescue) believe they are between the 15<sup>th</sup> and 18<sup>th</sup> floors. Firefighter N Mitchell states that as air is running low they make the decision to search the floor they are on where they find a nine people in flat 153 (18<sup>th</sup> floor) conscious casualties (believed to be Ayesha El-Guenuni (flat 152), Mohammed El- Guenuni (flat 152) , Naila El-Guenuni (flat 152), Rabia Yahya (flat 152), Yehualashet Enyew (flat 155), Paulos Tekle (flat 153), Isaac Paulos (flat 153), Lukas Paulos (flat 153), Genet Shawo (flat 153) (Source: Contemporaneous Notes, GTIRT17-00074, GTIRT17-00076, GTIRT17-00077, BA Data: GTIRT17-02820, CCTV: Camera 2).
- 03:10:00** AC Roe at CU8 confirms we have a potential firefighter emergency for Firefighter D Hill who is currently unaccounted for. At the same time WM De Silvo has already tasked BA Team 31: CM Hoare, Firefighter Tanner and BA Team 32: WM Aston-O'Donovan, Firefighter Green to go to the 12<sup>th</sup> floor to find Firefighter D Hill (Firefighter D Hill's brief was to go to flat 95, 12<sup>th</sup> floor) (Source: MPS Witness Statement, GTIRT18-03107, GTIRT18-00944, GTIRT18-03265, AC Roe Decision Log: GTIRT17-02438, Contemporaneous Notes: GTIRT18-00866).
- 03:10:04** WM Dowden ascends the stairs from the stair lobby but is called back down to talk to crews by a unidentified Firefighter (Source: CCTV: Camera 2).

## OFFICIAL

- 03:10:11** Firefighter Upton from BA Team 28 descends the stairs to the stair lobby wearing EDDBA not under air, following a BA wear. Her torch is on (Source: CCTV: Camera 2).
- 03:10:17** An unidentified firefighter descends the stairs to the stair lobby wearing SDBA under air, whilst carrying a length of 70mm hose. They place the equipment at the base of the stairs (Source: CCTV: Camera 2).
- 03:10:20** SM Myatt and WM Williams are in the main lobby, WM Williams can be seen shouting up information to the mezzanine floor level (Source: CCTV: Camera 4).
- 03:10:23** An unidentified CM descends the stairs to the stair lobby and proceeds into the main lobby, whilst carrying an IEC bag (Source: CCTV: Camera 2).
- 03:10:25** Firefighter De St Aubin (BAECO) descends the stairs to the stair lobby and proceeds into the main lobby wearing the BAECO tabard and carrying an ECB (Source: CCTV: Camera 2).
- 03:10:26** WM Watson descends the stairs to the stair lobby whilst carrying a sledge hammer. He places the sledge hammer at the bottom of the stairs (Source: CCTV: Camera 2).
- 03:10:26** CRO Jones takes a call from Surrey FRS reporting that they have taken another call from the son of a resident in the Tower. It is believed that the resident is in flat 194 on the 22<sup>nd</sup> floor based on previous calls at **02:28:53** and **03:05:38**. The Surrey FRS Radio Operator explains that they have passed on the advice to the resident via his son but he is saying his father cannot get out as there is so much smoke and flames. CRO Jones takes the mobile number for the resident and states that she will call him. Incident Number 76268, Call Duration two minutes, 14 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00706).
- 03:10:28** Firefighter O'Beirne (BAECO) descends the stairs to the stair lobby and proceeds into the main lobby whilst carrying an ECB (Source: CCTV: Camera 2).
- 03:10:30** The BAECB is moved from the stair lobby into the main lobby. Firefighter De St Aubin (BAECO) places the BAECB by the wall next to the community room door (Source: CCTV: Camera 4).
- 03:10:31** The ground floor lobby fills with firefighters and officers as the bridgehead is moved down from the third floor to the ground floor (Source: CCTV: Camera 2, Camera 4, MPS Witness Statement: GTIRT17-01108).
- 03:10:31** WM O'Keeffe descends the stairs to the stair lobby whilst carrying an ECB and a FIB (Source: CCTV: Camera 2).
- 03:10:34** CRO Russell takes a call from a male in flat 204 on the 23<sup>rd</sup> floor who states that he cannot see because there is too much smoke in the flat. CRO Russell explains that the firefighters are having trouble getting to everyone in the building and the best advice is to leave the building. The caller says that he cannot walk properly, that he is disabled and needs help to walk and get out. CRO

## OFFICIAL

Russell provides FSG advice including blocking doors and covering his mouth and nose with a cloth, stay close to the floor. She says she will pass on the information to the crews at the scene. Incident Number 76272, Call Duration two minutes, 28 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00710).

- 03:10:34** An unidentified firefighter descends the stairs to the stair lobby and proceeds into the main lobby, wearing SDBA and not under air, carrying a Halligan bar (Source: CCTV: Camera 2).
- 03:10:35** CM Batcheldor descends the stairs to the stair lobby and proceeds into the main lobby whilst carrying an IEC bag (Source: CCTV: Camera 2).
- 03:10:38** Firefighter Benaicha descends the stairs to the stair lobby, wearing SDBA not under air, and proceeds into the main lobby whilst carrying a clear bag with plastic LAS stretchers and breaking in equipment (Source: CCTV: Camera 2).
- 03:10:44** An unidentified firefighter descends the stairs to the stair lobby wearing SDBA not under air, and proceeds into the main lobby carrying an ECB (Source: CCTV: Camera 2).
- 03:10:45** CM Yeoman from BA Team 18 descends the stairs to the stair lobby, wearing SDBA not under air (Source: CCTV: Camera 2).
- 03:10:45** An unidentified firefighter descends the stairs to the stair lobby wearing SDBA not under air, whilst carrying a long line in a line bag (Source: CCTV: Camera 2).
- 03:10:46** Firefighters assembled in the stair lobby are moved into the community room (Source: CCTV: Camera 2).
- 03:10\*** *Firefighter Joseph from BA Team 34 reaches the 12<sup>th</sup> floor he is not with his BA partner CM Codd (Source: BA Data: GTIRT17-02820).*
- 03:11** BA Team 32: WM Aston-O'Donovan and Firefighter Green arrive at the fifth floor and hand the casualty (believed to be Alemishet Demissie from flat 94, 12<sup>th</sup> floor), over to colleagues (Source: MPS Witness Statement: GTIRT18-00045, GTIRT18-00306, BA Data: GTIRT17-02820).
- 03:11:03** Firefighter Bate from BA Team 30 exits the building, via the community room under the cover of an MPS riot shield. Firefighter Bate was unable to collect her BA tally from the BAECO as the bridgehead was in the process of being moved from the stair lobby to the main lobby (Source: MPS Witness Statement: GTIRT18-02865, CCTV: Camera 4).
- 03:11:06** *BA Team 30: Firefighter Pole, Firefighter N Mitchell and Firefighter Cheesman believe they are between the 15<sup>th</sup> and 18<sup>th</sup> floor when Firefighter N Mitchell receives an evacuation notification on his BA set (Source: Contemporaneous Notes: GTIRT17-00076, GTIRT17-00077, GTIRT17-00074, BA Data: GTIRT17-02820).*

## OFFICIAL

- 03:11:09** Firefighter Green from BA Team 32 assists a casualty (know known to be Alemishet Demissie from flat 94, 12<sup>th</sup> floor) down the stairs to the stair lobby. He is wearing SDBA under air and is carrying a TIC (Source: CCTV: Camera 2).
- 03:11:11** WM Aston-Donovan descends the stairs to the stair lobby and proceeds into the main lobby whilst wearing SDBA under air (Source: CCTV: Camera 2).
- 03:11:12** Alemishet Demissie from flat 94, 12<sup>th</sup> floor is escorted from the stair lobby to the main lobby by unidentified firefighters and SM Cook (Source: CCTV: Camera 4).
- 03:11:14** Hotel 33 Alpha, Wandsworth's OSU, is mobilised (Source: 'Vision': GTIRT17-02791).
- 03:11:21** WM Dowden enters the stair lobby carrying a notepad and a water bottle (Source: CCTV: Camera 2).
- 03:11:22** Alemishet Demissie from flat 94, 12<sup>th</sup> floor exits the building via the community room. She talks to Firefighter O'Hanlon, Firefighter Broderick and SM Cook before exiting the building (Source: CCTV: Camera 4).
- 03:11:25** An unidentified firefighter with a FRU sticker on their fire helmet descends the stairs to the stair lobby and proceeds to the main lobby whilst wearing a SDBA set, under air, with their torch on (Source: CCTV: Camera 2).
- 03:11:26** The Radio Operator at Brigade Control sends a radio message to CU8.  
"Charlie Uniform 8, Charlie Uniform 8, from M2FN. Over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03067).
- 03:11:28** WM Dowden ascends the stairs from the stair lobby (Source: CCTV: Camera 2).
- 03:11:31** BA Team 29: Firefighter Whitley and Firefighter Nuttall report to the BAECO on the ground floor and close down their BA sets (Source: BA Data: GTIRT17-02820, CCTV: Camera 4).
- 03:11:32** The MPS are now in attendance with more MPS riot shields, they hand them to firefighters under Grenfell Walk (Source: CCTV: Camera 31).
- 03:11:34** Ethiopa Assefal is placed on a wheeled stretcher and is attended to by two paramedics with a unidentified firefighter in front of the Kensington leisure centre on the east elevation of Grenfell Tower (Source, CCTV: Camera OPS1 Kensington leisure centre).
- 03:11:39** The Radio Operator at Brigade Control sends a radio message to CU8.  
"Charlie Uniform 8, Charlie Uniform 8, from M2FN. Over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03068).

## OFFICIAL

- 03:11:42** CRO Fox takes a call from a male who is outside the building reporting that there are people stuck on the top floor. CRO Fox assures the caller that the Brigade is doing as much as they can and that they are aware of the people at the top of the building. She explains that current advice is that they should leave. Incident Number 76271, Call Duration 39 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00709).
- 03:11:47** CU8 respond to the Radio Operator at Brigade Control.
- "FN, Charlie Uniform 8. Go ahead. Over."
- "Charlie Uniform 8 –"
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03069).
- 03:11:47** A large piece of flaming debris is seen hitting the floor outside the ground floor window (Source: CCTV: Camera 2).
- 03:11:56** WM De Silvo descends the stairs to the ground floor whilst carrying two firefighter helmets, she places them down by the wall and then goes back up the stairs (Source: CCTV: Camera 2).
- 03:11:50** The Radio Operator at Brigade Control sends an 'informative' radio message to CU8.
- "Charlie Uniform 8. RPE Unit with SDBA, Estimated Time of Arrival (ETA) is 30 minutes. An RPE Unit with EDBA approximately one hour. These are being ordered as the BA Support Units. That's the SDBA 30 minutes, and the EDBA approximately one hour. Over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03070).
- 03:11:54** BA Team 32: WM Aston-O'Donovan and Firefighter Green arrive at the bridgehead and close down their BA sets and brief GM Welch (Source: MPS Witness Statement: GTIRT18-00045, GTIRT18-00306, BA Data: GTIRT17-02820).
- 03:12** The majority of firefighters wearing SDBA leave the main lobby and proceed into the community room (Source: CCTV: Camera 3).
- 03:12:10** SM Cook ascends the stairs from the stair lobby carrying an enforcer (Source: CCTV: Camera 2).
- 03:12:16** CU8 send a radio message to the Radio Operator at Brigade Control confirming receipt of the radio message about the BA support units.
- "Correct FN Charlie Uniform 8. All received."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03071).
- 03:12:27** CM Codd is around the 12<sup>th</sup> floor when he encounters three unidentified children and starts to bring the children down the stairs (Source: MPS Witness Statement: GTIRT18-01299, BA Data: GTIRT17-02820).

## OFFICIAL

- 03:12:40** BA Team 29: Firefighter Whitley and Firefighter Nuttall are at the bridgehead having previously closed down their BA sets. Firefighter Nuttall provides information about the 15<sup>th</sup> floor conditions to WM Williams (Source: MPS Witness Statement: GTIRT18-01296, BA Data: GTIRT17-02820, CCTV: Camera 4).
- 03:12:48** CU8 send a 'priority' radio message to the Radio Operator at Brigade Control.  
"Charlie uniform eight. Go ahead with priority."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03073).
- 03:12:52** CU8 send the following radio message to the Radio Operator at Brigade Control.  
"Can we request as a matter of priority a Dangerous Structural Engineer if it's not already been ordered for this incident? Over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03074).
- 03:12:56** CRO Gotts takes a call from a male in flat 133 on the 16th floor. There is a smoke alarm audible in the background. CRO Gotts asks if he has tried to get out, the caller says he is nearly fainting. CRO Gotts repeats the advice to cover themselves with wet towels and get out. CRO Gotts keeps trying to encourage him to leave and asks who he is with. The caller replies that he is in the flat with his wife. The caller is struggling to breathe and says they have tried to leave twice and CRO Gotts asks if he has blocked everything up. CRO Gotts says she will tell the crews but repeats the advice to leave. Incident Number 76283, Call Duration three minutes, 8 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00721).
- 03:13:00** Four ECBs are brought down the stairs into the stair lobby and the bridgehead re-locates to the main lobby (Source: CCTV: Camera 2).
- 03:13:00** Firefighter O'Hanlon returns to the building and enters via the community room and remains in the main lobby with Firefighter Archer and Firefighter Broderick (Source: CCTV: Camera 4).
- 03:13** BA Team 32: WM Aston-O'Donovan and Firefighter Green are outside the Tower and are approached by individuals with questions about their relatives in the Tower. WM Aston-O'Donovan guides them in the direction of the MPS and CU (Source: MPS Witness Statement: GTIRT18-00045, GTIRT18-00306).
- 03:13\*** Firefighter Bate from BA Team 30 is outside Grenfell Tower, she removes her BA set and informs a Fire Officer that she left her BA tally at the BAECF. At the same time, WM De Silvo calls Firefighter Bate over the radio from the bridgehead, Firefighter Bate explains that she has removed a casualty from the building and was unable to collect her BA tally (Source: MPS Witness Statement: GTIRT18-02685).



## OFFICIAL

**03:13:05** The Radio Operator at Brigade Control sends a radio message to CU8 confirming they are attempting to get a DSE.

"Yeah. We are, erm, in the process of trying to get hold of one for you. Over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03075).

**03:13:06** CRO Jones takes a call from a female in flat 82 on the 11<sup>th</sup> floor and advises them that they need to get out. The caller says she can't get out of the flat because there is fire outside the front door and the caller gets hysterical and says that she should have been told earlier to leave. The caller pleads with CRO Jones to get someone to come and get them and CRO Jones tells her that she will pass on the callers location to the crews. The caller states that it is in her house now and CRO Jones tells her she needs to leave if the fire is in her house. The caller quickly says okay and says she will try and leave and she will call CRO Jones back. Incident Number 76274, Call Duration two minutes, 34 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00712).

**03:13:10** WM Furnell descends the stairs to the stair lobby and proceeds into the main lobby (Source: CCTV: Camera 4).

**03:13:11** CU8 send a radio message to the Radio Operator at Brigade Control confirming they have requested a DSE and CU8 asks if they can stress this is a matter of urgency, a priority.

"Charlie Uniform 8. Received. Erm, if you do manage to get hold of someone can you please stress it is a matter of real urgency, it's a priority. Over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03076).

**03:13:12** Firefighter De St Aubin (BAECO) and CM Sephton (BAECO) both continue as BAECO (Source: CCTV: Camera 2 and CCTV: Camera 4).

**03:13:23** BA Team 30: Firefighter Pole, Firefighter N Mitchell and Firefighter Cheesman are believed to be between the 15<sup>th</sup> and 18<sup>th</sup> floor when Firefighter Pole receives an evacuation notification on his BA set (Source: BA Data: GTIRT17-02820).

**03:13:26** Two casualties (now known to be Paulos Tekle from flat 153, 18<sup>th</sup> floor and Genet Shawo from flat 153, 18<sup>th</sup> floor) are escorted from the stair lobby into the main lobby by an unidentified firefighter (Source: CCTV: Camera 2).

**03:13:28** A child (now known to be Lukas Paulos from flat 153, 18<sup>th</sup> floor) is carried from the stair lobby into the main lobby by GM Goulbourne (Source: CCTV: Camera 2).

**03:13:31** Paulos Tekle, Lukas Paulos and Genet Shawo from flat 153, 18<sup>th</sup> floor, are escorted to the community room by GM Goulbourne who is carrying Lukas Paulos (Source: CCTV: Camera 4).

## OFFICIAL

- 03:13:31** CM Sephton (BAECO) descends the stairs to the stair lobby and proceeds into the main lobby (Source: CCTV: Camera 2).
- 03:13:45** CRO Russell takes a call from a BT Operator trying to put a call through. The BT Operator says he can't get a response and CRO Russell tries to raise the caller but all that can be heard is voices in the background. It sounds like a phone line has been left open. A smoke alarm is audible in the background. Incident Number 76275. Call Duration one minute 23 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00713).
- 03:13:48** CRO Fox takes a call from a male who resides in the block of flats opposite and reports that he can see people trapped and urges the Brigade to get a crane from a construction site to reach them. CRO Gotts thanks him for his concern. Incident Number 76273, Call Duration 43 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00711).
- 03:13:53** The Radio Operator at Brigade Control sends a 'Priority' radio message to CU7.  
"Charlie Uniform 7, priority. Over. Priority, priority, Charlie Uniform 7". (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03078).
- 03:13:55** BA Team 33: WM Clark, Firefighter Beltrami and WM Cardy reach the ninth floor, WM Clark enters the lift lobby, locates a 45mm fire hose and untangles this in order for the team to all enter the lobby on their knees. The BA team crawl into the ninth floor lobby and Firefighter Beltrami tries to enter the first flat on the left hand side of the lobby using the enforcer. *The team are struck by the intense heat in the lobby and at one point their TIC registers 1,080 degrees centigrade.* They are unable to open the door so the whole of BA Team 33 shout at the door in the hope of alerting any individuals that may be inside the flat but no one responds. WM Cardy goes back into the stairwell to see if he can locate the Halligan bar and finds two male children (believed to be Adam and Abel Aboud from flat 92, 12<sup>th</sup> floor) and two adult females, (believed to be Karen Aboud from flat 92, 12<sup>th</sup> floor and Chia-Yuan Li from flat 195, 22<sup>nd</sup> floor). At the same time WM Clark receives an evacuation message on his handheld radio so he and Firefighter Beltrami join WM Cardy in the stairwell. WM Cardy hands Firefighter Beltrami one of the adult females and WM Clark one of the male children. The team then descend the stairs with all four casualties (Source: MPS Witness Statement: GTIRT18-00308, GTIRT18-03104, GTIRT18-00918, BA Data: GTIRT17-02820).
- 03:14\*** BA Team 35: Firefighter Wharnsby and Firefighter Lowe are ascending the stairs trying to reach flat 113, 14<sup>th</sup> floor and believe they are between the eighth and the 10<sup>th</sup> floors and can see other firefighters and casualties descending the stairs. BA Team 35 then discover an adult and a child casualty, (believed to be Rabia Yahya and Naila El-Guenuni both from flat 152, 18<sup>th</sup> floor) and begin to lead them both down the stairs. *Firefighter Lowe notices that the smoke is getting*

## OFFICIAL

*thicker and people are struggling to breathe* (Source: MPS Witness Statement: GTIRT18-00433, GTIRT17-02939, BA Data: GTIRT17-02820).

**03:14\*** *Firefighter Joseph from BA Team 34 is on the 12<sup>th</sup> floor and meets another unidentified firefighter who requests assistance with a casualty* (Source: Contemporaneous Notes: GTIRT17-00229, BA Data: GTIRT17-02820).

**03:14:09** The Radio Operator at Brigade Control sends a 'Priority' radio message to CU7.

"Priority, priority, Charlie Uniform 7 from M2FN. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03079).

**03:14:14** CU5, Woodside's CU book Status 3, in attendance, at Grenfell Tower. This is the sixth CU in attendance at the incident (Source: 'Vision': GTIRT17-02791).

**03:14:18** WM Dowden and a casualty (now known to be Yehualashet Enyew from flat 155, 18<sup>th</sup> floor) descend the stairs to the ground floor bridgehead in the stair lobby and proceed into the main lobby (Source: CCTV: Camera 2).

**03:14:18** CU7 acknowledge receipt of the 'Priority' radio message from the Radio Operator at Brigade Control.

"FN from Charlie Uniform 7. Go ahead. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03080).

**03:14\*** *Firefighter Wharnsby reaches the mezzanine floor level with a female child casualty, (now known to be Naila El-Guenuni from flat 152, 18<sup>th</sup> floor). He reports that she collapsed somewhere between the sixth and fourth floor and he carries her to the mezzanine floor level. He shouts for assistance and an unidentified firefighter takes the child from him* (Source: MPS Witness Statement: GTIRT18-00433, BA Data: GTIRT17-02820).

**03:14:22** The Radio Operator at Brigade Control sends a radio message to CU7.

"Charlie Uniform 7. Erm, further information from the police helicopter, on the West aspect of the building, multiple occupants are three floors from the top. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03081).

**03:14:23** Surrey FRS make a call to Essex County FRS passing on the latest information regarding the change in advice for callers in Grenfell Tower. The advice shared is to wrap something wet around themselves and leave as quickly as they can. There is some discussion regarding calls that each service have taken and the Surrey FRS Radio Operator then asks which services are close to Essex County and the Essex County FRS Radio Operator confirms that Hertfordshire Fire and Rescue Service (Hertfordshire FRS) are their neighbouring Control Room. Incident Number

## OFFICIAL

031423, Call Duration two minutes, 3 seconds (Source: FRS Incident Log and Audio file: GTIRT17-01616).

**03:14:26** WM Dowden and Yehualashet Enyew exit the building via the community room (Source: CCTV: Camera 4).

**03:14:35\*** *Firefighter Wharnsby from BA Team 35 is at the mezzanine floor level when his BA partner Firefighter Lowe appears with a female casualty (now known to be Rabia Yahya from flat 152, 18<sup>th</sup> floor). Firefighter Lowe hands the female casualty over to an unidentified firefighter (Source: MPS Witness Statement: GTIRT18-00433, GTIRT17-02939, BA Data: GTIRT17-02820).*

**03:14:39** CU7 request the last radio message is repeated by the Radio Operator at Brigade Control 03:14:22.

"FN from Charlie Uniform 7. Can you repeat location again. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03082).

**03:14:44** The Radio Operator at Brigade Control repeats the radio message to CU7

"It's the West aspect, three floors from the top. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03083).

**03:14:47** WM O'Keeffe talks to BA Team 37: CM Rawlings, Firefighter Brooks and Firefighter Morcos in the main lobby (Source: CCTV: Camera 4).

**03:14:52** CU7 acknowledge receipt of the radio message.

"Charlie Uniform 7. Received".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03084).

**03:14:57** Echo Eight, DAC Lee Drawbridge books Status 2, mobile to Grenfell Tower (Source: 'Vision': GTIRT17-02791).

**03:15:00** BA Team 31: CM Hoare and Firefighter Tanner are on the seventh floor when their LPWA actuate on both sets. They are carrying a casualty, (believed to be Ali-Yawar Jafari from flat 86, 11<sup>th</sup> floor) down the stairs whilst also giving way to other crews coming down with other casualties. The conditions in the stairwell are hot and the casualty is getting tangled in the railings as his leg kept falling beneath the bottom of the banister. CM Hoare is at the front walking backwards holding the casualty under the arms when Firefighter Tanner hears a message saying the bridgehead has moved to the ground floor. CM Hoare is running out of air so they make a decision to leave the casualty on the stairs, by the hand rail on his left side, with his head facing down. CM Hoare states *"they were both pretty sure their casualty was dead, we knew life was extinct when we moved him into the lobby but we are not qualified to declare that"*. Another crew comes past with

## OFFICIAL

approximately four casualties and BA Team 31 assist them with two girls by telling them to hold onto their shoulders as they lead them down to the fourth floor, but they run off by themselves (believed to be Naila El-Guenuni and Ayesha El-Guenuni from flat 152, 18<sup>th</sup> floor) (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT17-01959, GTIRT18-00998).

**03:15\*** Firefighter Nuttall notices an unidentified male having an animated discussion with LFB staff, he takes him to one side and the man explains he is on the phone to his sister-in-law who is still on the 13<sup>th</sup> or 14<sup>th</sup> floor of the Tower. Firefighter Nuttall states: "I calmed him down and told him to stay on the phone and he moved away with the knowledge of telling a Firefighter outside the cordon if circumstances changed" (Source: MPS Witness Statement: GTIRT18-01296).

**03:15\*** Firefighter Sime is outside the East elevation of the building and helps Soho's ALP Alpha 245 set in to a hydrant, with CM Frost. Firefighter Sime states, I drop my BA set and go to help instead of sitting there waiting. I help them with the general set up by rolling out and snaking hose, located hydrants and connected them up. Whilst observing the building he notices that it is on fire from the fourth floor upwards and he checks to see if anyone is at the windows but cannot see anyone, there are calls for EDBA wearers so I explained to the HP crew I had to go. Firefighter Okoh was waiting on the grass in sector one while I was on the HP (Source: MPS Witness Statement: GTIRT18-01044, GTIRT18-00424).

**03:15:07** GM Goulbourne talks to BA Team 37: CM Rawlings, Firefighter Brooks and Firefighter Morcos in the main lobby (Source: CCTV: Camera 4).

**03:15:15** CRO Adams takes a call from a BT Operator in Nottingham trying to connect a call from a male caller but the line clears after three and a half minutes. The BT Operator says that the caller is reporting a block of flats on fire and the BT Operator tells the caller that it has been reported. Incident Number 76277, Call Duration 30 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00715).

**03:15:20** CRO Russell takes a call and a very quiet male voice can be heard saying that the whole building is burning down and that he thinks he is going to die. CRO Russell confirms the caller is on the 15<sup>th</sup> floor in flat 124. The caller states that he cannot breathe and that he is by himself. CRO Russell asks if it is fire or just smoke in the flat and the caller explains that it is just smoke but that he has tried to leave and he couldn't see anything. CRO Russell explains that his safest option is to leave and the caller states that he is going to die and CRO Russell says he is not. She goes on to explain about getting wet towels and how to get out but the caller is heard shouting for help and then says he has to leave and the call ends. Incident Number 76282, Call Duration one minute 48 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00720).

**03:15:32** Firefighter Wharnsby from BA Team 35 receives an evacuation notice on his BA set (Source: MPS Witness Statement: GTIRT18-00433, GTIRT17-02939, BA Data: GTIRT17-02820).

## OFFICIAL

- 03:15:41** Alpha Tango 3, Lambeth's RRT book status 2, mobile to Grenfell Tower. Alpha Tango 3 is riding with WM Richard Vanstone, WM Anthony Parkin, WM Mark Niblett and WM Amanda Morrison (Source: 'Vision': GTIRT17-02791).
- 03:15:50** GM Welch and a female casualty (now known to be A El-Guenuni from flat 152,18<sup>th</sup> floor) descend the stairs to the ground floor bridgehead in the stair lobby. He hands her to Firefighter Broderick and they proceed into the main lobby (Source: CCTV: Camera 2).
- 03:15:51** CRO Howson takes a call which starts with someone shouting instructions about covering up and preparing to leave the building, stating that they need to go on the staircase. The individual then shouts to get peoples' attention and repeats the instructions. CRO Howson says "Fire Brigade" but gets no response and after a short time the BT Operator from Portadown comes on the phone indicating that the line has dropped out. Incident Number 76280, Call Duration 29 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00718).
- 03:15:52\*** *BA Team 36: Firefighter Worley, Firefighter S Grant, Firefighter W Boulton and Firefighter Devani report to the BAECO and go under air. They are initially briefed to go to flat 153 on the 18<sup>th</sup> floor for an FSG to search for a family of four (Source: MPS Witness Statement: GTIRT17-02938, GTIRT17-02927, BA Data: GTIRT170-02820, CCTV: Camera 4).*
- 03:15:55** Firefighter Broderick and A El-Guenuni from flat 152, 18<sup>th</sup> floor exit the building via the community room (Source: CCTV: Camera 4).
- 03:15:58** CRO Jones makes a call to the mobile number given to her by Surrey FRS at **03:10:26**. The phone rings but goes to voice mail and CRO Jones leaves a message saying to call 999 if they need more help (Source: NICE, Admin Phone Line Audio file: GTIRT18-02336).
- 03:15:58** GM Welch and GM Goulbourne, talking in the stair lobby, are joined by WM Delaney (CU) from CU2 (Source: CCTV: Camera 2).
- 03:16** BA Team 33: WM Clark, Firefighter Beltrami and WM Cardy continue to descend the stairs from the ninth floor with two male children (believed to be Adam and Abel Aboud from flat 92, 12<sup>th</sup> floor) and two adult females (believed to be Karen Aboud from flat 92, 12<sup>th</sup> floor and Chia-Yuan Li from flat 195, 22<sup>nd</sup> floor) (Source: MPS Witness Statement: GTIRT18-00308, GTIRT18-03104, GTIRT18-00918, BA Data: GTIRT17-02820).
- 03:16:09** Firefighter Wharnsby from BA Team 35 acknowledges the evacuation message on his BA set he received at 03:15:32 (Source: MPS Witness Statement: GTIRT18-00433, GTIRT17-02939, BA Data: GTIRT17-02820).
- 03:16:12** CRO Adams takes a call from a female reporting that her dad is in Grenfell Tower in flat 204 on the top floor and there is fire on his floor. CRO Adams advises the caller to ring him back, and tell him to wrap himself in wet towels and leave. The caller explains that he cannot move, can hardly

## OFFICIAL

walk and is vulnerable. CRO Adams says she will pass the message on to crews but asks the caller to call her dad back and tell him to wrap himself in towels and try and get out if at all possible. Incident Number 76286, Call Duration one minute 58 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00724).

**03:16:16** Firefighter Lowe from BA Team 35 receives an evacuation notice on his BA set (Source: MPS Witness Statement: GTIRT18-00433, GTIRT17-02939, BA Data: GTIRT17-02820).

**03:16:19** CRO Fox takes a call from a caller reporting a fire in a tall building tower opposite Westfield Shopping Centre, postcode W11. CRO Fox tells the caller that it has already been reported and the Brigade is in attendance. Incident Number 76281, Call Duration 47 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00719).

**03:16:27** CRO Jones takes a call from the MPS reporting that the occupants of flat 171 are safe. The MPS caller confirms that the occupant, his daughter and partner are safe and have left the building. Incident Number 76279, Call Duration 44 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00717).

**03:16:44** BA Team 37: CM Rawlings, Firefighter Brooks and Firefighter Morcos are in the main lobby and are briefed by GM Goulbourne to go to the fourth floor and protect the exit (Source: Contemporaneous Notes: GTIRT17-00228, GTIRT17-00230, GTIRT17-00231, BA Data, GTIRT17-02820, CCTV: Camera 4).

**03:16:55** GM Welch and WM Delaney (CU) ascend the stairs from the stair lobby (Source: CCTV: Camera 2).

**03:17** BA Team 35: Firefighter Wharnsby and Firefighter Lowe have resumed carrying out their original brief to go to flat 113 on the 14<sup>th</sup> floor. Both firefighters notice the conditions are significantly worse since their last climb and as they reach the eighth floor they meet three individuals, (believed to be Mohammed Aymen El-Guenuni, Naila El-Guenuni and Rabia Yahya from Flat 152, 18<sup>th</sup> floor). Firefighter Wharnsby picks up the smallest child and begins to carry her down the stairs whilst Firefighter Lowe leads the two other individuals down behind him (Source: MPS Witness Statement: GTIRT18-00433, GTIRT17-02939, BA Data: GTIRT17-02820).

**03:17:05** CRO Howson takes a call from a caller shouting 113 and reporting that the fire is in the flat. (We believe this to be Zainab Deen flat 115, 14<sup>th</sup> floor) CRO Howson advises her to leave with wet towels over her face and use the stairwell which is full of smoke. The caller says she is with her baby and CRO Howson tells her to cover the baby with a wet towel. The caller appears to be talking to another person passing on the advice. The caller then says okay and CRO Howson ends the call. Incident Number 76290, Call Duration one minute 57 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00728).

## OFFICIAL

- 03:17:10** Firefighter Lowe from BA Team 35 acknowledges the evacuation message on his BA set that he received at 03:16:16 (Source: MPS Witness Statement: GTIRT17-02939, BA Data: GTIRT17-02820).
- 03:17:13** CRO Jones takes a call from a caller outside the building on the Latimer Road side reporting that they can see people at the window of a flat which is the second floor from the top. CRO Jones reassures her that the Brigade is there and are trying to reach people. Incident Number 76284, Call Duration 48 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00722).
- 03:17:18** GM Goulbourne picks up an ECB from the main lobby and moves to the base of the stairs in the stair lobby as the main lobby is becoming smoke logged. He is followed by three BAECOs, CM Sephton (BAECO), Firefighter O'Beirne (BAECO) and Firefighter De St Aubin (BAECO) (Source: CCTV: Camera 2 and Camera 4).
- 03:17:18** CRO Fox takes a call from a BT Operator in Portadown who tries to connect her to a male caller but the line drops out. The BT Operator explains that the caller is outside the building and a resident in flat 173 on the 20<sup>th</sup> floor has been texting the caller and saying she can't get out. CRO Fox states that she will pass the information to the CU on scene and that she will ring the caller back. Incident Number 76285, Call Duration one minute, seven seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00723).
- 03:17:21** CRO Gotts makes a call to RBKC to request a DSE and a LALO. The RBKC Operator says that a LALO has already been requested and she will process the request for the DSE. CRO Gotts explains that the whole block looks like it's alright and the RBKC Operator says she will pass to an officer although their name is inaudible. She gives a reference as T15469 (Source: NICE, Admin Phone Line Audio file: GTIRT18-01166).
- 03:17:26** Mohammed Aymen El-Guenuni (flat 152, 18<sup>th</sup> floor) leaves the building via the community room (Source: CCTV: Camera 2).
- 03:17:28** CM Sephton (BAECO) and Firefighter O'Beirne (BAECO) enter the stair lobby each carrying an ECB and place them on the floor (Source: CCTV: Camera 2).
- 03:17:29** Firefighter De St Aubin (BAECO) enters the stair lobby wearing an BAECO tabard and continues his role as BAECO (Source: CCTV: Camera 2).
- 03:17:30** BA Team 37: CM Rawlings, Firefighter Brooks and Firefighter Marcos are in the main lobby and go under air. (Source: CCTV: Camera 4, BA Data: GTIRT17-02820).
- 03:17:50** CM Batterbee descends the stairs to the ground floor bridgehead in the stair lobby and proceeds into the main lobby whilst carrying white papers (Source: CCTV: Camera 2).
- 03:17:50** WM De Silvo and WM O'Keeffe enter the stair lobby (Source: CCTV: Camera 2).



## OFFICIAL

- 03:17:56** GM Welch and a male casualty (now known to be Mohammed El-Guenuni from flat 152, 18<sup>th</sup> floor) descend the stairs to the ground floor bridgehead in the stair lobby. GM Welch hands him over to Firefighter Broderick and they proceed into the main lobby (Source: CCTV: Camera 2).
- 03:18\*** *Firefighter Bate is outside the building and notices that the bridgehead is now fully relocated to the stair lobby. She sees firefighters bringing casualties out of the building and one group of firefighters calls for help with an unidentified male casualty. Firefighter Bate helps four unidentified firefighters carry the male casualty to the triage area on the West side of the building (Source: MPS Witness Statement: GTIRT18-02865).*
- 03:18\*** *BA Team 35: Firefighter Wharnsby and Firefighter Lowe reach the third floor and hand over their casualties (believed to be Mohammed Aymen El-Guenuni, Naila El-Guenuni and Rabia Yahya from flat 152, 18<sup>th</sup> floor) to GM Welch ,Firefighter Wharnsby informs the BAECO that they are unable to complete their FSG to flat 113 , he also states that he passes this information on to as many people possible .(Source: MPS Witness Statement: GTIRT18-00433, GTIRT17-02939, BA Data: GTIRT17-02820).*
- 03:18\*** *CM Codd from BA Team 34 arrives at the fourth floor with three unidentified children, he realises the bridgehead has moved and he continues to the second floor where he states: "I can't remember who, or if anyone took the kids. That was the last time I saw them" (Source: MPS Witness Statement: GTIRT18-01299).*
- 03:18:00** Firefighter Broderick and a male casualty (now known to be Mohammed El-Guenuni from flat 152, 18<sup>th</sup> floor) exit the building via the community room (Source: CCTV: Camera 4).
- 03:18:01** GM Welch exits the stair lobby into the main lobby (Source: CCTV: Camera 2).
- 03:18:03** SM Cook descends the stairs to the ground floor bridgehead in the stair lobby and proceeds into the main lobby (Source: CCTV: Camera 2).
- 03:18:12** Firefighter Pole from BA Team 30 descends the stairs to the stair lobby, he throws his fire helmet on the floor and then collapses. WM O'Keeffe and other firefighters provide first aid (Source: CCTV: Camera 2).
- 03:18:13** Firefighter Cheesman from BA Team 30 descends the stairs to the stair lobby (Source: CCTV: Camera 2).
- 03:18:14** Firefighter N Mitchell from BA Team 30 descends the stairs to the stair lobby (Source: CCTV: Camera 2).
- 03:18:22** GM Welch enters the stair lobby and talks to Firefighter O'Hanlon (Source: CCTV: Camera 2).
- 03:18:31** An unidentified CM enters the stair lobby carrying an IEC bag, the oxygen cylinder from the bag is used to administer Oxygen to Firefighter Pole (Source: CCTV: Camera 2).

## OFFICIAL

- 03:18:33** Hotel 345, Wimbledon's ALP book Status 3, in attendance, at Grenfell Tower. This is the fourth ALP in attendance (Source: 'Vision': GTIRT17-02791).
- 03:18:36** A female casualty now known to be Naila El-Guenuni from flat 152, 18<sup>th</sup> floor is escorted down the stairs to the stair lobby by an unidentified firefighter who hands her to Firefighter O'Hanlon and they proceed into the main lobby (Source: CCTV: Camera 2).
- 03:18:45** CRO Fox takes a call from a caller in flat 142 on the 17<sup>th</sup> floor. CRO Fox tells them they need to leave but the caller sounds very desperate and pleads for someone to come and get them. CRO Fox asks how many people there are and the caller states that there are five adults and that they cannot get out. CRO Fox says she will pass on the information to the crews and finishes the call. Incident Number 76293, Call Duration one minute 21 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00731).
- 03:18:47** Firefighter Joseph from BA Team 34 descends the stairs to the stair lobby whilst wearing EDDBA not under air, he looks visibly distressed and receives oxygen from WM De Silvo (Source: CCTV: Camera 2).
- 03:18:49** CRO Russell takes a call from a male who has been messaged by his friend who explains that she is trapped in flat 173 on the 20<sup>th</sup> floor. The caller says there are two of them, his friend and her mother (believed to be Khadija Saye and Mary Mendy). CRO Russell tells the caller that the Brigade know that they are there but that if she contacts him again, the caller should tell her to leave. She explains that he should tell them to cover themselves with a wet towel and feel their way out of the building. Incident Number 76289, Call Duration one minute 32 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00727).
- 03:18:56** A female casualty (now known to be Rabia Yahya from flat 152, 18<sup>th</sup> floor) is escorted down the stairs to the stair lobby by an unidentified firefighter who hands her to Firefighter O'Hanlon (Source: CCTV: Camera 2).
- 03:18:58** Naila El- Guenuni from flat 152, 18<sup>th</sup> floor and an unidentified firefighter exit the building via the community room (Source: CCTV: Camera 4).
- 03:18:59** CRO Jones takes a call from a male who is on the West Way, driving past and is asking if the Brigade are aware of the big fire in West London. Caller says the whole block is on fire. Incident Number 76287, Call Duration 35 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00725).
- 03:19:11** BA Team 35: Firefighter Wharnsby and Firefighter Lowe return to the bridgehead in the stair lobby. Firefighter Wharnsby informs the BAECO that they were unable to reach the 14<sup>th</sup> floor as briefed (Source: MPS Witness Statement: GTIRT18-00433, GTIRT17-02939, BA Data: GTIRT17-02820).

## OFFICIAL

- 03:19:17** Rabia Yahya from flat 152, 18<sup>th</sup> floor is escorted by Firefighter O'Hanlon and exits the building via the community room (Source: CCTV: Camera 4).
- 03:19:19** Firefighter Pole from BA Team 30 continues to receive oxygen from WM O'Keeffe in the stair lobby (Source: CCTV: Camera 4).
- 03:19:19** GM Welch is talking to SM Mulholland (ORT) in the stair lobby (Source: CCTV: Camera 2).
- 03:19:20** CM Morrison descends the stairs to the stair lobby whilst carrying a TIC (Source: CCTV: Camera 2).
- 03:19:24** CRO Jones takes a call from a member of the public who is reporting a building on fire. The caller is very muffled but CRO Jones manages to ascertain that the caller is not in the Tower and confirms that the Brigade is in attendance. Incident Number 76288, Call Duration one minute 25 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00726).
- 03:19:26** Several unidentified firefighters are seen closing down their BA sets at the BAECF in the stair lobby (Source: CCTV: Camera 2).
- 03:19:34** GM Goulbourne enters the stair lobby and is talking to the unidentified firefighters (Source: CCTV: Camera 2).
- 03:19:41** SM Mulholland (ORT) enters the stair lobby carrying one SDBA and one EDBA tally, he hands the BA tallies to Firefighter De St Aubin (BAECO) who is one of the ECO's (Source: CCTV: Camera 2).
- 03:19:46** *BA Team 36: Firefighter Worley, Firefighter S Grant, Firefighter W Boulton and Firefighter Devani are in the main lobby and close down their SDBA as they are not committed into the Tower (Source: MPS Witness Statement: GTIRT17-02938, GTIRT17-02927, BA Data: GTIRT170-02820, CCTV: Camera 4).*
- 03:19:54** CM Morrison enters the stair lobby and talks to Firefighter Pole (Source: CCTV: Camera 2).
- 03:19:56** WM Dowden is talking to BA Team 36: Firefighter Worley, Firefighter S Grant, Firefighter W Boulton and Firefighter Devani, they begin to close down their BA sets and remain in the main lobby (Source: CCTV: Camera 4).
- 03:20** Firefighter Bloxham and Firefighter Evans are outside the building taking oxygen cylinders from a fire engine to the LAS. A member of the public tries to give Firefighter Evans a mobile phone to talk to someone inside Grenfell Tower and Firefighter Evans passes the phone to a Police Officer (Source: MPS Witness Statement: GTIRT18-01038, GTIRT18-00926).
- 03:20\*** *Firefighter Nuttall is outside the building and is assisted by a HART paramedic who fetches him a bucket of water to start radial cooling. WM Brown tells Firefighter Nuttall to sit and rest for 30*

## OFFICIAL

*minutes during which time he notices people at the windows within the Tower flashing the torches on their mobile phones* (Source: MPS Witness Statement: GTIRT18-01296).

- 03:20\*** BA Team 27: Firefighter Dwyer and Firefighter Perez are outside the building. They are assisting with the casualty handling of five to 10 adults who are conscious and breathing. *Whilst doing this Firefighter Dwyer is tasked to use a covering jet on the West side of the building. He notices large pieces of debris falling off the building and an unidentified officer withdraws him from the area due to the danger of being injured from falling debris* (Source: MPS Witness Statement: GTIRT18-01548, GTIRT18-03108, Contemporaneous Notes: GTIRT17-00142, GTIRT17-00140).
- 03:20** AC Roe chairs the first TCG (Source: MPS Witness Statement: GTIRT18-00944 and GTIRT17-01254, AC Roe Decision Log: GTIRT17-02438).
- 03:20:01** BA Team 37: CM Rawlings, Firefighter Brooks and Firefighter Morcos report to the BAECO in the stair lobby and start to ascend the stairs under air, carrying a TIC (Source: CCTV: Camera 2, BA Data: GTIRT17-02820).
- 03:20:10** GM Welch talks to SM Mulholland (ORT) in the stair lobby (Source: CCTV: Camera 2).
- 03:20:27** Firefighter Pole from BA Team 30 is escorted out of the stair lobby into the main lobby by WM O'Keeffe, followed by Firefighter Cheesman also from BA Team 30 (Source: CCTV: Camera 2).
- 03:20:30** WM Clark from BA Team 33 and a male child casualty (now known to be Adam Aboud from flat 92, 12<sup>th</sup> floor) descend the stairs to the stair lobby where WM Clark hands him to SM Mulholland (ORT) (Source: CCTV: Camera 2).
- 03:20:31** CRO Adams takes a call from a male in flat 204 on the 23<sup>rd</sup> floor who says there is smoke coming into his flat and that he cannot see anything. CRO Adams advises him to leave the building but he says he cannot move properly and has problems with his feet, that he is disabled. The caller then states that the fire is in his flat and CRO Adams confirms that the caller definitely cannot leave. She states that the crews will try and get to him but asks if he can hear anyone else that could help him. He says the flat is full of black smoke now and CRO Adams advises him to get to the safest place and if he hears anyone outside then ask them to help. Incident Number 76294, Call Duration two minute 38 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00732).
- 03:20:33** Firefighter Pole from BA Team 30 is assisted through the main lobby by SM Cook and exits the building via the community room (Source: CCTV: Camera 4).
- 03:20:38** SM Mulholland (ORT) and Adam Aboud from flat 92, 12<sup>th</sup> floor exit the stair lobby into the main lobby. SM Mulholland (ORT) hands him to Firefighter Broderick (Source: CCTV: Camera).

## OFFICIAL

- 03:20:41** Firefighter Broderick and Adam Aboud from flat 92, 12<sup>th</sup> floor exit the building via the community room (Source: CCTV: Camera 4).
- 03:20:41** Firefighter Beltrami from BA Team 33 and a female casualty (now known to be Karen Aboud from flat 92, 12<sup>th</sup> floor) descend the stairs to the stair lobby and proceed into the main lobby (Source: CCTV: Camera 2).
- 03:20:42** Firefighter Joseph from BA Team 34, reports to the BAECO and closes down his BA set (Source: BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00229).
- 03:20:46** SM Mulholland (ORT) enters the stair lobby and talks to GM Welch (Source: CCTV: Camera 2).
- 03:20:46** Firefighter O'Hanlon and Karen Aboud from flat 92, 12<sup>th</sup> floor exit the building via the community room (Source: CCTV: Camera 4).
- 03:20:48** CRO Jones takes a call from a male who lives in Acton who says he can see a fire in a tower block in the Shepherds Bush area. CRO Jones explains that there is an incident in W11 and the caller confirms he thinks that is the one he can see. Incident Number 76291, Call Duration 37 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00729).
- 03:21:05** CM Hoare descends the stairs to the stair lobby wearing SDBA not under air and talks to CM Morrison (Source: CCTV: Camera 2).
- 03:21:08** BA Team 31: CM Hoare and Firefighter Tanner are at the bridgehead in the stair lobby and report to the BAECO, close down their BA sets and brief the BAECO. CM Hoare tells the BAECO they could not search flat 74, as briefed, due to finding a casualty in the 10<sup>th</sup> floor lobby area (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT17-01959, GTIRT18-00998).
- 03:21:09** WM Delaney (CU) descends the stairs to the stair lobby, he is wearing a CU tabard (Source: CCTV: Camera 2).
- 03:21:12** CRO Russell takes a call from a person reporting a fire in Barrington Walk. CRO Russell asks the caller if it could be Grenfell Tower and the caller says yes. CRO Russell confirms the Brigade is in attendance. Incident Number 76292, Call Duration 31 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00730).
- 03:21:15** Firefighter Tanner from BA Team 31 descends the stairs to the stair lobby wearing SDBA not under air, and talks to WM O'Keeffe (Source: CCTV: Camera 2).
- 03:21:45** SM Mullholland (ORT) walks through the main lobby into the community room (Source: CCTV: Camera 2).
- 03:21:50** WM Delaney (CU) ascends the stairs from the stair lobby wearing a CU tabard (Source: CCTV: Camera 2).

## OFFICIAL

- 03:21:50\*** BA Team 40: Firefighter Lundquist and CM Mayne are in the main lobby and receive their brief from WM Watson. They are standing on one side of the lobby to allow those coming out with casualties to pass them quickly and they notice WM Williams is writing details of FSG calls on a wall in the lobby. As firefighters are carrying people out of the building, WM Williams is ticking off where they are being rescued from one by one. Firefighter Lundquist states: *"In the time it took us to go in to the lobby and get our brief ... about ten people including children were carried out of the tower"* (Source: MPS Witness Statement: GTIRT17-02930, GTIRT18-00098, BA Data: GTIRT17-02820, CCTV: Camera 4 and Camera 3).
- 03:21:55** A female casualty, Chia-Yuan Li from flat 195, 22<sup>nd</sup> floor, descends the stairs to the stair lobby and proceeds into the main lobby (Source: CCTV: Camera 2).
- 03:21:59** A male child casualty, Adel Aboud from flat 92, 12<sup>th</sup> floor descends the stairs to the stair lobby and proceeds into the main lobby (Source: CCTV: Camera 2).
- 03:22\*** BA Team 37: CM Rawlings, Firefighter Brooks and Firefighter Morcos are ascending the stairs and come across a BA Team (Unknown) and a family who tell them about a relative/casualty who is on the seventh floor. (Firefighter Morcos recalls them saying the casualty is on the eighth floor). CM Rawlings radios the BAECO to inform them that they are deviating from their brief and that they are making their way to the seventh floor, but they get no response from the BAECO (Source: Contemporaneous Notes: GTIRT17-00228, GTIRT17-00231, GTIRT17-00230).
- 03:22:01** WM Cardy descends the stairs to the stair lobby and reports to BAECO (Source: MPS Witness Statement: GTIRT18-03104, CCTV: Camera 2).
- 03:22:01** CM Clark assists a casualty through the main lobby(now known to be Chia-Yuan Li from flat 195, 22<sup>nd</sup> floor (Source: CCTV: Camera 4).
- 03:22:04** Adel Aboud from flat 92, 12<sup>th</sup> floor walks through the main lobby and talks to WM Dowden before exiting via the community room (Source: CCTV: Camera 4).
- 03:22:05** A female casualty (now known to be Chia-Yuan Li from flat 195, 22<sup>nd</sup> floor) descends the stairs to the stair lobby and proceeds into the main lobby (Source: CCTV: Camera 2).
- 03:22:14** Chin-Hsuan Lydia Liao from flat 195, 22<sup>nd</sup> floor walks through the main lobby and collapses, WM Dowden assists her out to the community room (Source: CCTV: Camera 4).
- 03:22:35** CRO Russell takes a call from a male in flat 124 on the 15<sup>th</sup> floor who states that he is stuck and cannot get out as he cannot make it down the stairs. The caller reports that he has nearly fainted and that he cannot breathe and CRO Russell tells him to get on the floor, go to another room and block the smoke from coming in, covering his mouth and nose with material. CRO Russell asks where he is and he says he is by the front door. CRO Russell advises that he should go to another room and provides FSG advice. She then explains that he has two options, either he can stay in

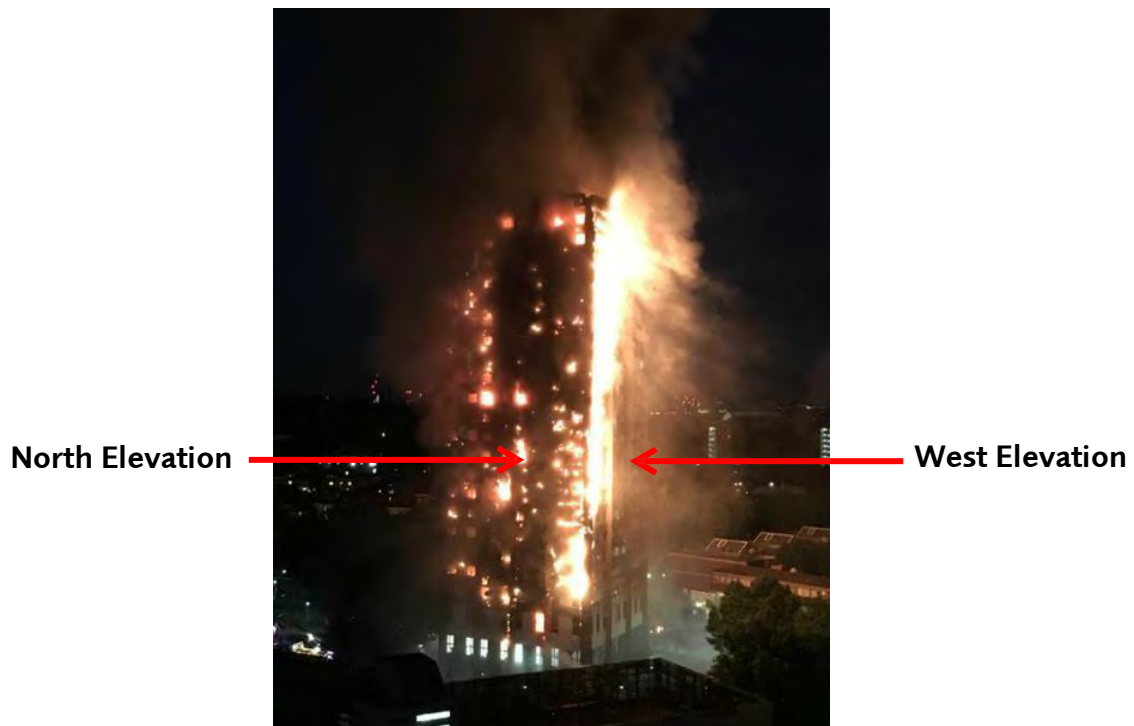
## OFFICIAL

the flat in a room away from the smoke or try and leave. CRO Russell advises that she will tell the crews where he is but that she cannot say how long it will take. Incident Number 76295, Call Duration three minutes, three seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00733).

- 03:22:51** Kent FRS takes a call via a BT Operator in Dundee connecting a female who explains that she is on holiday in Kent and her husband is trapped on the 22<sup>nd</sup> floor of Grenfell Tower. The caller states that he is in flat 249 and explains that the Brigade told him to stay put but he has been trapped for over an hour and she pleads not to let him die. The caller passes on the mobile number and states that his name is Tony. She reports that he cannot breathe and has blocked the doors and covered his mouth. The Kent FRS Radio Operator says she will give him a call and that she will call the female caller back. She asks what the caller's name is and she replies Cordelia. Cordelia says that her husband's name is Tony Disson. Incident Number 1281, Call Duration one minute, 57 seconds (Source: FRS Incident Log and Audio File: GTIRT17-01620).
- 03:22:54** BA Team 38: CM Diana and Firefighter Nelson put on their facemasks and start breathing under air in the main lobby (Source: CCTV: Camera 4).
- 03:22:59** CRO Jones takes a call from Paul Monaghan from the HSE who states that he is having difficulty finding an inspector and needs a contact number for the incident. CRO Jones gives the Control Room number and AOM Debbie Real as the contact (Source: NICE, Admin Phone Line Audio file: GTIRT18-01169).
- 03:22:59\*** CM Codd from BA Team 34 returns to the ground floor bridgehead and closes down his BA set. *CM Codd informs the ECO about three children and a deceased man he encountered on the stairs during his descent* (Source: BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00157, CCTV: Camera 2).
- 03:22:59** SM Myatt approaches BA Team 36 Firefighter Worley, Firefighter S Grant, Firefighter W Boulton and Firefighter Devani and points them towards community room exit (Source: CCTV: Camera 4).
- 03:23** CM Batcheldor is outside Grenfell Tower and can see a member of the public talking on his mobile phone who is very animated. CM Batcheldor approaches the man and talks to him, he ascertains that the man is talking to a person trapped in Grenfell Tower on the 14<sup>th</sup> floor (Source: MPS Witness Statement: GTIRT17-01103, BSR Witness Statement: IWS00001048).

## OFFICIAL

**03:23** The image below shows the fire spread at Grenfell Tower. The picture shows the North elevation completely alight and the fire wrapping around the West elevation.



(Source: MET000085887).

**03:23:13** Hotel 33 Alpha, Wandsworth's OSU book Status 2, mobile to Grenfell Tower. Hotel 33 Alpha is riding with Firefighter Kevin Lewis and FRS B\* Christopher Cox (Source: 'Vision': GTIRT17-02791).

**03:23:21** Firefighter Worley, Firefighter S Grant and Firefighter Devani from BA Team 36 leave the main lobby via the community room (Source: CCTV: Camera 4).

**03:23:45** WM Delaney (CU) descends the stairs to the ground floor wearing a CU tabard (Source: CCTV: Camera 2).

**03:23:47** BA Team 41: Firefighter Peacock, Firefighter Harold, Firefighter Rice and Firefighter Lewis follow Firefighter Okoh and enter the main lobby where they talk to SM Wolfenden and WM Watson (Source: CCTV: Camera 4).

**03:24\*** *BA Team 37: CM Rawlings, Firefighter Brooks and Firefighter Morcos ascend to the seventh floor landing, CM Rawlings locates the casualty on the landing of the stairwell on the sixth or seventh floor and commence the rescue of the casualty (believed to be Ali-Yawar Jafari from flat 86,11<sup>th</sup> floor) (Contemporaneous Notes: GTIRT17-00228, BA Data: GTIRT17-02820).*

**03:24:02** CRO Duddy takes a call from a resident in flat 193, 22<sup>nd</sup> floor who states that they have tried to leave but that they cannot get out. There is a lot of shouting in the background and CRO Duddy



## OFFICIAL

explains that they must try and leave as that is the only way that they are going to survive. The caller reports that there are seven children and 12 adults in the flat and there is a lot of coughing and choking sounds, with several people speaking in the background. CRO Duddy repeatedly tells the caller that they have to leave and gives very explicit instructions that they must get to the staircase. The caller replies several times to say that they cannot get out and then the caller can be heard having a conversation with someone, stating that they should try. The caller then states that they cannot see or breathe. At **03:33:35** CRO Duddy says to the caller that they will die unless they make their way to the staircase and the caller can be heard to ask someone in the flat if they should try. It becomes difficult to hear what is being said between people in the flat. The caller explains that they cannot move and that they are dying. CRO Duddy checks the floor number and confirms that they are on the 22<sup>nd</sup> floor. The caller is heard to tell others in the flat that she loves them and they will die together and CRO Duddy tries to tell them to leave, repeating that it is their only chance. CRO Duddy explains he cannot stay on the line and that they must leave. He gives further advice to soak themselves with water, cover their faces with clothes or towels and to get to the staircase, reporting that he must clear the line. At **03:38:42** the line drops out. Incident Number 76305, Call Duration fourteen minutes, 40 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00741).

- 03:24:18** GM Goulbourne, WM De Silvo and WM O'Keeffe talk to each other at the bottom of the stairs in the stair lobby (Source: CCTV: Camera 2).
- 03:24:33** BA Team 38: CM Diana and Firefighter D Nelson report to the BAECO, start to breathe under air and remove their BA tallies (Source: MPS Witness Statement: GTIRT18-03728, GTIRT18-01077, BA Data: GTIRT17-02820).
- 03:24:41** SM Cook talks with GM Welch at the entrance of the stair lobby (Source: CCTV: Camera 2).
- 03:25\*** CM Batcheldor is handed the phone (now known to be by Francis Dean) and talks to the lady on the mobile phone. He confirms that her name is Zainab Deen and she is in flat 113 on the 14<sup>th</sup> floor with her son Jerimiah (Source: MPS Witness Statement: GTIRT17-01103, BSR Witness Statement: IWS00001048).
- 03:25** BA Team 39: Firefighter Sime and Firefighter Okoh report to the bridgehead and GM Goulbourne briefs them to go to flat 73 on the 10<sup>th</sup> floor in response to an FSG call. As BA Team 39 begin to ascend the stairs, GM Goulbourne calls them back and reassigns them to fight fire on the fifth floor (Source: MPS Witness Statement: GTIRT18-01044, GTIRT18-00053, BA Data: GTIRT17-02820).
- 03:25:07** BA Team 31: CM Hoare and Firefighter Tanner exit the building via the community room.(Source: CCTV: Camera 4).

## OFFICIAL

- 03:25:11** BA Team 38: CM Diana and Firefighter D Nelson enter the stair lobby wearing EDBA under air, and talk to CM Morrison who is writing on the wall with a chinagraph pencil (Source: CCTV: Camera 2).
- 02:25:33** BA Team 41: Firefighter Harold, Firefighter Rice, Firefighter Friend and Firefighter Peacock are in the main lobby (Source: CCTV: Camera 4).
- 03:25:37** Firefighter Devani leaves the community room, proceeds into the main lobby wearing SDBA and re-joins Firefighter W Boulton (Source: CCTV: Camera 4).
- 03:25:45** CRO Fox takes a call from flat 183 on the 21<sup>st</sup> floor where there are three adults and three children aged 10, 11 and 12. One of the adults, the caller's wife, is pregnant (Believed to be the Gomes family, Helen Gebremeeskal and Lulya Benyam). The caller states that they have tried to get out three times and CRO Fox says she will contact the Command Unit and make them a priority. The caller states that the fire is in the house and CRO Fox responds that the caller must get out if the fire is in the house. CRO Fox says she will stay on the line and the caller can be heard giving instructions to the other residents. CRO Fox tells AOM Real about the call and the circumstances and location of the caller. The caller is heard shouting instructions to the children and he keeps encouraging the girls to keep going. CRO Fox is giving a running commentary to others in the Control Room and encourages the caller to keep going. CRO Fox says that the crews are on their way up to them. CRO Fox tries to find out if they are on the stairs. There are a lot of coughing and choking noises. At **03:33:07** the caller confirms that he is on the stairwell and CRO Fox asks if they are all together but the caller says no. CRO Fox asks who is missing and the caller states that he cannot find his wife. The caller is constantly calling to the "girls" to come down and follow his voice and he tells them to hold onto the hand rail, explaining that the conditions are better where he is. They appear not to be following him. He has a conversation with someone in the background but it is not known who it is. He keeps calling for the girls to come down. The caller keeps repeating "my wife" and it appears that he is on his own at this stage. At **03:39:43** the caller can be heard talking to someone and the voice sounds like it could be a firefighter in breathing apparatus. The caller states that his daughter is upstairs and that his wife is pregnant. The caller gives the location as flat 183 on the 21st floor and explains that his wife is about half way down. The caller is crying for his daughters and his wife. CRO Fox tries to asks some questions to work out where the caller is and what the situation is and the caller appears to waiting on the stairs but it is not clear where. CRO Fox asks if he has his girls yet and the caller becomes more and more distraught, saying that he needs to find them. At **03:48:13** CRO Fox says to the caller that he needs to be brave and do what he thinks is best. She says that he needs to go back upstairs and get his girls and that he needs to go and find them as a dad. She tells him to take a few deep breaths and make his way slowly up the stairs. She stays on the line and encourages him to go up the stairs. The caller becomes very distraught and upset and keeps

## OFFICIAL

saying please, please my girls. There is some shouting in the background but it is inaudible and the caller talks to someone and says that his wife is up there and she is pregnant but it is not clear who he is talking to. There are several voices heard and the caller is talking to more people but it is not known who as the volume goes very low. CRO Fox does not talk for several minutes and when she tries to raise the caller, he does not respond. She tries for several minutes but nothing is heard and the call ends at **03:59:38**. Incident Number 76337, Call Duration thirty three minutes, 53 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00763).

- 03:25:52** BA Team 41: Firefighter Peacock, Firefighter Harold, Firefighter Rice and Firefighter Lewis are in the main lobby putting on their BA facemasks and checking each others equipment prior to deploying up the stairs. Firefighter Peacock is carrying a TIC (Source: CCTV: Camera 4).
- 03:26\*** *BA Team 37: CM Rawlings, Firefighter Brooks and Firefighter Morcos are on the fourth floor. CM Rawlings states he hands a casualty over to the other two members of his crew and aims the fire hose into the doorway on the fourth floor as the heat coming from there increases. CM Rawlings then joins the other team members carrying the casualty (Source: Contemporaneous Notes: GTIRT17-00228, BA Data: GTIRT17-02820).*
- 03:26:04** CRO Jones takes a call from a male who says his wife and three daughters are stuck in flat 153 on the 18th floor. He states that he spoke to her three minutes before and the fire had come in to the flat and he wants to know if she has been evacuated but CRO Jones explains that they have no information about who has been rescued or who has left the building. She advises him to try and speak to the police at the scene. He suddenly shouts 153, 153 and says he will call back. Incident Number 76296, Call Duration one minute 24 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00734).
- 03:26:13** BA Team 38: CM Diana and Firefighter D Nelson ascend the stairs from the stair lobby to the mezzanine floor level (Source: CCTV: Camera 2).
- 03:26:26** Firefighter De St Aubin (BAECO), Firefighter O'Beirne (BAECO), CM Morrison and CM Sephton (BAECO) are operating four ECBs at the bottom of the stairs in the stair lobby (Source: CCTV: Camera 2).
- 03:27:10** BA Team 41: Firefighter Peacock, Firefighter Harold, Firefighter Rice and Firefighter Lewis are in the main lobby where WM Watson hands Firefighter Friend and Firefighter Lewis a piece of paper presumed to be a FSG tasking (Source: CCTV: Camera 4).
- 03:27:10** Firefighter Devani and Firefighter W Boulton now re-join the line of firefighters waiting to be deployed into Grenfell Tower (Source: CCTV: Camera 4).
- 03:28\*** BA Team 40: Firefighter Lundquist and CM Mayne report to the bridgehead wearing EDDBA on the stair lobby. GM Goulbourne initially briefs them to go to flat 113, 14<sup>th</sup> floor to search for a

## OFFICIAL

mother and child in response to a FSG call. Their brief then changes and they are instructed to go to the third and fourth floor to firefight. *CM Mayne notices a message on the wall at the bridgehead stating SDBA teams are to work between the ground and the 10<sup>th</sup> floor and EDDBA teams are to work above the 10<sup>th</sup> floor however he does not question their brief* (Source: MPS Witness Statement: GTIRT17-02930, GTIRT18-00098, BA Data: GTIRT17-02820 , CCTV: Camera 2).

- 03:28:02** BA Team 40: CM Mayne, Firefighter Lundquist; BA Team 39: Firefighter Okoh, Firefighter Sime and Firefighter Harold and Firefighter Peacock from BA Team 41 enter the stair lobby wearing EDDBA, under air (Source: CCTV: Camera 2).
- 03:28:11** CRO Adams takes a call from a male reporting a fire that he can see in the near distance from Acton. CRO Adams determines that it is the Grenfell fire that he can see and she reassures the caller that the Brigade is in attendance. Incident Number 76298, Call Duration one minute 2 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00735).
- 03:28:32** GM Goulbourne and WM O'Keeffe talk to the BAECOs and several firefighters wearing EDDBA in the stair lobby (Source: CCTV: Camera 2).
- 03:28:39** CRO Howson takes a call from a female who lives behind the Tower and she can see someone on the 16<sup>th</sup> floor at the back of the building who is shouting for help. The caller states that it is the 16<sup>th</sup> or 17<sup>th</sup> floor. Incident Number 76299, Call Duration 50 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00736).
- 03:28:46** WM Williams exits the main lobby and goes into the stair lobby before returning to the main lobby with GM Welch. WM Williams writes on the lobby wall whilst talking to GM Welch (Source: CCTV: Camera 4).
- 03:29:14** CRO Jones takes a call from a male reporting that there are two people stuck in flat 74 on the 10<sup>th</sup> floor. It is not clear if the caller is inside or outside of the building. CRO Jones states that they need to cover themselves in wet towels and get out but the caller says they can't escape because there is too much smoke. The caller asks if the crews are not able to get to them and CRO Jones explains that the Brigade is trying but that people should try to leave. The caller states that the fire exit is the part that is on fire and CRO Jones reiterates that people need to leave. Incident Number 76300, Call Duration one minute 28 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00737).
- 03:29:37** BA Team 41: Firefighter Peacock, Firefighter Harold, Firefighter Rice and Firefighter Lewis exit the main lobby into the stair lobby with another unidentified firefighter wearing EDDBA. WM O'Keeffe briefs them all together (Source: CCTV: Camera 4).

**OFFICIAL**

**03:29:40** CRO Adams takes a call from Kent FRS who provide an update from the people in flat 73 on 10<sup>th</sup> floor, stating that they have managed to open a window to try and make themselves known. CRO Adams explains that the Brigade are now telling people to leave and the Kent FRS Radio Operator explains that they are unable to leave because there are flames outside the flat. The Kent FRS Radio Operator states that the flat is facing the park and there are four adults in there and confirms that they have provided FSG advice. This call is linked to the call being handled by Kent FRS at **02:57:32**. The Kent FRS Radio Operator also reports that they have taken another call from an individual who was on the 22<sup>nd</sup> floor who has left his flat and is last reported in the stairwell (**03:31:23** GTIRT17-01621). This call time is showing as after the time of the start of this call. However the call time is given by Kent FRS on the Call Incident Log 1281 GTIRT18-02691. They went on to say that he started in flat 249. This flat number is likely the refer to a call made to Kent FRS by Cordelia Disson at **03:22:51** GTIRT17-01620). Incident Number 76307, Call Duration one minute 50 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00742).

**03:29:44** CRO Howson takes a call from the wife of WM Williams, attached to Fulham Red Watch, to say she has gone into labour and wanted to try and get hold of him to let him know. CRO Howson confirms that he is in attendance and that she will try and get a message to him (Source: NICE, Admin Phone Line Audio file: GTIRT18-01172).

The table below summarises the additional calls that were received in Brigade Control at the times stated.

Time of call	Flat Number	Floor number	Number of people	Remarks
03:01:20	194	22	One adult	Caller trapped by smoke. Told to try and get out.
03:01:27	133	16	At least two people, the caller's Mum and Dad	Daughter of resident says her parents can't breath. Told to get out and make a run for it.
03:02:06	193	22	20 people	Told to leave the building
03:02:27	133	16	Two adults	Told to leave the building
03:03:05	82	11		Caller told leave the building says she is going to leave.

OFFICIAL

03:03:45		15	One adult and possible a child	Told to leave the building
03:03:48	123	15	One adult	British Telecom Operator gave flat detail. Caller cut off before the call could be put through
03:03:56	73	10	Four adults	Passed by Kent FRS. Linked to FSG call 02:57:32 and 03:06:57.
03:04:25		20	Two adults	Friend is communicating with resident via Facebook. Told to tell her to leave the building.
03:04:52	82	11	Two adults, one child	Tried to leave but too hot and smoky in the corridor
03:05:38	194	22	One adult	Daughter-in-law calling Surrey FRS. Surrey FRS undertake to tell London Fire Brigade again.
03:06:06	113	14	One caller, possibly others but not clear	Told to leave the building
03:06:35	204		One adult	Daughter is caller. Told to tell her Dad to leave the building.
03:06:57	73	10	Four adults (two adult children with their parents)	Told to leave the building. Told to try and get out
03:07:13		22	12 people	Told to leave the building
03:08:01	92	12	One adult, two children	Caller stays on the line until they exit the building at <b>03:20</b>
03:08:56	193	22		Told to try and get out. Told ladders are being sent.

OFFICIAL

03:09:17	123	15	Only one caller known	London Fire Brigade pass to North West Fire Control, advice to get out
03:09:18	143	17	Five people	Told that they need to get out
03:09:52	183	21	Three adults, three children (Pregnant wife)	Told to leave the building
03:10:26	194		One adult	Call from Surrey FRS, call from son in Surrey. Mobile of resident given to CRO Jones
03:10:34	204	23	One Adult	Disabled man cannot get out of his flat on his own
03:12:56	133	16	Two adults	Advice to get out. Told they need to try.
03:13:06	82	11	Two adults, one child	Told to leave the building
03:15:20	124	15	One adult	Told to leave
03:16:12	204	23	One adult	Disabled man cannot get out of his flat on his own. Call from his daughter. Told to pass on advice to get out.
03:17:05	113	14	One adult with a baby	Told to leave.
03:17:18	173	20	One adult caller reporting friend	Information from British Telecom. Call back offered by London Fire Brigade
03:18:45	142	17	One adult caller	Told to leave but caller says they cannot leave

OFFICIAL

03:18:49	173	20	Two adults	This information comes from the caller who is being messaged by friend in the tower
03:20:31	204	Top floor	One adult	Disabled man cannot get out unaided. Told to leave the building
03:22:35	124	15	One adult	Told to get low. Two options given. Stay or get out.
03:22:51	249*	22	One adult	Caller is wife of resident. *There is no flat 249 in Grenfell Tower. Believed to be 194.
03:24:02	193		12 adults, seven children	Told explicitly to get out. Told that they will die if they don't get out.
03:25:45	183	21	Three adults, three children including pregnant woman	Male caller exits with Control Room Radio Operator on phone. Call ends at <b>03:59:38</b> .
03:29:14	74	10	Two people	This caller is possibly outside and reports two people are stuck flat 74.
03:29:40	73	10	Four adults	Call from Kent FRS. Given the advice to leave. Kent FRS said they cannot get out.

**03:30\*** *CM Hoare is outside Grenfell Tower when Commissioner Cotton talks to those assembled there. CM Hoare states, She (the Commissioner) couldn't guarantee whether it was safe to go back in or not. She says that she is asking us to break all procedures and she is asking us to go back in and carry on with the search and rescue. She said that the building may not be safe but there is saveable life in there so she was asking us to go back in. I knew that if we didn't want to, we wouldn't have to but no one was going to refuse" (Source: MPS Witness Statement: GTIRT17-01959).*



## OFFICIAL

- 03:30\*** Firefighter Tanner is outside the building and sees an unidentified firefighter in the playground using a fire hose, spraying water against the West elevation of the building (Source: MPS Witness Statement: GTIRT18-00998).
- 03:30\*** Firefighter D Hill is a runner for FSG calls between the bridgehead and the CU. He is assisting an unidentified firefighter and an unidentified WM to find all the residents that are coming out of the building to ascertain what flat they have come from and how many people have come out of the flats. The WM is providing the information to him, Firefighter D Hill then correlates this information against hundreds of call sheets and then updates the bridgehead and CU (Source: MPS Witness Statement: GTIRT18-00426).
- 03:30\*** Firefighter Orchard is outside the building, dropping off her BA set, and can see a person at a window in Grenfell Tower. It is a silhouette, too far away to make out whether they are male or female and they keep coming to a window around the ninth floor, waving a piece of fabric. Firefighter Orchard is shouting "Stay there and someone will get you" (Source: MPS Witness Statement: GTIRT18-00647).
- 03:30** CM Yeoman and Firefighter A Nelson complete their fire ground 'A' Tests and return to Grenfell Tower where they are directed to a different entrance to the side of the South elevation. They notice that debris is raining down and people are using MPS riot shields to protect firefighters from the falling debris. WM Gregory directs CM Yeoman and Firefighter A Nelson to assist Firefighter Cook and Firefighter Flanagan with shielding firefighters to allow them access into the building. At one point CM Yeoman and Firefighter A Nelson go outside the cordon to collect equipment and are approached by an individual who has a relative, inside the building, on the phone. CM Yeoman asks him where his relative is located in the tower. The relative provides CM Yeoman with the information and he proceeds to the BA staging area to inform an unidentified SM of the persons location, the SM confirms they are already aware of the flat (Source: MPS Witness Statement: GTIRT17-02924, GTIRT18-00409).
- 03:30** Firefighter Cook and Firefighter Flanagan carry out a fire ground 'A' Test and return to Grenfell Tower for redeployment. Both Firefighter Cook and Firefighter Flanagan are told they will not be allowed to re-enter wearing BA as they have already worn. They both performed the roles of escorting people in and out of the building using MPS riot shields, they continue to do this task for several hours (Source: MPS Witness Statement: GTIRT17-01958, GTIRT18-01829).
- 03:30:16** Firefighter Green is outside the building and performs a fire ground 'A' Test to enable him to go back to Grenfell Tower for redeployment (Source: MPS Witness Statement: GTIRT18-00653, BA Data: GTIRT17-02820).

## OFFICIAL

- 03:30:40** BA Team 40: Firefighter Lundquist and CM Mayne begin to ascend the stairs from the bridgehead carrying a TIC (Source: MPS Witness Statement: GTIRT17-02930, GTIRT18-00098, BA Data: GTIRT17-02820, CCTV: Camera 2).
- 03:30:44** Foxtrot 21 Alpha, Stratford's OSU is mobilised (Source: 'Vision': GTIRT17-02791).
- 03:30:52** GM Welch is talking to Firefighter Devani and Firefighter W Boulton and points them towards the community room exit (Source: CCTV: Camera 4).
- 03:31\*** *BA Team 38: CM Diana and Firefighter D Nelson are between the third and sixth floor and see a body of a male in the stairwell. CM Diana and Firefighter D Nelson begin to carry the casualty down the stairs to the mezzanine floor level (Source: MPS Witness Statement: GTIRT18-01077, GTIRT18-03728, BA Data: GTIRT17-02820).*
- 03:31** BA Team 40: Firefighter Lundquist and CM Mayne reach the third floor and meet BA Team 38: CM Diana and Firefighter D Nelson coming down the stairs with an unidentified, unconscious male casualty. Firefighter Lundquist and CM Mayne take the casualty from BA Team 38 and begin to descend the stairwell (Source: MPS Witness Statement: GTIRT18-01077, GTIRT17-03728, GTIRT17-02930, GTIRT18-00098, BA Data: GTIRT17-02820).
- 03:31:03** CRO Jones takes a call from a male who reports a building on fire and that he is on the A40 and can only see one hose. CRO Jones confirms that there are 40 fire engines in attendance. Incident Number 76301, Call Duration 52 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00738).
- 03:31:07** CRO Gotts takes a call from a male reporting that there is a man shouting for help from the 10<sup>th</sup> floor on the North East Side of the building. CRO Gotts thanks the man for his call. Incident Number 76302, Call Duration 20 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00739).
- 03:31:23** Kent FRS make a call to a resident believed to be Anthony Disson who explains that he is on the stairs. The Kent FRS Radio Operator asks if he knows what floor he is on and the line drops out. Incident Number 1281b, Call Duration 59 seconds (Source: FRS Incident Log, Audio File and Transcript: GTIRT17-01621).
- 03:31:39** WM Aston-O'Donovan is outside Grenfell Tower and performs a fire ground 'A' Test to return to Grenfell Tower for redeployment (Source: MPS Witness Statement: GTIRT18-00045, BA Data: GTIRT17-02820).
- 03:31:47** CRO Jones takes a call from a resident in flat 124 on the 15<sup>th</sup> floor. CRO Jones states that they should have been told to leave. He says he has tried but is trapped. CRO Jones guides the caller through the process of covering himself and tells him to feel his way down the stairs but the caller says he cannot breathe when he goes outside. He asks if the building is going to come down.

## OFFICIAL

CRO Jones says she is not there and repeatedly tells him that he needs to try and get out. The caller appears to try and get out and then comes back, stating that it is too thick and it makes him feel sick. The caller states that the fire is above him and then goes back to the kitchen. CRO Jones then suggests that the caller tries to block the smoke from coming in but once it seems that this is not working, she reverts to the advice to get out. CRO Jones tells the caller to stop talking to her and cover his mouth and nose and save his breath, stating that she will stay on the phone. The caller states that he is going to try and get out but then comes back on the phone, shouting that it is too thick and is making him feel sick. The caller keeps asking CRO Jones if he is going to die if he doesn't get out. CRO Jones asks the name of the caller and he replies Christos. CRO Jones tries to encourage Christos to get out but after a few minutes he comes back and says he barely got out of the front door of the flat. CRO Jones repeats that he needs to try and get out and that she cannot tell him if the building is going to come down. The caller can be heard shouting for help but it is not clear who he is shouting at. CRO Jones implores him to try and leave. Around **03:50**, the caller appears to be trying to get down the stairs. CRO Jones keeps talking and encouraging him but does not get a reply. There is no response from Christos for the rest of the call. At **03:52** voices can be heard in the background of the call but it is not known who they are. At **03:53:18** the BT Operator says the line has dropped out. Incident number 76312, Call Duration 21 minutes 34 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00746).

- 03:31:55** Firefighter Devani and Firefighter W Boulton exit the main lobby via the community room (Source: CCTV: Camera 4).
- 03:32** BA Team 39: Firefighter Sime and Firefighter Okoh reach the fifth floor, a hose is already in place wedging the lobby door open, they enter the lobby and carry out a right hand search with Firefighter Okoh leading. The first flat they reach is alight so they cannot enter however they begin to use the hose to spray the fire from their position in the lobby (Source: MPS Witness Statement: GTIRT18-01044, GTIRT18-00053, BA Data: GTIRT17-02820).
- 03:32:00** BA Team 37: CM Rawlings, Firefighter Brooks and Firefighter Morcos arrive at the mezzanine floor level with a casualty (now known to be Ali Yawar Jafari, flat 86, 11<sup>th</sup> floor) and hand him over to Firefighter O'Hanlon and Firefighter Barton who bring the casualty down to the ground floor (Source: CCTV: Camera 5).
- 03:32:03** CRO Gotts takes a call from a female who reports that there are people at the back of the building who are waving for help. CRO Gotts says she will let the crews know. Incident Number 76303, Call Duration 34 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00740).
- 03:32:48** BA Team 41: Firefighter Harold, Firefighter Rice, Firefighter Friend and Firefighter Peacock are in the stair lobby. GM Goulbourne hands Firefighter Harold a post-it note and briefs him and

## OFFICIAL

Firefighter Peacock to go to flat 203, 23<sup>rd</sup> floor in response to a FSG call. He then briefs Firefighter Rice and Firefighter Friend to go to the 14<sup>th</sup> floor and rescue people by the lifts before both pairs of firefighters pass through the BAECF, they are provided with a new brief as a team of four, BA Team 41. The brief is to go to the fourth and fifth floors for search and rescue. BA Team 41 put their facemasks on, start breathing from their BA sets and remove their BA tallies. They are carrying a sledgehammer, an enforcer, two TICs and spare batteries. Firefighter Harold states "we were told to stop and return to the main lobby as the fire had compromised the bridgehead which had moved to the ground floor, we were told to return the post it note instructing us to search flat 203" (Source: MPS Witness Statement: GTIRT18-00932, GTIRT18-00942, GTIRT18-01114, GTIRT18-00054 BA Data: GTIRT17-02820, CCTV: Camera 2).

**03:32:57** CRO Howson takes a call from a BT Operator reporting a caller from the seventh floor trying to flag down the Brigade but the line has dropped out. The BT Operator asks CRO Howson if she wants the phone number and CRO Howson replies that she has all the details. Incident Number 76308, Call Duration 28 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00743).

**03:33** BA Team 40: CM Mayne and Firefighter Lundquist reach the mezzanine floor level and hand an unconscious male casualty to unidentified firefighters (Source: MPS Witness Statement: GTIRT17-02930, GTIRT18-00098, BA Data: GTIRT17-02820).

**03:33\*** *Firefighter Orchard is outside the building and assists with taking four casualties that are being evacuated from the side entrance of Grenfell Tower to LAS personnel who are waiting at the corner of the road, believed to be Hurstway Walk. The unidentified casualties are an unconscious adult female, a conscious adult female with a small child, and a conscious adult male (Source: MPS Witness Statement: GTIRT18-00647).*

**03:33** BA Team 38: CM Diana and Firefighter D Nelson are in the stairwell between the sixth and eighth floors. They meet an adult male, (believed to be Marcio Gomes from flat 183, 21<sup>st</sup> floor) who asks them to find his wife and daughter who he has lost behind him. CM Diana tells him to make his way down the stairs and they will look for his wife and daughter.

Moments later, BA Team 38 meet a child (believed to be Megan Perestrelo-Gomes also from flat 183, 21<sup>st</sup> floor) and two adult females (believed to be Andreia Perestrelo from flat 183, 21<sup>st</sup> floor and Helen Gebremeeskal from flat 186, 21<sup>st</sup> floor). Visibility is so poor that Firefighter D Nelson can only make out silhouettes of the individuals and he notices one of the adult females is pregnant. CM Diana and Firefighter D Nelson begin to assist the casualties down the stairs (Source: MPS Witness Statement: GTIRT18-01077, GTIRT17-03728, BA Data: GTIRT17-02820).

**03:33:00** CM Rawlings from BA Team 37 returns to the bridgehead ahead of the rest of his BA team (Source: CCTV: Camera 2).

## OFFICIAL

- 03:33:41** CRO Russell takes a call from a male who explains that his friend is still stuck in flat 173 on the 20<sup>th</sup> floor (believed to be Khadija Saye and Mary Mendy). CRO Russell says they know about the flat and it is on the board and the crews are aware. CRO Russell then asks for an update from the caller about what is happening in the flat. The caller reports that the residents have told him on Facebook that the smoke is really thick and they feel like they are going to faint. CRO Russell explains that the caller should message them back and tell them the best advice is to leave using wet towels to cover themselves but that if they cannot, then they should get in a room, shut and block the doors, close any windows, keep low and cover their mouth and noses with a towel or cloth. Incident Number 76309, Call Duration one minute 20 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00744).
- 03:33:46** CRO Gotts takes a call from a caller in flat 133 on the 16<sup>th</sup> floor who cannot get out. CRO Gotts repeats the advice that they need to try and leave. She gives advice to use wet towels to cover themselves and get out and the caller explains that they have tried to leave three times and have had to come back to the flat. CRO Gotts says she will tell the fire crews where they are and that they need to try and block the smoke from coming in, telling him several more times to try and leave. Incident Number 76310, Call Duration three minute 4 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00745).
- 03:33:46** AOM Real takes a call from a female caller in flat 82 on the 11<sup>th</sup> floor who reports that the fire is in her bedroom and front room. AOM Real explains that the best advice is to leave but the caller states that they will not be able to do it. The caller says there are two adults and her daughter who is six years old. The caller says they have tried to get out but there is too much smoke and begs for help. AOM Real explains that she will tell crews again and if they definitely cannot get out then they should stay together, get on the floor and stay there for as long as possible. AOM Real asks the caller what her name is and she says "Natasha" and AOM Real gives her own name, she then asks what her daughter's name is and encourages her to stay calm for her daughter. AOM Real repeats the FSG advice and tells Natasha that the Brigade are trying to get to all the floors and she will pass on the details to the crews. Incident Number 76321, Call Duration six minutes 24 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00748).
- 03:34\*** BA Team 40: Firefighter Lundquist and Firefighter Mayne reach the third floor again with a firefighting branch and fire hose that is already attached to the DRM. *CM Mayne leads the team on a search of the third floor and reports that the flats on the right hand side are alight. BA Team 40 start to fight the fire in one of the flats but it has little impact and, as they are making the priority to save life, they decide to leave the third floor and move up the fourth floor* (Source: MPS Witness Statement: GTIRT18-00098, GTIRT18-02930, BA Data: GTIRT17-02820).

## OFFICIAL

- 03:34:17** Firefighter O'Beirne (BAECO), WM Dowden, WM De Silvo and an unidentified firefighter carry an unconscious male casualty, Ali Yawar Jafari from flat 86, 11<sup>th</sup> floor, down the stairs to the stair lobby and proceed into the main lobby (Source: CCTV: Camera 2).
- 03:34:23** Firefighter O'Beirne (BAECO), WM Dowden, WM De Silvo and an unidentified firefighter, carrying Ali Yawar Jafari from flat 86, 11<sup>th</sup> floor, exit the building via the community room (Source: CCTV: Camera 4).
- 03:34:24** Firefighter Brooks and Firefighter Morcos from BA Team 37 descend the stairs to the bridgehead in the stair lobby (Source: CCTV: Camera 2).
- 03:34:50\*** DAC O'Loughlin enters the building with GM Cook (ORT) via the community room. DAC O'Loughlin informs GM Welch that AC Roe is now the Incident Commander and DAC O'Loughlin is now the Operations Commander. *DAC O'Loughlin updates GM Welch with the number of pumps the Brigade has at the incident and confirms that AC Roe has ordered all of the Brigade FRU and EDBA resources in the LFB to ensure that BA supplies do not become an issue. DAC O'Loughlin states: "Richard (GM Welch) was very calm and said that although it was a challenge, he felt his system was working well and that they were able to prioritise flats and floors, and were sending crews where they were most needed. I think that they had EDBA by that point and these were also being sent up. I also checked with him about the change in the Stay Put Advice but it didn't feel like that was going to make a huge difference to operations as people with smoke outside their flats couldn't leave anyway and we were continuing to prioritise those people/flats which we knew about"* (Source: CCTV: Camera 4, MPS Witness Statement: GTIRT18-01266).
- 03:35\*** *BA Team 39: Firefighter Sime and Firefighter Okoh continue to firefight on the fifth floor. Firefighter Sime states "It was relentless, we couldn't knock the fire back like a normal fire even with excess water being used." The BA team remain lying on their stomachs, visibility is about a foot and they cannot see their hands, everything is dark except the glow of the fire* (Source: MPS Witness Statement: GTIRT18-01044, GTIRT18-00053, BA Data: GTIRT17-02820).
- 03:35\*** *Firefighter Orchard is escorting people in and out of the building using an MPS riot shield for protection against the falling debris. On entering the building an unidentified officer asks her to take a hose to the seventh floor with Firefighter Roots and some unidentified firefighters* (Source: MPS Witness Statement: GTIRT18-00647).
- 03:35:32** The Radio Operator at Brigade Control sends a radio message to Alpha Tango 3 Lambeth's CBRN RRT.
- "Alpha Tango 3 from M2FN. Go ahead. Over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03088).

## OFFICIAL

**03:35:37** Alpha Tango 3, Lambeth's CBRN RRT, send a radio message to the Radio Operator at Brigade Control.

"M2FN from Alpha Tango 3. Now Status 3. Over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03089).

**03:35:45** The Radio Operator at Brigade Control sends a radio message to Alpha Tango 3, Lambeth's CBRN RRT.

"Status 3. Received."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03090).

**03:36** BA Team 41: Firefighter Harold, Firefighter Rice, Firefighter Friend and Firefighter Peacock are in the fourth floor lobby. The crew splits into two teams, they share an enforcer and break into flats on the fourth floor. No rescues are carried out and no casualties are found (Source: MPS Witness Statement: GTIRT18-00932, GTIRT18-00942, GTIRT18-01114, GTIRT18-00054, BA Data: GTIRT17-02820).

**03:36:17** CU8 send a 'priority' radio message to the Radio Operator at Brigade Control.

"Charlie Uniform 8, go ahead with priority."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03092).

**03:36:21** CU8 send the following radio message to Brigade Control.

"FN Charlie Uniform 8. Reference, reference the Dangerous Structural Engineer, erm, do you have an ETA? If we do or don't, do we have a contact number that we can liaise directly? And can you, erm, also find out if they need, erm, blue light assistance in getting to this incident as they are a priority? Over"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03093).

## OFFICIAL

**03:36:31** Large pieces of burning debris are falling down outside the main entrance at the South elevation (Source: CCTV: Camera 4).



**03:36:39** Hotel 33 Alpha, Wandsworth's OSU book Status 3, in attendance, at Grenfell Tower. This is the third OSU in attendance (Source: 'Vision': GTIRT17-02791).

**03:36:48** The Radio Operator at Brigade Control sends a radio message to CU8.

"Uniform 8. All received."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03094).

**03:37:10** DAC O'Loughlin walks through the main lobby and exits via the community room (Source: CCTV: Camera 4).

**03:37:32** Megan Perestrelo-Gomes from flat 183, 21<sup>st</sup> floor, is escorted down the stairs to the stair lobby by Firefighter De St Aubin (BAECO) and they exit the building via the main lobby (Source: CCTV: Camera 2).

**03:37:40** Helen Gebremeeskal from flat 186, 21<sup>st</sup> floor, descends the stairs behind Firefighter De St Aubin (BAECO) (Source: CCTV: Camera 2).

**03:37:40** Megan Perestrelo-Gomes from flat 183, 21<sup>st</sup> floor, is escorted through the main lobby by Firefighter O'Hanlon and exits the building via the community room (Source: CCTV: Camera 4).

**03:37:42** Andreia Perestrelo from flat 183, 21<sup>st</sup> floor, descends the stairs to the stair lobby unaided (Source: CCTV: Camera 2).



## OFFICIAL

- 03:37:43** Andreia Perestrelo from flat 183, 21<sup>st</sup> floor and Helen Gebremeeskak from flat 186, 21<sup>st</sup> floor talk to Firefighter De St Aubin (BAECO), GM Welch and WM De Silvo in the stair lobby (Source: CCTV: Camera 2).
- 03:37:52** Andreia Perestrelo from flat 183, 21<sup>st</sup> floor, is escorted through the main lobby by Firefighter Broderick and they exit the building via the community room (Source: CCTV: Camera 4).
- 03:38:00** Helen Gebremeeskak from flat 186, 21<sup>st</sup> floor, walks towards the community room. She stops in the main lobby and talks to SM Wolfenden (Source: CCTV: Camera 4).
- 03:38:05** CM Rawlings talk to WM O'Keeffe at the BAACP in the stair lobby (Source: CCTV: Camera 2).
- 03:38:15** Firefighter Brooks exits the building via the community room (Source: CCTV: Camera 4).
- 03:38:26** CRO Gotts takes a call from the daughter of the resident in flat 204 on the top floor who explains that he cannot move but has tried to get out. CRO Gotts states that the Brigade are advising people to leave and asks the caller if it is the man in his seventies that she has spoken to and the caller confirms that it is. The caller says she has already spoken to one of CRO Gotts's colleagues and explains that her father is trapped, elderly, disabled and cannot breathe. CRO Gotts states that she will let crews know. Incident Number 76317, Call Duration one minute 7 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00747).
- 03:38:34** BA Team 37: CM Rawlings and Firefighter Morcos exit the building via the community room (Source: CCTV: Camera 4).
- 03:38:34** CU8 send a radio message to the Radio Operator at Brigade Control.
- "Charlie Uniform 8 from M2FN. Go ahead. Over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03096).
- 03:38:38** CU8 send their radio message to the Radio Operator at Brigade Control.
- "M2FN, Charlie Uniform 8. Reference to my last message, did you receive it? Over. Reference to Dangerous Structural Engineer?"
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03097).
- 03:38:59** The Duty Welfare Officer, Sam Kindred is paged on request of SOM Smith who wanted a trained counsellor to be brought into Brigade Control to support her colleagues (Source: MPS Witness Statement: GTIRT17-01956, 'Vision': GTIRT17-02791).
- 03:39** BA Team 40: Firefighter Lundquist and CM Mayne reach the fourth floor and search all the flats starting on the left hand side, and they do not find any people (Source: MPS Witness Statement: GTIRT17-02930, GTIRT18-00098, BA Data: GTIRT17-02820).

## OFFICIAL

- 03:40\*** BA Team 41: Firefighter Harold, Firefighter Rice, Firefighter Friend and Firefighter Peacock are at the second floor in the stairwell where they meet an adult male, (*believed to be Marcio Gomes from flat 183, 21<sup>st</sup> floor*). The adult male asks the BA team to find his wife who is trapped on the 15<sup>th</sup> floor (*Marcio Gomes has already spoken to BA team 38 explaining the situation with his family who are looking for them*). Firefighter Harold knows that the BA team do not have enough air to reach the 15<sup>th</sup> floor so tells Marcio Gomes to make his way down the stairs and seek assistance at the bridgehead (Source: MPS Witness Statement: GTIRT18-00932, GTIRT18-00942, GTIRT18-01114, GTIRT18-00054, BA Data: GTIRT17-02820).
- 03:40:11** SM Cook talks with GM Goulbourne and GM Welch. GM Goulbourne states "we received FSG's stating that there were 10 people in one flat on the 16<sup>th</sup> floor and 11 people in one flat on the 18<sup>th</sup> floor, I wanted to get up there to get them out so I asked a trusted officer to go up as far as he could and report back". It is agreed that SM Cook puts BA on and enters Grenfell Tower, with a view to assess the situation, to determine how much the conditions have deteriorated, and report back (Source: MPS Witness Statement: GTIRT17-02922, GTIRT17-02923, GTIRT17-01108, CCTV: Camera 2).
- 03:40:27** WM Williams enters the stair lobby holding some white papers and talks to GM Welch, GM Goulbourne and SM Cook (Source: CCTV: Camera 2).
- 03:40:39** SM Wolfenden writes on the lobby wall next to the community room exit (Source: CCTV: Camera 4).
- 03:40:43** CRO Gotts makes a call to the RBKC to ask for an estimated time of attendance of the DSE. The RBKC Operator cannot give a time or contact number and CRO Gotts offers blue light assistance and stresses the urgency of the situation. The RBKC Operator apologises but does not have the information to give (Source: NICE, Admin Phone Line Audio file: GTIRT18-01175).
- 03:40:57** Firefighter De St Aubin (BAECO) enters the main lobby wearing a BAECO tabard and looks at the FSG information on the main lobby wall before exiting the main lobby back into the stair lobby (Source: CCTV: Camera 4).
- 03:41\*** BA Team 37: CM Rawlings, Firefighter Brooks and Firefighter Morcos are outside Grenfell Tower where CM Rawlings is treated by the LAS for heat stroke (Source: Contemporaneous Notes: GTIRT17-00228).
- 03:41:24** WM De Silvo writes on the green wall in the stair lobby with a white chinagraph pencil (Source: CCTV: Camera 2).
- 03:41:55** WM Williams exits the stair lobby and returns to the main lobby (Source: CCTV: Camera 2).
- 03:42** BA Team 38: CM Diana and Firefighter D Nelson are in the stairwell between the 11<sup>th</sup> and 13<sup>th</sup> floor where they find two, unconscious female casualties. Firefighter D Nelson picks up the first

## OFFICIAL

casualty (believed to be Luana Perestrelo-Gomes from flat 183, 21<sup>st</sup> floor) and CM Diana picks up the second casualty (believed to be Lulya Benyam from flat 186, 21<sup>st</sup> floor) and they begin to descend the stairwell (Source: MPS Witness Statement: GTIRT18-01077, GTIRT17-03728, BA Data: GTIRT17-02820).

**03:42:22** CU8 send a 'priority' radio message to the Radio Operator at Brigade Control .

"Charlie Uniform 8. We're, erm - Charlie Uniform 8 from M2FN. Over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03100).

**03:42:29** The Radio Operator at Brigade Control responds to CU8.

"Charlie Uniform 8, go ahead with priority."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03101).

**03:42:32** CU8 responds to the Radio Operator at Brigade Control.

"FN, Charlie Uniform 8. Can we request an attendance of Radio Engineer to assist with Channel 2. Charlie Uniform 8, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03102) .

**03:42:36** CRO Adams takes a call from a female who is reporting two people waving at the window of a flat around the 15<sup>th</sup> floor on the side of the building that is facing Waynflete Square, W11. CRO Adams takes the details and says she will pass the information on to crews. Incident Number 76325, Call Duration three minutes 47 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00752).

**03:42:41** SM Egan talks with SM Wolfenden in the main lobby (Source: CCTV: Camera 4).

**03:42:49** The Radio Operator at Brigade Control responds to CU8.

"Er, Charlie Uniform 8, request urgent attendance of Radio Engineer, was that to assist with Channel 2? Over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03103).

**03:42:58** CU8 send a radio message to the Radio Operator at Brigade Control.

"Charlie Uniform 8. Answer yes. Over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03104).

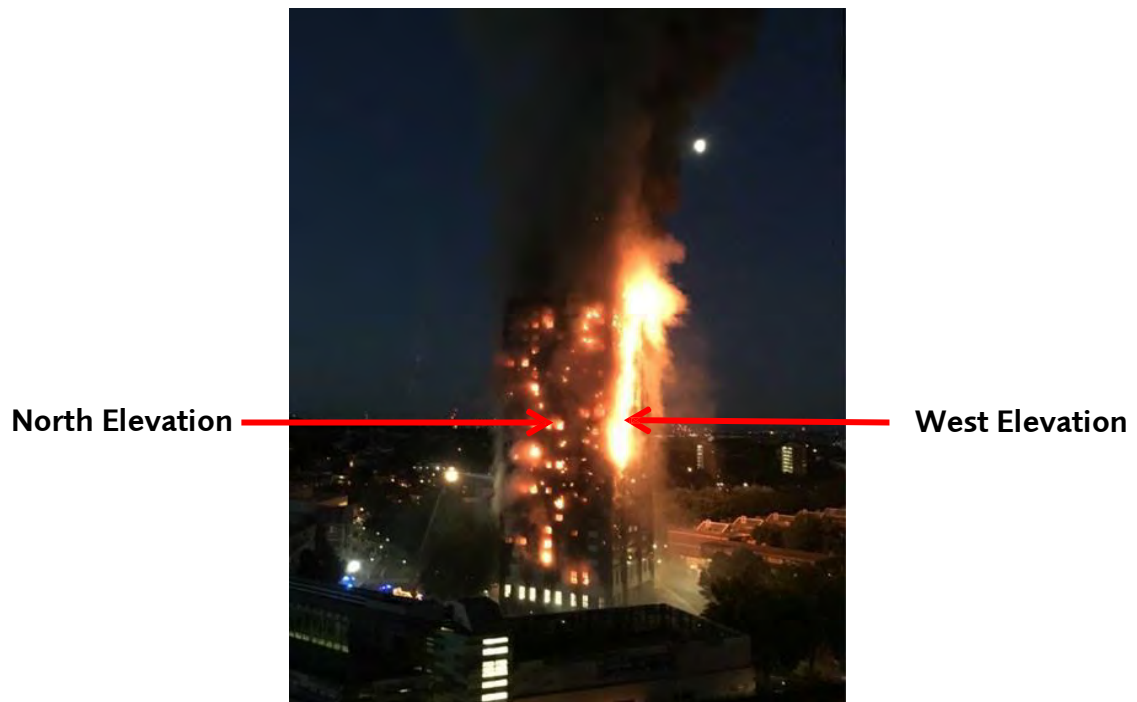
**03:42:58** BA Team 43: CM Gray, Firefighter Pegram, Firefighter Holehouse, Firefighter G Hiscock and Firefighter Hudson enter the main lobby via the community room (Source: MPS Witness Statement: GTIRT18-00982, GTIRT18-00317, CCTV: Camera 3).

## OFFICIAL

- 03:43** BA Team 38: CM Diana and Firefighter D Nelson continue to descend the stairs with two female casualties (believed to be Luana Perestrelo-Gomes from flat 183, 21<sup>st</sup> floor and Lulya Benyam from flat 186, 21<sup>st</sup> floor). The conditions are extremely wet and the water is pouring down the stairs which is making it difficult to keep hold of their casualties. Around the sixth floor, Firefighter D Nelson's casualty slips out of his hands, falls to the floor and becomes trapped in the banisters. He manages to free the casualty and continues to assist her down the stairs (Source: MPS Witness Statement: GTIRT18-01077, GTIRT17-03728, BA Data: GTIRT17-02820).
- 03:43** BA Team 41: Firefighter Harold, Firefighter Rice, Firefighter Friend and Firefighter Peacock are in the fifth floor lobby having cleared the fourth floor. The crew splits into two teams, they share an enforcer and break into flats on the fifth floor. No rescues are carried out and no casualties are found (Source: MPS Witness Statement: GTIRT18-00932, GTIRT18-00942, GTIRT18-01114, GTIRT18-00054, BA Data: GTIRT17-02820).
- 03:43:11** SM Cook exits Grenfell Tower to carry out a 360 of the building to look for any developing hazards and other building access points. He then goes and gets a BA set from a fire engine in Grenfell Road (Source: MPS Witness Statement: GTIRT17-02922, CCTV: Camera 4).
- 03:43:19** Foxtrot 21 Alpha, Stratford's OSU book Status 2, mobile to Grenfell Tower. Foxtrot 21 Alpha is riding with Firefighter Vikas Kumar (Source: 'Vision': GTIRT17-02791).
- 03:43:20** BA Team 43: CM Gray, Firefighter Pegram, Firefighter G Hiscock, Firefighter Holehouse and Firefighter Hudson are in the main lobby where they talk with WM Watson (Source: MPS Witness Statement: GTIRT18-00982, GTIRT18-00317, CCTV: Camera 4).
- 03:43:42** CU8 send a radio message to the Radio Operator at Brigade Control.
- "Answer no. This is for the fire ground. Charlie Uniform 8. Over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03107).

## OFFICIAL

**03:44** The image below shows the fire spread at Grenfell Tower. The picture shows the North elevation completely alight and the fire continuing to spread around the West elevation.



(Source: MET000085889).

- 03:44:07** Firefighter Fernandes and Firefighter Williams are outside the building and perform a fire ground 'A' Test to return to Grenfell Tower for redeployment (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00041, GTIRT18-01105).
- 03:44:19** CRO Duddy takes a call from a person reporting that they are watching the tower block burning and can see someone flashing a light to be saved. The person is quite high in the middle of tower block and the fire is almost through to their flat. The caller reports that they have been screaming for hours and they have been watching since around one o'clock. The caller does not know what floor they are on. CRO Duddy explains that the crews are trying to get to everyone as soon as they can and states that he needs to clear the line and thanks the caller. Incident Number 76322, Call Duration one min 6 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00749).
- 03:44:42** WM Stewart from CU1, Edmonton's CU, enters the main lobby via the community room (Source: CCTV: Camera 4).
- 03:44:44** BA Team 42: Firefighter Cuthbert, Firefighter Lawrence, Firefighter Sonson and Firefighter Wood are in the stair lobby where GM Goulbourne briefs them to go to the fourth and fifth floor to search and rescue (Source: MPS Witness Statement: GTIRT18-01844, GTIRT18-00996, GTIRT18-01839, GTIRT18-01072, CCTV: Camera 2).

## OFFICIAL

**03:45:01** CRO Howson takes a call from a female who is not in the tower but is reporting that her relatives are on 16<sup>th</sup> floor and are still in their flat and need oxygen. CRO Howson advises that they need to get out, covering themselves with wet towels and leave the building by the stairwell, moving along the walls. She explains that they should open the front door slowly and move along the walls to find their way out. The caller confirms that she will call her family back. Incident Number 76326, Call Duration two minutes 4 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00604).

**03:45:19** CU8 send a radio message to the Radio Operator at Brigade Control.

"Charlie Uniform 8, go ahead, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03111).

**03:45:20** BA Team 43: CM Gray, Firefighter Pegram, Firefighter G Hiscock, Firefighter Holehouse and Firefighter Hudson are in the main lobby where they talk with GM Welch (Source: MPS Witness Statement: GTIRT18-00982, GTIRT18-00317, CCTV: Camera 4).

**03:45:22** CU8 request to send an 'informative' radio message to the Radio Operator at Brigade Control.

"FN, Charlie Uniform 8 informative."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03112).

**03:45:24** CRO Duddy takes a call from Essex County FRS reporting that they have taken a call from a member of the public who is in the block opposite and can hear people calling out from floor 12 or 13. CRO Duddy says that there are people on lots of floors and the crews are trying to get to everyone but that the advice that is being given to residents is to cover themselves with cloths or towels and try and get out of the building. The Essex County Radio Operator confirms that they have this information already. Incident Number 76324, Call Duration 56 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00751).

**03:45:28** The Radio Operator at Brigade Control sends a radio message to CU8.

"Go ahead with informative."

( Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03113).

**03:45:31** CU8 send the following 'informative' radio message to the Radio Operator at Brigade Control.

"FN Charlie Form 8. From AC Roe. A residential block of 24 floors. 25 by 25, two-five by two-five metres. Fire from second to 24<sup>th</sup> floor, fire from the second to the 24<sup>th</sup> floor. Approximately one hundred, one-zero-zero individuals involved. F-S-G major incident declared. High-rise procedure implemented. TL, ALP, EDDBA, main control. Ground monitors, five jets. Safety cordon in place. Tactical Mode Oscar, Charlie Uniform 8, over"

## OFFICIAL

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03114, GTIRT17-03115, GTIRT17-03116, GTIRT17-03117, GTIRT17-03118, GTIRT17-03119, GTIRT17-3120, GTIRT17-0321 and GTIRT17-0322).

- 03:45:32** CRO Gotts takes a call from a member of the public in another building who reports a massive fire near by. CRO Gotts asks if it Grenfell Tower and when this is confirmed by the caller, CRO Gotts reassures her that the Brigade is in attendance. Incident Number 76323, Call Duration 29 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00750).
- 03:46** BA Team 38: CM Diana and Firefighter D Nelson are on the fourth floor when Firefighter D Nelson meets BA Team 40: CM Mayne and Firefighter Lundquist, they assist with rescue and take the casualty down with him to the bridgehead in the stair lobby and hand the female casualty to unidentified firefighters (the casualty is believed to be Luana Perestrelo-Gomes Flat 183,21<sup>st</sup> floor) (Source: MPS Witness Statement: GTIRT18-01077,GTIRT17-03728, BA Data GTIRT17-01630).
- 03:46:14** CU3, Barking's CU book status 3, this is the seventh CU in attendance (Source: 'Vision': GTIRT17-02791).
- 03:46:24** BA Team 42: Firefighter Cuthbert, Firefighter Lawrence, Firefighter Sonson and Firefighter Wood report to the BAECO in the stair lobby, start breathing under air and they remove their BA tallies. (Source: MPS Witness Statement: GTIRT18-01844, GTIRT18-00996, GTIRT18-01839, GTIRT18-01072, BA Data: GTIRT17-02820, CCTV: Camera 2).
- 03:46:42** Kent FRS take a call from the wife of Tony Disson who states that she has not heard back and cannot get hold of him. The Kent FRS Radio Operator recognises her and states that they have called the mobile phone number given to them by her but that the line cleared and there is now no answer. The Kent FRS Radio Operator explains that he had tried to exit the flat and Cordelia Disson suggests that this means that he has not got out, the Kent FRS Radio Operator tries to reassure her and explains that the MPS are going to set up a casualty bureau and Mrs Disson should look at the police website to get more information. Incident Number 1283, Call Duration one minute 18 seconds (Source: FRS Incident Log, Audio File and Transcript: GTIRT17-01622).
- 03:46:48** Papa Hotel Uniform 1, a portable hygiene unit is mobilised (Source: 'Vision': GTIRT17-02791).
- 03:46:42** Firefighter Okoh from BA Team 39 is on the mezzanine floor level wearing EDBA and walks down the stairs, he then turns and walks back up the stairs to the mezzanine floor level and enters the lift lobby area (Source: CCTV: Camera 5 floor).
- 03:46:54** Following the pager message at **03:38:59**, Brigade Control make a call to the Duty Welfare Officer Sam Kindred. SOM Smith requests support, on behalf of DAC Fenton, for CROs before they go home (Source: NICE, Admin Phone Line Audio file: GTIRT18-01179).

## OFFICIAL

- 03:47:00** A large volume of water starts cascading down the stairs into the stair lobby (Source: CCTV: Camera 2).
- 03:47:29** The Radio Operator at Brigade Control sends a radio message to CU8, confirming that the 'informative' message received at **03:45:31** is correct.
- "Charlie Uniform 8 from AC Roe. A residential block of 24 floors. 25 metres by 25 metres. Fire from the 2nd to the 24th – 24 – floor. Approximately 100 individuals involved. F-S-G major incident declared. High-rise procedure implemented. TL, ALP, EDBA. Main control. Ground monitors, five jets, safety cordon in place, tactical mode Oscar. Is that correct? Over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03123 and GTIRT17-03124).
- 03:47:38** A male casualty (now known to be Sener Macit from flat 133, 16<sup>th</sup> floor), descends the stairs to the stair lobby unaided and proceeds out into the main lobby (Source: CCTV: Camera 2).
- 03:47:40** A female casualty (now known to be Hanife Macit from flat 133, 16<sup>th</sup> floor) descends the stairs to the stair lobby unaided and proceeds out into the main lobby (Source: CCTV: Camera 2).
- 03:47:42** WM Stewart enters the main lobby via the community room (Source: CCTV: Camera 4).
- 03:47:51** Hanife and Sener Macit from flat 133, 16<sup>th</sup> floor are escorted towards the community room by unidentified firefighters. SM Wolfenden stops them before they exit the building and talks to them (Source: CCTV: Camera 4).
- 03:48** BA Team 38: CM Diana and Firefighter D Nelson have separated following their last rescue. Firefighter D Nelson ascends the stairs looking for CM Diana and locates him at the fourth floor level with another casualty (believed to be Lulya Benyam from flat 186, 21<sup>st</sup> floor). Both firefighters begin to assist the casualty back down the stairs (Source: MPS Witness Statement: GTIRT18-01077, GTIRT17-03728, BA Data: GTIRT17-02820).
- 03:48:04** CU8 send the Radio Operator at Brigade Control a radio message.
- "FN, Charlie Uniform 8 – all correct further traffic, over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03125).
- 03:48:17** The Radio Operator at Brigade Control sends a radio message to CU8.
- "Go ahead with further traffic."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03126) .
- 03:48:20** CU8 send a radio message to the Radio Operator at Brigade Control.
- "FN. Charlie Uniform 8. My apologies. Do we have an update on the, erm, dangerous structural e... er, engineer for this incident, over?"



## OFFICIAL

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03127).

**03:48:22** BA Team 43: CM Gray, Firefighter Pegram, Firefighter G Hiscock, Firefighter Holehouse and Firefighter Hudson are in the main lobby. GM Goulbourne briefs them to go to the ninth floor for search and rescue. *CM Gray states "we were told that they were aware of bodies on the eighth and tenth floors in the stairwell and that they had been assessed and we should move past them"* (Source: MPS Witness Statement: GTIRT18-00982, GTIRT18-00317, CCTV: Camera 4).

**03:48:32** The Radio Operator at Brigade Control sends a radio message to CU8.

*"Er, I think there's a message just coming through; stand by."*

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03128).

**03:48:32** CRO Howson takes a call from a member of the public who is reporting a huge fire in a building near White City and he wants to ensure that it has been reported and that a response is there. The caller explains that he can see the flames and that the whole building is on fire. CRO Howson states that there are forty fire engines in attendance. Incident Number 76327, Call Duration 38 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00754).

**03:48:56** The Radio Operator at Brigade Control send the following radio message to CU8.

"Ahead, over."

"Yeah, we... we've been in touch with the Council numerous times. They're not giving us, erm, a number; they won't give us a number or anything at the moment. We've – we are trying."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03131).

**03:48:57** CRO Gotts makes a call to the RBKC to ask again for an estimated time of arrival for the Dangerous Structure Engineer. CRO Gotts advises again that the Brigade is willing to provide a blue light escort. CRO Gotts also tells the RBKC Operator that the Brigade is going to try and get the London Resilience Group to sort it out but asks the RBKC Operator to continue to try with their one (Source: NICE, Admin Phone Line Audio file: GTIRT18-01181).

**03:49\*** *BA Team 39: Firefighter Sime and Firefighter Okoh are continuing to firefight from within the fifth floor lobby when they see two unidentified firefighters struggling with an unidentified female casualty back in the stairwell. Firefighter Sime realises the firefighters need assistance so BA Team 39 take the casualty from them and begin to descend the stairwell (Source: MPS Witness Statement: GTIRT18-01044, GTIRT18-00053, BA Data: GTIRT17-02820).*

**03:49:08** CU8 send a radio message to the Radio Operator at Brigade Control confirming receipt of the radio message at 03:48:56.

## OFFICIAL

"FN, erm, Charlie Uniform 8, received. Please can you, er, impress that it is, er, vital for the, er – this incident, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03132).

**03:49:25** The Radio Operator at Brigade Control send a radio message to CU8 and tell them that they are contacting the LRG (about the DSE).

*"Right, we're contacting the London Resilience Group about it, over"*

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03133).

**03:49:25** BA Team 42: Firefighter Cuthbert, Firefighter Lawrence, Firefighter Sonson and Firefighter Wood, ascend the stairs from the stair lobby up to the mezzanine floor level (Source: CCTV: Camera 2).

**03:49:32** CU8 send a radio message to the Radio Operator at Brigade Control, confirming receipt of the message about contacting the LRG.

"FN, Charlie Uniform 8, received."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03134).

**03:50\*** BA Team 42: Firefighter Cuthbert, Firefighter Lawrence, Firefighter Sonson and Firefighter Wood are on the stairs between the mezzanine and second floor levels when they meet a man (believed to be Marcio Gomes flat 183, 21<sup>st</sup> floor). *Firefighter Lawrence states "before the entrance to the next stairwell, I saw one male who was distraught, he was screaming and crying saying my girls my girls are in there, help me, my girls. I said where are they, which floor are they on, he said I don't know"* (Source: MPS Witness Statement, GTIRT18-01844, GTIRT18-00996, GTIRT18-01839, GTIRT18-01072, BA Data: GTIRT17-02820, CCTV: Camera 5).

**03:50\*** *Firefighter Nuttall is outside the building at the BA holding area, he then starts to help run the FSG information in and out of the building and a Police Officer provides a MPS riot shield protection to enter and exit the building* (Source: MPS Witness Statement: GTIRT18-01296, CCTV: Camera 31).

**03:50** BA Team 38: CM Diana and Firefighter D Nelson arrive at the mezzanine floor level with a casualty (believed to be Lulya Benyam from flat 186, 21<sup>st</sup> floor) and they hand her over to unidentified firefighters (Source: MPS Witness Statement: GTIRT17-02930, GTIRT18-00098, BA Data: GTIRT17-02820).

**03:50** BA Team 42: Firefighter Cuthbert, Firefighter Lawrence, Firefighter Sonson and Firefighter Wood are ascending the stairs when they meet an unidentified FRU crew, made up of four individuals, coming down the stairs with an unidentified female casualty. Firefighter Lawrence and Firefighter Wood begin to assist the unidentified FRU crew with carrying the casualty down the stairs whilst

## OFFICIAL

Firefighter Cuthbert and Firefighter Sonson continue onwards to the fifth floor (Source: MPS Witness Statement: GTIRT18-01839, GTIRT18-01844, GTIRT17-01072, GTIRT18-00996, BA Data: GTIRT17-02820).

**03:50:10** BA Team 40: Firefighter Lundquist and CM Mayne are on the fourth floor and enter the stairwell. They meet Firefighter D Nelson coming down the stairs with a casualty (now known to be Luana Perestrelo-Gomes from flat 183, 21<sup>st</sup> floor). BA Team 40 begin to assist Firefighter D Nelson with carrying the unconscious female casualty down the stairs (Source: MPS Witness Statement: GTIRT17-02930, GTIRT18-00098, BA Data: GTIRT17-02820).

**03:50:12** A male casualty (now known to be Abufras Ibrahim from flat 206, 23<sup>rd</sup> floor), is witnessed falling from Grenfell Tower at the South elevation. The casualty is taken away from the base of the building by unidentified firefighters and handed over to the LAS for assessment. At the same time, CM Murphy is struck by a body part knocking him over, he is also taken away from the immediate vicinity to be assessed by the LAS (Source: CCTV: Camera 31).

**03:50:23** SM Egan enters the stair lobby, carrying a white sheet of paper, and talks to GM Goulbourne and GM Welch (Source: CCTV: Camera 2).

**03:50:38** The Radio Operator at Brigade Control sends a radio message to CU8.

"Charlie Uniform 8 from M2FN, over."

( Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03135).

**03:50:43** CU8 send a radio message to the Radio Operator at Brigade Control.

"Go ahead, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03136).

**03:50:44** Marcio Gomes from Flat 183, 21<sup>st</sup> floor, is walking backwards and forwards on the mezzanine floor level talking on his mobile phone (Source: CCTV: Camera 5).

**03:50:46** The Radio Operator at Brigade Control sends the following radio message to CU8.

"Charlie Uniform 8, we're not having a lot of luck with the Council. We are now contacting the London Resilience Group to deal with this, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03137).

**03:50:59** CU8 send a radio message to the Radio Operator at Brigade Control.

"FN Charlie Uniform 8. Received."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03138).

## OFFICIAL

**03:51** BA Team 41: Firefighter Peacock, Firefighter Harold, Firefighter Rice and Firefighter Friend are in stairwell on the fifth floor. Firefighter Peacock and Firefighter Harold meet an unidentified firefighter bringing down an unidentified female casualty and begin to assist the firefighter with bringing the casualty down the stairs. Firefighter Rice and Firefighter Friend meet another unidentified firefighter who informs them there is another casualty further up the stairs. Firefighter Rice and Firefighter Friend head further up the stairwell and find an unidentified female casualty and begin to bring the second casualty down the stairs (Source: MPS Witness Statement: GTIRT18-00932, GTIRT18-00942, GTIRT18-00054, GTIRT18-01114).

**03:51:16** AC Roe leaves the community room, talks to SM Wolfenden then proceeds to the stair lobby (Source: CCTV: Camera 4).

**03:51:19** CRO Duddy takes a call from a female who is shouting "73, 73 Grenfell Tower" and CRO Duddy asks if that is on the 10th floor. CRO Duddy advises the caller that they need to get out. The phone is then passed to a male caller who reports that every time they try and go outside it is very hot and smoky and CRO Duddy explains that they need to cover their mouths and get to the stairwell as there are firefighters on the stairwells. The caller asks if he can pass the phone back to his mother because she will not listen to him and CRO Duddy then speaks to a female caller who states that she tried to get out and complains that no one is listening to her. The female caller explains that they were told to stay in the flat an hour ago and now they are being told to get out and they can't. A different female then comes on the phone and explains that the previous lady on the phone is disabled and elderly which is why she is worried about trying to get out and CRO Duddy asks to speak to the original male caller again. CRO Duddy explains that they need to go to the staircase as it is their only choice. He repeats this over and over again and explains that he cannot stay on the line because there are lots of other people in the tower. At **03:59:41** the voice of a Kent FRS Radio Operator is heard on another phone stating "wet towels". Another female caller comes on the line to CRO Duddy and is heard asking the Kent FRS Radio Operator to hang on. CRO Duddy asks if they have gone to the stairs and the caller states that they have not yet and CRO Duddy asks her why, and that they must go straight away. The caller asks if there is fire on the staircase and CRO Duddy repeats that they need to get to the staircase. The caller says "okay, okay". There is a short period of silence and the line drops out. The call ends at **04:00:36**. Incident Number 76328, Call Duration nine minutes 17 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00755).

It is clear that the residents in this flat are talking to both the London Fire Brigade and the Kent FRS control rooms at the same time. They speak to CRO Jones at **02:57:18** (GTIRT17-00677) who tells the caller that they need to make a run for it and get out. At **02:57:32** (GTIRT17-01838), they speak to the Kent FRS Control Room. A female resident caller named Ann and a Kent FRS Radio Operator are involved. Another male caller in the flat speaks to CRO Fox at

## OFFICIAL

**03:06:57** (GTIRT17-00716). CRO Fox tells him they need to leave the building straight away. The call to the Kent FRS Radio Operator continues. A male caller then speaks to CRO Duddy at **03:51:19** (GTIRT17-00755) as detailed above. During the Kent FRS call Ann asks the Kent FRS Radio Operator to hold the line and she speaks to CRO Duddy. After the conversation with CRO Duddy she tells the Kent FRS Radio Operator that the Brigade have told her they need to leave. The Kent FRS Radio Operator asks which fire brigade and Ann says she doesn't know but they have been told to leave. The Kent FRS Radio Operator supports this and stays on the line. They try and leave but after a few minutes they come back to the flat and Ann says they cannot get out. At around **04:15** Ann tells the Kent FRS Radio Operator that someone has come to get them. It appears that fire crews have reached the flat and rescue them at **04:34:13**. The full details of the call with Kent FRS is referenced at **02:57:32**.

- 03:51:32** A female casualty (Luana Perestrelo-Gomes from flat 183, 21<sup>st</sup> floor) is carried down the stairwell by Firefighter De St Aubin (BAECO), GM Welch and WM O'Keeffe. She is handed to Firefighter Broderick, Firefighter O'Hanlon and Firefighter Archer who proceed into the main lobby (Source: CCTV: Camera 2).
- 03:51:38** AC Roe enters the stair lobby and talks to GM Goulbourne and GM Welch (Source: CCTV: Camera 2).
- 03:51:40** Luana Perestrelo-Gomes, from flat 183, 21<sup>st</sup> floor, is carried through the main lobby by Firefighter Broderick, Firefighter O'Hanlon and Firefighter Archer. They exit the building via the community room (Source: CCTV: Camera 4).
- 03:51:42** BA Team 40: CM Mayne and Firefighter Lundquist descend the stairs to the stair lobby, they report to the BAECO and close down their BA sets (Source: BA Data: GTIRT17-02820, CCTV: Camera 2).
- 03:51:44** BA Team 41: Firefighter Rice and Firefighter Friend from BA team 41 and Firefighter D Nelson from BA team 38 descend the stairs following the rescue of Luana Perestrelo-Gomes from flat 183, 21<sup>st</sup> floor to the stair lobby and report to the BAECO (Source: CCTV: Camera 2).
- 03:51:55** AOM Real makes a call to London Underground Limited (LUL) to advise them of the fire and the LUL Operator says they are monitoring the incident on CCTV: and helicopter downlink provided by NPAS. The LUL Operator explains that they are not planning on running a train service on the adjacent Hammersmith and City line in the morning between Edgware Road and Hammersmith and provides their reference number as 3 (Source: NICE, Admin Phone Line Audio file: GTIRT18-01182).

## OFFICIAL

- 03:52** Firefighter Cuthbert and Firefighter Sonson from BA Team 42 *reach the sixth floor* and commence a search of every flat. They find no casualties and decide to search the floor above (Source: MPS Witness Statement: GTIRT18-00996, GTIRT18-01844).
- 03:52:12** Firefighter Okoh from BA Team 39 is descending from the mezzanine floor level to the ground floor on his own wearing EDBA (Source: CCTV: Camera 5).
- 03:52:17** CM Diana from BA Team 38 is around the fourth floor, whilst carrying out a rescue, when his LPWA actuates (Source: MPS Witness Statement: GTIRT18-01077, GTIRT17-03728, BA Data: GTIRT17-02820).
- 03:52:54** CU8 send a radio message to the Radio Operator at Brigade Control  
"Charlie Uniform 8"  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03139).
- 03:52:55** The Radio Operator at Brigade Control responds to CU8.  
"Charlie Uniform 8, go ahead, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03140).
- 03:52:58** CU8 send a radio message to the Radio Operator at Brigade Control.  
"FN Charlie Uniform 8. Do we have an ETA for the SD-, sorry, my apologies, EDBA cylinders? Charlie Uniform 8 over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03141).
- 03:53:00** BA Team 42: Firefighter Lawrence and Firefighter Wood are ascending the stairs in order to meet up with the remainder of their BA Team who are currently performing a search of the sixth floor. They are between the third and fourth floor when they find a male casualty (believed to be Christos Fairbairn from flat 124, 15<sup>th</sup> floor) struggling to breathe. Both Firefighters begin to descend the stairs with the casualty (Source: MPS Witness Statement: GTIRT18-01839, GTIRT18-01072, BA Data: GTIRT17-02820).
- 03:53:05** BA Team 40: Firefighter Lundquist and CM Mayne exit the stair lobby and go into the main lobby (Source: CCTV: Camera 2).
- 03:53:10** CRO Adams takes a call from a female outside the tower who is reporting that her sister is in flat 74 on the 10<sup>th</sup> floor and has a medical condition. CRO Adams asks if the resident can walk and if she can they need to leave the flat but the caller says that they cannot open the door to get out. The caller reports that there are two adults and CRO Adams tries to find out what is the matter with the door. The caller is with someone else who gets in touch with the residents and a conversation can be heard in the background. CRO Adams advises the caller to tell her sister to

## OFFICIAL

cover themselves with wet towels and try to get out of the building but the caller states that she has spoken to the police who had told them that residents should stay put. CRO Adams explains that things have changed and the advice now is to leave. During the call the third party finds out that the residents cannot open the front door and CRO Adams advises that they need to try and stop the smoke from coming in by blocking the doors and windows, moving to another room if there is somewhere less smoky. CRO Adams says that she will pass on the information to crews. Incident Number 76331, Call Duration six minutes 29 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00758).

**03:53:13** CRO Gotts takes a call from a caller who has a cousin living in the building and is enquiring if there is any news about the residents. CRO Gotts explains that there isn't any information at the moment but that the Brigade is in attendance and the caller thanks her and CRO Gotts ends the call. Incident Number 76329, Call Duration 33 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00756).

**03:53:13** A female casualty (now known to be Lulya Benyam from flat 186, 21st floor) is carried down the stairs to the stair lobby by WM De Silvo and WM O'Keeffe, taken into the main lobby and handed to CM Magee (Source: CCTV: Camera 2).

**03:53:15** The Radio Operator at Brigade Control sends a radio message to CU8.

"Er, we can try and get one for you. Erm, the EDBA, er, was gonna be an hour when I last passed you -"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03142).

**03:53:19** Lulya Benyam, from flat 186, 21st floor, is carried through the main lobby by CM Magee and exits the building via the community room (Source: CCTV: Camera 4).

**03:53:23** The Radio Operator at Brigade Control repeats part of the radio message sent at **03:53:15** to CU8.

"- when I last passed you. Stand by."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03143).

**03:53:28** CU8 send a confirmation message to the Radio Operator at Brigade Control.

"FN, Charlie Uniform 8, received"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03144).

**03:53:38** Firefighter Harold, Firefighter Sime, CM Diana, Firefighter Okoh and Firefighter Peacock descend the stairs following the rescue of Lulya Benyam from flat 186, 21<sup>st</sup> floor to the stair lobby and

## OFFICIAL

report to the BAECO, Firefighter Peacock is escorted still under air by WM De Silvo to the main lobby as he is in a distressed state (Source: CCTV: Camera 2).

- 03:53:50** BA Team 38: CM Diana and Firefighter D Nelson are at the bridgehead in the stair lobby. CM Diana informs the BAECO that they have been unable to reach Flat 133 on the 16th floor as they had removed a number of casualties (Source: MPS Witness Statement: GTIRT18-01077, GTIRT17-03728, BA Data: GTIRT17-02820, CCTV: Camera 2).
- 03:54:29** Half of BA Team 42: Firefighter Lawrence and Firefighter Wood arrive at the mezzanine floor level with a male casualty (now known to be Christos Fairbairn from flat 124, 15<sup>th</sup> floor). Firefighter Lawrence shouts over the balcony to a group of unidentified firefighters standing below and they assist with carrying the male casualty down to the stair lobby (Source: MPS Witness Statement: GTIRT18-01839, GTIRT18-01072, BA Data: GTIRT17-02820, CCTV: Camera 5).
- 03:54:32** CRO Howson takes a call from a female who is reporting that she can still see people in the tower. CRO Howson asks the caller if she is able to tell what floor they are on and the caller replies its about the 12<sup>th</sup> floor and she can see them waving from the windows. CRO Howson says that she will pass on the information to the crews on scene. Incident Number 76330, Call Duration 39 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00757).
- 03:54:46** Firefighter Broderick descends the stairs to the stair lobby and proceeds into the main lobby (Source: CCTV: Camera 2).
- 03:54:56** Christos Fairbairn, from flat 124, 15<sup>th</sup> floor, is assisted down the stairs to the stair lobby by an unidentified firefighter and they proceed into the main lobby (Source: CCTV: Camera 2).
- 03:55:02** Christos Fairbairn, from flat 124, 15<sup>th</sup> floor, walks through the main lobby assisted by an unidentified firefighter and exits the building via the community room (Source: CCTV: Camera 4).
- 03:55:07** BA Team 39: Firefighter Sime and Firefighter Okoh are with the BAECO in the main lobby closing down their BA sets. *Firefighter Okoh informs WM De Silvo that their firefighting attempt on the fifth floor was unsuccessful* (Source: MPS Witness Statement: GTIRT18-01044, GTIRT18-00053, BA Data: GTIRT17-02820).
- 03:55:27** The Radio Workshops Duty Engineer is mobilised (Source: 'Vision': GTIRT17-02791).
- 03:55:28** Marcio Gomes, from flat 183, 21<sup>st</sup> floor, is assisted down the stairs to the stair lobby by an unidentified firefighter and they proceed into the main lobby (Source: CCTV: Camera 2).
- 03:55:29** AC Roe leaves the stair lobby and proceeds into the main lobby and talks to SM Mulholland (ORT), WM Williams joins in the discussion (Source, CCTV: Camera 4).



## OFFICIAL

- 03:55:35** Marcio Gomes, from flat 183, 21<sup>st</sup> floor and an unidentified firefighter walk through the main lobby and exit the building via the community room. Marcio Gomes is on his mobile phone at this time (Source: CCTV: Camera 4).
- 03:55:37** BA Team 39: Firefighter Sime and Firefighter Okoh leave the building via the community room with Firefighter Okoh still under air and make their way to a grass verge outside the building (Source: MPS Witness Statement: GTIRT18-01044, GTIRT18-00053, CCTV: Camera 4).
- 03:55:44** GM Goulbourne talks to BA Team 43: CM Gray, Firefighter Pegram, Firefighter G Hiscock, Firefighter Holehouse and Firefighter Hudson in the main lobby (Source: CCTV: Camera 3).
- 03:55:39** Echo 286, Bexley's FRU is mobilised (Source: 'Vision': GTIRT17-02791).
- 03:55:54** Hotel 316, Croydon's FRU is mobilised (Source: 'Vision': GTIRT17-02791).

Between 03:07 – 03:55 the following residents have either been rescued, assisted out or self-evacuated from Grenfell Tower (Source: MPS Residents' List: GTIRT18-04095).

1. Ethiopia Assefa (flat 94, 12 <sup>th</sup> floor ).
2. Alemishet Demissie (flat 94, 12 <sup>th</sup> floor ).
3. Genet Shawo (flat 153, 18 <sup>th</sup> floor ).
4. Paulos Tekle (flat 153, 18 <sup>th</sup> floor ).
5. Lucas Paulos (flat 153, 18 <sup>th</sup> floor ).
6. Yehualashet Enyew (flat 155, 18 <sup>th</sup> floor ).
7. Ayeesha El-Guenuni (flat 152, 18 <sup>th</sup> floor ).
8. Mohammed Aymen El-Guenuni (flat 153, 18 <sup>th</sup> floor ).
9. Mohammed El-Guenuni (flat 152, 18 <sup>th</sup> floor ).
10. Naila El-Gununa (flat 152, 18 <sup>th</sup> floor ).
11. Rabia Yahya (flat 152, 18 <sup>th</sup> floor).
12. Adam Aboud (flat 92, 12 <sup>th</sup> floor ).
13. Karen Aboud (flat 92, 12 <sup>th</sup> floor ).
14. Chia-Yuan Li (flat 195, 22 <sup>nd</sup> floor).
15. Adel Aboud (flat 92, 12 <sup>th</sup> floor ).
16. Chin- Hsuan Lydia Liao (flat 195, 22 <sup>nd</sup> floor ).
17. Megan Perestrelo-Gomes (flat 183, 21 <sup>st</sup> floor ).
18. Andreia Perestrelo (flat 183, 21 <sup>st</sup> floor ).
19. Helen Gebremeeskal (flat 186, 21 <sup>st</sup> floor ).
20. Sener Macit (flat 133, 16 <sup>th</sup> floor ).
21. Hanife Macit (flat 133, 16 <sup>th</sup> floor ).

## OFFICIAL

22. Luena Perestrelo-Gomes (flat 183, 21 <sup>st</sup> floor ).
23. Lulya Benyam (flat 186, 21 <sup>st</sup> floor ).
24. Christos Fairbairn (flat 124, 15 <sup>th</sup> floor ).
25. Marcio Gomes (flat 183, 21 <sup>st</sup> floor ).

- 03:56:06** Foxtrot 446, East Ham's FRU is mobilised (Source: 'Vision': GTIRT17-02791).
- 03:56:10** BA Team 38: CM Diana and Firefighter Nelson enter the community room from the main lobby (Source: CCTV: Camera 4).
- 03:56:29** BA Team 43: CM Gray, Firefighter Pegram, Firefighter G Hiscock, Firefighter Holehouse and Firefighter Hudson start up their BA sets in the main lobby then proceed towards the BAACP in the stair lobby (Source: BA Data, GTIRT17-02820, CCTV: Camera 4).
- 03:56:30** AC Roe leaves the main lobby and proceeds into the community room (Source: CCTV: Camera 4).
- 03:56:35** Alpha 346, Edmonton's FRU is mobilised (Source: 'Vision': GTIRT17-02791).
- 03:57** BA Team 42: Firefighter Cuthbert, Firefighter Sonson, Firefighter Lawrence and Firefighter Wood meet back together between the fourth and seventh floor and begin to search the flats. They split into two teams to search the flats and can see steam coming off their PPE as the temperatures inside the flats are extremely hot (Source: MPS Witness Statement: GTIRT18-01839, GTIRT18-01844, GTIRT18-01072, GTIRT18-00996, BA Data: GTIRT17-02820).
- 03:57:23** CM Morrison writes in chinagraph pencil on the green wall in the stair lobby (Source: CCTV: Camera 2).
- 03:57:28** CRO Russell takes a call from a caller stating that her father-in-law is trapped in flat 83 on the 11th floor and that she has told him all the advice that Control gave her previously but she is worried because he is old, registered disabled, blind and partially deaf. The caller advises that her father-in-law has said that the door is red hot and that she has told him to block everything up with wet blankets and to get down low. CRO Russell advises that the crews are trying their absolute best and she will pass this update to them and the caller says that he is still alive and desperate. Incident Number 76333, Call Duration two minutes 47 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00759).
- 03:57:30** GM Goulbourne talks to BAECO, WM De Silvo, WM O'Keeffe and GM Welch in the stair lobby (Source: CCTV: Camera 2).
- 03:57:30** Firefighter Ian Moore enters the main lobby via the community room (Source: CCTV: Camera 4).

## OFFICIAL

- 03:57:44** SOM Smith takes a call from Matthew Hogan from LRG and explains that a DSE is urgently required at the scene but the Brigade are struggling to get an estimated time of arrival from the Local Council. She expresses that there is a concern that the building might collapse any moment and Matthew says he will try calling them (Source: NICE, Admin Phone Line Audio file: GTIRT18-01188).
- 03:57:47** CRO Howson takes a call from a male who is reporting that he can see people waving for help in Grenfell Tower on the West side of the building. The caller is unable to give an exact floor or flat but says it is about a third of the way up and that he thinks it is a woman. CRO Howson confirms that she will pass it on to the crews. Incident Number 76334, Call Duration one minute 48 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00760).
- 03:57:47** SM Wolfenden talks to several unidentified firefighters and CMs who enter the main lobby via the community room whilst wearing EDDBA and SDBA not under air (Source: CCTV: Camera 4).
- 03:57:58** SM Cook enters the main lobby wearing SDBA not under air (Source , CCTV: Camera 4, MPS Witness Statement: GTIRT17-02922).
- 03:58:00** AC Roe's decision log records that the Commissioner makes a command decision to allow EDDBA sets to be worn more than once and all EDDBA in the Brigade is to be ordered to the incident. DAC Drawbridge is given the role of Sector Commander, Command Support (Source: MPS Witness Statement: GTIRT18-00944, AC Roe Decision Log: GTIRT17-02438, Contemporaneous Notes: GTIRT17-00866).
- 03:58:06** Foxtrot 446, East Ham's FRU book Status 2, mobile to Grenfell Tower. Foxtrot 446 is riding with Firefighter Adrian Tyldesley, Firefighter Marc Thorpe, Firefighter Richard Thomas, Firefighter Steven Somers and CM Martin Stevenson (Source: 'Vision': GTIRT17-02791).
- 03:58:15** Hotel 316, Croydon's FRU book Status 2 mobile to Grenfell Tower. Hotel 316 is riding with Firefighter Constantine Nwagwu, Firefighter Martin Hooper, Firefighter Thomas Dotchin, Firefighter Thomas Bunday and CM Dominic Fearnley (Source: 'Vision': GTIRT17-02791).
- 03:58:18** Echo 286, Bexley's FRU book Status 2 mobile to Grenfell Tower. Echo 286 is riding with Firefighter Andrew McArthur, Firefighter Kenneth LeMarrec, Firefighter Neil Franklin and CM Carl Ramsay (Source: 'Vision': GTIRT17-02791).
- 03:58:19** BA Team 43: CM Gray, Firefighter Pegram, Firefighter G Hiscock, Firefighter Holehouse and Firefighter Hudson report to the BAECO under air. The BAECO briefs them to go to the ninth floor for search and rescue. They are not told to take water with them as a SDBA crew will be deployed behind them to protect their egress (Source: MPS Witness Statement: GTIRT18-00317, GTIRT18-01427, GTIRT18-00982, BA Data: GTIRT17-02820).

## OFFICIAL

- 03:58:55** BA Team 43: Firefighter Pegram, CM Gray, Firefighter G Hiscock and Firefighter Holehouse start to ascend the stairs to the ninth floor carrying a large axe, two TICs, a sledgehammer, an enforcer and a Halligan bar (Source: CCTV: Camera 2).
- 03:59:13** Alpha Tango 1, Lambeth's CBRN Rapid Response Team (RRT) are mobilised (Source: 'Vision': GTIRT17-02791).
- 03:59:41** Alpha Tango 1, Lambeth's CBRN RRT book Status 2, mobile to Grenfell Tower. Alpha Tango 1 is riding with WM David Watts, WM Jonathan Underwood, WM Colby Smith and WM Peter Cooper (Source: 'Vision': GTIRT17-02791).
- 03:59:45\*** BA Team 42: Firefighter Cuthbert, Firefighter Lawrence, Firefighter Sonson and Firefighter Wood ascend the stairs between the fifth and the seventh floors. The crew splits into two teams and Firefighter Lawrence and Firefighter Wood search an unidentified flat between the fifth and the seventh floor but do not find any casualties. Firefighter Woods LPWA actuates and he withdraws back to the stairwell alongside Firefighter Lawrence. *At around the same time, Firefighter Cuthbert and Firefighter Sonson search unidentified flats (on what they believe is either the sixth or seventh floor) but do not find any casualties. Firefighter Sonson contacts the BAECO, via his fire ground radio, to inform them that no casualties have been found. The unidentified BAECO asks them to go to flat 84 for further search and rescue* (Source: MPS Witness Statement: GTIRT18-01839, GTIRT18-01844, GTIRT18-01072, GTIRT18-00996, BA Data: GTIRT17-02820).
- 03:59:48** Alpha 346, Edmonton's FRU book Status 2, mobile to Grenfell Tower. Alpha 346 is riding with CM Timothy Cutbill, Firefighter Andrew Wright, Firefighter Andrew Vango and Firefighter Steven Boulton (Source: 'Vision': GTIRT17-02791).
- 04:00** Firefighter Cuthbert and Firefighter Sonson from BA Team 42 search the 11<sup>th</sup> floor but do not locate any casualties (Source: MPS Witness Statement: GTIRT18-01839, GTIRT18-01844, GTIRT18-01072, GTIRT18-00996, BA Data: GTIRT17-02820).

Further calls are taken by Brigade Control from residents or callers from outside the building with specific details of those who are still inside are included in the table below.

Time of call	Flat Number	Floor number	Number of people confirmed by caller	Remarks
03:31:47	124	15	One adult	This is a call from "Christos". He is told to leave the building and the CRO stays on the line while he makes his way out but the line drops out
03:33:41	173	20		Caller is from a friend outside the building in contact with a resident via Facebook. They are told to tell

				them to leave the building.
03:33:46	82	11	Two adults and one child	Caller gives her name as Natasha and her daughter is Shyla. They have tried to get out but cannot. Husband is also with them
03:33:46	133	16		Told to leave. Caller says they cannot get out.
03:38:26	204	"Top floor"		Daughter calls from outside the building reporting male resident who is disabled and unable to move without help.
03:45:01		16		Caller is a relative outside the building. Told to pass on advice to leave the building
03:51:19	73	10		Told to leave the building.
03:53:10	74	10	Two adults	This caller is outside calling on behalf of her sister who is with another friend. Given advise to pass onto the residents of leaving the building
03:57:28	83	11	One adult	Caller is daughter-in-law. Resident is elderly blind and disabled.

**04:00:02** An unidentified firefighter wearing a dust mask leaves the community room and proceeds into the main lobby. They pick up a Halligan bar, leave the main lobby and proceed into the community room (Source: CCTV: Camera 4).

**04:00:56** CRO Howson takes a call from a male who states that he can see people waving towels from the seventh or eighth floor on the side of the building that is facing Latimer Road station. CRO Howson confirms she will pass on the information to crews. Incident Number 76335, Call Duration 33 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00761).

**04:00:56** BA Team 47: CM Anderson, Firefighter Abbess, Firefighter Chart and Firefighter P Harris receive a briefing from GM Goulbourne in the main lobby. They state they are told to go to flats 81, 82, 83 and 84 (11<sup>th</sup> floor) (Source: MPS Witness Statement: GTIRT18-01426, GTIRT18-00425, Contemporaneous Notes: GTIRT17-00235, GTIRT17-00240, CCTV: Camera 3, Camera 4).

**04:01\*** BA Team 43: CM Gray, Firefighter Pegram, Firefighter G Hiscock, Firefighter Holehouse and Firefighter Hudson are ascending the stairs and reach what they believe is the ninth floor. As per their brief, they are aware that they will come into contact with two persons that have been assessed as dead by previous BA Teams. They pass one deceased casualty (now known to be Khadija Saye from flat 173, 20<sup>th</sup> floor). As they continue their ascent they still believe they are around the ninth floor and find a small child who is covered by a blanket (now known to be Isaac Shawo Paulos from flat 153, 18<sup>th</sup> floor) (Source: MPS Witness Statement: GTIRT18-00982, GTIRT18-01042, BA Data: GTIRT17-02820).

## OFFICIAL

- 04:01:02** CRO Russell at Brigade Control takes a call passed by a BT Operator in Portadown. The caller is the daughter of a resident who is in flat 204. She explains that she was speaking to him but he has now stopped responding and the last time she spoke to him he was struggling to breathe. CRO Russell explains that the crews are aware of her father being in there but does not know if crews have got to the flat or who has got out or been rescued. Incident Number 76336, Call Duration one minute 38 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00762).
- 04:01:05** SM Wolfenden is talking with WM Watson in the stair lobby, whilst looking at SM Wolfenden's notepad (Source: CCTV: Camera 2).
- 04:01:08** WM Williams is in the main lobby and is talking with an unidentified firefighter wearing EDDBA who is not under air and a CM not wearing BA. Once WM Williams finishes talking with the firefighter he continues to talk to the CM (Source: CCTV: Camera 4).
- 04:01:27** LRG respond to the pager message and are requested to contact Kensington and Chelsea regarding the borough surveyor/DSE (Source: 'Vision': GTIRT17-02791).
- 04:01:49** WM Watson leaves the main lobby and proceeds into the stair lobby (Source: CCTV: Camera 4).
- 04:01:55** WM Stewart (CU) leaves the stair lobby and proceeds into the main lobby listening to his fire ground radio (Source: CCTV: Camera 4).
- 04:01:40** AC Roe is in front of Kensington leisure centre at the east elevation of Grenfell tower and is talking to a very large group of officers and firefighters (Source, CCTV: Camera OPS1 Kensington leisure centre ).
- 04:02:25** WM Watson leaves the stair lobby and proceeds into the main lobby whilst using his fire ground radio. He briefly talks to WM Williams and SM Wolfenden. WM Williams uses his fire ground radio and SM Wolfenden writes something on the wall (Source: CCTV: Camera 4).
- 04:02:55** The Radio Operator at Brigade Control sends a message to CU8  
"Charlie Uniform 8 from M2FN, go ahead, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03145).
- 04:02:55** Echo 82, GM Charles Pugsley, books Status 2, mobile to Grenfell Tower. (Source: 'Vision': GTIRT17-02791).
- 04:03:00** CU8 send a radio message to the Radio Operator at Brigade Control.  
"FN, Charlie Uniform 8, for your information, the RVP for the EDDBA mobilisation –"  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03146).

## OFFICIAL

- 04:03:01** Echo 29 Alpha, Lee Green's OSU is mobilised to Grenfell Tower for additional EDDBA (Source: 'Vision': GTIRT17-02791).
- 04:03:10** CU8 continue the 'RVP' radio message to the Radio Operator at Brigade Control.  
"- is Ladbroke Grove junction of Elgin Avenue - I'll spell - Echo Lima Golf India November Avenue, Charlie Uniform 8."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03147).
- 04:03:13** Four unidentified firefighters leave the main lobby, proceed into the stair lobby and talk with GM Welch (Source: CCTV: Camera 2).
- 04:03:17** GM Cook (ORT) leaves the main lobby, proceeds into the stair lobby and talks with GM Goulbourne (Source: CCTV: Camera 2).
- 04:03:20** Firefighter Broderick, Firefighter O'Hanlon and one unidentified firefighter are in the main lobby and exit into the community room (Source: CCTV: Camera 4).
- 04:03:28** The Radio Operator at Brigade Control acknowledges receipt of the 'RVP' radio message.  
"Charlie Uniform 8, RVP for EDDBA is Ladbroke Grove junction of Elgin Avenue, received."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03148).
- 04:03:30** Hotel 38 Alpha, Sutton's OSU is mobilised to Grenfell Tower for additional EDDBA (Source: 'Vision': GTIRT17-02791).
- 04:03:42** Firefighter Wood and Firefighter Lawrence from BA Team 42 descend the stairs to the bridgehead in the stair lobby and report to CM Morrison (CCTV: Camera 2).
- 04:03:52** Romeo Whiskey 2, Radio Workshop engineer, Robert Donovan, books Status 2, mobile to Grenfell Tower (Source: 'Vision': GTIRT17-02791).
- 04:04\*** BA Team 43: CM Gray, Firefighter Pegram, Firefighter G Hiscock, Firefighter Holehouse and Firefighter Hudson reach the ninth floor. They conduct a left hand search and break into the first two flats which are empty (believed to be flat 61 and 62, ninth floor). Firefighter Pegram and Firefighter Holehouse use the enforcer to break into the third flat. They manage to create a hole in the door and Firefighter Pegram looks through and states *"the flat appears empty"*. CM Gray, Firefighter G Hiscock and Firefighter Hudson move to the fourth flat. Whilst searching this flat CM Gray receives a priority message via his fire ground radio instructing the team to go the 11<sup>th</sup> floor. CM Gray does not hear the whole message due to radio interference but instructs the team to make their way immediately to the 11<sup>th</sup> floor. CM Gray states *"I didn't know why we are being sent to the 11<sup>th</sup> floor, all I could hear was buzzing in my ear"* (Source: MPS Witness Statements: GTIRT18-00982, GTIRT18-01464, GTIRT18-00317).

## OFFICIAL

- 04:04:12** SM Walton leaves the stair lobby, proceeds into the main lobby and exits the building via the community room (Source: CCTV: Camera 4).
- 04:04:19** CRO Howson at Brigade Control takes a call from a female reporting that she can see someone on the seventh or eighth floor. CRO Howson explains that the Brigade is aware that there are still people inside and that they are telling people to leave. Incident Number 76338, Call Duration 31 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00764).
- 04:04:20** GM Cook (ORT) leaves the stair lobby, proceeds into the main lobby and exits the building via the community room (Source: CCTV: Camera 4).
- 04:04:22\*** Firefighter Lawrence from BA Team 42 removes his facemask and closes down his SDBA. *Firefighter Lawrence explains to the BAECO where they have searched* (Source: MPS Witness statement: GTIRT18-01839, GTIRT18-01072, BA Data GTIRT17-02820, CCTV: Camera 2).
- 04:04:24\*** Firefighter Wood from BA Team 42 removes his facemask and closes down his SDBA, *Firefighter Wood states "we get our BA tallies back from entry control and they ask us if there are anymore casualties up there and we tell them the fifth floor is clear "*(Source: MPS Witness statement: GTIRT18-01839, GTIRT18-01072, BA Data GTIRT17-02820, CCTV: Camera 2).
- 04:04:33** SM Wolfenden and WM Watson leave the main lobby and proceed into the stair lobby. WM Williams calls after them and talks into his fire ground radio (Source: CCTV: Camera 4).
- 04:04:48** Firefighter Wood and Firefighter Lawrence from BA team 42 are talking with WM O'Keeffe and CM Morrison whilst pointing at information that has been recorded on the green wall in the stair lobby (Source: CCTV: Camera 2).
- 04:05:01** BA Team 44: SM Cook and CM Gallagher enter the stair lobby and report to CM Morrison who is the BAECO at the bridgehead (Source: CCTV: Camera 2).
- 04:05:22** WM Dowden leaves the community room and proceeds to the stair lobby but then listens to his fire ground radio and heads back towards the wall situated next to the community room door (Source: CCTV: Camera 4).
- 04:05:50** WM Dowden is talking with WM Watson on the stairs in the stair lobby (Source: CCTV: Camera 2).
- 04:06** AC Roe, on CU8, is informed that every EDBA set in the LFB has been ordered by Commissioner Cotton with a RVP for the resources established at Ladbroke Grove, at the junction with Elgin Crescent (Source: MPS Witness Statement: GTIRT18-00944, Contemporaneous Notes: GTIRT17-00866, AC Roe Decision Log: GTIRT17-02438, GTI Transcript: GTIRT18-04270).
- 04:06** AC Roe, on CU8, records within his decision log that Commissioner Cotton has confirmed that EDBA and SDBA can be worn on more than one occasion. AC Roe confirms this matches his



## OFFICIAL

assessment of resource requirements (Source: MPS Witness Statement: GTIRT18-00944, GTIRT17-01254, Contemporaneous Notes: GTIRT17-00866, AC Roe Decision Log: GTIRT17-02438, GTI Transcript: GTIRT18-04270).

**04:06:25** Firefighter Wood, from BA Team 42, leaves the stair lobby, proceeds into the main lobby wearing SDBA, not under air and talks with WM Watson (Source: CCTV: Camera 4).

**04:06:28** Brigade Control sends a radio message to Echo 286, Bexley's FRU

"Echo 286 from M2FS, go ahead, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03150).

**04:06:37** Brigade Control sends another radio message to Echo 286, Bexley's FRU

"Echo 286, go ahead, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03151).

**04:06:44** Brigade Control sends a third radio message to Echo 286, Bexley's FRU

"Echo 286, Echo 286, go ahead, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03152).

**04:06:44** CRO Duddy at Brigade Control takes a call from a male outside Grenfell Tower who is calling to inform the Brigade that there is a woman, man and child on the 11<sup>th</sup> floor of Grenfell Tower. He is not in the building but can see them from his location. Incident Number 76339, Call Duration 32 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00765).

**04:06:49** Echo 286, Bexley's FRU, sends a radio message to Brigade Control

"FN from Echo 286, now on this channel, proceeding to incident."

**04:06:58** The Radio Operator at Brigade Control confirms receipt of the message from Echo 286, Bexley's FRU

"- received, FN out."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03154).

**04:07** BA Team 42: Firefighter Cuthbert (This is the second time Firefighter Cuthbert wears BA at the incident) and Firefighter Sonson ascend the stairs to the 10<sup>th</sup> floor and find a casualty in the stairwell. Both team members attempt to move the casualty but are unable to do so (this is now known to be Khadija Saye from flat 173, 20<sup>th</sup> floor). Firefighter Sonson states that he tries to revive the casualty by shaking them and he tries to find a pulse but there is not one. Firefighter Sonson attempts to send a radio message to the BAECO however he does not get a response (Source: MPS Witness Statements: GTIRT18-00996, GTIRT18-01844, BA Data GTIRT17-02820).

## OFFICIAL

- 04:07:01** BA Team 44: SM Cook and CM Gallagher report to the BAECO, remove their BA tallies and start breathing under air (Source: MPS Witness Statement: GTIRT18-00929, CCTV: Camera 2).
- 04:07:14** SM Myatt leaves the stair lobby, proceeds into the main lobby and talks to an unidentified CM and three unidentified firefighters who are not wearing BA (Source: CCTV: Camera 4).
- 04:07:20** WM O'Keeffe leaves the stair lobby, proceeds into the main lobby and talks briefly to SM Myatt (Source: CCTV: Camera 4).
- 04:07:28** CRO Gotts at Brigade Control takes a call from Kent FRS who explain that they are on the phone to a caller in flat 73 on the 10<sup>th</sup> floor and have been for one hour and 10 minutes (GTIRT17-01838, GTIRT17-01839). The Kent FRS Radio Operator explains that the caller has tried to leave three times but that they are unable to get out and asks how long they should stay on the phone for. CRO Gotts explains that London are unable to stay on the phone that long because they have had so many calls coming through. The two Radio Operators exchange some detail about other calls they have taken and then CRO Gotts says she cannot offer any further advice to Kent FRS other than they should try and get people to leave if they can. CRO Gotts states that she will pass the details to crews. Incident Number 76340, Call Duration two minutes 18 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00766).
- 04:07:35** CRO Russell at Brigade Control takes a call from a male who reports that there is a person trapped on the sixth floor on the side of the building facing Latimer Road station. CRO Russell confirms this as being on the left hand side looking at the front door of the building. The person has been waving out of the window for about half an hour. CRO Russell confirms that she will pass this information to the crews. Incident Number 76341, Call Duration 54 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00767).
- 04:07:42** GM Goulbourne and GM Welch finish having a talk in the stair lobby. GM Goulbourne then ascends the stairs from the stair lobby (Source: CCTV: Camera 2).
- 04:07:50** Two Positive Pressure Ventilation Fans (PPV) are being taken down the slope outside Kensington leisure centre towards Grenfell Tower by two unidentified firefighters (Source, CCTV: Camera OPS1 Kensington leisure centre).
- 04:08:05** SM Myatt finishes talking to an unidentified CM and three unidentified firefighters in the main lobby. They all pick up lengths of 70mm fire hose and breaking in equipment, they then leave the main lobby and proceed into the stair lobby (Source: CCTV: Camera 4).
- 04:08:14** BA Team 47: CM Anderson, Firefighter Abbess, Firefighter Chart and Firefighter P Harris are talking to SM Wolfenden in the main lobby (Source: CCTV: Camera 3).

## OFFICIAL

- 04:08:26** An unidentified CM and two unidentified firefighters enter the stair lobby carrying lengths of 70mm fire hose. GM Welch gestures up to the second floor mezzanine and they start to ascend the stairs carrying the equipment (Source: CCTV: Camera 2, Camera 5).
- 04:08:33** Radio Operator at Brigade Control sends a radio message to CU8.  
"Charlie Uniform 8 from M2FN, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03155).
- 04:08:37** CU8 responds to the Radio Operator at Brigade Control  
"Charlie Uniform 8, go ahead."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03156).
- 04:08:40** The Radio Operator at Brigade Control sends a radio message to CU8  
Radio Operator: "Charlie Uniform 8, we've got 78 EDDBA –"  
CU8: "Cylinders."  
Radio Operator: "-er, cylinders with 48 sets on scene. Um, they've arrived before we've got your RVP, so, they are on scene but not necessarily at the RVP, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03157).
- 04:08:41** BA Team 44: SM Cook and CM Gallagher ascend the stairs from the stair lobby (Source: CCTV: Camera 2).
- 04:08:48** Two unidentified firefighters leave the main lobby and proceed into the stair lobby carrying breaking in equipment and 70mm fire hose. They ascend the stairs carrying the equipment (Source: CCTV: Camera 2).
- 04:08:58** CU8 acknowledge receipt of the radio message from the Radio Operator at Brigade Control.  
"FN, Charlie Uniform 8, all received, many thanks."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03158).
- 04:09\*** BA Team 42: Firefighter Cuthbert and Firefighter Sonson, continue to ascend the stairs in order to rescue the casualties they had been previously radioed about in Flat 84, 11<sup>th</sup> floor. This radio message was received at around **03:59:45** from a BAECO. They get to the stair lobby area on the 10<sup>th</sup> or 11<sup>th</sup> floor and both hear someone screaming for help. Firefighter Cuthbert states "*we looked up and the doorway to the lobby area was opening and this woman is there... we ran up to the next floor and go into the lobby area and their flat is the second on the left. We go through the door into the lobby area on the 10<sup>th</sup> floor, that whole left hand side is alight*". Firefighter Cuthbert is still leading and sees two female casualties, one in the stair lobby and the other

## OFFICIAL

hanging on to the door (believed to be Lina Hamide and Meron Woledeslassie-Araya from flat 74, 10<sup>th</sup> floor). Firefighter Cuthbert and Firefighter Sonson each take a casualty and descend the stairs (Source: MPS Witness Statement: GTIRT18-00996, GTIRT18-01844, BA Data: GTIRT17-02820).

- 04:09:09** BA Team 44: SM Cook and CM Gallagher ascend the stairs between the ground floor and the second floor mezzanine level and talk to GM Goulbourne (Source: CCTV: Camera 5).
- 04:09:18** WM Watson leaves the main lobby and proceeds into the stair lobby holding a white piece of paper. He hands it to WM O'Keeffe and talks with him, CM Morrison and WM De Silvo (Source: CCTV: Camera 2).
- 04:09:26** SM Myatt leaves the stair lobby, proceeds into the main lobby and talks to several unidentified firefighters wearing EDBA but not under air. SM Myatt points towards the community room door then up towards the mezzanine levels several times. The EDBA wearers all look up then exit the main lobby into the stair lobby. One unidentified firefighter picks up a length of 70mm fire hose and proceeds into the stair lobby following the other unidentified firefighters (Source: CCTV: Camera 4).
- 04:09:33** GM Goulbourne descends the stairs into the stair lobby (Source: CCTV: Camera 5).
- 04:09:49** GM Goulbourne is in the stair lobby carrying a WM fire helmet (Source: CCTV: Camera 2).
- 04:10:01** Echo 29 Alpha, Lee Green's OSU book status 2, mobile to Grenfell Tower. (Source: 'Vision': GTIRT17-02791).
- 04:10:05** BA Team 45: Firefighter Worman, Firefighter Page and BA Team 46: Firefighter Desforges and Firefighter R Mitchell leave the main lobby, proceed into the stair lobby and talk with GM Goulbourne whilst wearing SDBA, not under air (Source: CCTV: Camera 2).
- 04:10:08** SM Wolfenden and WM Williams are having a talk and WM Williams is pointing towards the community room door (Source: CCTV: Camera 4).
- 04:10:10** BA Team 45: Firefighter Page and Firefighter Worman and BA Team 46: Firefighter Desforges and Firefighter R Mitchell are at the bridgehead in the stair lobby where they are briefed by GM Goulbourne. They are briefed to go to the fourth floor to firefight and get a working fire hose and then proceed to the fifth floor and fire fight. This is the second time Firefighter Desforges and Firefighter R Mitchell wear BA at the incident (Source: MPS Witness Statement: GTIRT18-00652, GTIRT18-02932, GTIRT18-01284, GTIRT18-01846, CCTV Camera 2).
- 04:10:44** Firefighter Welden leaves the main lobby and proceeds into the stair lobby wearing EDBA, not under air. They are carrying one 70mm fire hose and ascend the stairs with the equipment (Source: CCTV: Camera 2).

## OFFICIAL

- 04:10:46** WM Stewart (CU) leaves the stair lobby and proceeds into the main lobby listening to his fire ground radio (Source: CCTV: Camera 4).
- 04:10:57** CRO Russell at Brigade Control takes a call from a female reporting that her sister is in flat 74 on the 10<sup>th</sup> floor (**03:53:10** GTIRT17-00758) and has managed to get the front door open and is making her way down the stairs. The caller has not heard from her to say they are outside but she thinks they are on their way. CRO Russell says she will pass on the information to crews. Incident Number 76343, Call Duration 58 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00768).
- 04:11\*** BA Team 42: Firefighter Cuthbert and Firefighter Sonson are in the stairwell on the fifth floor leading two casualties out (believed to be Lina Hamide and Meron Woledeslassie-Araya from flat 74, 10<sup>th</sup> floor) when one collapses (now known to be Lina Hamide). Firefighter Sonson and Firefighter Cuthbert carry this casualty down the remaining stairs to the BAECO where other firefighters take the casualties from them. *One of the casualties is described by Firefighter Cuthbert as having long black hair, very slim, in their twenties, wearing white top and jeans, the other casualty looks very similar. Firefighter Cuthbert states that after handing over the two casualties he and Firefighter Sonson go back up to the casualty on the 10<sup>th</sup> floor stairs (now known to be Khadija Saye from flat 173, 20<sup>th</sup> floor). Firefighter Cuthbert states that he cannot move her and describes, at one point, another BA Team (currently unidentified) coming to help "but we just could not move her"* (Source: MPS Witness Statements: GTIRT18-00996, GTIRT18-01844, BA Data GTIRT17-02820).
- 04:11\*** BA Team 44: SM Cook and CM Gallagher are on the third floor. CM Gallagher reports the conditions as being hotter this time (CM Gallagher has already worn BA at this incident, this is his second wear) stating that he guesses this is because all of the flats have started to catch alight and it wasn't just the outside of the building on fire anymore (Source: MPS Witness Statement GTIRT18-00929).
- 04:11:06** CM Batterbee leaves the community room, proceeds into the main lobby and speaks to SM Wolfenden and WM Williams (Source: CCTV: Camera 4).
- 04:11:14** Firefighter Desforges from BA Team 46 starts breathing under air at the bridgehead in the stair lobby (Source: CCTV: Camera 2).
- 04:11:20** BA Team 45: Firefighter Worman and Firefighter Page are at the bridgehead in the stair lobby. They put their facemasks on and start breathing under air, confirm their brief with GM Goulbourne and then report to the BAECO (Source: CCTV Camera 2, MPS Witness Statements: GTIRT18-01284, GTIRT18-01846).
- 04:11:21** Firefighter R Mitchell from BA Team 46 starts breathing under air at the *bridgehead* in the stair lobby (Source: CCTV: Camera 2).

## OFFICIAL

- 04:11:35** The Radio Operator at Brigade Control sends a radio message to CU8  
"Charlie Uniform 8 from M2FN, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03160).
- 04:11:38** CU8 respond to the Radio Operator at Brigade Control.  
"FN, Charlie Uniform 8, go ahead."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03161).
- 04:11:40** The Radio Operator at Brigade Control provides an update to CU8.  
"Charlie Uniform 8, er, UK Power Networks are on site and they have further resources en route, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03162).
- 04:11:48** CU8 acknowledge receipt of the information received from the Radio Operator at Brigade Control.  
"FN, Charlie Uniform 8, all received, many thanks."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03163).
- 04:12:18** WM Watson leaves the stair lobby and proceeds into the main lobby, listening to his fire ground radio (Source: CCTV: Camera 4).
- 04:12:26** Firefighter Henley and Firefighter Toppin ascend the stairs from the stair lobby. They are not wearing BA (Source: CCTV: Camera 2).
- 04:12:27** CRO Duddy at Brigade Control takes a call from a male caller who has already called to let the Brigade know about someone waving a towel from the eighth floor and is wondering if anything will be done. CRO Duddy thanks the caller and says he will pass it on to crews. Incident Number 76344, Call Duration 25 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00769).
- 04:12:29** WM De Silvo ascends the stairs from the stair lobby (Source: CCTV: Camera 2).
- 04:12:31** WM Watson takes some papers from SM Wolfenden and the main lobby and into the stair lobby (Source: CCTV: Camera 4).
- 04:12:35** BA Team 46: Firefighter Desforges and Firefighter R Mitchell report to the BAECO, remove their BA tallies and ascend the stairs from the bridgehead in the stair lobby, carrying a TIC (Source: CCTV: Camera 2, BA Data: GTIRT17-02820).

## OFFICIAL

- 04:12:45** BA Team 47: CM Anderson, Firefighter Abbess, Firefighter Chart and Firefighter P Harris are in the main lobby wearing EDBA and not under air. They are speaking with GM Goulbourne for the second time (Source: CCTV: Camera 4).
- 04:12:46** SM Walton leaves the stair lobby, proceeds into the main lobby and exits the building via the community room (Source: CCTV: Camera 4).
- 04:13:02** Lina Hamide from flat 74, 10<sup>th</sup> floor is carried down the stairs into the stair lobby in a firefighters lift (over his shoulder) by Firefighter Butler (Source: CCTV Camera 2 ).
- 04:13:03** Firefighter Sonson from BA Team 42 wearing SDBA and under air, descends the stairs to the bridgehead in the stair lobby and waits for his BA partner Firefighter Cuthbert (Source: CCTV: Camera 2).
- 04:13:05** An unidentified firefighter descends the stairs to the stair lobby assisting Meron Woledeslassie-Araya. They proceed into the main lobby (Source: CCTV: Camera 2).
- 04:13:07** Firefighter Butler enters the main lobby, still carrying Lina Hamide in a firefighters lift, she is wrapped in a blanket and they exit the building via the community room (Source: CCTV: Camera 4).
- 04:13:07** Firefighter Cuthbert from BA Team 42 descends the stairs to the bridgehead in the stair lobby. They brief WM O'Keeffe that they have searched the fourth, fifth, sixth, 10<sup>th</sup> and 11<sup>th</sup> floors rescuing Lina Hamide and Meron Woledeslassie-Araya from flat 74, on the 10<sup>th</sup> floor (Source: MPS Witness Statements: GTIRT18-00996, GTIRT18-01844. BA Data: GTIRT17-02820, CCTV: Camera 2).
- 04:13:09** The Radio Operator at Brigade Control sends a radio message to Alpha 346, Edmonton's FRU  
"Alpha 346 from M2FN, go ahead, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03165).
- 04:13:10** Meron Woledeslassie-Araya from flat 74, 10<sup>th</sup> floor walks through the main lobby assisted by an unidentified firefighter (Source: CCTV: Camera 4).
- 04:13:12** Alpha 346, Edmonton's FRU, sends a radio message to the Radio Operator at Brigade Control.  
"FN, Alpha 346, was the RVP for this incident Elgin Avenue or Elgin Crescent? Over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03166).
- 04:13:20** BA Team 45: Firefighter Worman and Firefighter Page ascend the stairs from the bridgehead in the stair lobby. Firefighter Page is carrying a TIC (Source: CCTV: Camera 2).

## OFFICIAL

- 04:13:21** Meron Woledesslassie-Araya talks with WM Williams before the main lobby the community room assisted by an unidentified firefighter and followed by WM Stewart (CU) (Source: CCTV: Camera 4).
- 04:13:23** The Radio Operator at Brigade Control responds to Alpha 346, Edmonton's FRU's radio message.  
"Er, do you - are you with EDDBA? Over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03167).
- 04:13:27** Alpha 346, Edmonton's FRU, sends a radio message in response to the Radio Operator at Brigade Control  
"Answer yes, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03168).
- 04:13:30** WM Watson leaves the community room and proceeds into the main lobby whilst using his fire ground radio (Source: CCTV: Camera 4).
- 04:13:31** The Radio Operator at Brigade Control confirms the RVP for Alpha 346, Edmonton's FRU.  
"Er, it's, um, Ladbroke Grove, junction of Elgin Avenue, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03169).
- 04:13:39** BA Team 50: Firefighter Hanlon and Firefighter Benaicha leave the community room and proceed into the main lobby wearing SDBA, not under air. They are approached by an unidentified firefighter who does not have a BA partner. All three have a talk with WM Watson (Source: CCTV: Camera 4).
- 04:13:39** Alpha 346, Edmonton's FRU, acknowledge receipt of the information received from the Radio Operator at Brigade Control.  
"All received, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03170).
- 04:13:43** The Radio Operator at Brigade Control sends a radio message to CU8.  
"Charlie Uniform 8 from M2FN, go ahead, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03171).
- 04:13:47** CU8 sends a radio message to the Radio Operator at Brigade Control  
"FN, Charlie Uniform 8, reference that last message's rendezvous point, apologies, it's Elgin Crescent, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03172).



## OFFICIAL

- 04:13:50** Firefighter Juggins is outside Grenfell Tower and commences a fire ground 'A' test and then returns to the grass area to wait for further deployment (Source: MPS Witness Statement: GTIRT18-01010, BA Data: GTIRT17-02820).
- 04:13:54** WM De Silvo descends the stairs into the stair lobby (Source: CCTV: Camera 2).
- 04:13:55** WM Stewart (CU), leaves the community room carrying two telemetry repeaters and proceeds to the stair lobby (Source: CCTV: Camera 4).
- 04:13:56** CRO Gotts at Brigade Control takes a call from the BT Operator in Dundee trying to connect a caller who has cleared the line and passes the number to CRO Gotts. CRO Gotts says she will call back. Incident Number 76345, Call Duration 29 Seconds (Source: BOSS Viewer, 999 Audio file: GTIRT18-03380). This is grouped with the call back at **04:16:21**.
- 04:13:57** The Radio Operator at Brigade Control confirms receipt of the radio message from CU8.  
"Received."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03173).
- 04:13:59** A length of 70mm fire hose is lowered down into the main lobby from the second floor mezzanine by a unidentified firefighter (Source: CCTV: Camera 4, Camera 5).
- 04:14\*** BA Team 43: CM Gray, Firefighter Pegram, Firefighter G Hiscock, Firefighter Holehouse and Firefighter Hudson reach the 11<sup>th</sup> floor. CM Gray enters the lobby and is faced with extreme heat. He places his gloved hand against a door and immediately feels the heat. As the rest of the team enter they tell CM Gray it is getting really hot. *CM Gray states "I stood up and I am not sure why the heat had changed, but I stood up to talk to the crew I felt instant heat through my flash hood onto the back of my neck". CM Gray makes the decision that it is too dangerous and orders the crew off the floor. CM Gray tells the team to move to the 10<sup>th</sup> floor (although this is not in any of the briefs they have been given). CM Gray tries to contact the BAECO using either his fire ground radio or BARIE but is unsuccessful* (Source: MPS Witness Statements: GTIRT18-00982, GTIRT18-00317, GTIRT18-01042, GTIRT18-01464).
- 04:14:05** WM Stewart (CU) leaves the main lobby and proceeds into the stair lobby carrying two telemetry repeaters and talks with CM Morrison (Source: CCTV: Camera 2).
- 04:14:26** SM Walton leaves the community room and proceeds into the main lobby holding his handheld airwave radio and talks with SM Myatt. He then returns to the community room (Source: CCTV: Camera 4).
- 04:14:28** The Radio Operator at Brigade Control sends a radio message to Alpha 346, Edmonton's FRU  
"Alpha 346 from M2FN, over."

## OFFICIAL

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03174).

**04:14:29** Firefighter Welden wearing EDDBA from BA team 48 and not under air descends the stairs into the stair lobby and proceeds into the main lobby (Source: CCTV: Camera 2).

**04:14:32** Alpha 346, Edmonton's FRU, send a radio message to the Radio Operator at Brigade Control  
"FN, Alpha 346, go ahead, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03175).

**04:14:37** The Radio Operator at Brigade Control send a radio message to Alpha 346, Edmonton's FRU  
"Um, did you just call me up with an RV - for the RVP? Over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03176).

**04:14:37** CM McAlonen is outside Grenfell Tower and commences a fire ground 'A' test. *CM McAlonen returns to the grass area to wait for further deployment (Source: MPS Witness Statement: GTIRT18-01417).*

**04:14:42** Alpha 346, Edmonton's FRU, responds to the radio message from the Radio Operator at Brigade Control at **04:14:37**

"Answer yes, over. Intercepted the message from CU8, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03177).

**04:14:42** BA Team 50: Firefighter Hanlon and Firefighter Benaicha are talking to WM Watson along with Firefighter Dean (BA Team 59) in the main lobby (Source: CCTV: Camera 4).

**04:14:46** BA Team 47: CM Anderson, Firefighter Abbess, Firefighter Chart and Firefighter P Harris are talking to CM Morrison in the main lobby (Source: CCTV: Camera 3).

**04:14:50** The Radio Operator at Brigade Control send a message to Oscar Foxtrot 72, SM Nicholas Harding.

"Oscar Foxtrot 72, go ahead over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03178).

**04:14:54** Oscar Foxtrot 72, SM Nicholas Harding books Status 3, in attendance, at Grenfell Tower. He is the ninth SM in attendance.

"Foxtrot 72 now status 3, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03179, 'Vision': GTIRT17-02791).

**04:14:58** The Radio Operator at Brigade Control acknowledges receipt of the Status 3 message.

## OFFICIAL

"Status 3, received."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03180).

**04:15:10** WM Stewart (CU) begins to set up telemetry repeater two at the bridgehead in the stair lobby. The picture below shows WM Stewart (CU) with telemetry repeater number two (Source: CCTV: Camera 2).



**04:15:10** The Radio Operator at Brigade Control send a radio message to Foxtrot 21 Alpha, Stratford's OSU  
"Foxtrot 21 Alpha, go ahead, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03181).

**04:15:14** BA Team 42: Firefighters Sonson and Firefighter Cuthbert enter the main lobby and talk with firefighters who are waiting to be briefed and committed (Source: CCTV: Camera 4).

**04:15:17** The Radio Operator at Brigade Control send another radio message to Foxtrot 21 Alpha, Stratford's OSU

"Foxtrot 21 Alpha, go ahead, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03182).

**04:15:20** Foxtrot 21 Alpha, Stratford's OSU, respond to a radio message from the Radio Operator at Brigade Control

"FN from Foxtrot 21 Alpha, can you tell me the RVP for the OSU, over?"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03183).

**04:15:29** The Radio Operator at Brigade Control requests Foxtrot 21 Alpha, Stratford's OSU to standby and asks CU8 to go ahead.

"Yeah, standby. Charlie Uniform 8, over."

## OFFICIAL

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03184).

**04:15:35** CU8 responds to the Radio Operator at Brigade Control.

"FN, Charlie Uniform 8, go ahead, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03185).

**04:15:39** The Radio Operator at Brigade Control responds to CU8

"Charlie Uniform 8, erm, for the OSU, do you want them to go to Ladbroke Grove and Elgin Crescent, over?"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03186).

**04:15:48** CU8 respond to the Radio Operator at Brigade Control.

"FN, Charlie Uniform 8, it's reference if they're carrying water, erm, if they can get as close to the incident as they can as the water is needed on the fire ground. Charlie Uniform 8, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03187).

**04:16** BA Team 43: CM Gray, Firefighter Pegram, Firefighter G Hiscock, Firefighter Holehouse and Firefighter Hudson reach the 10<sup>th</sup> floor. CM Gray states he knew that there were people on the 10<sup>th</sup> floor in flats 70, 71 and 72 from his earlier briefing. On entering the lobby of the 10<sup>th</sup> floor the team hear a faint scream for help. Firefighter G Hiscock states they check flats 71 and 72 and hear shouting and screaming coming from flat 73. The team make their way to the flat where the screaming is coming from and enter the flat. They find one male and three females casualties inside (now known to be Adam Supareogsanond, Waewta Supareogsanond, Ann Chance and Chalalai Supareogsanond from flat 73, 10<sup>th</sup> floor) (Source: MPS Witness Statement: GTIRT18-00317, GTIRT18-00982, GTIRT18-01042, GTIRT18-01464, BA Data GTIRT17-02820).

**04:16:00** The Radio Operator at Brigade Control acknowledges receipt of the radio message from CU8.

*"Received. Did you receive that, OSU, over?"*

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03188).

**04:16:09** Foxtrot 21 Alpha, Stratford's OSU, confirm receipt of the radio message from the Radio Operator at Brigade Control.

"FN from Foxtrot 21 Alpha, all received. Do you know what road will be the closest to the fire ground, over?"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03189).

**04:16:17** The Radio Operator at Brigade Control responds to a radio message received from Foxtrot 21 Alpha, Stratford's OSU.

## OFFICIAL

"Yeah, the, erm, original RVP was Bramley Road, erm, enter in via Holland Park Avenue, so Bramley Road is very close, erm, if you can get down there or Bomore Road also, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03190).

**04:16:20** The uncharged 70mm fire hose from the second floor mezzanine is pulled through the community room by an unidentified firefighter, wearing EDBA but not under air (Source: CCTV: Camera 4, Camera 5).

**04:16:34** Foxtrot 21 Alpha, Stratford's OSU, confirm receipt of the radio message from the Radio Operator at Brigade Control.

"FN Foxtrot 21 Alpha, all received, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03191).

**04:16:41\*** *BA Team 44: SM Cook and CM Gallagher reach the sixth floor, although CM Gallagher believes he is on the 12<sup>th</sup> floor and enter the lobby area which is warm and has a low black smoke layer. He finds a fire hose with no water pressure and breaking in gear which he uses to gain entry into a flat. SM Cook states there was a report of a new FSG coming from a flat on the sixth floor (The FSG call log shows FSG information logged at 04:15 indicating people on a balcony on the west side). He knocks on all the doors but does not receive an answer. Using an enforcer they break the door handle making a hole and smoke rushes past them and is really hot, indicating a well developed fire behind the door. CM Gallagher states that SM Cook goes to the stairwell to take a breather. CM Gallagher states a BA team of two (currently unidentified) appear and they all try to gain entry into the other flats. He also states a lone firefighter (currently unidentified) appears and doesn't know who he is with or where the other members of his BA Team are. CM Gallagher tells him to stay with the other BA Team (Source: MPS Witness Statement: GTIRT18-00929, BA Data: GTIRT17-02820, FSG call log: GTIRT17-02353).*

**04:16:54** CRO Howson at Brigade Control takes a call from a male who is with vulnerable adults with learning difficulties outside Grenfell Tower in a flat located in Lancaster Road and wants to know if they need to evacuate. CRO Howson advises him that if they need to move someone will come and get them out. Incident number 76347, Call Duration one minute 23 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00771).

**04:16:59** Firefighter Desmond and Firefighter Cachia ascend the stairs from the stair lobby (Source: CCTV: Camera 2).

**04:17** BA Team 45: Firefighter Worman and Firefighter Page are on the fourth floor where they find a firefighting branch and fire hose. They enter the fourth floor and conduct a right hand search where they locate a flat with the front door open that is completely on fire (believed to be flat 16). They try to extinguish small pockets of fire within the flat but the water pressure is too low. BA

## OFFICIAL

Team 45 then use a TIC to search for casualties but do not locate any (Source: MPS Witness Statement: GTIRT18-01284, GTIRT18-01846, BA Data: GTIRT17-02820).

- 04:17:03** WM De Silvo ascends the stairs from the stair lobby (Source: CCTV: Camera 2).
- 04:17:05** An unidentified firefighter, not wearing BA, leaves the community room holding slips of paper and proceeds to stair lobby (Source: CCTV: Camera 4).
- 04:17:06** WM Dowden enters the main lobby and from the stair lobby and exits into the community room (Source: CCTV: Camera 4).
- 04:17:08** Foxtrot 21 Alpha, Stratford's OSU book Status 3, in attendance, at Grenfell Tower. This is the fourth OSU in attendance (Source: 'Vision': GTIRT17-02791).
- 04:17:10** SM Myatt leaves the main lobby and proceeds into the stair lobby carrying a firefighting branch and puts it down next to other equipment at the base of the stairs (Source: CCTV: Camera 2).
- 04:17:17** An unidentified firefighter leaves the main lobby and proceeds into the stair lobby, holding slips of paper, and ascends the stairs (Source: CCTV: Camera 2).
- 04:17:43** GM Goulbourne gives WM Dowden a firefighting branch whilst talking to him (Source: CCTV: Camera 2).
- 04:17:51** Hotel 38 Alpha, Sutton's OSU book status 2, mobile to Grenfell Tower. (Source: 'Vision': GTIRT17-02791).
- 04:17:52** An unidentified firefighter descends the stairs into the stair lobby holding slips of paper and hands them to CM Morrison (Source: CCTV: Camera 2).
- 04:18:03** WM Dowden ascends the stairs from the stair lobby carrying a firefighting branch (Source: CCTV: Camera 2).
- 04:18:15** Firefighter Cachia escorts Adam Supareogsanond from flat 73, 10<sup>th</sup> floor from the mezzanine floor level and they descend the stairs (Source: CCTV: Camera 3).
- 04:18:26** BA Team 43: CM Gray, Firefighter Pegram, Firefighter G Hiscock, Firefighter Holehouse and Firefighter Hudson are on the second floor mezzanine where they hand three casualties; Waewta Supareogsanond, Ann Chance and Chalalai Supareogsanond (from flat 73, 10<sup>th</sup> floor) over to several unknown firefighters who lead them down the stairs to the bridgehead in the stair lobby (Source: MPS Witness Statement: GTIRT18-00317, GTIRT18-01042, GTIRT18-01464, CCTV: Camera 3, Camera 5).
- 04:18:36** SM Wolfenden leaves the stair lobby, proceeds into the main lobby and talks with WM Williams. They both point at the main lobby wall (Source: CCTV: Camera 4).

## OFFICIAL

- 04:18\*** BA Team 46: Firefighter Desforges and Firefighter R Mitchell reach the fourth floor and locate a fire hose and carry out a right hand search. Firefighter R Mitchell *states some of the doors broke easily so we made holes in them and open the doors from the inside, then cleared all flats and used the fire hose which had low pressure which makes it hard to make an impact on flats that are 100% alight*" (Source: MPS Witness Statements: GTIRT18-00652, GTIRT17-02932, BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00109).
- 04:18:45** BA Team 47: CM Anderson, Firefighter Abbess, Firefighter Chart and Firefighter P Harris start breathing under air. They report to the BAECO at the bridgehead in the stair lobby and confirm their brief to go to flats 81, 82, 83 and 84 (11<sup>th</sup> floor) (Source: CCTV: Camera 2, MPS witness statement: GTIRT18-01446).
- 04:19:00** Firefighter N Sanders from BA Team 52 enters the main lobby from community room (Source: CCTV: Camera 4).
- 04:19:12** Adam Supareogsanond (Flat 73, 10<sup>th</sup> floor) is escorted down the stairs into the stair lobby by Firefighter Cachia (Source: CCTV: Camera 2).
- 04:19:15** Adam Supareogsanond (Flat 73, 10<sup>th</sup> floor) is escorted through the main lobby towards the community room exit by Firefighter Cachia (Source: CCTV: Camera 4).
- 04:19:21** Adam Supareogsanond has a brief talk with WM Watson before exiting the building with Firefighter Cachia via the community room (Source: CCTV: Camera 4).
- 04:19:29** WM De Silvo descends the stairs into the stair lobby (Source: CCTV: Camera 2).
- 04:20** The image below shows the fire spread at Grenfell Tower at this time. The picture shows the North elevation completely alight and the fire wrapping around the West elevation.



(Source: MET000085891)

- 04:20:22** Firefighter De St Aubin (BAECO) ascends the stairs from the stair lobby (Source: CCTV: Camera 2).
- 04:20:27** WM O'Keeffe ascends the stairs from the stair lobby (Source: CCTV: Camera 2).
- 04:20:34** An unidentified firefighter leaves the community room, proceeds into the main lobby and is directed to the stair lobby by WM Williams (Source: CCTV: Camera 4).
- 04:20:38** WM O'Keeffe descends the stairs into the stair lobby (Source: CCTV: Camera 2).
- 04:20:43** Waewta Supareogsanond (from flat 73, 10<sup>th</sup> floor) descends the stairs into the stair lobby being assisted by an unidentified firefighter. They both proceed into the main lobby (Source: CCTV: Camera 2).
- 04:20:48** Ann Chance (from flat 73, 10<sup>th</sup> floor) descends the stairs into the stair lobby assisted by an unidentified firefighter. They both proceed into the main lobby (Source: CCTV: Camera 2).
- 04:20:49** Chalalai Supareogsanond (from flat 73, 10<sup>th</sup> floor) descends the stairs into the stair lobby assisted by an unidentified firefighter. They both proceed into the main lobby (Source: CCTV: Camera 2).



## OFFICIAL

**04:20:50** Firefighter De St Aubin (BAECO) descends the stairs into the stair lobby (Source: CCTV: Camera 2).

**04:20:50** Adam Supareogsanond (flat 73, 10th floor) is handed over to the LAS by a unidentified firefighter outside Grenfell Tower at the east elevation (Source, CCTV: Camera OPS1 Kensington leisure centre).

**04:20:54** Waewta Supareogsanond, Chatalai Supareogsanond and Ann Chance (flat 73, 10<sup>th</sup> floor), are escorted by three unidentified firefighters through the main lobby, towards the community room exit (Source: CCTV: Camera 4).

**04:20:54** BA Team 43: CM Gray, Firefighter Pegram, Firefighter G Hiscock, Firefighter Holehouse and Firefighter Hudson report to the BAECO at the bridgehead in the stair lobby. CM Gray talks to CM Goulbourne (Source: MPS Witness Statement: GTIRT18-00982, CCTV: Camera 2, BA Data GTIRT17-02820).

**04:21:01** Waewta Supareogsanond, Ann Chance and Chatalai Supareogsanond (flat 73, 10<sup>th</sup> floor) talk briefly to WM Watson before they leave the building via the community room assisted by firefighters (Source: CCTV: Camera 4).

**04:21:29** BA Team 43: Firefighter Hudson removes his facemask and closes down his EDBA at the bridgehead in the stair lobby (Source: CCTV: Camera 2).

**04:21:59** The Radio Operator at Brigade Control sends a radio message to Echo 29 Alpha, Lee Green's OSU.

"Echo 29 Alpha from M2FN, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03192).

**04:22:00** BA Team 47: CM Anderson, Firefighter Abbess, Firefighter Chart and Firefighter P Harris ascend the stairs from the bridgehead in the stair lobby carrying two sledgehammers, a TIC and telemetry repeater number two (Source: CCTV: Camera 2).



2017/06/14 04:28:40.115

Page 511

## OFFICIAL

- 04:22:04** WM Dowden descends the stairs to the bridgehead in the stair lobby carrying two firefighting branches and talks with GM Goulbourne (Source: CCTV: Camera 2).
- 04:22:09** The Radio Operator at Brigade Control sends a second radio message to Echo 29 Alpha, Lee Green's OSU.
- "Echo 29 Alpha from M2FN, over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03193).
- 04:22:17** The Radio Operator at Brigade Control sends a third radio message to Echo 29 Alpha, Lee Green's OSU.
- "Echo 29 Alpha from M2FN, over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03194).
- 04:22:18** Firefighter G Hiscock from BA Team 43 is at the bridgehead in the stair lobby. He removes his facemask and closes down his EDBA set (Source: CCTV: Camera 2).
- 04:22:30** Firefighter Pegram from BA Team 43 is at the bridgehead in the stair lobby. He removes his facemask and closes down his EDBA (Source: CCTV: Camera 2).
- 04:22:23** Echo 29 Alpha, Lee Green's OSU, respond to the radio messages sent from the Radio Operator at Brigade Control.
- "FN Echo 29 Alpha, go ahead, over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03195).
- 04:22:26** The Radio Operator at Brigade Control sends a radio message to Echo 29 Alpha, Lee Green's OSU.
- "Echo 29 Alpha, can you go to the RVP of Kensington Leisure Centre, over?"
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03196)
- 04:22:33** Echo 29 Alpha, Lee Green's OSU, confirm receipt of the message sent by the Radio Operator at Brigade Control.
- Echo 29 Alpha: "- 29 Alpha, all received, over."
- Brigade Control: "Cheers. FN out."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03197).

## OFFICIAL

- 04:22:59\*** BA Team 48: Firefighter P Singh, Firefighter Howard, Firefighter Edwards and Firefighter Welden are in the main lobby area where they receive a briefing from GM Goulbourne. Firefighter Welden states the brief is to go to the 11<sup>th</sup> floor and search and rescue in flats 81, 82, 83 and 84. *Firefighter Welden further states "GM Goulbourne specifically said that flat 82 was meant to have a mother and baby inside and they needed to get them"* (Source: CCTV: Camera 4, MPS Witness Statement: GTIRT18-02299, GTIRT18-01283, GTIRT18-00934).
- 04:22:59** Ann Chance (from flat 73, 10<sup>th</sup> floor) is handed over to the LAS by a unidentified firefighter outside the east elevation of Grenfell Tower heading towards Kensington leisure centre (Source, CCTV: Camera OPS1 Kensington leisure centre).
- 04:23:01** Firefighter Holehouse, from BA Team 43, leaves the stair lobby and proceeds into the main lobby wearing EDDBA still under air. He closes down his EDDBA set (Source: CCTV: Camera 4).
- 04:23:20** BA Team 43: CM Gray, Firefighter Pegram, Firefighter G Hiscock, Firefighter Holehouse, and Firefighter Hudson are in the main lobby and exit the building via the community room (Source: CCTV: Camera 4, MPS Witness Statement: GTIRT18-01042, BA Data: GTIRT17-02820).
- 04:23:21** BA Team 49: CM Barritt, Firefighter Gentry, Firefighter Reid and Firefighter De Costa receives a briefing from GM Goulbourne to go to the ninth floor to search and rescue with BA Team 48, Firefighter P Singh, Firefighter Howard, Firefighter Edwards and Firefighter Welden (Source: CCTV: Camera 4, MPS Witness Statement: GTIRT18-00066, GTIRT18-04310).
- 04:23:31** CRO Duddy at Brigade Control takes a call from Surrey FRS Control. Surrey FRS National Inter Agency Liaison Officer (NILO) has requested via Surrey FRS Control that LFB Duty NILO contact him regarding officer assistance and that Surrey has a 42 metre ALP. CRO Duddy moves away from his desk and speaks to someone but he cannot be heard. He comes back on the line and says the officer in charge says they do not need assistance at the moment but if they do they will ring back (Source: NICE, Admin Phone Line Audio file: GTIRT18-01200) .
- 04:23:35** The Radio Operator at Brigade Control send a radio message to Alpha 346, Edmonton's FRU.  
"Alpha 346 from M2FN, go ahead, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03198).
- 04:23:38** Waewta Supareogsanond and Chalalai Supaeogsanond (from flat 73, 10<sup>th</sup> floor) are handed over to the LAS by a unidentified firefighter outside the east elevation of Grenfell Tower heading towards Kensington leisure centre (Source, CCTV: Camera OPS1 Kensington leisure centre).
- 04:23:39** Alpha 346, Edmonton's FRU, send a radio message to the Radio Operator at Brigade Control.  
"FN, Alpha 346, we just got to junction of Ladbroke Grove, Elgin Crescent and there's no one here, over, shall we provide – shall we proceed to the other RVP?"

## OFFICIAL

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03199).

**04:23:51** The Radio Operator at Brigade Control send a radio message to Alpha 346, Edmonton's FRU  
"yeah proceed to the leisure centre, over"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03200).

**04:23:55** Alpha 346, Edmonton's FRU, confirm receipt of the radio message sent from the Radio Operator at Brigade Control.

"Yeah, all received."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03201).

**04:24:20** GM Welch ascends the stairs from the stair lobby carrying a sledgehammer (Source: CCTV: Camera 2).

**04:24:28** CM Morrison descends the stairs into the stair lobby (Source: CCTV: Camera 2).

**04:24:35** CM Morrison picks up telemetry repeater one from the equipment dump and ascends the stairs from the stair lobby (Source: CCTV: Camera 2).

**04:24:51** GM Welch descends the stairs into the stair lobby (Source: CCTV: Camera 2).

**04:24:52** CRO Jones at Brigade Control takes a call which is very difficult to hear. The male caller states that the place is about to fall down and that it does not seem that the Brigade are doing anything. CRO Jones reassures him that the Brigade are there and are dealing with the incident. Incident Number 76349, Call Duration one minute 7 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00608).

**04:25\*** BA Team 46: Firefighter Desforges and Firefighter R Mitchell reach the fifth floor and carry out the same procedure as on the fourth floor. No casualties are found. *Firefighter R Mitchell states they meet with BA Team 45: Firefighter Worman and Firefighter Page who have another fire hose. BA Team 46 then continue up to the next floor (Source: MPS Witness Statements: GTIRT17-02932, GTIRT18-00652 , BA Data: GTIRT17-02820).*

**04:25\*** *BA Team 45: Firefighter Worman and Firefighter Page reach the fifth floor and carry out a right hand search. It is hot and smoky within the lobby area. They come across a flat which has been on fire (believed to be flat 26). They extinguish pockets of fire inside the flat from the corridor area as the hose will not reach any further. They continue to search and firefight on the fifth floor. Firefighter Worman states there is a crew from Soho that are committed at the same time as us on the fourth and move to the fifth. Firefighter Page states it is now getting close to our time of whistle so we make the decision to withdraw, we were still on the same floor as Soho. BA Team 45: Firefighter Worman and Firefighter Page withdraw and make their way down the stairs to the*

## OFFICIAL

*bridgehead (Source: MPS Witness Statements: GTIRT18-01284, GTIRT18-01846, BA Data: GTIRT18-02820).*

**04:25:01** The Radio Operator at Brigade Control send a radio message to Oscar Foxtrot 50, Rod Wainwright.

"Oscar Foxtrot 50 go ahead, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03203).

**04:25:06** Oscar Foxtrot 50, Rod Wainwright books Status 3, in attendance, at Grenfell Tower. He is the 10<sup>th</sup> SM in attendance.

"FN from Oscar Foxtrot 50, can you put me in attendance for this incident, over?"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03204, 'Vision': GTIRT17-02791).

**04:25:12** The Radio Operator at Brigade Control confirm receipt of the 'Status 3' radio message from Oscar Foxtrot 50, Rod Wainwright.

"Status 3, received."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03205).

**04:25:20** A crew of two unidentified firefighters are on the first floor mezzanine and begin to break into the lift lobby door entrance using a crows foot and a Halligan bar (Source: CCTV: Camera 3).

**04:25:31** Alpha 346, Edmonton's FRU book status 3, in attendance at Grenfell Tower. This is the 11<sup>th</sup> FRU in attendance (Source: 'Vision': GTIRT17-02791).

**04:25:46** BA Team 48: Firefighter P Singh, Firefighter Howard, Firefighter Edwards and Firefighter Welden enter the bridgehead in the stair lobby and report to the BAECO. They confirm their brief with WM O'Keeffe and GM Goulbourne and start breathing under air (Source: CCTV: Camera 2, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00066, GTIRT18-04310).

**04:26** BA Team 47: CM Anderson, Firefighter Abbess, Firefighter Chart and Firefighter P Harris discover a casualty (believed to be Khadija Saye from flat 173, 20<sup>th</sup> floor) in the stairwell and check for signs of life. They are unable to establish whether the casualty is alive or deceased. They then attempt to move the casualty but are unsuccessful. Firefighter Chart and Firefighter P Harris stay with the casualty, trying to move down the stairwell but find it very difficult. They try to radio down to get further help sent up but cannot get through so they begin their descent to the BAECO to inform them of the casualty. Firefighter Abbess and CM Anderson continue on

## OFFICIAL

with their brief to go to flats 81, 82, 83 and 84 (11<sup>th</sup> floor) (Source: MPS Witness Statement: GTIRT18-01426, GTIRT18-00425, BA Data, GTIRT17-02820).

- 04:26:30** SM Wolfenden, WM Dowden and WM Watson are talking with unidentified firefighters on the second floor mezzanine and are pointing up (Source: CCTV: Camera 4, Camera 5).
- 04:26:44** The Radio Operator at Brigade Control send a radio message to CU8.
- "Charlie Uniform 8 from M2FN, go ahead, over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03207).
- 04:26:48** CU8 send a 'relief' radio message to Brigade Control.
- "FN, Charlie Uniform 8 from AC Roe at scene of 40 pump fire, we request immediate 20 pump, 2-0 pump relief."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03208).
- 04:27:00** BA Team 47: CM Anderson and Firefighter Abbess are on the 11<sup>th</sup> floor when they are met with an intense heat barrier and are unable to enter the floor lobby. They then decide to move up to the 12<sup>th</sup> floor (Source: MPS Witness Statement: GTIRT18-01426, BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00241).
- 04:27:05** BA Team 44: SM Cook and CM Gallagher are in the stairwell somewhere between the sixth and 12<sup>th</sup> floor. SM Cook's LPWA actuates. CM Gallagher is also low on air and both make their way out back towards the bridgehead (Source: BA Data GTIRT17-02820, MPS Witness Statement: GTIRT17-02922).
- 04:27:06** CU8 continue a 'relief' radio message to Brigade Control.
- "With five watch managers in charge to RVP at Elgin Crescent. Charlie Uniform 8, over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03209).
- 04:27\*** *Firefighter Bate partners with Firefighter Nuttall. They are asked to carry out a fire ground 'A' test and make their way round to the West side of the tower (Source: MPS Witness Statement: GTIRT18-02865).*
- 04:27:09** An unidentified firefighter leaves the community room, proceeds into the main lobby and talks with SM Wolfenden (Source: CCTV: Camera 4).
- 04:27:12** An unidentified firefighter descends the stairs into the stair lobby and talks with WM O'Keeffe (Source: CCTV: Camera 2).
- 04:27:22** The Radio Operator at Brigade Control acknowledges receipt of the 'relief' radio message.

## OFFICIAL

"Charlie Uniform 8 from, er, DAC Roe, request immediate 20 pump relief with five watch managers in charge to RVP at Elgin Crescent received."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03210).

**04:27:33** CU8 respond to the Radio Operator at Brigade Control.

"Charlie Uniform 8, many thanks."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03211).

**04:27:46** An unidentified CM descends the stairs into the stair lobby and picks up a firefighting branch before ascending back up the stairs (Source: CCTV: Camera 2).

**04:28:00\*** BA Team 47: CM Anderson and Firefighter Abbess enter the 12<sup>th</sup> floor and start a right hand search. They come across flat 96 and try to break into the door but are unsuccessful. *At this point they meet up with another unidentified BA Team and detail them to continue to try and gain entry whilst they move to the next flat (flat 95).* On gaining entry to flat 95 they carry out a right hand search of the sitting room, kitchen and one bedroom. They are unable to find any casualties. Visibility is poor so CM Anderson connects to Firefighter Abbess by his 1.25m BA personal line so they do not become separated. By this point Firefighter Abbess is exhausted and they make the decision to make their way to the stairwell to begin their descent back to the bridgehead on the ground floor (Source: MPS Witness Statement: GTIRT18-01426, Contemporaneous Notes: GTIRT17-00240, BA Data: GTIRT17-02820).

**04:28:05** CRO Gotts takes a call from a BT Operator with a female caller who is not in Grenfell Tower on the line who asks for advice about her building in Preston road and whether or not she should leave. CRO Gotts advises that she should stay put unless advised otherwise. She confirms that there is no fire in the caller's building at the time of the call. Incident Number 76351, Call Duration one minute 18 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00773).

**04:28:18** SM Walton leaves the stair lobby, proceeds into the main lobby and exits the building via the community room (Source: CCTV: Camera 4).

**04:28:36** BA Team 48: Firefighter P Singh, Firefighter Howard, Firefighter Edwards and Firefighter Welden are at the bridgehead in the stair lobby. They remove their BA tallies and start to ascend the stairs from ground floor. They are carrying two large axes, a pry bar, a TIC and a firefighting branch (Source: CCTV: Camera 2, BA Data: GTIRT17-02820).

**04:28:40** An unidentified firefighter ascends the stairs from the stair lobby (Source: CCTV: Camera 2).

**04:28:57** SM Myatt leaves the stair lobby, proceeds into the main lobby and talks with an unidentified firefighter in the lobby as well as another unidentified firefighter who is on the second floor mezzanine level (Source: CCTV: Camera 4, Camera 5).

## OFFICIAL

- 04:29:00** BA Team 46: Firefighter Desforges and Firefighter R Mitchell reach the sixth floor and carry out search procedures but do not locate any casualties (Source: MPS Witness Statement: GTIRT17-02932, GTIRT18-00652, BA Data: GTIRT17-02820).
- 04:29:07\*** Firefighter Bate carries out a fire ground 'A' test on set 1309, then proceeds to the west side elevation of the Grenfell Tower with Firefighter Nuttall. Firefighter Bate reunites with the remainder of her crew there (Source: MPS Witness Statement: GTIRT18-02865, BA Data: GTIRT17-02820).
- 04:29:32** An unidentified firefighter leaves the community room, proceeds into the main lobby and talks with SM Wolfenden (Source: CCTV: Camera 4).
- 04:29:57** GM Welch ascends the stairs from the stair lobby after talking with WM Stewart (CU) (Source: CCTV: Camera 2).
- 04:30\*** Firefighter Dwyer is outside Grenfell Tower and is tasked by a unidentified fire officer with changing a burst fire hose which he carries out with two other unidentified Firefighters. Firefighter Dwyer had changed a few fire hose lengths when a task came through the fire ground radio that additional fuel was required for the Lightweight Portable Pump (RLPP) (Source: MPS Witness Statement: GTIRT18-01548).
- 04:30\*** Firefighter Dwyer refuels the RLPP situated in the community room. Firefighter Dwyer is provided with cover from MPS riot shields as he enters the community room (Source: MPS Witness Statement: GTIRT18-01548).
- 04:30:18** BA Team 44: SM Cook and CM Gallagher descend the stairs to the bridgehead in the stair lobby (Source: CCTV: Camera 2).
- 04:30:20** AC Roe, GM Goulbourne, GM Cook (ORT) and SM Myatt are talking in the stair lobby (Source: CCTV: Camera 2).
- 04:30:50** BA Team 44: SM Cook and CM Gallagher report to BAECO at the bridgehead in the stair lobby. They collect their BA tallies and close down their SDBA (Source: MPS Witness Statement: GTIRT17-02922, GTIRT18-00929, CCTV: Camera 2, BA Data GTIRT17-02820).
- 04:31:04** Foxtrot 446, East Ham's FRU book status 3, in attendance at Grenfell Tower. This is the 12<sup>th</sup> FRU in attendance (Source: 'Vision': GTIRT17-02791).
- 04:32:04** SM Cook from BA Team 44 is at the bridgehead in the stair lobby and talking to GM Goulbourne (Source: MPS Witness Statement: GTIRT17-02922, CCTV: Camera 2).
- 04:32:10** BA Team 46: Firefighter Desforges and Firefighter R Mitchell are on the sixth floor. Firefighter Desforges' LPWA actuates and they make the decision to withdraw to the stairwell and return to the bridgehead (Source: BA Data: GTIRT17-02820).



## OFFICIAL

- 04:32:43** BA Team 46: Firefighter Desforges and Firefighter R Mitchell descend the stairs to the bridgehead in the stair lobby and report to CM Morrison regarding their task and close down their SDBA (Source: MPS Witness Statement: GTIRT17-02932, GTIRT18-00652, CCTV: Camera 2).
- 04:32:52** CM Gallagher, from BA Team 44, leaves the stair lobby, proceeds into the main lobby and exits the building via the community room followed by WM Dowden (Source: CCTV: Camera 4).
- 04:33:07** BA Team 45: Firefighter Worman and Firefighter Page return to the bridgehead from the fifth floor and close down their SDBA They collect their BA tallies and debrief the BAECO (Source: MPS Witness Statements: GTIRT18-01284, GTIRT18-01846, CCTV: Camera 2).
- 04:33:06** BA Team 49: CM Barritt, Firefighter Reid, Firefighter Gentry and Firefighter De Costa report to the bridgehead in the stair lobby (Source: CCTV: Camera 2).
- 04:33:15** An unidentified firefighter leaves the community room, proceeds into the main lobby and talks to another unidentified firefighter who is above them on the second mezzanine level (Source: CCTV: Camera 4).
- 04:33:21** CM Barritt from BA Team 49 talks with GM Goulbourne at the bridgehead in the stair lobby (Source: CCTV: Camera 2).
- 04:33:39** CM Johnson descends the stairs into the stair lobby and proceeds into the main lobby (Source: CCTV: Camera 2).
- 04:33:40** BA Team 49: CM Barritt, Firefighter Reid, Firefighter Gentry and Firefighter De Costa are in the bridgehead in the stair lobby talking to WM O'Keeffe. They put their EDBA facemasks on, go under air and remove their BA tallies (Source: CCTV: Camera 2, BA Data: GTIRT17-02820).
- 04:33:41** CRO Duddy at Brigade Control takes a call from flat 82 on the 11<sup>th</sup> floor. The female caller (believed to Natasha Elcock) is with her daughter who is six years old and reports that they are still trapped in their flat. The caller explains that they have tried to get out but it is too hot. CRO Duddy states she needs to get out and tries to advise her to use wet towels but the caller gets very angry and says she has been on the phone for two hours and everyone is telling her the same thing. The caller starts screaming hysterically, stating that she cannot get out and she pleads with CRO Duddy to find out what is going on. She states that she is safe in her house at that moment but just wants to know if someone is going to come for them and CRO Duddy repeats that her only option is to get out. The caller then questions whether that means that no one is coming into the block and CRO Duddy tells the caller that they have to leave and it is their only choice. The caller ends the call. Incident Number 76353, Call Duration two minutes 12 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00774).

## OFFICIAL

- 04:33:46** CM Johnson leaves the stair lobby, proceeds into the main lobby and talks with SM Wolfenden (Source: CCTV: Camera 4).
- 04:34:00** SM Oliff (OOD) at Brigade Control makes a call to CU7 that lasts for nine minutes. There is no record available of the contents of the discussion (Source: Mobile Phone Call Log: GTIRT18-03467).
- 04:34:53** BA Team 50: Firefighter Hanlon and Firefighter Benaicha are talking to CM Morrison at the bridgehead in the stair lobby (Source: CCTV: Camera 2).
- 04:35** AC Roe returns to CU8. Commissioner Cotton has started the TCG establishing the priority as safety. AC Roe takes over having been briefed that the Commissioner has ordered a 20 pump relief. AC Roe asks for the DSE to be blue-lighted in (Source: MPS Witness Statement: GTIRT18-00944, GTIRT17-01254, AC Roe Decision Log: GTIRT17-00866).
- 04:35:08** BA Team 45: Firefighter Page and Firefighter Worman enter the community room from the main lobby (Source: CCTV: Camera 4, MPS Witness Statements: GTIRT18-01284, GTIRT18-01846).
- 04:35:15** The Radio Operator at Brigade Control sends a radio message to CU8.  
"Charlie Uniform 8, go ahead with priority."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03213).
- 04:35:23** WM Stewart (CU) attempts to open the door leading from the stairwell to the main lobby but the door has closed. He is unable to gain access into the stair lobby as he doesn't have a key fob (Source: CCTV: Camera 4).
- 04:35:24** The Radio Operator at Brigade Control sends a radio message to CU8.  
"Charlie Uniform 8, go ahead with priority."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03214).
- 04:35:34** The Radio Operator at Brigade Control sends another radio message to CU8.  
"Charlie Uniform 8, go ahead with priority, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03215).
- 04:35:54** The Radio Operator at Brigade Control sends another message to CU8.  
"Charlie Uniform 8, go ahead with priority."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03216).
- 04:35:58** CU8 send an 'assistance' radio message to Brigade Control.

## OFFICIAL

"Er, FN Charlie Uniform 8, from, er, DAC, er, Roe at this incident, AC -- my apologies, AC Roe at this incident -- er, priority, can you order on the OSU with DERV for pumping appliances? Er, DERV for pumping appliances, over."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03217).

**04:35:49** WM Horn leaves the community room and proceeds into the main lobby carrying two telemetry repeaters (Source: CCTV: Camera 4).



**04:36:07** The unidentified firefighter from **04:35:34** attempts to open the glass door between the main lobby and the stairwell using a crow bar (Source: CCTV: Camera 3).

**04:36:14** BA Team 51: Firefighter I Moore breaks the glass door between the main lobby and the stair lobby using a large axe (Source: MPS Witness Statement: GTIRT18-00941, CCTV: Camera 3).

**04:36:29** The Radio Operator at Brigade Control responds to the request from the CU8.

"All the OSUs are at the incident. Can you release one for us to -- that can go and collect DERV, over?"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03218).

**04:36:35** BA Team 49: CM Barritt, Firefighter Reid, Firefighter Gentry and Firefighter De Costa ascend the stairs from the bridgehead in the stair lobby taking a TIC with them (Source: CCTV: Camera 2).

**04:36:39** CU8 respond to the Radio Operator at Brigade Control, regarding releasing an OSU.

CU8: "Erm, Charlie Uniform 8, will attempt to do so, er, but we believe we're all boxed in. Erm, stand by."

## OFFICIAL

Brigade Control: "Received."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03219).

- 04:36:42** BA Team 50: Firefighter Hanlon and Firefighter Benaicha are briefed by GM Goulbourne at the bridgehead in the stair lobby. Their brief is to go to the fifth floor and firefight and protect the access and egress for other firefighters carrying out rescues. *Firefighter Hanlon states that they are also briefed to go to the 4<sup>th</sup> floor* (Source: MPS Witness Statements: GTIRT18-01529, GTIRT18-01279, CCTV: Camera 2).
- 04:36:45** WM Horn leaves the main lobby and proceeds into the stair lobby carrying the telemetry repeaters (Source: CCTV: Camera 4).
- 04:36:56** WM Wolfenden enters the community room from the main lobby (Source: CCTV: Camera 4).
- 04:36:57** A second length of 70mm fire hose is laid out from the second floor mezzanine by unidentified firefighters down to the main lobby and through to the community room. This is connected to the length of 70mm hose that was previously dangled over the mezzanine at **04:13:59** and is now being charged (Source: CCTV: Camera 3, Camera 4, Camera 5).
- 04:37:13** As the 70mm fire hose is being charged a section of the charged fire hose falls down from the second floor mezzanine and narrowly misses BA Team 51: Firefighter I Moore and Firefighter Hall (Source: CCTV: Camera 4, Camera 3).
- 04:37:14** An unidentified CM leaves the main lobby, proceeds into the stair lobby and ascends the stairs (Source: CCTV: Camera 2).
- 04:37:41** BA Team 50: Firefighter Hanlon and Firefighter Benaicha don their facemasks, remove their BA tallies and report to the BAECO (Source: CCTV: Camera 2, MPS Witness Statements: GTIRT18-01529, GTIRT18-01279).

04:37:47 The table below show the resources required and mobilised to the 20 pump relief.

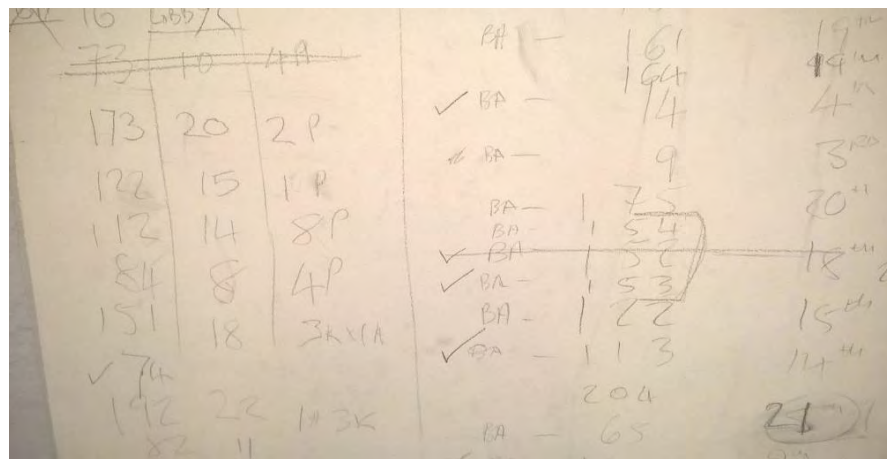
20 Pump Relief Ordered	Operational Response to the incident
<ul style="list-style-type: none"> <li>• 20 x Pump relief ordered</li> </ul>	<ul style="list-style-type: none"> <li>• Echo 392, Bromley's Pump</li> <li>• Echo 391, Bromley's Pump Ladder</li> <li>• Alpha 342, Edmonton's Pump</li> <li>• Foxtrot 422, Ilford's Pump</li> <li>• Alpha 352, Enfield's Pump</li> <li>• Hotel 432, Twickenham's Pump</li> <li>• Golf 242, Southall's Pump</li> <li>• Hotel 261, Addington's Pump Ladder</li> <li>• Alpha 332, Tottenham's Pump</li> <li>• Echo 232, East Greenwich's Pump</li> <li>• Hotel 341, Wimbledon's Pump Ladder</li> <li>• Hotel 312, Croydon's Pump</li> <li>• Foxtrot 451, Plaistow's Pump Ladder</li> <li>• Foxtrot432, Barking's Pump</li> <li>• Echo 402, Sidcup's Pump</li> <li>• Foxtrot 362, Walthamstow's Pump</li> <li>• Foxtrot 411, Dagenham's Pump Ladder</li> <li>• Echo 412, Orpington's Pump</li> <li>• Golf 391, Feltham's Pump Ladder</li> <li>• Foxtrot 282, Homerton's Pump</li> </ul>

04:38:01 Brigade Control send a radio message to CU8. 60 EDDB cylinders are leaving Echo 43, Beckenham, then 36 cylinders will be collected from Golf 29, Park Royal. There are also 51 cylinders at Foxtrot 43, Barking but there is currently no transport (Source: 'Vision': GTIRT17-02791).

04:38:10 BA Team 47: Firefighter Chart and Firefighter P Harris descend the stairs to the bridgehead in the stair lobby. Firefighter Chart removes his facemask and gives a debrief to CM Morrison and GM Goulbourne about the casualty (now known to be Kadija Saye from flat 173, 20<sup>th</sup> floor) and is told by GM Goulbourne to take it that they are deceased and to leave them in situ on the ninth floor. Firefighter P Harris asks Firefighter Chart if he is ready to go back up but Firefighter Chart says he is too tired, so they both close down their EDDB sets and collect their BA tallies (Source: CCTV: Camera 2, MPS Witness Statement: GTIRT18-00425).

## OFFICIAL

- 04:38:34** Three unidentified firefighters leave the main lobby, proceed into the stair lobby and ascend the stairs (Source: CCTV: Camera 2).
- 04:39:03** WM Watson is talking to BA Team 51: Firefighter I Moore and Firefighter Hall and BA Team 52: CM Charity, Firefighter N Sanders and Firefighter Tucker. WM Dowden joins them and speaks to WM Watson, they have a brief discussion then WM Dowden proceeds into the community room (Source: CCTV: Camera 4).
- 04:39:29** SM Mullholland (ORT) leaves the community room, proceeds into the main lobby carrying bottles of drinking water and hands them out to unidentified firefighters. He takes a picture of the main lobby wall with his mobile phone (Source: CCTV: Camera 4).
- 04:39** The image below is taken by SM Mulholland (ORT) of the main lobby wall next to the community room (Source: LFB Image: 909897).



- 04:39:31** GM Goulbourne is briefing BA Team 51: Firefighter I Moore and Firefighter Hall and BA Team 52: CM Charity, Firefighter Tucker and Firefighter N Sanders in the main lobby. BA Team 51 are briefed to go to the 11<sup>th</sup> floor for a FSG in flat 84. *Firefighter I Moore states the brief was to go to flats 80, 81, 82, 83, 84, 85 with a priority for a FSG in flat 82* (Source: CCTV: Camera 3, MPS Witness Statement: GTIRT18-00941, GTIRT18-00253).
- 04:39:33** CRO Jones at Brigade Control takes a call from the grandson of the resident in flat 81 who is seeking information about his grandfather and what hospital casualties are being sent to. The caller explains that he has spoken to his grandfather and he is choking. CRO Jones explains that the Brigade doesn't have any information about casualties at the moment but that flat 83 is on the board as a flat that the Brigade has spoken to. The caller reminds her that it is flat 81 and CRO Jones states that is up there as well which leads the caller to ask about the outcome. CRO Jones says she doesn't have the information about casualties and the caller says he will not waste any more of her time and ends the call. Incident Number 76355, Call Duration two minutes 20 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00775).

## OFFICIAL

- 04:39:48** Echo 392 ,Bromley's Pump book status 2, mobile to Grenfell Tower. Echo 392 is riding with five firefighters: CM Ross Dixey, Firefighter Michael Beal, Firefighter Paul Crowe, Firefighter Michael Strong and Firefighter Colin Syred (Source: 'Vision': GTIRT17-02791).
- 04:39:55** SM Wolfenden and WM Watson have are talking in the main lobby (Source: CCTV: Camera 4).
- 04:40\*** *Firefighter Benaicha from BA Team 50 states "as we go up to the fifth floor under air, there is a bit of wispy smoke but you can see in the stairwell fine. I am hot, but I get hot with all my fire gear on anyway, so walking up the stairs feels quite hot. The stairs have fire hose on them and there is fire hose going up in the middle bit of the stairs but it is easy to walk up the stairs. I can not remember any water on the stairs. There is no issue with visibility on the stairs all the way up to the fifth floor"* (Source: MPS Witness Statement: GTIRT18-01529).
- 04:40\*** *Firefighter Desforges and Firefighter R Mitchell are outside Grenfell Tower and go to the BA holding area where they are informed that they will not be recommitted again as they have already been committed twice before. Firefighter Desforges goes to Alpha 241, Soho's PL, to relieve the pump operator. Alpha 241, Soho's PL are supplying Alpha 245, Soho's ALP with water. The crew of Alpha 245 are trying to protect a casualty that can be seen in a window. They are using a hose reel lashed to a ceiling hook from the ALP so as to extend its reach. Firefighter R Mitchell refuels Alpha 241, Soho's PL, with diesel fuel using water bottles as funnels* (Source: MPS Witness Statements: GTIRT17-02932, GTIRT18-00652).
- 04:40\*** BA Team 48: Firefighter P Singh, Firefighter Howard, Firefighter Edwards and Firefighter Welden are on the stairwell between the ninth and 10<sup>th</sup> floors when they discover a casualty in the stairwell (now known to be Khadija Saye from flat 173, 20<sup>th</sup> floor). Firefighter Howard checks for signs of life but is unable to find a pulse or signs of breathing. BA Team 48 make the decision to leave the casualty in situ and continue with their brief (Source: MPS Witness Statement: GTIRT18-02299, GTIRT18-01283, GTIRT18-00934, Contemporaneous Notes: GTIRT17-00243).
- 04:40:01\*** GM Goulbourne continues to brief BA Team 51 Firefighter I Moore and Firefighter Hall and BA Team 52: CM Charity, Firefighter Tucker and Firefighter N Sanders are in the main lobby. BA Team 52 are briefed to search and rescue in flats 81, 82, 83, 84 on the 11<sup>th</sup> floor and flats 92, 94 and 95 on the 12<sup>th</sup> floor. *Firefighter N Sanders also states they are briefed to search flat 93* (Source: CCTV: Camera 4, MPS Witness Statements: GTIRT18-00969, GTIRT18-00067, GTIRT18-00945).
- 04:40:07** SM Myatt leaves the main lobby and proceeds into the stair lobby. He opens the external door on the East elevation, looks outside and leaves the door slightly open (Source: CCTV: Camera 2).
- 04:40:32** WM Delaney (CU) leaves the community room and proceeds into the main lobby whilst using his fire ground radio (Source: CCTV: Camera 4).

## OFFICIAL

- 04:40:37** An unidentified firefighter enters the community room from the main lobby wearing EDBA, not under air (Source: CCTV: Camera 4).
- 04:40:38** SM Walton enters the community room from the main lobby (Source: CCTV: Camera 4).
- 04:40:39** BA Team 47: Firefighter Chart and Firefighter P Harris enter the community room from the main lobby ( Source: CCTV: Camera 4).
- 04:40:58** WM Horn and SM Walton have a brief talk in the doorway to the community room (Source: CCTV: Camera 4).
- 04:41:00** CRO Duddy at Brigade Control takes a call from a female caller who is calling about her father-in-law in flat 83 on the 11<sup>th</sup> floor who is disabled, blind and elderly who wouldn't be able to get out on his own. She explains that she has been talking to him only two minutes before on the landline which has now gone dead. The caller explains that he says it has got very hot and that his front door is very hot. She has given him the guidance passed to her by the Brigade but is after any update. CRO Duddy explains that the Brigade are working their way through the building. Incident Number 76357, Call Duration two minute 22 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00776).
- 04:41:02** BA Team 50: Firefighter Hanlon and Firefighter Benaicha ascend the stairs from the bridgehead in the stair lobby carrying a TIC (Source: CCTV: Camera 2).
- 04:41:03** CM Codd is outside Grenfell Tower. He completes a fire ground 'A' test for EDBA set 9077 (Source: MPS Witness Statement: GTIRT18-01299, BA Data: GTIRT17-02820).
- 04:41:10** Firefighter Orchard leaves the community room and proceeds into the main lobby carrying drinking water (Source: CCTV: Camera 4).
- 04:41:23** Echo 391, Bromley's PL book status 2, mobile to Grenfell Tower. Echo 391 is riding with six firefighters: WM Steven Vydelingum, CM Stuart Chessun, Firefighter Jason Boyce, Firefighter Edward Haines, Firefighter David Kellie and Firefighter Paul Michaels (Source: 'Vision': GTIRT17-02791).
- 04:41:29** An unidentified firefighter descends the stairs into the stair lobby, collects bottles of drinking water then ascends back up the stairs (Source: CCTV: Camera 2).
- 04:41:33** WM Watson talks with an unidentified firefighter up on the first floor mezzanine, then exits the main lobby into the stair lobby (Source: CCTV: Camera 4, Camera 3).
- 04:41:46** Firefighter Orchard enters the community room from the main lobby (Source: CCTV: Camera 4).
- 04:41:47** SM Myatt and WM Stewart (CU) leave the stair lobby and proceed into the main lobby where they talk with WM Horn in the doorway of the community room (Source: CCTV: Camera 4).



## OFFICIAL

- 04:42** BA Team 49: Firefighter Reid, CM Barritt, Firefighter Gentry and Firefighter De Costa are in the stairwell on the ninth floor (Source: MPS Witness Statement: GTIRT18-00066, GTIRT18-04310, BA Data: GTIRT17-02820).
- 04:42:06** The Radio Operator at Brigade Control sends a radio message to Echo 286, Bexley's FRU.  
"Echo 286 from M2FN go ahead, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03221).
- 04:42:07** BA Team 51: Firefighter I Moore and Firefighter Hall, and BA Team 52: CM Charity, Firefighter Tucker and Firefighter N Sanders leave the main lobby and report to the bridgehead in the stair lobby (Source: CCTV: Camera 3).
- 04:42:09** BA Team 51: Firefighter Hall and Firefighter I Moore enter the bridgehead in the stair lobby from the main lobby and report to CM Morrison who is a BAECO (Source: CCTV: Camera 2).
- 04:42:10** Echo 286, Bexley's FRU, send a radio message to the Radio Operator at Brigade Control.  
"FN from Echo 286, er, can we confirm the rendezvous point, er, for Echo 286, as there seems to be a few rendezvous points, er, set up at present?"  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03222).
- 04:42:15** CRO Jones at Brigade Control takes a call from a female caller who reports that she has just woken up and opened her curtains and can see thick black smoke in the distance. She is calling from W5. CRO Jones explains about the fire in Grenfell Tower and that the Brigade is in attendance. Incident Number 76358, Call Duration 44 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00777).
- 04:42:16** Alpha 342, Edmonton's Pump book status 2, mobile to Grenfell Tower. Alpha 342 is riding with four firefighters: CM Colin Cartwright, Firefighter Sarajane Colling, Firefighter Christopher Delieu and Firefighter Charlie Freeman (Source: 'Vision': GTIRT17-02791).
- 04:42:16** BA Team 52: CM Charity, Firefighter N Sanders and Firefighter Tucker enter the bridgehead in the stair lobby from the main lobby and report to CM Morrison who is a BAECO (Source: CCTV: Camera 2).
- 04:42:26** An unidentified CM enters the community room from the main lobby (Source: CCTV: Camera 4).
- 04:42:25** The Radio Operator at Brigade Control responds to a radio message from Echo 286, Bexley's FRU.  
"Yeah, are you going with, for EDBA, over?"  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03223).

## OFFICIAL

- 04:42:27** Foxtrot 422, Ilford's Pump book status 2, mobile to Grenfell Tower. Foxtrot 422 is riding with five firefighters: CM Aaron Free, Firefighter Craig Higgs, Firefighter Kevin McDougall, Firefighter Daniel Moxley and Firefighter Daniel Smith (Source: 'Vision': GTIRT17-02791).
- 04:42:32** Echo 286, Bexley's FRU, responds to a radio message from the Radio Operator at Brigade Control.
- "Answer yes, er, EDDBA wearers, this is Echo 286 Bexley's FRU."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03224).
- 04:42:41** The Radio Operator at Brigade Control sends a radio message to Echo 286, Bexley's FRU asking them to stand by.
- "Er, stand by."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03225).
- 04:42:41** Alpha 352, Enfield's Pump book status 2, mobile to Grenfell Tower. Alpha 352 is riding with four firefighters: CM Thomas Connolly, Firefighter Mark Bateman, Firefighter Theodore Constantinou and Firefighter David Grant (Source: 'Vision': GTIRT17-02791).
- 04:42:44** The Radio Operator at Brigade Control sends a radio message to CU8.
- "Charlie Uniform 8 from M2FN, over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03226).
- 04:42:48** BA Team 51: Firefighter I Moore and Firefighter Hall confirm their brief with WM O'Keeffe. They start breathing under air and remove their BA tallies (Source: MPS Witness Statements: GTIRT18-00969, GTIRT18-00067, GTIRT18-00945, CCTV: Camera 2, BA Data: GTIRT17-02820).
- 04:42:50** CU8 respond to a radio message from the Radio Operator at Brigade Control.
- "FN, Charlie Uniform 8, go ahead, over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03227).
- 04:42:53** The Radio Operator at Brigade Control sends a radio message to CU8.
- "Yeah, Charlie Uniform 8, erm, Char... erm, Echo 286, the FRU with EDDBA is asking for a rendezvous point as there seems to be a couple -- do you want him to go to Elgin Crescent or to the leisure centre, over?"
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03228).

**04:43** The image below shows the fire spread at Grenfell Tower. The picture shows the North elevation completely alight with multiple internal fires, wrapping around the complete west elevation .



(Source: MET000085893)

**04:43:00** Hotel 432, Twickenham's Pump book status 2 mobile to Grenfell Tower. Hotel 432 is riding with five firefighters: CM Steven Vassell, Firefighter Spencer Bardill, Firefighter Andrew Garwood, Firefighter Gavin Thomas and Firefighter Luke Whiting (Source: 'Vision': GTIRT17-02791).

**04:43\*** BA Team 48: Firefighter P Singh, Firefighter Howard, Firefighter Edwards and Firefighter Welden reach the 12<sup>th</sup> floor, which they believed was the 11<sup>th</sup> floor, and commence a right hand search. BA Team 48 come across the rubbish chute room. Firefighter Edwards searches the chute room and states that *"the square room is probably 6 foot by 6 foot and didn't take long to search, the visibility was better in that room and I could see that the room was empty"*. BA Team 48 continue with a right hand search and reach flat 96. Upon gaining entry they find the flat fully alight and

## OFFICIAL

the team are unable to search. BA Team 48 move onto the next flat (believed to be flat 95) and meet with BA Team 47, CM Anderson and Firefighter Abbess, who hand them a sledgehammer and ask them to make entry into flat 94. BA Team 47 go to flat 95 whilst BA Team 48 make entry to flat 94 where the heat is intense and the team withdraw to the stairwell and check their gauge readings (Source: MPS Witness Statement, GTIRT18-01283, GTIRT18-00934, BA Data: GTIRT17-02820).

- 04:43** BA Team 49: CM Barritt, Firefighter Reid, Firefighter Gentry and Firefighter De Costa reach the 11<sup>th</sup> floor and make entry into the lobby area. They commence a left hand search and hear shouting coming from flat 82, 11<sup>th</sup> floor. Upon opening the door they meet a male adult, a female adult and a child who they escort out to the stairwell (now known to be Natasha Elcock, Shyla Elcock and Antony Smith). BA Team 49 descend the stairs with all three casualties (Source: MPS Witness Statement: GTIRT18-00066, GTIRT18-04310, GTIRT17-00263, BA Data: GTIRT17-02820).
- 04:43:02** CRO Gotts at Brigade Control takes a call from Sam Kindred from Brigade Counselling and Wellbeing Service following a pager request. CRO Gotts transfers her to SOM Smith who advises that she has spoken to Anne Scoging (Head of Counselling and Wellbeing service) and that they are formulating a plan and will be back in touch shortly (Source: NICE, Admin Phone Line Audio file: GTIRT18-01212).
- 04:43:07** CU8 send a radio message to the Radio Operator at Brigade Control confirming the RVP that was requested at **04:42:53** .
- "All – er, Charlie Uniform 8, all machines coming on are to park in the RVP at Elgin Crescent, junction Ladbroke Grove, and are to, er, take their sets and walk into the leisure centre, walk towards the leisure centre, Charlie Uniform 8, over."
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03229).
- 04:43:10** WM O'Keeffe is at the bridgehead in the stair lobby, talking to BA Team 52: CM Charity, Firefighter N Sanders and Firefighter Tucker and points to the wall (Source: CCTV: Camera 2).
- 04:43:11** Firefighter Toppin descends the stairs into the stair lobby (Source: CCTV: Camera 2).
- 04:43:19** SM Egan leaves the main lobby and proceeds into the stair lobby carrying a MPS riot shield (Source: CCTV: Camera 2).
- 04:43:21** WM Dowden leaves the community room, proceeds into the main lobby and talks with WM Watson and SM Wolfenden (Source: CCTV: Camera 4).

## OFFICIAL

**04:43:23** Golf 242, Southall's Pump book status 2, mobile to Grenfell Tower. Golf 242 is riding with four firefighters: CM Neil Glanville, Firefighter Amanpreet Cheema, Firefighter Jordan Hill and Firefighter David Reed (Source: 'Vision': GTIRT17-02791).

**04:43:29** The Radio Operator at Brigade Control acknowledges receipt of the radio message and confirm with Echo 286, Bexley's FRU if they have intercepted radio message.

"Charlie Uniform 8, that's all received. E286, did you intercept, over?"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03230).

**04:43:35** Echo 286, Bexley's FRU, sends a radio message to the Radio Operator at Brigade Control.

"FN from Echo 286, er, lost slight signal. If you can just repeat rendezvous point again; er, we heard "leisure centre"."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03231).

**04:43:35** SM Egan is at the bridgehead in the stair lobby and opens the east elevation door further, leaving it half open as the ground floor lobbies are becoming more smoke logged (Source: CCTV: Camera 2).

**04:43:35** The picture below is from the TIC carried by BA Team 49 and shows a firefighter and two casualties (believed to be Shyla Elcock and Natasha Elcock from Flat 82, 11<sup>th</sup> floor) with BA Team 49: CM Barritt, Firefighter Reid, Firefighter Gentry and Firefighter De Costa in the lobby rea of the 11<sup>th</sup> floor (Source: TIC10837: Clip CV006502).



**04:43:37** Firefighter De St Aubin (BAECO) removes the BAECO surcoat he is wearing and gives it to CM Hunter who then places the BAECO surcoat on. In CM Hunter's statement he states he is on ECB

## OFFICIAL

BA board number two out of four BA boards (Source: CCTV: Camera 2, MPS Witness Statement: GTIRT18-01841, GTIRT17-02921).

**04:43:45** Hotel 261, Addington's PL book status 2, mobile to Grenfell Tower. Hotel 261 is riding with five firefighters: WM Gary Brooks, CM Michael Denny, Firefighter Robert Evans, Firefighter Daniel Moore and Firefighter Michael Gianni (Source: 'Vision': GTIRT17-02791).

**04:43:46** The Radio Operator at Brigade Control sends a further radio message to Echo 286, Bexley's FRU.  
"Go to Elgin Crescent at the junction of Ladbroke Grove to park up there, and then walk towards the leisure centre."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03232).

**04:44\*** *BA Team 50: Firefighter Hanlon and Firefighter Benaicha reach the fourth floor. Firefighter Hanlon enters the fourth floor lobby which is smoky but can't see any fire. They decide to move to the fifth floor (Source: MPS Witness Statement: GTIRT18-01279).*

**04:44:02** SM Egan for the second time leaves the east elevation exit door, located in the stair lobby, open by a third after trying several times to open it. He does this as the ground floor lobbies are becoming more smoke logged (Source: CCTV: Camera 2).

**04:44:16** The Radio Operator at Brigade Control sends a further radio message to Echo 286, Bexley's FRU.  
"Did you intercept that, over?"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03233).

**04:44:24** Echo 286, Bexley's FRU confirm receipt of the radio message from the Radio Operator at Brigade Control.

"FN, Echo 286, er, message received."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03234).

**04:44:31** The Radio Operator at Brigade Control confirm Echo 286, Bexley's FRU, has received the RVP radio message.

"Received."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03235).

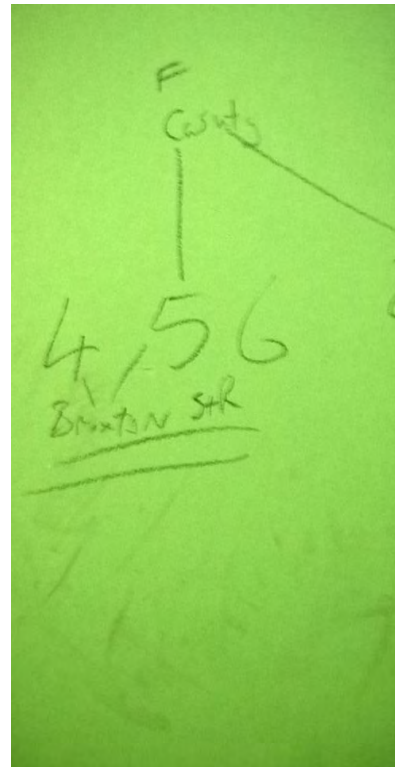
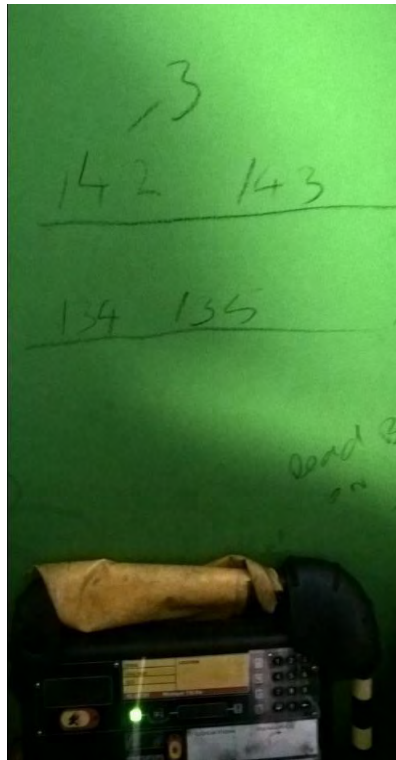
**04:44:33** An unidentified CM enters the community room from the main lobby (Source: CCTV: Camera 4).

**04:44:38** WM Horn enters the community room from the main lobby (Source: CCTV: Camera 4).

**04:44:46** WM Stewart (CU) enters the community room from the main lobby (Source: CCTV: Camera 4)

## OFFICIAL

- 04:44:51** Alpha 332, Tottenham's Pump book status 2, mobile to Grenfell Tower. Alpha 332 is riding with four firefighters: CM Michael Charalambou, Firefighter Gary Cassettari, Firefighter Peter Cracknell and Firefighter Lee Webb (Source: 'Vision': GTIRT17-02791).
- 04:44:57** CRO Gotts at Brigade Control takes a call from a caller stating that they have family members still stuck in flat 182 on the 21st floor. The caller gives the family name El-Wahabi. CRO Gotts says "I have passed that to the firefighters, and they do know about them". Incident Number 76359, Call Duration 32 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00778).
- 04:45\*** *CM Batcheldor is speaking on Francis Dean's phone when he loses contact with Zainab Deen. He gives the phone back to Francis Dean and escorts him to the triage area and alerts a police officer to his presence and the events that have taken place (Source: MPS Witness Statement: GTIRT17-01103, BSR Witness Statement: IWS00001048).*
- 04:45\*** BA Team 50: Firefighter Hanlon and Firefighter Benaicha reach the fifth floor and locate a 70mm fire hose in the stairwell on a landing. They carry out door procedure and enter the lobby area performing a right hand search until they locate the first flat (believed to be flat 26). Firefighter Hanlon states that *the door was locked so we move onto the next flat. They reach the second flat (believed to be flat 25) and make entry with the 70mm fire hose, they locate the fire and spray water onto it, which starts to put it out. Firefighter Benaicha informs Firefighter Hanlon that his air is getting low so they continue to firefight and search the rest of the floor banging on doors and lifting letter boxes shouting into the flats but there is no answer (Source: MPS Witness Statements: GTIRT18-01279, BA Data: GTIRT17-02820).*
- 04:45:12** Echo 232, East Greenwich's Pump book status 2, mobile to Grenfell Tower. Echo 232 is riding with four firefighters: CM Chris Jenkins, Firefighter Sean Oakley, Firefighter Calvin Wilson and Firefighter Richard Wybrow (Source: 'Vision': GTIRT17-02791).
- 04:45:15** SM Mullholland (ORT) finishes talking to GM Welch and GM Goulbourne then takes several pictures of the green lobby wall on his mobile telephone (Source: CCTV: Camera 2, LFB Images: 909915, 909916).



- 04:45:21** BA Team 52: CM Charity, Firefighter Tucker and Firefighter N Sanders confirm their briefing with WM O'Keeffe at the bridgehead in the stair lobby. They remove their BA tallies and start breathing under air and report to the BAECO (Source: CCTV: Camera 2, BA Data: GTIRT17-02820).
- 04:45:25** Echo 29 Alpha, Lee Green's OSU book Status 3, in attendance, at Grenfell Tower. This is the fifth OSU in attendance (Source: 'Vision': GTIRT17-02791).
- 04:45:34** Oscar Echo 63, SM Mark Reed books Status 2, mobile to Stratford, to assist with Brigade Co-ordination Centre (Source: 'Vision': GTIRT17-02791).
- 04:45:43** Hotel 341, Wimbledon's PL book Status 2, mobile to Grenfell Tower. Hotel 341 is riding with five firefighters: WM Andrew McKay, Firefighter Andrew Alliston, Firefighter Johnathan Earl, Firefighter Ian Jones and Firefighter Rodney Stuart (Source: 'Vision': GTIRT17-02791).
- 04:45:48** BA Team 53: Firefighter Holmes-Lewis and Firefighter Knight are briefed by GM Goulbourne to go to the fourth, fifth and sixth floors to firefight, search and rescue (Source: CCTV: Camera 3, MPS Witness Statement: GTIRT18-02535, GTIRT18-00428).
- 04:45:49** SM Egan enters the community room from the main lobby carrying a MPS riot shield (Source: CCTV: Camera 4).
- 04:45:52** Hotel 312, Croydon's Pump book Status 2, mobile to Grenfell Tower. Hotel 312 is riding with four firefighters: CM Thomas Atkins, Firefighter Benjamin Dotchin, Firefighter Ennio Gonnella and Firefighter Kyle McClelland (Source: 'Vision': GTIRT17-02791).



## OFFICIAL

- 04:45:57** Foxtrot 451, Plaistow's PL book status 2, mobile to Grenfell Tower. Foxtrot 451 is riding with six firefighters: WM Kevin Conners, Firefighter James Nicol, Firefighter Amarjeet Ratora, Firefighter Liang Tan, Firefighter Greg Weal and Firefighter Mark Young (Source: 'Vision': GTIRT17-02791).
- 04:46:16** CM Cutbill, Firefighter S Boulton, Firefighter A Wright and Firefighter Vango from BA Team 60, and Firefighter P Harris from BA Team 62 wearing EDDB not under air enter the main lobby via the community then exit the main lobby into the lift lobby. (Source: CCTV: Camera 4, Camera 3).
- 04:46:42** CRO Jones at Brigade Control takes a call from a female caller reporting that her brother-in-law is trapped inside the tower in flat 72 on the 10<sup>th</sup> floor and cannot come out because it is too smoky and he thinks he will die if he comes out. CRO Jones asks when the caller last spoke to her brother-in-law and she says about one second ago and CRO Jones tells her to stay on the phone while she updates officers. The line then goes silent. Incident Number 07363, Call Duration 46 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00779).
- 04:46:46** Oscar 207, the Salvation Army Welfare Van, books Status 3, in attendance, at Grenfell Tower (Source: 'Vision': GTIRT17-02791).
- 04:46:53** BA Team 51: Firefighter I Moore and Firefighter Hall are carrying a large axe and a TIC. They ascend the stairs from the bridgehead in the stair lobby (Source: CCTV: Camera 2, MPS Witness Statement: GTIRT18-00941).
- 04:47** BA Team 49: CM Barritt, Firefighter Reid, Firefighter Gentry and Firefighter De Costa reach the third floor with Natasha Elcock, Shyla Elcock and Anthony Smith. The casualties are handed over to unidentified firefighters (Source: MPS Witness Statement: GTIRT18-00066, GTIRT18-04310, GTIRT17-00263, BA Data: GTIRT17-02820).
- 04:47:00** SM Oliff (OOD) at Brigade Control makes a call to CU7 for one minutes and 51 seconds. There is no record available of the contents of the call (Source: Mobile Phone Call Log: GTIRT18-03467).
- 04:47:06** Foxtrot 432, Barking's Pump book status 2, mobile to Grenfell Tower. Foxtrot 432 is riding with six firefighters: CM Karen Jackson, CM Michael Skorzewski, Firefighter David Bryan, Firefighter Christopher Franklin, Firefighter Russell Macanaspie and Firefighter Julie Wilson (Source: 'Vision': GTIRT17-02791).
- 04:47:36** BA Team 53: Firefighter Holmes-Lewis and Firefighter Knight start up their SDBA and start to breath under air in the main lobby (Source: CCTV: Camera 3, BA Data: GTIRT17-02820).
- 04:47:48** Shyla Elcock (flat 82, 11<sup>th</sup> floor) is carried downstairs into the stair lobby by an unidentified firefighter and exits into the main lobby (Source: CCTV: Camera 2).
- 04:47:49** Anthony Smith (flat 82, 11<sup>th</sup> floor) descends the stairs to the stair lobby and proceeds into the main lobby (Source: CCTV: Camera 2).

## OFFICIAL

**04:47:51** Shyla Elcock (flat 82, 11<sup>th</sup> floor) is carried by an unidentified firefighter through the main lobby and exits the building via the community room (Source: CCTV: Camera 4).

**04:47:52** Anthony Smith (flat 82, 11<sup>th</sup> floor) leaves the stair lobby and proceeds into the main lobby. He talks briefly with WM Watson then exits the building via the community room (Source: CCTV: Camera 4).

**04:47:57** Natasha Elcock (flat 82, 11<sup>th</sup> floor) leaves the stair lobby, proceeds into the main lobby then leaves the building via the community room assisted by Firefighter Cachia (Source: CCTV: Camera 4).

**04:47** *Between 04:12 – 04:47 the following residents have either been rescued, assisted out or self-evacuated from Grenfell Tower (Source: MPS Residents' List: GTIRT18-04095).*

1.	Lina Hamide (flat 74, 10 <sup>th</sup> floor )
2.	Meron Woledeslassie-Araya (flat 74, 10 <sup>th</sup> floor )
3.	Adam Supareogsanond (flat 73, 10 <sup>th</sup> floor ).
4.	Waewta Supareogsanond (flat 73, 10 <sup>th</sup> floor ).
5.	Ann Chance (flat 73, 10 <sup>th</sup> floor ).
6.	Chalalai Supareogsanond (flat 73, 10 <sup>th</sup> floor ).
7.	Shyla Elcock (flat 82, 11 <sup>th</sup> floor )
8.	Anthony Smith (flat 82, 11 <sup>th</sup> floor )
9.	Natasha Elcock (flat 82, 11 <sup>th</sup> floor )

**04:48:07** BA Team 52: CM Charity, Firefighter Tucker and Firefighter N Sanders ascend the stairs from the bridgehead in the stair lobby, carrying a large axe (Source: CCTV: Camera 2).

**04:48:19** Firefighter Cachia leaves the main lobby, proceeds into the stair lobby and ascends the stairs (Source: CCTV: Camera 2).

**04:48:24** Firefighter Aldridge leaves the main lobby, proceeds into the stair lobby and ascends the stairs (Source: CCTV: Camera 2).

**04:48:27** This is a continuation of the call at **04:46:42**. CRO Jones at Brigade Control comes back on the line and explains that she has let the senior officers know and they will pass it to the fire engines that are there. The caller passes the mobile number of the resident to CRO Jones. The caller says that her brother-in-law is very scared and won't come out until someone comes to get him. Incident Number

## OFFICIAL

07363, Call Duration one minute 28 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT18-03382).

- 04:48:39** Echo 402, Sidcup's Pump book status 2, mobile to Grenfell Tower. Echo 402 is riding with four firefighters: CM Simon Vincent, Firefighter Stephen Jackson, Firefighter Graham Moore and Firefighter Gary Tootill (Source: 'Vision': GTIRT17-02791).
- 04:48:39** Foxtrot 362, Walthamstow's Pump book status 2, mobile to Grenfell Tower. Foxtrot 362 is riding with five firefighters: CM Tony Jackson, Firefighter James Roberts, Firefighter Matthew Smith, Firefighter Gavin Stock and Firefighter Phillip Vassiliou (Source: 'Vision': GTIRT17-02791).
- 04:48:40** Foxtrot 411, Dagenham's PL book status 2, mobile to Grenfell Tower. Foxtrot 411 is riding with five firefighters: WM Alan Furlong, Firefighter Ben Bradley, Firefighter Russell Brown, Firefighter Katie Johnson and Firefighter Clare Papworth (Source: 'Vision': GTIRT17-02791).
- 04:48:48** SM Egan leaves the community room and proceeds to the stair lobby carrying a MPS riot shield (Source: CCTV: Camera 4).
- 04:48:54** Echo 286, Bexley's FRU book status 3, in attendance. at Grenfell Tower. This is the 13<sup>th</sup> FRU in attendance (Source: 'Vision': GTIRT17-02791).
- 04:49:14** CM Morrison ascends the stairs from the stair lobby (Source: CCTV: Camera 2).
- 04:49:15** SM Egan leaves the stair lobby, proceeds into the main lobby whilst carrying a MPS riot shield and talks to BA Team 57: CM Marks, Firefighter Lang, Firefighter Knapman and Firefighter Duncan (Source: CCTV: Camera 4).
- 04:49:30** GM Welch leaves the stair lobby and proceeds into the main lobby, talking briefly with SM Egan before proceeding back into the stair lobby (Source: CCTV: Camera 4).
- 04:49:43** An unidentified firefighter leaves the main lobby, proceeds into the stair lobby and ascends the stairs (Source: CCTV: Camera 2).
- 04:49:54** BA Team 54: Firefighter W Boulton, Firefighter Devani, Firefighter Pitt and Firefighter Beer wearing EDDB, not under air, try and prop open the main entrance door with a firefighters axe (Source: CCTV: Camera 4).
- 04:49:32** The Radio Operator at Brigade Control sends a radio message to CU8.  
*"Charlie Uniform 8, go ahead, over."*  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03236).
- 04:49:36** CU8 sends an 'informative' radio message to the Radio Operator at Brigade Control.

## OFFICIAL

*"FN Charlie Uniform 8, for your information, 0450 tactical co-ordination meeting now concluded; further meeting scheduled for 0550. Charlie Uniform 8."*

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03237).

**04:49:53** The Radio Operator at Brigade Control responds to CU8's radio message.

*"Charlie Uniform 8, can I just confirm that was co-ordination meeting now complete, next meeting at 0515, over?"*

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03238).

**04:49:59** CRO Jones at Brigade Control makes a call to the mobile number given to her by the caller at **04:48:27**. She speaks to the resident and explains that she has spoken to his sister-in-law. CRO Jones explains that she has told the firefighters that he is there and the caller says he has tried to get out but the smoke is too thick. He says he is safe in his flat and that the smoke alarm has stopped actuating. He explains that he has some fresh air from the windows and there is no fire on his floor and he is staying put as he feels this is safer than trying to get out. CRO Jones says he should call 999 if conditions change. He reiterates that the stairs are too dark and smoky and he doesn't think anyone should take any risks to come and get him (Source: NICE, Admin Phone Line Audio file: GTIRT18-03379).

**04:50:04** CU8 sends a radio message to the Radio Operator at Brigade Control.

*"0550, over."*

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03239).

**04:50:05** Echo 412, Orpington's Pump book status 2, mobile to Grenfell Tower. Echo 412 is riding with five firefighters: CM Michael Andrews, Firefighter Adrian Daniel, Firefighter Daniel Dyer, Firefighter Thomas Ledger and Firefighter Peter McDonald-Smith (Source: 'Vision': GTIRT17-02791).

**04:50:09** The Radio Operator at Brigade Control acknowledges receipt of the radio message from CU8.

*"Correct time is 0-5-5-0, over?"*

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03240).

**04:50:12** BA Team 53: Firefighter Holmes-Lewis and Firefighter Knight leave the main lobby and proceed into the stair lobby carrying a firefighter's axe (Source: CCTV: Camera 2).

**04:50:15** CU8 confirm the radio message sent from the Radio Operator at Brigade Control.

*"FN, Charlie Uniform 8, all correct."*

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03241).

**04:50:16** CM Morrison descends the stairs into the stair lobby (Source: CCTV: Camera 2).

## OFFICIAL

- 04:50:20** SM Mulholland (ORT) leaves the stair lobby and proceeds into the main lobby. He talks briefly to SM Egan before they both proceed into the community room (Source: CCTV: Camera 4).
- 04:50:49** Hotel 38 Alpha, Sutton's OSU book status 3, in attendance, at Grenfell Tower. This is the sixth OSU in attendance (Source: 'Vision': GTIRT17-02791).
- 04:50:52** An unidentified firefighter wearing EDBA, not under air, starts to smash the surrounding glass window panes next to the main entrance door (South elevation) with a crow bar (Source: CCTV: Camera 4).
- 04:51\*** *BA Team 51: Firefighter I Moore and Firefighter Hall reach the 11<sup>th</sup> floor and enter the lift lobby where the conditions are extremely hot. Firefighter Hall checks a door using the TIC, this is showing a reading of 1000°C. They get down low so they can search the floor. Unable to identify flat numbers, they make noise at each flat door with no response. Firefighter Hall states that they break into a flat, which he believes is flat 84 and it is empty so they withdraw out of the lift lobby into the stairwell. They both agree to continue up to the 12<sup>th</sup> floor (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00941, MPS Witness Statement: GTIRT18-00253).*
- 04:51** A Local Authority DSE is in attendance to assist AC Roe in any decision making in regards to the structural integrity of the building (Source: AC Roe Decision Log: GTIRT17-00866).
- 04:51:07** WM Watson leaves the main lobby, proceeds into the stair lobby and hands WM O'Keeffe a piece of paper (Source: CCTV: Camera 2).
- 04:51:07** Golf 391, Feltham's PL book status 2, mobile to Grenfell Tower. Golf 391 is riding with five firefighters: WM Simon Ellis, CM Wayne Kendall, Firefighter Andrew Finn, Firefighter Matthew Horne and Firefighter James Macdonald (Source: 'Vision': GTIRT17-02791).
- 04:51:23** CRO Duddy at Brigade Control takes a call from the sister-in-law of the resident of flat 72. She refers to a call she just had with the Brigade which is very likely to be the call received at **04:49:59**. The caller repeats the details to CRO Duddy who states that if she is in contact with him, she should tell him to leave the building. She tells him that her brother-in-law thinks he will die if he tries to leave the flat because of the smoke and CRO Duddy confirms that the only option is for him to make his way down the staircase. Incident Number 76365, Call Duration one minute 11 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00780).
- 04:51:24** Foxtrot 282, Homerton's Pump book status 2, mobile to Grenfell Tower. Foxtrot 282 is riding with four firefighters: CM Paul Maskell, Firefighter Stephen McMahon, Firefighter Stephen Sipple and Firefighter Emanuel Spiteri (Source: 'Vision': GTIRT17-02791).
- 04:51:27** GM Welch ascends the stairs from the stair lobby (Source: CCTV: Camera 2).

## OFFICIAL

- 04:51:30** BA Team 53: Firefighter Holmes-Lewis and Firefighter Knight ascend the stairs from the bridgehead in the stair lobby, carrying a firefighter axe (Source: CCTV: Camera 2).
- 04:51:43** GM Welch descends the stairs into the stair lobby (Source: CCTV: Camera 2).
- 04:51:53** An unidentified firefighter leaves the stair lobby and proceeds into the main lobby carrying a large axe. They take over smashing the main entrance door (South elevation) glass panel and surrounding window panes (Source: CCTV: Camera 4).
- 04:52\*** BA Team 53: Firefighter Holmes-Lewis and Firefighter Knight reach the fourth floor and carry out a left hand search. Firefighter Holmes-Lewis states "the first flat we come across has no smoke damage and the door is open with no persons in there, we continue to search the flats on the fourth floor but do not find any casualties" (Source: MPS Witness Statement: GTIRT18-02535, GTIRT18-00428, BA Data: GTIRT17-02820).
- 04:52:18** AOM Norman at Brigade Control takes a call from Matthew Hogan from LRG who has called back to speak to SOM Smith to confirm that a DSE is on site now and has been given AC Richard Mills details. SOM Smith says she will pass on the information on (Source: NICE, Admin Phone Line Audio file: GTIRT18-01218).
- 04:53** AC Roe, on CU8, asks UKPN if there are any particular electricity hazards. He is informed there is a substation in the basement that supplies three other blocks. AC Roe decides as the substation it is not involved it will remain on to assist with lighting for crews (Source: MPS Witness Statement: GTIRT17-01254, AC Roe Decision Log: GTIRT17-00866).
- 04:53:16** BA Team 54: Firefighter W Boulton, Firefighter Devani, Firefighter Pitt and Firefighter Beer receive a brief from GM Goulbourne and GM Welch to go to the 12<sup>th</sup> floor search and rescue. If there is another crew on the 12<sup>th</sup> floor, then they are to move onto the 13<sup>th</sup> floor. (Source: CCTV: Camera 2, MPS Witness Statement: GTIRT18-02308, GTIRT18-00411, GTIRT17-02921, GTIRT18-00639).
- 04:54\*** BA Team 52: CM Charity, Firefighter Tucker and Firefighter N Sanders reach the 11<sup>th</sup> floor. They find another crew already there (believed to be BA Team 51: Firefighter I Moore and Firefighter Hall) and enter the lift lobby. Firefighter Tucker states that Firefighter N Sanders said the TIC was reading 1000°C and CM Charity states a reading beginning with the digit 1. Firefighter N Sanders states the crew in front (believed to be BA Team 51: Firefighter I Moore and Firefighter Hall) go in first on their knees and they carry out a right hand search. The five of them open a flat door but the heat is unbearable and it is impossible to make entry, although they try several times. BA Team 52 withdraw back to the stairwell and decide to continue to the 12<sup>th</sup> floor (Source: BA Data: GTIRT18-02820, MPS Witness Statements: GTIRT18-00969, GTIRT18-00067, GTIRT18-00945).

## OFFICIAL

- 04:54:18** SM Myatt leaves the community room, inspects the main entrance door and proceeds into the stair lobby (Source: CCTV: Camera 4).
- 04:54:22** BA Team 47: CM Anderson and Firefighter Abbess descend the stairs to the bridgehead in the stair lobby. CM Anderson's LPWA is actuating and they both close down their EDPA (Source: MPS Witness Statement: GTIRT18-01426, BA Data: GTIRT17-02820, CCTV: Camera 2).
- 04:54:25** An unidentified CM ascends the stairs from the stair lobby (Source: CCTV: Camera 2).
- 04:54:32** Firefighter Desmond descends the stairs into the stair lobby and talks to GM Welch and CM Morrison before ascending back up the stairs at **04:55:28** (Source: CCTV: Camera 2).
- 04:55\*** *BA Team 39: Firefighter Sime and Firefighter Okoh are on the grass verge outside Grenfell Tower and the crew of Golf 346, Chelsea's FRU, are approached by an unidentified officer and are asked if they want to go back in. Firefighter Sime states "If you didn't want to go in the second time you didn't have to, it was completely your decision". The crew of Golf 346, Chelsea's FRU, all agree to go back in (Source: MPS Witness Statements: GTIRT18-01044, GTIRT18-00053).*
- 04:55:27** CRO Duddy at Brigade Control takes a call from a female caller to say she has just woken up and she can see a big bellowing fire coming from Grenfell Tower. CRO Duddy reassures her that the Brigade is in attendance. Incident Number 76367, Call Duration 24 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00781).
- 04:56** BA Team 48: Firefighter P Singh, Firefighter Howard, Firefighter Edwards and Firefighter Welden, having searched the flats on the 12<sup>th</sup> floor believe they are on the wrong floor. Firefighter Welden closes the door on the way out of a flat and sees the number 96. BA Team 48 descend the stairs to the 11<sup>th</sup> floor to search and rescue as per their brief. Whilst attempting to enter the 11<sup>th</sup> floor lobby Firefighter Welden describes the conditions as being "too intense" and they are unable to enter the 11<sup>th</sup> floor lobby. Due to the intense fire conditions they decide to withdraw and descend the stairs (Source: Contemporaneous Notes: GTIRT17-00243 MPS Witness Statement: GTIRT18-01283, GTIRT18-00934, GTIRT18-02299, GTIRT18-00048, BA Data: GTIRT17-02820).
- 04:56** BA Team 49: CM Barritt, Firefighter Reid, Firefighter Gentry and Firefighter De Costa return to the ninth floor without firefighting media to continue with their brief and begin a right hand search until they reach a flat (believed to be flat 66). BA Team 49 try to make entry into the flat in an attempt to search it, but the conditions are very hot and they are unable to continue so they withdraw and make their way back to stairwell and decide to descend back to the bridgehead in the stair lobby (Source: MPS Witness Statement: GTIRT18-00066, GTIRT18-04310, GTIRT17-00263, BA Data: GTIRT17-02820).
- 04:56:20** WM Stewart (CU) leaves the community room carrying another two telemetry repeaters and proceeds to the stair lobby (Source: CCTV: Camera 4).

## OFFICIAL

- 04:56:22** BA Team 50: Firefighter Hanlon and Firefighter Benaicha are on the fifth floor when Firefighter Benaicha's LPWA actuates, they make their way back to the stairwell and descend the stairs to the bridgehead in the stair lobby (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01529, GTIRT18-01279).
- 04:56:43** CM Hunter is in the stair lobby and gets an oxygen cylinder and mask from an IEC pack and administers it to Firefighter Abbess who is exhausted out of view of the camera (Source: MPS Witness Statement: GTIRT18-01426, Contemporaneous Notes: GTIRT17-00240, CCTV: Camera 2).
- 04:58\*** *BA Team 53: Firefighter Holmes-Lewis and Firefighter Knight reach the fifth floor (although there is a discrepancy between the two firefighters as to which floor they are on). Firefighter Holmes-Lewis states the fifth floor was smokier [than the fourth floor], on the left hand side there was not much damage but on the right hand side all the flats are on fire. BA Team 53 carry out a methodical search of every flat ensuring they are empty. Firefighter Holmes-Lewis and Firefighter Knight force the door to one flat with a firefighters axe and fight the fire using a 70mm fire hose. They do not discover any casualties and they then decide to ascend the stairs to the sixth floor (MPS Witness Statement: GTIRT18-02535, BA Data: GTIRT17-02820).*
- 04:58:41** BA Team 54: Firefighter W Boulton, Firefighter Devani, Firefighter Pitt and Firefighter Beer ascend the stairs from the bridgehead in the stair lobby carrying a TIC (Source: CCTV: Camera 2).
- 04:58:48** WM Stewart (CU) leaves the stair lobby and proceeds into the main lobby using his fire ground radio. He has a brief discussion with WM Delaney (CU) before he proceeds into the community room (Source: CCTV: Camera 4).
- 04:59:42** BA Team 50: Firefighter Hanlon and Firefighter Benaicha descend the stairs to the bridgehead in the stair lobby and report to CM Hunter (Source: CCTV: Camera 2, MPS Witness Statement: GTIRT18-01279, BA Data: GTIRT17-02820).
- 05:00:06** Firefighter Benaicha removes his facemask and closes down his SDBA set (Source: CCTV: Camera 2).
- 05:00:13** An unidentified Firefighter leaves the main lobby and proceeds into the stair lobby carrying an oxygen cylinder (Source: CCTV: Camera 4).
- 05:00:18\*** CM Marks, Firefighter Lang and Firefighter Knapman from BA Team 57 are talking to GM Welch in the main lobby. Firefighter Duncan from BA Team 57 leaves the community room and proceeds into the main lobby and hands a MPS riot shield to GM Welch. *CM Marks states "myself and Firefighter Knapman are brought forward. We are initially tasked to go to the 10<sup>th</sup> floor to check a casualty on that floor, the thinking being that if we can get the casualty onto the*



## OFFICIAL

*MPS riot shield it will be easier to try and get them down the stairs" (now known to be Khadija Saye, from flat 173, 20<sup>th</sup> floor) (Source CCTV: Camera 3, MPS Witness Statement: GTIRT18-02866).*

- 05:00:19** Firefighter Hanlon removes his facemask and closes down his SDBA at the bridgehead in the stair lobby (Source: CCTV: Camera 2).
- 05:00:22** GM Welch is talking to an EDBA Team in the main lobby (Source: CCTV: Camera 2).
- 05:00:31** BA Team 50, Firefighter Hanlon and Firefighter Benaicha, are at the bridgehead in the stair lobby and inform GM Goulbourne of their actions (Source: MPS Witness Statement: GTIRT18-01279, GTIRT18-01529, CCTV: Camera 2, BA Data: GTIRT17-02820).
- 05:00:41** SM Myatt leaves the community room and proceeds into the main lobby, carrying an MPS riot shield, and has a discussion with GM Welch. SM Myatt then returns to the community room with the MPS riot shield (Source: CCTV: Camera 4).
- 05:00:43** CRO Adams takes a call from Anne Scoging who calls to speak to SOM Smith and informs her that she will attend Stratford to give support to Brigade Control staff (Source: NICE, Admin Phone Line Audio file: GTIRT18-01224).
- 05:00:43** Firefighter Reddington and Firefighter Upton, from BA Team 58, leave the community room and proceed to the ground floor lift lobby in EDBA and not under air (Source: CCTV: Camera 4, MPS Witness Statement: GTIRT18-01299, GTIRT17-01715).
- 05:01:00** SM Oliff (OOD) at Brigade Control makes a telephone call to CU7 that lasts for 25 seconds. There is no record available of the contents of the conversation (Source: Mobile Phone Call Log: GTIRT18-03467).
- 05:01\*** BA Team 52, CM Charity, Firefighter Tucker and Firefighter N Sanders, reach the 12<sup>th</sup> floor, proceed into the lift lobby and carry out a right hand search. They find the bin chute room (North East corner of the lift lobby) and continue their right hand search but CM Charity and Firefighter N Sanders lose contact with Firefighter Tucker (Source: MPS Witness Statement: GTIRT18-00969, GTIRT18-00067, GTIRT18-00945, BA Data: GTIRT17-02820).
- 05:01:01** CM Marks and Firefighter Knapman, from BA Team 57, leave the main lobby and proceed into the stair lobby in EDBA and not under air. They are carrying a MPS riot shield given to them by GM Welch. CM Marks places the MPS riot shield against the glass partition wall and talks to GM Goulbourne and GM Welch (Source: CCTV: Camera 3, CCTV: Camera 2).
- 05:01:05** BA Team 55, Firefighter Kalirai and Firefighter N Whiting and BA Team 56, CM Sharp and Firefighter D Harris, are in the main lobby in SDBA and not under air. They receive a briefing from GM Goulbourne, their brief is to go to the fifth floor for search and rescue and to firefight on that

## OFFICIAL

floor (Source: CCTV: Camera 3, MPS Witness Statements: GTIRT18-02348, GTIRT18-00984, GTIRT18-00947, Contemporaneous Notes: GTIRT17-00205).

- 05:01:08** BA Team 57, CM Marks, Firefighter Duncan, Firefighter Knapman and Firefighter Lang, leave the main lobby and proceed into the stair lobby and report to the bridgehead (Source: CCTV: Camera 2).
- 05:01:37** BA Team 55, Firefighter Kalirai and Firefighter Whiting and BA Team 56, CM Sharp and Firefighter Harris, leave the main lobby and proceed into the stair lobby, wearing SDBA not under air, and report to CM Morrison at the bridgehead (Source: CCTV: Camera 2).
- 05:01:59** WM Dowden leaves the community room and proceeds into the main lobby and talks to WM Watson (Source: CCTV: Camera 4).
- 05:02** BA Team 48, Firefighter P Singh, Firefighter Howard, Firefighter Edwards and Firefighter Welden, descend the stairs to the fifth floor and carry out a gauge check. This shows that they have sufficient air to continue with their task of taking fire hose up as far up the building as possible. BA Team 48 then spread out between the fifth and 11<sup>th</sup> floors and haul the fire hose up the middle of the stairwell getting as far as the 10<sup>th</sup> or 11<sup>th</sup> floors (Source: MPS Witness Statement: GTIRT18-01283, GTIRT17-00243, GTIRT18-02299, BA Data: GTIRT17-02820).
- 05:02:10** BA Team 55, Firefighter Kalirai and Firefighter N Whiting, are with BA Team 56, CM Sharp and Firefighter D Harris, at the bridgehead in the stair lobby. They go under air and start breathing, then report to the BAECO and hand in their BA tallies (Source: CCTV: Camera 2, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT17-01800, Contemporaneous Notes: GTIRT17-00205).
- 05:02:11** Hotel 341, Wimbledon's Pump book Status 3, in attendance, at Grenfell Tower. This is the 42<sup>nd</sup> fire engine in attendance (this is the first relief fire engine) (Source: Vision: GTIRT17-02791).

The table below shows the resources required and mobilised to the 15 pump relief.

15 Pump Relief Ordered	Operational Response to the incident
<ul style="list-style-type: none"> <li>• 15 x Pump relief ordered</li> </ul>	<ul style="list-style-type: none"> <li>• Hotel 341, Wimbledon's Pump Ladder</li> <li>• Alpha 332, Tottenham's Pump</li> <li>• Hotel 432, Twickenham's Pump</li> <li>• Alpha 342, Edmonton's Pump</li> <li>• Foxtrot 422, Ilford's Pump</li> <li>• Foxtrot 282, Homerton's Pump</li> <li>• Hotel 312, Croydon's Pump</li> <li>• Alpha 352, Enfield's Pump</li> <li>• Foxtrot 451, Plaistow Pump Ladder</li> <li>• Foxtrot 362, Walthamstow's Pump</li> <li>• Echo 232, East Greenwich's Pump</li> <li>• Foxtrot 411, Dagenham's Pump Ladder</li> <li>• Echo 392, Bromley's Pump</li> <li>• Hotel 261 , Addington's Pump Ladder</li> <li>• Echo 402, Sidcup's Pump</li> </ul>

**05:02:28** Foxtrot 451, Plaistow's Pump Ladder responds to a radio message received from the Radio Operator at Brigade Control

"Foxtrot 451 from M2FN, go ahead, over".

(Source: NICE, Radio Message Audio File and Transcript: GTIRT17-03243).

**05:02:32** Foxtrot 451, Plaistow's Pump Ladder, sends a radio message to the Radio Operator at Brigade Control.

"Yeah, FN, Foxtrot 451, just to confirm, erm, we are status 2 to Grenfell Tower. Could you check, because we have no MDT, over?"

(Source: NICE, Radio Message Audio File and Transcript: GTIRT17-03244).

**05:02:32** The Radio Operator at Brigade Control responds to a radio message from Foxtrot 451, Plaistow's Pump Ladder.

"F452 status 2, received".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03245).

## OFFICIAL

- 05:02:32** The Portable Hygiene Unit (PHU1), books Status 2, mobile to Grenfell Tower (Source: Vision: GTIRT17-02791).
- 05:02:33** SM Wolfenden is writing on a notepad whilst having a discussion with WM Watson in the main lobby (Source: CCTV: Camera 4).
- 05:02:47** The Radio Operator at Brigade Control responds to a radio message from Foxtrot 451, Plaistow's Pump Ladder.  
"... 2FN, Foxtrot 451".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03246).
- 05:03\*** BA Team 51, Firefighter I Moore and Firefighter Hall, reach the 12<sup>th</sup> floor. They proceed into the lift lobby and carry out a left hand search entering the first flat they come to (believed to be flat 92). They search for casualties and, once satisfied the flat is clear, they move onto the next flat (believed to be Flat 93). BA Team 51 break into flat 93 using an enforcer. Firefighter Hall states *"inside one of the flats there is a ruptured gas main preventing a full search of the flat"* (Source: BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT18-00941, GTIRT18-00253, Contemporaneous Notes: GTIRT17-00174).
- 05:03:12** Brigade Control send a radio message to CU8, confirming that a portable hygiene unit has been ordered.  
"Charlie Uniform 8 portable hygiene unit has been ordered. ETA is 2 hours. Over."  
(Source: Information Message: GTIRT17-03252).
- 05:03:20** WM Wilson and an unidentified firefighter are carrying a Positive Pressure Fan (PPV) outside the main lobby entrance and put it down under Grenfell walk facing the Tower (Source: CCTV: Camera 4).
- 05:03:23** SM Harding enters the building via the main entrance, under a MPS riot shield protecting him from falling debris, and proceeds into the stair lobby (Source: CCTV: Camera 4).
- 05:03\*** *Firefighter W Boulton from BA Team 54 states "we make steady progress up the stairs, there is smoke in the staircase that gets worse from the seventh floor. I recall one floor being marked with a number, this may have been the seventh floor. There is water coming down the stairs and it is dark, it is not particularly hot within the staircase however as we get to the ninth floor the smoke is thicker"* (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-02308).
- 05:04\*** Firefighter Tucker, from BA Team 52, makes his way back to the lift lobby door to secure the team's egress. *Firefighter Tucker states "this is because the enforcer I left propping the lift lobby door open has been removed by another unidentified BA Team."* (This is believed to be BA Team

## OFFICIAL

51, Firefighter I Moore and Firefighter Hall) (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00067).

- 05:04\*** CM Charity and Firefighter N Sanders, from BA Team 52, find the first flat (believed to be flat 96) and enter it. CM Charity states, *"I opened the door and remember seeing a glow and hearing a ringing, the flat went in six foot or so before it was exposed to the elements. You could see clearly outside. The windows had obviously gone with parts of the brickwork. So it was quite open, we made the decision that we weren't going into that flat because with it being so open I didn't want either me or Nicky falling 11 floors".* CM Charity makes the decision to withdraw from the flat because it is not safe. They carry on and search the next three flats using a right hand search, confirming the flats are clear. Firefighter N Sanders confirms that they search flats 96, 95 and 94 as she felt the door numbers on the doors with her hands (Source: MPS Witness Statement: GTIRT18-00969, GTIRT18-00067, GTIRT18-00945, BA Data: GTIRT17-02820).
- 05:04:30\*** Firefighter Beer, from BA Team 54, states *"we walk up the stairs and it is fairly clear, I can see what I was doing up until the eighth or ninth floor where the smoke logging becomes heavier. The stairwell is quite narrow approximately three to three and a half foot wide with a lot of people using the stairwell, there is water coming down the stairwell, a great amount of it, as we move up the stairwell the smoke is getting thicker and lower. As we get to the 11<sup>th</sup> floor I couldn't see anything"* (BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00639).
- 05:04:45** The Radio Operator at Brigade Control sends a radio message to CU8.  
"Charlie Uniform 8 from M2FN, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03249).
- 05:04:47** The Radio Operator at Brigade Control sends a radio message to CU8.  
"Charlie Uniform 8 from M2FN, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03250).
- 05:04:47** Firefighter Archer leaves the community room and proceeds to the stair lobby carrying a tripod and an ECB Bracket (Source: CCTV: Camera 4).
- 05:04:55** Alpha 332, Tottenham's Pump, book status 3, in attendance at Grenfell Tower. This is the 43<sup>rd</sup> fire engine in attendance (this is the second relief fire engine) (Source: Vision: GTIRT17-02791).
- 05:04:58\*** BA Team 57, CM Marks, Firefighter Lang, Firefighter Knapman and Firefighter Duncan, are having a discussion with GM Welch and GM Goulbourne in the stair lobby. Firefighter Knapman states, *'they inform me that they have had no radio traffic contact with BA Team 48: Firefighter P Singh, Firefighter Howard, Firefighter Edwards and Firefighter Welden.* CM Marks states, *"the BAECO brought forward the two other members of my initial crew who are Firefighter Duncan*

## OFFICIAL

*and Firefighter Lang to makeup a crew of four."* BA Team 57 are then briefed to find BA Team 48, and get them to return to the bridgehead, as they are close to time of alarm. Once BA Team 57 have located BA Team 48 they are to continue up to the 10<sup>th</sup> floor to complete their initial task which is to check a casualty (believed deceased) on the 10<sup>th</sup> floor and move them if possible. If BA Team 57 complete this task, and they have enough air left, they are to continue to search and rescue on the 10<sup>th</sup> and 11<sup>th</sup> floors (Source: CCTV: Camera 2, MPS Witness Statement: GTIRT18-02866, GTIRT18-01463, GTIRT18-01033, GTIRT18-00988).

**05:05\*** BA Team 54, Firefighter W Boulton, Firefighter Devani, Firefighter Pitt and Firefighter Beer, reach the 12<sup>th</sup> floor and find other BA teams working on that floor (believed to be BA Team 51, Firefighter I Moore and Firefighter Hall and BA Team 52, CM Charity, Firefighter N Sanders and Firefighter Tucker) BA Team 54 detail the other BA Teams to search the flats on the 12<sup>th</sup> floor, *however Firefighter Pitt only states flats 92, 94 and 95.* BA Team 54 then ascend to the 13<sup>th</sup> floor (BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-02308, GTIRT18-00411, GTIRT17-02921, GTIRT18-00639).

**05:05:01** CU8, responds to a radio message from the Radio Operator at Brigade Control.

"FN, Charlie Uniform 8, go ahead."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03251).

**05:05:01** BA Team 49, CM Barritt, Firefighter Donovan, Firefighter Gentry and Firefighter De Costa, descend the stairs to the bridgehead in the stair lobby. Firefighter Gentry and CM Barritt have a discussion with GM Goulbourne whilst still under air (Source: CCTV: Camera 2, MPS Witness Statement: GTIRT18-04310).

**05:05:04** CU8 send informative message to Radio Operator at Brigade Control.

"Charlie Uniform 8 portable hygiene unit has been ordered. ETA is 2 hours. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03252).

**05:05:06** CM Davies leaves the community room and proceeds to the stair lobby, carrying a tripod and an ECB bracket (Source: CCTV: Camera 4).

**05:05:07** BA Team 55, Firefighter Kalirai and Firefighter N Whiting, ascend the stairs from the bridgehead in the stair lobby, wearing EDBA, with BA Team 56, CM Sharp and Firefighter D Harris. Firefighter Kalirai is carrying a TIC (Source: CCTV: Camera 2, MPS Witness Statement: GTIRT18-02348).

**05:05:13** The Radio Operator at Brigade Control respond to a radio message from CU8.

"FN, Charlie Uniform 8, all received".

## OFFICIAL

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03253).

- 05:05:18** CM Davies places a tripod and an ECB bracket down on the floor next to the ECBs in the bridgehead (Source: CCTV: Camera 2).
- 05:05:34** BA Team 57, CM Marks, Firefighter Lang, Firefighter Knapman and Firefighter Duncan, are at the bridgehead in the stair lobby, wearing EDBA, and start breathing under air (Source: CCTV: Camera 2, BA Data: GTIRT17-02820).
- 05:05:40** CM Hunter and WM Stewart (CU) assemble two tripods and ECB brackets, they place ECB one and ECB two on the them (Source: CCTV: Camera 2).
- 05:05:45** CRO Gotts takes a call from a male who gives his name as Antonio (Roncolato) and states that he is in flat 72 on the 10<sup>th</sup> floor. The caller explains that he is in no danger at the moment and has a window open that is providing fresh air but goes on to explain that he cannot leave the flat because it is too smoky outside his door and he is likely to become unconscious. CRO Gotts asks if he could leave if he covers himself in wet towels and the caller states that he cannot. The caller explains that he just wants to make sure the Brigade is aware of his location and CRO Gotts says she will pass on the details to the crews. Incident Number 76372, Call Duration two minutes and 25 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00783).
- 05:05:57** CRO Fox takes a call from a male outside Grenfell Tower who says members of his family are in flat 113 on the 14<sup>th</sup> floor with three children. He explains that the fire service were spraying water on the flat but this has stopped. CRO Fox tries to confirm the number of people and the caller says there are a lot of people including neighbours in his flat. CRO Fox explains that the fire service are still dealing with the situation and she will pass on the information to crews. Incident Number 76371, Call Duration one minute 6 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00782).
- 05:06\*** *Firefighter N Whiting, from BA Team 55, is between the third and fifth floors and states "we all head up the stairs to the fifth floor. The stairs are very narrow, the width of the stairs can just accommodate two firefighters. There is poor visibility due to the smoke, I can see my colleagues who are in front of me but not much else, water is coming down the stairs at a fast rate and through the ceiling. The water is hot and I am able to feel the heat through my uniform. When we arrive at the fifth floor, the conditions are very hot and the water feels like boiling water on the back of my neck" (Source: MPS Witness Statement: GTIRT18-02348).*
- 05:06\*** BA Team 53, Firefighter Holmes-Lewis and Firefighter Knight, reach the sixth floor, Firefighter Knight states "we are on the sixth floor and break down a few doors just to double check flats." They do not find anyone in those flats so BA Team 53 find a firefighting branch and fire on the right hand side of the lift lobby (Source: MPS Witness Statement: GTIRT18-02535, GTIRT18-00428, BA Data: GTIRT17-02820).

## OFFICIAL

- 05:06:03** SM Harding leaves the stair lobby and proceeds into the main lobby with SM Wolfenden where they have a discussion (Source: CCTV: Camera 4).
- 05:06:27** Firefighter Cachia and Firefighter Errington leave the community room and proceed to the stair lobby, both carrying an oxygen cylinder (Source: CCTV: Camera 4).
- 05:06:29** CM Barritt, Firefighter De Costa and Firefighter Reid from, BA Team 49, close down their EDDBA sets (Source: CCTV: Camera 2).
- 05:06:33** Firefighter Sonson and CM McShee leave the community room and proceed to the stair lobby (Source: CCTV: Camera 4).
- 05:06:45** WM Delaney (CU) leaves the community room and proceeds to the stair lobby carrying bottles of drinking water (Source: CCTV: Camera 4).
- 05:06:52** An unidentified firefighter descends the stairs to the stair lobby and has a discussion with GM Goulbourne (Source: CCTV: Camera 2).
- 05:06:54** BA Team 49, CM Barritt, Firefighter Reid, Firefighter Gentry and Firefighter De Costa are at the bridgehead in the stair lobby, they close down their EDDBA sets and collect their BA tallies (Source: CCTV: Camera 2, BA Data: GTIRT17-01633).
- 05:07:02** BA Team 57, CM Marks, Firefighter Lang, Firefighter Knapman and Firefighter Duncan report to the BAECO in the stair lobby and remove their BA tallies (Source: CCTV: Camera 2, BA Data: GTIRT17-02820).
- 05:07:08** WM Stewart (CU) and SM Walton ascend the stairs from the stair lobby (Source: CCTV: Camera 2).
- 05:07:24** GM Goulbourne and the unidentified Firefighter finish their discussion and ascend the stairs together from the stair lobby (Source: CCTV: Camera 2).
- 05:07:47** GM Welch leaves the stair lobby and proceeds into the main lobby and has a discussion with SM Wolfenden (Source: CCTV: Camera 4).
- 05:07:50** Firefighter Campbell leaves the community room and proceeds to the stair lobby, carrying a tripod and an ECB bracket (Source: CCTV: Camera 4).
- 05:08\*** BA Team 54, Firefighter W Boulton, Firefighter Devani, Firefighter Pitt and Firefighter Beer, reach the 13<sup>th</sup> floor. They carry out a right hand search and find the bin chute room which appears to be clear, they continue to the first flat which is locked (*Firefighter W Boulton identifies the flat as 106, Firefighter Pitt thinks it is flat 126*). Firefighter W Boulton and Firefighter Pitt use a sledge hammer and an enforcer to gain access to the flat. *Firefighter Devani and Firefighter Beer bang on the adjacent door*. Firefighter W Boulton makes a hole in the flat door, reaches through the hole with his arm, finds the handle and opens the door. Firefighter W Boulton enters the flat and



## OFFICIAL

reaches a door on the left hand side. He opens the door and immediately feels extreme heat, *he takes a TIC reading which is showing 1,000°C. Firefighter Pitt, who has also entered the flat, checks the other rooms* (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-02308, GTIRT18-00411, GTIRT17-02921, GTIRT18-00639).

- 05:08:10** GM Goulbourne leaves the stair lobby and proceeds into the main lobby, he joins the discussion with GM Welch and SM Wolfenden (Source: CCTV: Camera 4).
- 05:08:34** BA Team 57, CM Marks, Firefighter Lang, Firefighter Knapman and Firefighter Duncan, ascend the stairs from the stair lobby. Firefighter Knapman is carrying a TIC (Source: CCTV: Camera 2).
- 05:08:43** SM Myatt leaves the community room and proceeds into the main lobby, he joins the discussion with GM Welch, GM Goulbourne and SM Wolfenden (Source: CCTV: Camera 4).
- 05:09** CM Charity and Firefighter N Sanders, from BA Team 52, make their way out of the flats and meet up with Firefighter Tucker by the 12<sup>th</sup> floor lift lobby door, they proceed into the stairwell then descend to the 11<sup>th</sup> floor (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00969, GTIRT18-00067, GTIRT18-00945).
- 05:09:00** SM Oliff, (OOD) at Brigade Control, makes a telephone call to CU7 that lasts for three minutes and 49 seconds. There is no record available of the contents of the discussion (Source: Mobile Phone Call Log: GTIRT18-03467).
- 05:09:04** Hotel 432, Twickenham's Pump, book status 3, in attendance, at Grenfell Tower. This is the 44<sup>th</sup> fire engine in attendance (this is the third relief fire engine) (Source: Vision: GTIRT17-02791).
- 05:09:25** WM O'Keeffe leaves the stair lobby and proceeds into the main lobby, joining the discussion with GM Goulbourne, GM Welch, SM Myatt and SM Wolfenden (Source: CCTV: Camera 4).
- 05:10\*** *Firefighter Duncan, from BA Team 57, is on the fourth floor and talks about the stairwell conditions. Firefighter Duncan states "they have lost a bit of light in the stairwell, there is water cascading down the stairs, there are fire hoses everywhere and I remember trying to count the floor levels but that does not go too well due to what was going on around me. When I get to the fourth floor I remember that's when it starts to get smoky and a bit more disorientating. Going up and having to pass fire hose on the floor made it difficult, some of the fire hose was charged and it is coiled up. It starts to get warmer as we ascend due to the smoke, there is no fire in the stairwell just smoke, this is early morning and this building has been on fire for a while, if I were to take my face mask off and have two or three breaths I would be unconscious. The conditions at the time are warm, I wouldn't say that it is hot but it was very heavily smoke logged. There was only one stairwell running through the building and it is unusual to have smoke in the stairwell as they should be protected by having fire doors."* (Source: MPS Witness Statement: GTIRT18-01033).

## OFFICIAL

- 05:10\*** BA Team 52, CM Charity, Firefighter Tucker and Firefighter N Sanders, return to the 11<sup>th</sup> floor and try to make entry for a second time but find conditions have not improved. *Firefighter N Sanders uses a TIC, which shows a reading of 1,000°C, and they withdraw back to the stairwell where they decide to return to the BAECO. Firefighter N Sanders states that on descending the stairs she hands the TIC to another unidentified BA team* (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00969, GTIRT18-00067, GTIRT18-00945).
- 05:10:30** SM Myatt proceeds towards the stair lobby. WM O'Keeffe and GM Goulbourne continue having a discussion in the main lobby (Source: CCTV: Camera 4).
- 05:11:34** CRO Duddy takes a call from the sister-in-law of Antonio (Roncolato) in flat 72 on the 10<sup>th</sup> floor, she reports that she has spoken with him and he is too afraid to come out. She pleads for someone to check the flat. CRO Duddy advises that the crews are working their way through the block. Incident Number 76375, Call Duration one minute 15 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00784).
- 05:11:43** Firefighter Sonson leaves the stair lobby and proceeds to the community room carrying two firefighting tunics (Source: CCTV: Camera 4).
- 05:11:58** CM Cutbill, Firefighter S Boulton, Firefighter A Wright and Firefighter Vango leave the ground floor lift lobby and proceed into the main lobby and join Firefighter Pursey, they then form BA Team 60. They are briefed by GM Welch to also search for BA Team 48, Firefighter Edwards, Firefighter P Singh, Firefighter Welden and Firefighter Howard, who are over their time of LPWA and considered as being missing (Source: MPS Witness Statement: GTIRT18-01019, GTIRT18-00313, GTIRT18-00951, GTIRT18-01431, GTIRT18-01431, GTIRT18-01011).
- 05:12** BA Team 53, Firefighter Holmes-Lewis and Firefighter Knight, state that no one else is on this floor until they meet BA Team 55: Firefighter N Whiting and Firefighter Kalirai, they hand the firefighting branch to them and withdraw to the stairwell. (Source: MPS Witness Statement: GTIRT18-02535, GTIRT18-00428, BA Data: GTIRT17-02820).
- 05:12** BA Team 48, Firefighter Edwards, Firefighter P Singh, Firefighter Welden and Firefighter Howard, run the fire hose to the 10<sup>th</sup> or 11<sup>th</sup> floor and carry out a further gauge check with the lowest reading being 110 bar (Firefighter P Singh). At this point BA Team 57, CM Marks, Firefighter Lang, Firefighter Knapman and Firefighter Duncan meet BA Team 48. They inform BA Team 48 that they have been sent to find them and to tell them to withdraw to the bridgehead in the stair lobby and report to the BAECO. BA Team 48 confirm this, withdraw and start to descend the stairs towards the bridgehead in the stair lobby (Source: MPS Witness Statement: GTIRT18-02866, GTIRT18-01463, GTIRT18-01033, GTIRT18-00988, GTIRT18-01283, BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00243, GTIRT17-00243).

## OFFICIAL

- 05:12** BA Team 57, CM Marks, Firefighter Lang, Firefighter Knapman and Firefighter Duncan, continue with the second part of their brief to check the casualty on 10<sup>th</sup> floor and move them if possible (Source: MPS Witness Statement: GTIRT18-02866, GTIRT18-01463, GTIRT18-01033, GTIRT18-00988, GTIRT18-01283, BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00243, GTIRT17-00243).
- 05:12:20** Two unidentified Firefighters descend the stairs to the stair lobby and talk to GM Goulbourne before ascending back up the stairs (Source: CCTV: Camera 2).
- 05:12:25** SM Cook looks out of the side door in the stair lobby towards the roof and the right of the Tower (Source: CCTV: Camera 2).
- 05:13:26** Romeo Whiskey Sierra send a radio message to Brigade Control.  
"Yeah, M2FN, Romeo Whiskey Sierra now Status 3, uh, the, uh, 40 pump fire".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03255).
- 05:13:34** Brigade Control respond to a radio message from Romeo Whiskey Sierra.  
"Status 3 received".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03256).
- 05:13:34** CU8 send a radio message to Brigade Control.  
"Charlie Uniform 8 from M2FN go ahead. Over".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03257).
- 05:13:37** Firefighter Aldridge descends the stairs to the stair lobby and has a discussion with the BAECO (Source: CCTV: Camera 2).
- 05:13:51** SM Myatt ascends the stairs from the stair lobby (Source: CCTV: Camera 2).
- 05:14\*** BA Team 55, Firefighter Kalirai and Firefighter N Whiting, reach the fifth floor with BA Team 56, CM Sharp and Firefighter D Harris. They enter the lift lobby where they find a firefighting branch attached to a burst length of fire hose resulting in low water pressure. (*Firefighter D Harris states he was handed the firefighting branch from an unidentified BA team who withdrew from the fifth floor*). BA Team 55 and BA Team 56 carry out a systematic search of the flats on the fifth floor and extinguish small pockets of fire (Source: BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT18-02348, GTIRT18-00984, GTIRT18-00947, Contemporaneous Notes: GTIRT17-00205).
- 05:14:20** CU8 send an 'informative' radio message from AC Roe.  
"from AC Roe at Grenfell Tower"

## OFFICIAL

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03258).

**05:14:21** Alpha 342, Edmonton's Pump, book Status 3, in attendance, at Grenfell Tower. This is the 45<sup>th</sup> fire engine in attendance (this is the fourth relief fire engine) (Source: Vision: GTIRT17-02791).

**05:14:33** CU8 continue to send the 'informative' radio message to Brigade Control.

"We have a residential block of flats of 24 floors, 2-4 floors".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03259).

**05:14:45** CU8 continue to send the 'informative' radio message to Brigade Control.

"25 by 25, 2-5 metres by 2-5 metres".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03260).

**05:14:50** Firefighter Aldridge finishes a discussion with WM O'Keeffe and CM Morrison and ascends the stairs from the stair lobby (Source: CCTV: Camera 2).

**05:15** BA Team 51, Firefighter I Moore and Firefighter Hall, decide to withdraw from the 12<sup>th</sup> floor after searching two flats and they make the decision to descend the stairs towards the bridgehead in the stair lobby (Source: BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT18-00941, GTIRT18-00253, Contemporaneous Notes: GTIRT17-00174).

**05:15:00** CU8 continue to send the 'informative' radio message to Brigade Control.

"fire from 2nd to 24th floor".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03261).

**05:15:11** GM Welch leaves the stair lobby and proceeds into the main lobby where he talks to WM Delaney (CU) (Source: CCTV: Camera 4).

**05:15:16** Foxtrot 422, Ilford's Pump, book Status 3, in attendance at Grenfell Tower. This is the 46<sup>th</sup> fire engine in attendance (this is the fifth relief fire engine) (Source: Vision: GTIRT17-02791).

**05:15:17** BA Team 58, CM Codd, Firefighter Reddington, Firefighter Friend and Firefighter Upton, leave the ground floor lift lobby and proceed into the stair lobby wearing EDDBA and not under air (Source: CCTV: Camera 4, MPS Witness Statement: GTIRT18-01299, GTIRT18-01114, GTIRT17-01715, Contemporaneous Notes: GTIRT17-00159).

**05:15:20** CU8 continue to send the 'informative' radio message to Brigade Control.

"Approximately 100 - 1-0-0 individuals involved".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03262).

**05:15:34** CU8 continue to send the 'informative' radio message to Brigade Control.

## OFFICIAL

"Major incident declared high-rise - high-rise procedure implemented".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03263).

**05:15:40** An unidentified firefighter leaves the community room and proceeds into the main lobby carrying a length of 70mm fire hose (Source: CCTV: Camera 4).

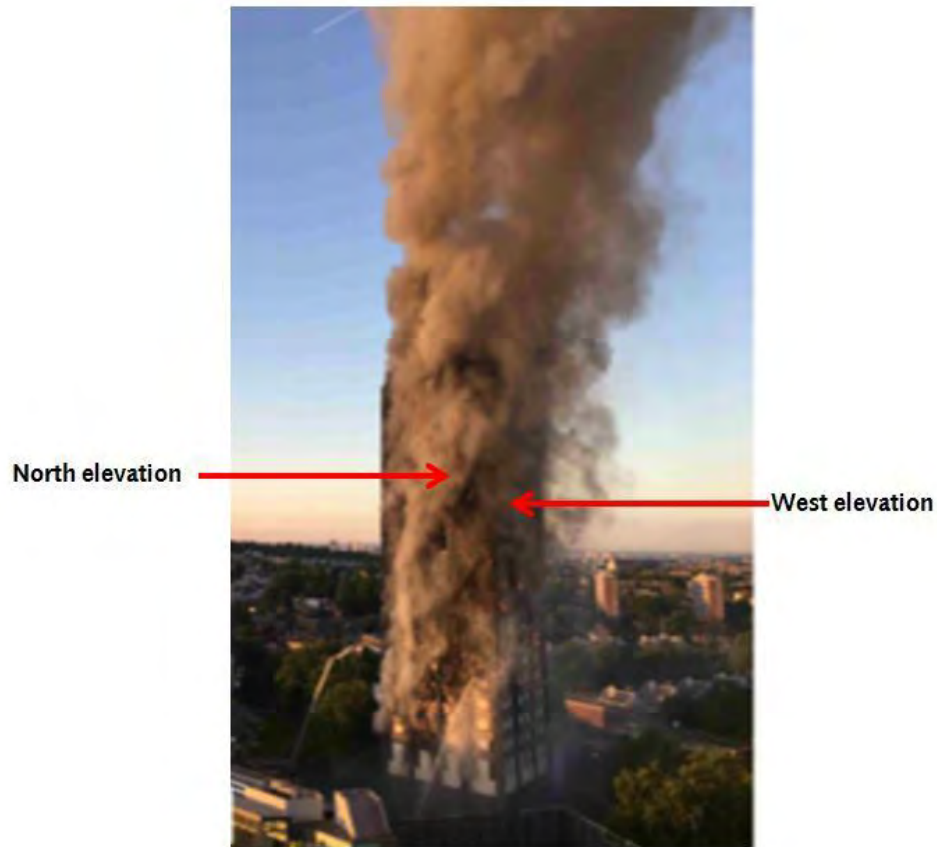
**05:15:34** CU8 continue to send the 'informative' radio message to Brigade Control.

"Cordon in place".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03264).

## OFFICIAL

**05:16** The image below shows the fire spread at Grenfell Tower at this time. The picture shows the North and West elevation engulfed by smoke following several hours of firefighting (Source: MET000085895).



**05:16** BA Team 54, Firefighter W Boulton, Firefighter Devani, Firefighter Pitt and Firefighter Beer, withdraw back through the 13<sup>th</sup> floor lift lobby and congregate in the stairwell after searching the flats. Firefighter W Boulton and Firefighter Pitt are suffering from the effects of heat and, on recognising this, the team make the decision to descend the stairs to the bridgehead in the stair lobby (Source: MPS Witness Statement: GTIRT18-02308, GTIRT18-00411, GTIRT17-02921, GTIRT18-00639).

**05:16\*** BA Team 53, Firefighter Holmes-Lewis and Firefighter Knight, carry out a gauge check whilst in the stairwell of the sixth floor. They then decide to descend the stairs to the bridgehead in the stair lobby. *Firefighter Knight states that they go into the fourth floor again as they descend the stairs to double check everything is okay* (Source: MPS Witness Statement: GTIRT18-02535, GTIRT18-00428, BA Data: GTIRT17-02820).

**05:16** BA Team 57, CM Marks, Firefighter Lang, Firefighter Knapman and Firefighter Duncan, reach the 10<sup>th</sup> floor and find a casualty (now known to be Khadija Saye from flat 173, 20<sup>th</sup> floor), they check and find no signs of life. They move the casualty between the stairwell and 10<sup>th</sup> floor lift lobby and try to contact the BAECO via their fire ground radio unsuccessfully. They decide to return to the

## OFFICIAL

bridgehead in the stair lobby to update the BAECO on their actions (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-02866, GTIRT18-01463, GTIRT18-01033, GTIRT18-00988).

**05:16:03** CU8 continue to send the 'informative' radio message to Brigade Control.

"Approximately 30, 3-0 adjacent flats".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03265).

**05:16:18** CU8 continue to send the 'informative' radio message to Brigade Control.

"In Grenfell Walk, evacuated by police".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03266).

**05:16:18** A length of uncharged 45mm fire hose is lowered from the second floor mezzanine to Firefighter Wharnsby who is in the stair lobby (Source: CCTV: Camera 2).

**05:16:28** BA Team 52, CM Charity, Firefighter Tucker and Firefighter N Sanders descend the stairs to the bridgehead in the stair lobby and close down their BA sets. They have a discussion with GM Welch, WM O'Keeffe and CM Morrison and then collect their BA tallies (Source: CCTV: Camera 2).

**05:16:34** CU8 continue to send the 'informative' radio message to Brigade Control.

"TL ALP BA Main Control".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03267).

**05:16:47** CU8 continue to send the 'informative' radio message to Brigade Control.

"Two ground monitors and five jets. Tactical Mode Oscar. Charlie Uniform 8. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03268).

**05:16:52** An unidentified CM leaves the main lobby and proceeds into the stair lobby and ascends the stairs (Source: CCTV: Camera 2).

**05:17:04** The Radio Operator at Brigade Control repeats the 'informative' radio message back, to CU8 to confirm it is correct.

"Charlie Uniform 8 from AC Roe. A residential block of flats of 24 floors".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03269).

**05:17:11** The Radio Operator at Brigade Control continues to repeat back the 'informative' radio message back to CU8.

## OFFICIAL

"- floors 25 metres by 25 metres. Fire from 2nd to 24th floor. Approximately 100 individuals involved. Major incident declared, high-rise procedure implemented. Cordon in place. Approximately 30 - 3-0 adjacent flats in Grenfell Walk evacuated by police. TL ALP BA Main Control. Two ground monitors and five jets. Tactical Mode Oscar. Received. Is that correct? Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03270).

**05:17:22** CRO Fox takes a call from the sister-in-law of Antonio (Roncolato) in flat 72 on the 10<sup>th</sup> floor reporting again that her brother-in-law is too scared to leave and asks for someone to check on him. CRO Fox says she will pass on the information to the crews at the incident. Incident Number 76376, Call Duration one minute 1 second (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00785).

**05:17:04** CU8 confirm the 'informative' radio message received from the Radio Operator at Brigade Control is correct.

"- FN Charlie Uniform 8, answer yes. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03271).

**05:17:31** Foxtrot 282, Homerton's Pump, book Status 3, in attendance at Grenfell tower. This is the 47<sup>th</sup> fire engine in attendance (this is the sixth relief fire engine) (Source: Vision: GTIRT17-02791).

**05:18\*** CM Marks, from BA Team 57, *describes the stairwell conditions around the 10<sup>th</sup> floor, there is smoke in the stairwell and he probably only has about six feet visibility at the most. The door to the 10<sup>th</sup> floor lift lobby is wedged open by an item, he believes it looks big enough to be a sheet or bedding. He doesn't know how compromised the flats are with fire and smoke but there is probably a lot of fire gases being pumped out of the 10<sup>th</sup> floor into the stairwell*. (Source: MPS Witness Statements: GTIRT18-02866).

**05:18:03** Hotel 312, Croydon's Pump, book Status 3, in attendance at Grenfell Tower. This is the 48<sup>th</sup> fire engine in attendance (this is the seventh relief fire engine) (Source: Vision: GTIRT17-02791).

**05:18:42\*** BA Team 58, CM Codd, Firefighter Reddington, Firefighter Friend and Firefighter Upton, are at the bridgehead in the stair lobby, they report to the BAECO and talk to GM Goulbourne. Firefighter Reddington, Firefighter Friend and Firefighter Upton state that they are briefed to go to the ninth floor to search and rescue. *CM Codd states "we are briefed to go to the 12<sup>th</sup> floor to search and rescue and then work down the floors"* (Source: CCTV: Camera 2, MPS Witness Statement: GTIRT18-01299, GTIRT18-01114, GTIRT17-01715, Contemporaneous Notes: GTIRT17-00159).



## OFFICIAL

- 05:18:43** Firefighter Wharnsby and an unidentified firefighter ascend the stairs from the stair lobby (Source: CCTV: Camera 2).
- 05:19\*** CM Marks, from BA Team 57, *describes the stairwell conditions around the 12<sup>th</sup> floor, "we make our way to the 12<sup>th</sup> floor and go into the lobby on a right hand search. The lobby is dark, hot and visibility is down to not much more than a hand in front of my face due to the smoke. We are certainly starting to feel the symptoms of some sort of heat disorder, I am very, very hot after coming out from the 12<sup>th</sup> floor and down the stairwell. When I am on the stairwell the heat is like a chimney and is really starting to effect me. I start to get quite agitated. I am trying to push people on and get them down and get off the stairwell. I could certainly feel the heat barrelling up the stairwell as the 10<sup>th</sup> floor door is open and the heat is just being pumped straight out to where we are stood"* (Source: MPS Witness Statements: GTIRT18-02866).
- 05:19:36** WM Watson leaves the main lobby and exits the building via the community room (Source: CCTV: Camera 4).
- 05:19:40** SM Cook and WM Dowden are having a discussion in the main lobby and are joined by SM Wolfenden (Source: CCTV: Camera 4).
- 05:19:49** Alpha 352, Enfield's Pump, book Status 3, in attendance at Grenfell Tower. This is the 49<sup>th</sup> fire engine in attendance (this is the eight relief fire engine) (Source: Vision: GTIRT17-02791).
- 05:20** AC Roe has an update meeting with DAC O'Loughlin. DAC O'Loughlin explains to AC Roe that there is a fatality on the stairs blocking progress and that a considerable amount of casualties are still coming out, with persons still seen at the windows. Visibility is okay until the fifth floor, from which point on it is smoke logged even in the central core. AC Roe asks if the wet riser was up and running, DAC O'Loughlin explains it is but the water supply is not at the pressure they want. AC Roe asks DAC O'Loughlin to prioritise getting the casualties out to enable progress (Source: MPS Witness Statement: GTIRT17-01254, GTIRT18-01266, AC Roe Supplement Decision Log : GTIRT17-00866).
- 05:20** AC Roe requests a full Senior Officer relief for 08:00. He also requests that DAC Drawbridge is informed as he is still concentrating on the consolidation of existing resources and the integration of the 20 pump relief. The Commissioner asks AC Roe to pass back to AC Dan Daly that no Senior Officers are to be Status 7, second line, today (Source: MPS Witness Statement: GTIRT17-01254, AC Roe Supplement Decision Log : GTIRT17-00866).
- 05:20:01** Foxtrot 451, Plaistow's PL, book Status 3, in attendance at Grenfell Tower. This is the 50<sup>th</sup> fire engine in attendance (this is the ninth relief fire engine) (Source: Vision: GTIRT17-02791).

## OFFICIAL

- 05:20:17** BA Team 58, CM Codd, Firefighter Reddington, Firefighter Friend and Firefighter Upton, are in the stair lobby wearing EDDBA, they have a discussion with CM Morrison and start breathing under air (Source: CCTV: Camera 2, BA Data: GTIRT17-02820).
- 05:20:43** BA Team 53, Firefighter Holmes-Lewis and Firefighter Knight, descend the stairs to the bridgehead in the stair lobby and report to the BAECO, they remove their facemasks, close down and collect their BA tallies (Source: BA Data: GTIRT17-02820, CCTV: Camera 2).
- 05:20:47** SM Myatt leaves the stair lobby and proceeds into the main lobby and has a discussion with SM Cook and SM Wolfenden (Source: CCTV: Camera 4).
- 05:20:53** WM Morrison, WM Niblett and WM Vanstone, from RRT, leave the community room and proceed to the ground floor lift lobby wearing EDDBA, not under air. They meet with Firefighter P Harris and form BA Team 62 (Source: MPS Witness Statements: GTIRT18-00999, GTIRT18-00646, GTIRT18-01018, GTIRT18-00425, CCTV: Camera 4).
- 05:20:58** Firefighter Aldridge descends the stairs to the stair lobby and has a discussion with CM Hunter, GM Goulbourne and GM Welch (Source: CCTV: Camera 2, Camera 5).
- 05:21:52\*** BA Team 58, CM Codd, Firefighter Reddington, Firefighter Friend and Firefighter Upton, are in the stair lobby talking to WM O'Keeffe who shows them a piece of paper with writing on it (*the paper appears to show what is believed to be the number 72 or 12 and 10 or 18*). Firefighter Friend states "someone came up to me with a piece of paper saying "If you get a chance" I told that person I was going to the ninth floor, I didn't even look at that piece of paper." Firefighter Friend takes the piece of paper (Source: CCTV: Camera 2, MPS Witness Statement: GTIRT18-01114).
- 05:22:21** The Radio Operator at Brigade Control sends a radio message to Hotel 33 Alpha, Wandsworth's OSU.  
"Hotel 33 Alpha from M2FN. Over".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03273).
- 05:22:22** CRO Howson speaks to the sister-in-law of Antonio (Roncolato) in flat 72 and she explains again that her brother-in-law is trapped and wants to know if anyone has checked on his flat. CRO Howson asks her to hold the line and when she comes back, CRO Howson explains that she will speak to the crews at the scene. CRO Howson also tells her that if she speaks to him again tell him to call the Brigade on 999. Incident Number 76378, Call Duration two minutes 42 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00787).
- 05:22:31** The Radio Operator at Brigade Control repeats a radio message to Hotel 33 Alpha, Wandsworth OSU.

## OFFICIAL

"Hotel 33 Alpha from M2FN. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03274).

**05:22:38** BA Team 48, Firefighter Edwards, Firefighter P Singh, Firefighter Welden and Firefighter Howard, descend the stairs to the bridgehead in the stair lobby and close down their EDBA sets (Source: CCTV Camera 2: GTIRT18-01446, BA Data: GTIRT17-02820).

**05:22:49** The Radio Operator at Brigade Control repeats a radio message to Hotel 33 Alpha, Wandsworth OSU.

"Hotel 33 Alpha from M2FN, S. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03275).

**05:22:50** Hotel 33 Alpha, Wandsworth's OSU, who has been collecting additional fuel from the Brigade Distribution Centre (BDC), proceeds back to the incident. (Vision: GTIRT17-02791).

**05:22:52** BA Team 51, Firefighter I Moore and Firefighter Hall, descend the stairs and arrive at the bridgehead in the stair lobby. They report to the BAECO, remove their facemasks, close down their EDBA sets and collect their BA tallies (Source: CCTV: Camera 2, BA Data: GTIRT17-02820).

**05:22:56** Hotel 33 Alpha, Wandsworth's OSU, responds to a radio message from the Radio Operator at Brigade Control

"This is Hotel 33 Alpha, go ahead. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03276).

**05:22:59** BA Team 57, CM Marks, Firefighter Lang, Firefighter Knapman and Firefighter Duncan, descend the stairs to the bridgehead in the stair lobby and inform GM Goulbourne of their actions. BA Team 57 confirm they have enough air to be recommitted and receive another briefing to go to the 12<sup>th</sup> floor to search and rescue (Source: CCTV: Camera 2, MPS Witness Statement: GTIRT18-01463, GTIRT18-01463, GTIRT18-01033, GTIRT18-00988, BA Data: GTIRT17-02820).

**05:22:59** The Radio Operator at Brigade Control responds to a radio message received from Hotel 33 Alpha, Wandsworth's OSU.

"Yeah, Hotel 33 Alpha, um, can you RVP at Ladbrooke Grove junction of Elgin Crescent and you will be met there. Uh, they are aware you're coming and they will meet you there unless we give you any further information. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03277).

**05:23\*** BA Team 55, Firefighter Kalirai and Firefighter N Whiting, decide to withdraw from the fifth floor lift lobby into the stairwell with BA Team 56, CM Sharp and Firefighter D Harris. They all carry out a gauge check and, due to low air, they make the decision to withdraw to the bridgehead in the

## OFFICIAL

stair lobby. CM Sharp actuates his withdrawal button on his bodyguard which is acknowledged by the BAECO (05:25:23). BA Team 55 and BA Team 56 descend the stairs towards the bridgehead in the stair lobby (Source: BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT18-02348, GTIRT18-00984, GTIRT18-00947, Contemporaneous Notes: GTIRT17-00205).

**05:23:17** Hotel 33 Alpha, Wandsworth's OSU, confirm radio message received from the Radio Operator at Brigade Control.

"FS from Hotel 33 Alpha received".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03278).

**05:23:44** BA Team 58, CM Codd, Firefighter Reddington, Firefighter Friend and Firefighter Upton, remove their BA tallies whilst under air and report to the BAECO in the stair lobby (Source: CCTV: Camera 2, BA Data: GTIRT17-02820).

**05:23:30** The Radio Operator at Brigade Control sends a radio message to Romeo Whiskey 2, Radio Workshops

"Romeo Whiskey 2 from M2FN. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03280).

**05:23:46** The Radio Operator at Brigade Control sends a radio message to Romeo Whiskey 2, Radio Workshops

"Romeo Whiskey 2, Romeo Whiskey 2 from M2FN. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03281).

**05:23:56** The Radio Operator at Brigade Control sends a radio message to Romeo Whiskey 2, Radio Workshops

"Romeo Whiskey 2, Romeo Whiskey 2 from M2FN. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03282).

**05:24:00** SM Oliff, (OOD) at Brigade Control, makes a telephone call to CU7 that lasts for one minute and 59 seconds. There is no record available of the contents of the discussion (Source: Mobile Phone Call Log: GTIRT18-03467).

**05:24:05** The Radio Operator at Brigade Control sends a radio message to Romeo Whiskey 2, Radio Workshops

"Nothing heard. Echo 391 from M2FN, go ahead. Over".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03283).

## OFFICIAL

- 05:24:10** Firefighter Friend, from BA Team 58, is in the stair lobby having a discussion with GM Goulbourne, WM O'Keeffe and CM Marks, from BA Team 57. Firefighter Friend is holding a piece of paper given to him by WM O'Keeffe in his right hand (Source: CCTV: Camera 2).
- 05:24:10** Echo 391, Bromley's Pump Ladder respond to radio message received from the Radio Operator at Brigade Control.
- "-FN from Echo 391 now Status, Status 2 on this channel. Over".
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03284).
- 05:24:16** SM Myatt leaves the stair lobby, proceeds into the main lobby and has a discussion with an unidentified firefighter (Source: CCTV: Camera 4).
- 05:24:17** The Radio Operator at Brigade Control responds to radio message received from Echo 391, Bromley's Pump Ladder.
- "Status 2 received, FN out".
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03285).
- 05:24:25** Hotel 261, Addington's Pump Ladder sends a radio message to the Radio Operator at Brigade Control.
- "Hotel 261 from M2FN, go ahead over".
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03287).
- 05:24:25** BA Team 57, CM Marks, Firefighter Lang, Firefighter Knapman and Firefighter Duncan, are recommitted and ascend the stairs from the stair lobby. Firefighter Knapman is carrying a TIC (Source: CCTV: Camera 2).
- 05:24:28** Hotel 261, Addington's Pump Ladder send a radio message to the Radio Operator at Brigade Control confirming Status 2.
- "FN, Hotel 261 now status two on this channel, over".
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03288).
- 05:24:28** BA Team 58, CM Codd, Firefighter Reddington, Firefighter Friend and Firefighter Upton, ascend the stairs from the stair lobby to the ninth floor. Firefighter Friend attempts to place a piece of paper in the right pocket of his leggings, the piece of paper falls onto the stairs (Source: CCTV: Camera 2, BA Data: GTIRT17-02820).
- 05:24:32** BA Team 59, Firefighter Perez and Firefighter Dean, report to the bridgehead in the stair lobby and have a discussion with CM Morrison. Their brief is to proceed to the fifth floor to firefight and protect the safe access and egress of BA teams and members of the public. BA Team 59 go under

## OFFICIAL

air, start breathing and hand their BA tallies into the BAECO (Source: MPS Witness Statement: GTIRT18-00063, GTIRT18-00051, BA Data: GTIRT17-02820, CCTV: Camera 2).

**05:24:34** The Radio Operator at Brigade Control confirms a radio message to Hotel 261, Addington's Pump Ladder

"Status 2 received".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03289).

**05:24:59\*** BA Team 54, Firefighter W Boulton, Firefighter Devani, Firefighter Pitt and Firefighter Beer, descend the stairs and report to the bridgehead in the stair lobby. They are debriefed by GM Goulbourne, collect their BA tallies and remove their face masks. Firefighter W Boulton and Firefighter Pitt, *apparently suffering from the effects of heat exhaustion*, have their EDDBA sets taken off their backs and are given bottles of water by WM De Silvo (Source: CCTV: Camera 2, BA Data: GTIRT17-02820).

**05:25:19** SM Myatt leaves the community room and proceeds into the main lobby, he directs BA Team 60, Firefighter Cutbill, Firefighter S Boulton, Firefighter Wright, Firefighter Vango and Firefighter Pursey, to the stair lobby (Source: CCTV: Camera 4).

**05:25:27** BA Team 60, Firefighter Cutbill, Firefighter S Boulton, Firefighter Wright, Firefighter Vango and Firefighter Pursey, leave the main lobby and proceed into the stair lobby in EDDBA, not under air (Source: CCTV: Camera 4).

**05:25:44** BA Team 60, CM Cutbill, Firefighter S Boulton, Firefighter A Wright, Firefighter Vango and Firefighter Pursey, are at the bridgehead in the stair lobby where their brief is confirmed by GM Goulbourne. Before the team go under air, missing BA Team 48, Firefighter Edwards, Firefighter P Singh, Firefighter Welden and Firefighter Howard, appear in the stair lobby. BA Team 60 are re-tasked by GM Goulbourne to search the 11<sup>th</sup> floor and to progress higher if they can (Source: MPS Witness Statement: GTIRT18-01019, GTIRT18-00313, GTIRT18-00951, GTIRT18-01431, CCTV: Camera 2).

**05:25:49** CRO Fox takes a call from Antonio's (Roncolato) sister-in-law again. CRO Fox explains that he should try and get out and the caller explains that he is too scared to leave and pleads with CRO Fox to get someone to go and guide him out as the smoke is too thick to get through. CRO Fox tries to reassure her that someone will get there but there are lot of people who are trapped throughout the building. The caller repeats her plea for someone to go and help guide him out. CRO Fox states that crews are aware of his location but states that Antonio (Roncolato) needs to try and get out. Incident Number 76377, Call Duration four minutes 20 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00786).

## OFFICIAL

- 05:25:51** BA Team 65, CM Ramsay, Firefighter Franklin, Firefighter LeMarrec and Firefighter McArthur, leave the community room and proceed into the main lobby wearing EDBA, not under air. They are directed into the ground floor lift lobby by SM Myatt (Source: CCTV: Camera 4).
- 05:26:11** Foxtrot 21 Alpha, Stratford's OSU, books Status 6 (Source: Vision: GTIRT17-02791).
- 05:26:50** Firefighter P Singh and Firefighter Howard, from BA Team 48, are debriefed by WM O'Keeffe whilst he is cross referencing information written on the wall (Source: CCTV: Camera 2, MPS Witness Statement: GTIRT18-00934, GTIRT18-01446).
- 05:27:30** Foxtrot 362, Walthamstow's Pump, book Status 3, in attendance at Grenfell Tower. This is the 51<sup>st</sup> fire engine in attendance (this is the 10<sup>th</sup> relief fire engine) (Source: Vision: GTIRT17-02791).
- 05:27:33** Echo 232, East Greenwich's Pump, book Status 3, in attendance at Grenfell Tower. This is the 52<sup>nd</sup> fire engine in attendance (this is the 11<sup>th</sup> relief fire engine) (Source: Vision: GTIRT17-02791).
- 05:27:44** BA Team 59, Firefighter Perez and Firefighter Dean, ascend the stairs from the stair lobby. Firefighter Perez is carrying a TIC (Source: CCTV: Camera 2).
- 05:28:03** CU8, sends a radio message to the Radio Operator at Brigade Control  
"Charlie Uniform 8 from M2FN. Go ahead, over".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03291).
- 05:28:11** CU8, send a radio message to the Radio Operator at Brigade Control  
"FN Charlie Uniform 8 from AC Roe at scene of 40 pump fire. Request -".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03292).
- 05:28:25** CU8, continue to send their radio message to the Radio Operator at Brigade Control  
"And just - and 10 - 1-0 station managers".  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03293).
- 05:28:30** BA Team 55, Firefighter Kalirai and Firefighter N Whiting, descend the stairs to the bridgehead in the stair lobby with BA Team 56, CM Sharp and Firefighter D Harris. Both BA teams collect their BA tallies and remove their face masks. CM Sharp has a discussion with GM Goulbourne whilst Firefighter Kalirai, Firefighter D Harris and Firefighter N Whiting have a discussion with WM O'Keeffe (Source: CCTV: camera 2, BA Data: GTIRT17-02820).
- 05:28:31** Firefighter W Boulton, from BA Team 54, leaves the stair lobby and proceeds to the community room, without his EDBA set. *He is believed to be suffering the effects of heat exhaustion* and his tunic is half off. He is shortly followed by other members of his BA Team, Firefighter Beer and Firefighter Pitt, who also do not have their EDBA sets on (Source: CCTV: Camera 4).

## OFFICIAL

- 05:28:25** CU8, continues to send their radio message to the Radio Operator at Brigade Control
- "For relief at 0800 hours. All officers to arr-, en route on blue light. Request all officers are day shift officers. Charlie Uniform 8 over".
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03294).
- 05:28:48** GM Welch leaves the ground floor lift lobby and proceeds into the main lobby. He talks to SM Wolfenden then proceeds into the stair lobby (Source: CCTV: Camera 4).
- 05:28:50** Firefighter Devani, from BA Team 54, leaves the stair lobby and proceeds into the main lobby where he has a discussion with an unidentified firefighter and SM Wolfenden (Source: CCTV: Camera 4).
- 05:28:53** BA Team 60, CM Cutbill, Firefighter S Boulton, Firefighter A Wright, Firefighter Vango and Firefighter Pursey, are at the bridgehead in stair lobby and start breathing under air (Source: MPS Witness Statement: GTIRT18-01019, GTIRT18-00313, GTIRT18-00951, GTIRT18-01431, GTIRT17-02820, BA Data GTIRT17-02820).
- 05:28:54** BA Team 48, Firefighter Edwards, Firefighter P Singh, Firefighter Howard and Firefighter Welden, collect their BA tallies, leave the stair lobby and proceed to the community room (Source: CCTV Camera 2 and Camera 4).
- 05:28:58** The Radio Operator at Brigade Control, requests a repeat of the radio message received from CU8.
- "Charlie Uniform 8, your signals broke up, what was the request before the ten station managers? Over".
- (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03295).
- 05:29** BA Team 57, CM Marks, Firefighter Lang, Firefighter Knapman and Firefighter Duncan, reach the 12<sup>th</sup> floor and carry out a right hand search, they come across the bin chute room which is not affected by fire. BA Team 57 carry on to the next flat (believed to be flat 96) and use the TIC to check the temperature which is showing a white screen. Firefighter Knapman opens the door to the flat, which is disintegrated due to the conditions, the whole flat is on fire and they cannot make entry into it due to having no fire hose or a firefighting branch so they decide to withdraw to the stairwell (BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-02866, GTIRT18-01463, GTIRT18-0103, GTIRT18-00988).
- 05:29:05** CU8, repeats the radio message to the Radio Operator at Brigade Control



## OFFICIAL

"FN Charlie Uniform 8, request for eight group managers, eight group managers and ten SM - station managers".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03296).

**05:29:16** Firefighter Aldridge and CM McGee descend the stairs to the stair lobby. CM McGee has a discussion with GM Goulbourne and GM Welch (Source: CCTV: Camera 2).

**05:29:20** The Radio Operator at Brigade Control confirms receipt of the radio message from CU8.

"Er from ei... - a request for eight group managers and ten station managers for relief at 0800 hours. All officers to go en route on blue light and all officers to be dayshift officers, received."

(Source: AC Roe Decision Log: GTIRT17-00861, NICE, Radio Message Audio file and Transcript: GTIRT17-03297).

**05:29:32** CU8 confirms a radio message received from the Radio Operator at Brigade Control.

"FN Charlie Uniform 8, all - er, many thanks."

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03298).

**05:30** CM Yeoman, Firefighter Nelson, Firefighter Flanagan and Firefighter Cook are relieved from using the MPS riot shields and go to the Salvation Army area (Source: MPS Witness Statements: GTIRT17-02924, GTIRT18-02356).

**05:30\*** BA Team 58, CM Codd, Firefighter Reddington, Firefighter Friend and Firefighter Upton, reach the *ninth or 10<sup>th</sup> floor* and find a casualty (now known to be Khadija Saye from flat 173, 20<sup>th</sup> floor) on the stairs, *they check for signs of life* and try to move her but are unable to, so continue with their brief. *Firefighter Friend thinks he is on the ninth floor and states that they come across another unidentified BA team* (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01114, GTIRT18-01299, GTIRT17-01715).

**05:30:43** BA Team 60, CM Cutbill, Firefighter S Boulton, Firefighter A Wright, Firefighter Vango and Firefighter Pursey, ascend the stairs from the stair lobby. Firefighter Pursey is carrying a TIC (Source: CCTV: Camera 2).

**05:30:45** Firefighter Aldridge and CM McGee untangle an uncharged 45mm fire hose in the stair lobby that has been lowered from the second floor mezzanine (Source: CCTV: Camera 2).

**05:31:00** CRO Gotts takes a call from the daughter-in-law of a resident in flat 83 on the 11<sup>th</sup> floor. She explains that she last spoke to her father-in-law about 40 minutes ago until the line went dead and is calling in case there is an update. The caller reminds CRO Gotts that he is blind and disabled. CRO Gotts confirms that the details have been passed to the incident ground and also informs

## OFFICIAL

the caller that she thinks she spoke to the resident earlier on. Incident Number 76380, Call Duration three minutes 8 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00788).

**05:31:01** The Radio Operator at Brigade Control sends a group information message to all 20 pump relief appliances.

"This is a message for all relief stations going to the 20 pump relief at Grenfell Tower, all relief to RVP at Ladbroke Grove, junction of Elgin Crescent. I repeat, that's the 20 pump relief, all appliances go to Ladbroke Grove, junction of Elgin Crescent. At - this is, erm, this is a broadcast for all of the appliances on a 20 pump relief, over. FN out".

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03300).

**05:31:32** GM Welch leaves the community room and proceeds into the main lobby where he talks to SM Wolfenden (Source: CCTV: Camera 4).

**05:31:49** CRO Howson takes a call from the sister-in-law of Antonio (Roncolato). The caller repeats her plea for the Brigade to go and get him. The caller starts begging CRO Howson to go and help. CRO Howson tries to reassure her that the Brigade is doing everything they can to get to him and as soon as they can get to him safely, they will do. Incident Number 76383, Call Duration two minutes 47 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00791).

**05:32\*** AC Roe speaks to GM O'Neill (Sector Commander Safety), AC Roe states *"Dave O'Neill came onto the CU (CU8) and gave me his regular update as Sector Commander Safety. They're continuing to use long MPS riot shields from the police, a senior DSE has arrived, John Allen, who confirms the building has up to 4 hours protection, obviously the scale and ferocity of the fire may have compromised that. He told me, John, like us, has no concerns about overall collapse but agrees that columns could fail and cause isolated partial collapse. Dave has briefed safety officers to focus on the stability of columns and has passed that brief to the lobby for BA crews. It is recorded that following the brief and my own professional judgement it is proportional and necessary to continue to commit BA crews into the building to save life."* (Source: MPS Witness Statement: GTIRT17-01254, GTIRT17-01104, Supplement Decision Log GTIRT17-00866).

**05:32\*** BA Team 59, Firefighter Perez and Firefighter Dean, reach the fifth floor. *Firefighter Dean states they find a fire hose set into the dry riser outlet on the fifth floor.* Firefighter Dean attempts to contact the BAECO to give them the team's position but his radio is not working (Source: MPS Witness Statement: GTIRT18-00063, GTIRT18-00051, BA Data: GTIRT17-02820).

**05:32:07** Firefighter Desmond and Firefighter Cachia descend the stairs to the stair lobby and flake out an uncharged 45mm fire hose that has been lowered from the second floor mezzanine (Source: CCTV: Camera 2).

## OFFICIAL

- 05:32:31** Brigade control confirm with Alex from Euroloo that they will mobilise one unit and get the second unit on its way (Source: Vision: GTIRT17-00789).
- 05:32:38** Firefighter Page is outside Grenfell Tower with Firefighter Worman and carries out a fireground 'A' test on his SDBA set number 67 (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01284).
- 05:32:38** CRO Duddy takes a call from a female who states that there is a man on the roof of Grenfell Tower live on Facebook. She explains that the footage is being played out on Facebook live and says he is waving his arms. CRO Duddy says he will pass on the information to the crews. Incident Number 76381, Call Duration one minute 2 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00789).
- 05:32:46** WM Sadler (FSG Coordinator) leaves the stair lobby and proceeds into the main lobby where he talks to SM Wolfenden (Source: CCTV: Camera 4).
- 05:33\*** BA Team 59, Firefighter Perez and Firefighter Dean, enter the fifth floor lift lobby and make entry through the first flat on the left. *Firefighter Dean describes the search of the flats as being carried out left to right to keep the search systematic.* Water pressure is good and they move from room to room extinguishing small fires, turning over debris (Source: MPS Witness Statement: GTIRT18-00063, GTIRT18-00051, BA Data: GTIRT17-02820).
- 05:32:53** GM Welch leaves the stair lobby and proceeds to the community room, briefly returning to the main lobby talking into his 'Airwave' hand-held radio by the main entrance (Source: CCTV: Camera 4).
- 05:33:06** Firefighter Aldridge carries a length of 45mm fire hose from the stair lobby and proceeds into the main lobby then heads towards the main entrance where he talks with GM Welch (Source CCTV: Camera 4).
- 05:33:10** The stair lobby progressively fills up with smoke (Source: CCTV: Camera 2).
- 05:33:16** CM McGee looks out of the side door in the stair lobby towards his left (the North elevation of the building) then proceeds into the main lobby (Source: CCTV: Camera 2).
- 05:33:23** Firefighter Toppin leaves the community room and proceeds into the main lobby carrying a MPS riot shield then proceeds towards the main entrance (Source: CCTV: Camera 4).
- 05:33:27** Firefighter Cachia leaves the stair lobby and proceeds into the main lobby, flaking out a length of 45mm fire hose, then proceeds towards the main entrance (Source: CCTV: Camera 4).
- 05:33:51** GM Goulbourne steps out of the side door in the stair lobby and looks back up towards the top of the building (Source: CCTV: Camera 2).

## OFFICIAL

- 05:33:58** An unidentified firefighter, carrying a MPS riot shield, leaves the main lobby and proceeds into the community room (Source: CCTV: Camera 4).
- 05:34:00** SM Oliff, (OOD) at Brigade Control, makes a call to CU7 that lasts for 40 seconds. There is no record available of the contents of the discussion (Source: Mobile Phone Call Log: GTIRT18-03467).
- 05:34** BA Team 57, CM Marks, Firefighter Lang, Firefighter Knapman and Firefighter Duncan, descend the stairs from the 12<sup>th</sup> floor towards the bridgehead in the stair lobby (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-02866, GTIRT18-01463, GTIRT18-0103, GTIRT18-00988).
- 05:34:02** CRO Jones takes a call from a female who says she is watching the Grenfell fire on the news and one of her friends is near there and has seen a "guy on the roof". They explain he is right in the middle of the smoke. CRO Jones asks how long ago did the caller see the person and the caller says a couple of minutes ago. The caller says it is live and seen by the caller on camera. CRO Jones confirms the details that the man is on top of the building and says she will pass the information on. Incident Number 76382, Call Duration 58 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00790).
- 05:34:18** GM Cook (ORT) leaves the community room and proceeds into the main lobby where he has a discussion with GM Goulbourne (Source: CCTV: Camera 4).
- 05:34:30** An unidentified CM leaves the stair lobby and proceeds into the main lobby carrying a yellow long line bag, they then proceed to the main entrance (Source: CCTV: Camera 4).
- 05:34:37** SM Wolfenden is talking on his fire ground hand-held radio in the main lobby (Source: CCTV: Camera 4).
- 05:35** BA Team 60, CM Cutbill, Firefighter S Boulton, Firefighter A Wright, Firefighter Vango and Firefighter Pursey, reach the 10<sup>th</sup> floor and find a casualty partially blocking the doorway preventing the door to the lobby closing (now known to be Khadija Saye from flat 173, 20<sup>th</sup> floor). The team look for signs of life and agree the casualty is deceased. They move the casualty onto the stairwell to allow the door to close in an effort to prevent further smoke entering the stairwell (Source: MPS Witness Statement: GTIRT18-01019, GTIRT18-00313, GTIRT18-00951, GTIRT18-01431, GTIRT18-01011).
- 05:35:02** An unidentified firefighter is seen throwing a long line out of the main entrance towards the covered walkway (Grenfell Walk) opposite (Source: CCTV: Camera 4).
- 05:35:13** SM Mulholland (ORT) and GM Welch join GM Goulbourne and GM Cook (ORT) to have a discussion in the main lobby (Source: CCTV: Camera 4).

## OFFICIAL

- 05:35:13** SM Wolfenden leaves the main lobby and proceeds into the stair lobby and talks to the officers at the bridgehead, pointing in a upwards motion. WM De Silvo mirrors his gesture and WM O'Keeffe uses his fire ground radio (Source: CCTV: Camera 2).
- 05:35:25** Foxtrot 411, Dagenham's PL, book Status 3, in attendance at Grenfell Tower. This is the 53<sup>rd</sup> fire engine in attendance (this is the 12<sup>th</sup> relief fire engine) (Source: Vision: GTIRT17-02791).
- 05:35:30** SM Wainwright enters the building via the main entrance, carrying a MPS riot shield, and proceeds to the stair lobby (Source: CCTV: Camera 4).
- 05:35:42** Firefighter Cachia and Firefighter Desmond leave the main lobby, proceed into the stair lobby and ascend the stairs (Source: CCTV: Camera 2).
- 05:36:23** SM Wainwright tries to open the side door in the stair lobby further but is unable due to a build up of fallen debris. The amount of smoke in the stair lobby has now reached levels that are causing visible discomfort to all personnel in the vicinity (Source: CCTV: Camera 2).
- 05:36:34** GM Cook (ORT) and an unidentified firefighter leave the community room and proceed to the stair lobby. The unidentified firefighter is carrying a second set bag (Source: CCTV: Camera 4).
- 05:36:39** WM Delaney (CU) leaves the community room and proceeds to the stair lobby also carrying a second set bag (Source: CCTV: Camera 4).
- 05:36:43** CRO Howson takes a call from a female caller who explains that she is watching a live video on Facebook of a man on the roof at Grenfell Tower waving for help. CRO Howson explains that the Brigade are aware. Incident Number 76385, Call Duration 34 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00793).
- 05:37:01** WM Delaney (CU) and Firefighter Aldridge place the second set bags down in the stair lobby next to the side door (Source: CCTV: Camera 2).
- 05:37:18** BA Team 58, CM Codd, Firefighter Reddington, Firefighter Friend and Firefighter Upton, are ascending the stairs when Firefighter Friend's ADSU actuates (EDBA 9102 Bodyguard actuates at 05:40:53 but is believed to be three minutes and 35 seconds fast) CM Codd tells Firefighter Friend to return to the BAECO at the bridgehead in the stair lobby (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01114, GTIRT18-01299, GTIRT17-01715).
- 05:37:23** An unidentified CM and firefighter are at the main entrance flaking out a 45mm fire hose towards Grenfell Walk (Source: CCTV: Camera 4).
- 05:37:53** WM Sadler (FSG) leaves the main lobby and proceeds into the stair lobby where he talks with WM De Silvo (Source: CCTV: Camera 2).
- 05:38:10** SM Wainwright leaves the stair lobby and proceeds to the main entrance (Source: CCTV: Camera 4).

## OFFICIAL

- 05:38:14** CRO Jones takes a call from the same caller who rang at **05:34:02** who has called back to say that her friend who had originally made the claim about the man on the roof has now zoomed in with a high definition camera and it is a piece of cladding not a person. CRO Jones says she will pass on the information to the crews. Incident Number 76384, Call Duration one minute 21 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00792).
- 05:38:40** CRO Duddy takes a call from the sister-in-law of Antonio (Roncolato) to ask if anyone has checked on the flat yet. CRO Duddy asks what the conditions are like in the flat and the caller explains that the conditions are not too bad inside his flat but they are outside. CRO Duddy reassures her that they will get there as soon as possible but also states that he should try and leave. The caller repeats that he will not leave because he is too scared. Incident Number 76386, Call Duration one minute 50 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00794).
- 05:38:43** Echo 392, Bromley's Pump, book Status 3, in attendance at Grenfell Tower. This is the 54<sup>th</sup> fire engine in attendance (this is the 13<sup>th</sup> relief fire engine) (Source: Vision: GTIRT17-02791).
- 05:38:59** GM Welch and SM Mulholland (ORT) are having a discussion in the community room doorway and move into the main lobby. They continue their discussion with an unidentified firefighter who is carrying a Halligan bar. The unidentified firefighter proceeds into the stair lobby (Source: CCTV: Camera 4).
- 05:39\*** CM Codd, Firefighter Upton and Firefighter Reddington, from BA Team 58, reach the ninth or 10<sup>th</sup> floor and enter the lift lobby. *CM Codd states that they are on the 12<sup>th</sup> floor, Firefighter Upton states that they overshoot the ninth and are on the 10<sup>th</sup> floor but also states that CM Codd remains at the lift lobby door on the ninth to protect the egress.* Firefighter Upton and Firefighter Reddington follow the right hand wall and find the bin chute room, they then carry on to the first flat. The door to the flat is half open and the flat is fully alight, burning from the outside in and too hot to search fully. They continue and search the next two flats (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT17-01715, GTIRT18-01299).
- 05:39** BA Team 60, CM Cutbill, Firefighter S Boulton, Firefighter A Wright, Firefighter Vango and Firefighter Pursey, reach the 11<sup>th</sup> floor and enter the lift lobby. The conditions are hot and they have no fire hose or firefighting branch. CM Cutbill makes the decision that crews will only enter flats with doors already opened (Source: MPS Witness Statement: GTIRT18-01019, GTIRT18-00313, GTIRT18-00951, GTIRT18-01431, GTIRT18-01011).
- 05:39:21** Two unidentified firefighters, not in BA, leave the main lobby and proceed into the stair lobby carrying a crow bar and a Halligan bar (Source: CCTV: Camera 2).
- 05:39:29** A 45mm fire hose, coming from outside the building, is filled with water and can be seen filling up in the main lobby. (Source: CCTV: Camera 4).

## OFFICIAL

- 05:39:29** WM De Silvo ascends the stairs from the bridgehead in the stair lobby (Source: CCTV: Camera 2).
- 05:40** GM Goodall (FSG Coordinator) enters CU8 and informs AC Roe that he has received reports of someone on Facebook streaming live, trapped on the roof of Grenfell Tower. AC Roe considers the possibility of requesting the Maritime and Coastguard Agency Search and Rescue Helicopter (MCA SAR) for support as London does not have winch rescue (Source: MPS Witness Statement: GTIRT17-01254, Supplement Decision Log GTIRT17-00866).
- 05:40** BA Team 59, Firefighter Perez and Firefighter Dean, exit the first flat (believed to be flat 21) and search all flats on the fifth floor, extinguishing fires as they find them. They find no casualties (Source: MPS Witness Statement: GTIRT18-00063, GTIRT18-00051, BA Data: GTIRT17-02820).
- 05:40:02** An unidentified firefighter is in the stair lobby breaking a large piece of glass at the front of the building (South elevation) with a Halligan bar due to heavy smoke logging in the ground floor lobbies (Source: CCTV: Camera 2 and Camera 4).
- 05:40:12** BA Team 57, CM Marks, Firefighter Lang, Firefighter Knapman and Firefighter Duncan, descend the stairs to the bridgehead in the stair lobby, remove their face masks, collect their BA tallies and talk to CM Morrison (Source: CCTV: Camera 2, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-02866, GTIRT18-00988, GTIRT18-01463).
- 05:41** CM Codd, Firefighter Upton and Firefighter Reddington, from BA Team 58, are in the ninth or 10<sup>th</sup> floor lift lobby. Firefighter Reddington and Firefighter Upton carry out a gauge check after searching the third flat and not finding any casualties. Firefighter Reddington has 183 bar and Firefighter Upton has 197 bar. From this information they make the decision to withdraw and descend back to the bridgehead in the stair lobby (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT17-01715).
- 05:41:10** GM Goulbourne leaves the stair lobby and proceeds into the main lobby. He has a discussion with WM Christmas, Firefighter Dean, Firefighter C Wright, Firefighter Folivi, Firefighter Goddard, Firefighter Bell, Firefighter Alassad, Firefighter N Saunders, and Firefighter J Wright who are all in SDBA and not under air (Source: CCTV: Camera 4).
- 05:42** BA Team 60, CM Cutbill, Firefighter S Boulton, Firefighter A Wright, Firefighter Vango and Firefighter Pursey, search two flats on the 11<sup>th</sup> floor using a TIC. They find no casualties. The team then withdraw to the stairwell and ascend the stairs to the 12<sup>th</sup> floor (Source: MPS Witness Statement: GTIRT18-01019, GTIRT18-00313, GTIRT18-00951, GTIRT18-01431, GTIRT18-01011).
- 05:42:19** WM Sadler (FSG Coordinator) leaves the stair lobby, proceeds into the main lobby and has a discussion with SM Wolfenden and SM Wainwright (Source: CCTV: Camera 4).

## OFFICIAL

- 05:42:20** Firefighter Friend, from BA Team 58, returns to the bridgehead in the stair lobby, collects his BA tally and tells the BAECO about the casualty on the ninth floor, he then closes down his EDPA set and waits for the rest of his BA team in the stair lobby (Source: CCTV: Camera 2, BA Data: GTIRT17-02820).
- 05:42:38** An unidentified firefighter leaves the stair lobby and proceeds into the main lobby carrying a Halligan bar, then returns back into the stair lobby carrying two small firefighter axes. He continues to try and smash the glass in the south elevation of the stair lobby (Source: CCTV: Camera 2).
- 05:42:47** CRO Gotts takes a call from the sister-in-law of Antonio (Roncolato) who reports that her brother-in-law is not answering his phone anymore. The caller asks if CRO Gotts is able to check if anyone has been to the flat and CRO Gotts explains that there is no feedback from the incident ground. CRO Gotts states that she has spoken to his neighbour as well who is currently alright in their flat. Incident Number 76387, Call Duration two minutes 41 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00795).
- 05:43:02** SM Cook, an unidentified CM and two unidentified firefighters enter the building via the main entrance whilst being protected from falling debris by an unidentified WM and an unidentified firefighter with MPS riot shields. The four of them are carrying a RLPP and put it down in the main lobby. The picture below shows the four firefighters putting the RLPP down (Source: CCTV: Camera 4).



- 05:43:51** CM Poullais, not in BA, descends the stairs to the stair lobby and has a discussion with WM De Silvo, GM Goulbourne and SM Cook (Source: CCTV: Camera 2).



## OFFICIAL

- 05:44:16** One unidentified CM and two unidentified firefighters exit the building via the main entrance after bringing in the RLPP. They are carrying two MPS riot shields protecting them from falling debris (Source: CCTV: Camera 4).
- 05:44:21** Two unidentified firefighters exit the building via the main entrance carrying a MPS riot shields protecting them from falling debris (Source: CCTV: Camera 4).
- 05:44:21** WM Sadler (FSG Coordinator) leaves the community room and proceeds into the main lobby holding his FSG surcoat and hangs it on a red box which is the smoke extract panel (Source: CCTV: Camera 4).
- 05:44:41** Hotel 261, Addington's PL, book Status 3, in attendance at Grenfell Tower. This is the 55<sup>th</sup> fire engine in attendance (this is the 14<sup>th</sup> relief fire engine) (Source: Vision: GTIRT17-02791).
- 05:45\*** AC Roe asks AC1 Daly to place the MCA SAR helicopter on warning for a possible tasking; he states *"I did not want them to deploy until GM Goodall had verification of the person trapped on the roof of Grenfell Tower"* (Source: MPS Witness Statement: GTIRT17-02965, Supplement Decision Log GTIRT17-00866).
- 05:45\*** BA Team 60, CM Cutbill, Firefighter S Boulton, Firefighter A Wright, Firefighter Vango and Firefighter Pursey, reach the 12<sup>th</sup> floor. They proceed to the lift lobby but are unable to search any flats due to the heat. *CM Cutbill states the neutral plane was low with minimal chance of survival.* The team withdraw into the stairwell and ascend the stairs (Source: MPS Witness Statement: GTIRT18-01019, GTIRT18-00313, GTIRT18-00951, GTIRT18-01431, GTIRT18-01011).
- 05:45:17** One unidentified CM and four unidentified firefighters enter the building via the main entrance carrying one 70mm fire hose each. Two unidentified firefighters are carrying two MPS riot shields protecting them from falling debris and place the fire hose on the main lobby floor (Source: CCTV: Camera 4).
- 05:45:30** One unidentified CM, carrying three black body bags, and two unidentified firefighters enter the building via the main entrance carrying one 70mm fire hose. An unidentified firefighter is carrying one MPS riot shield protecting them from falling debris (Source: CCTV: Camera 4).
- 05:45:33** An unidentified firefighter stops cutting glass in the stair lobby with a large axe. He leaves the axe in the equipment dump at the base of the stairs and enters the main lobby (Source: CCTV: Camera 2).
- 05:45:50** SM Wainwright exits the building via the main entrance with one unidentified firefighter who is carrying a MPS riot shield protecting them from falling debris (Source: CCTV: Camera 4).
- 05:45:57** An unidentified firefighter descends the stairs to the stair lobby then proceeds into the main lobby (Source: CCTV: Camera 2).

## OFFICIAL

- 05:45:58** One unidentified CM and three unidentified firefighters exit the main lobby via the main entrance, between them they are carrying two MPS riot shields protecting them from falling debris (Source: CCTV: Camera 4).
- 05:46:03** An unidentified CM leaves the main lobby and proceeds into the stair lobby and talks with WM Stewart (CU) (Source: CCTV: Camera 2).
- 05:46:15** Control take a call from WM D Meyrick who is on CU7 (FSG). He asks to speak with SM Oliff (OOD). WM D Meyrick is requesting more information about the person on the roof and SM Oliff (OOD) is able to confirm that it is not a man but a piece of cladding. SM Oliff (OOD) also passes on the message about Antonio (Roncolato) in flat 72. (Source: NICE, Admin Phone Line Audio file: GTIRT18-00515).
- 05:46:20** An unidentified firefighter leaves the main lobby and proceeds into the stair lobby, they pick up a large axe and start cutting away at the panes of glass on the South elevation (Source: CCTV: Camera 2).
- 05:46:26** BA Team 61, Firefighter J Wright, Firefighter Bell, Firefighter Alassad and Firefighter N Saunders, report to the bridgehead in the stair lobby and receive a brief to go to the fourth floor. They are told that there is a 45mm fire hose already in place on the fourth floor. They start up their SDBA sets and go under air (Source: CCTV: Camera 2, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00042, GTIRT18-02061, GTIRT18-02054, GTIRT18-00071).
- 05:46:55** Two unidentified firefighters enter the building via the main entrance, one firefighter is carrying one length of 70mm fire hose, the other is carrying a MPS riot shield protecting them from falling debris (Source: CCTV: Camera 4).
- 05:47** BA Team 60, CM Cutbill, Firefighter S Boulton, Firefighter A Wright, Firefighter Vango and Firefighter Pursey, are ascending the stairs (believed to be in the stairwell between the 12<sup>th</sup> and 13<sup>th</sup> floors) when they come across a female casualty (believed to be Mary Mendy from flat 173, 20<sup>th</sup> floor). They check for signs of life and agree the female is deceased so leave the casualty in situ. The evacuation message on Firefighter A Wright's Bodyguard actuates. CM Cutbill states, at this point Firefighter A Wright's EDBA starts to leak air. BA Team 60 make the decision to withdraw and start to descend the stairs back to the bridgehead in the stair lobby as they believe there is a fault with Firefighter A Wright's EDBA set (Source: MPS Witness Statement: GTIRT18-01019, GTIRT18-00313, GTIRT18-00951, GTIRT18-01431, GTIRT18-01011).
- 05:47:11** One unidentified CM carrying one 70mm fire hose and one unidentified firefighter enter the building via the main entrance carrying a MPS riot shield protecting them from falling debris (Source: CCTV: Camera 4).

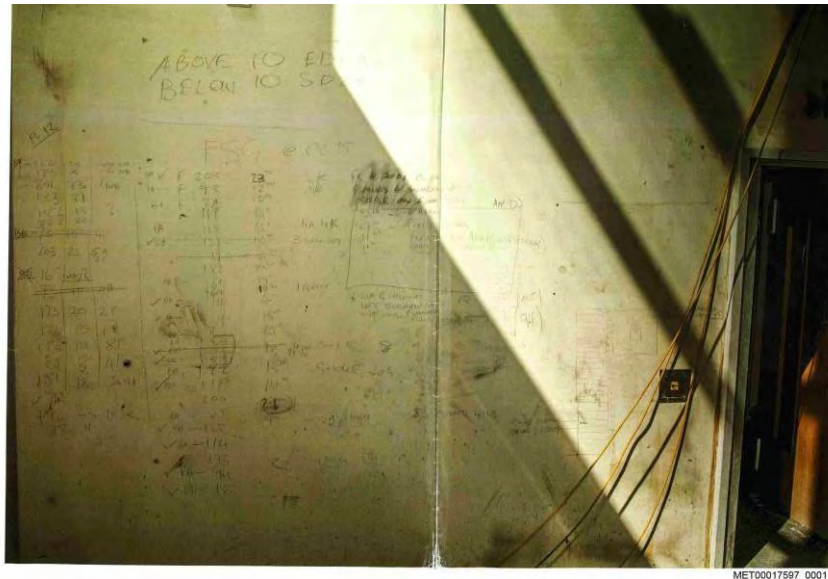
## OFFICIAL

- 05:47:23** One unidentified firefighter exits the building via the main entrance carrying one MPS riot shield protecting them from falling debris (Source: CCTV: Camera 4).
- 05:47:24** Five unidentified firefighters exit the building via the main entrance, between them they are carrying two MPS riot shields protecting them from falling debris (Source: CCTV: Camera 4).
- 05:47:49** CM Codd, Firefighter Upton and Firefighter Reddington, from BA Team 58, descend the stairs to the bridgehead in the stair lobby, CM Codd hands a TIC to BA Team 61, Firefighter J Wright, Firefighter Bell, Firefighter Alassad and Firefighter N Saunders. CM Codd, Firefighter Upton and Firefighter Reddington collect their BA tallies, close down their BA sets and have a discussion with WM O'Keeffe (Source: CCTV: Camera 2, BA Data: GTIRT17-02820).
- 05:47:54** WM Wilson, who is carrying one 70mm fire hose, and one unidentified firefighter enter the building via the main entrance under a MPS riot shield protecting them from falling debris (Source: CCTV: Camera 4).
- 05:48:20** One unidentified CM and one unidentified firefighter exit the building via the main entrance, between them they are carrying a MPS riot shield protecting them from falling debris (Source: CCTV: Camera 4).
- 05:48:22** Two unidentified firefighters exit the building via the main entrance, between them they are carrying a MPS riot shield protecting them from falling debris (Source: CCTV: Camera 4).
- 05:48:24** SM Cook is talking with WM Wilson in the main lobby (Source: CCTV: Camera 4).
- 05:48:27** BA Team 61, Firefighter J Wright, Firefighter Bell, Firefighter Alassad and Firefighter N Saunders, who is carrying a TIC, ascend the stairs from the stair lobby (Source: BA Data: GTIRT17-02820, CCTV Camera 2).
- 05:48:30** Echo 5, DAC Ogden is mobilised as DAC to CU3 as Press Liaison Officer (PLO) (Vision: GTIRT17-02791).
- 05:48:35** Echo 5, DAC Ogden (PLO) books Status 2, mobile to Grenfell Tower (Vision: GTIRT17-02791).
- 05:48:40** Four unidentified firefighters enter the main lobby via the main entrance carrying two lengths of 70mm fire hose. They are also carrying two MPS riot shields protecting them from falling debris (Source: CCTV: Camera 4).
- 05:48:49** WM Wilson and one unidentified firefighter exit the building via the main entrance under a MPS riot shield protecting them from falling debris (Source: CCTV: Camera 4).
- 05:48:53** BA Team 62, WM Morrison, WM Niblett, WM Vanstone and Firefighter P Harris, are briefed by GM Goulbourne in the stair lobby to go to the 12<sup>th</sup> floor and extend the fire hose. Before they are committed, another officer (believed to be WM O'Keeffe) changes their brief to go to flat 72 on the 10<sup>th</sup> floor for a FSG (Antonio Roncolato) and then extend a fire hose from the 10<sup>th</sup> floor up

## OFFICIAL

further into the tower (Source: MPS Witness Statements: GTIRT18-00999, GTIRT18-00646, GTIRT18-01018, GTIRT18-00425, BA Data: GTIRT17-02820, CCTV: Camera 2).

- 05:49:11** One unidentified CM, carrying one length of 70mm fire hose, and one unidentified firefighter enter the building via the main entrance. They are also carrying a MPS riot shield protecting them from falling debris (Source: CCTV: Camera 4).
- 05:49:15** Firefighter Aldridge picks up an IEC bag from the bridgehead floor in the stair lobby and carries it out to the main lobby (Source: CCTV: Camera 2).
- 05:49:21** WM Wilson, carrying a length of 70mm fire hose, and one unidentified firefighter enter the building via the main entrance. They are also carrying a MPS riot shield protecting them from falling debris (Source: CCTV: Camera 4).
- 05:49:21** An unidentified firefighter ascends the stairs from the stair lobby (Source: CCTV: Camera 2).
- 05:49:42** An unidentified Firefighter picks up an IEC bag from the bridgehead floor in the stair lobby and carries it out to the main lobby (Source: CCTV: Camera 2).
- 05:49:57** Firefighter Badillo and Firefighter Toppin exit the building via the main entrance carrying a MPS riot shield protecting them from falling debris (Source: CCTV: Camera 4).
- 05:50** GM Goodall returns to CU8 and confirms to AC Roe that there are no verifiable reports of any persons on the roof. AC Roe asks for the warning order to be cancelled. GM Goodall (FSG Coordinator) also informs AC Roe that the riser is working but is delivering poor water supply, and a light weight portable fire pump has been set up to supply water from the sixth floor (Source: MPS Witness Statement: GTIRT17-01254, Supplement Decision Log: GTIRT17-00866).
- 05:50:01** BA Team 62, WM Morrison, WM Niblett, WM Vanstone and Firefighter P Harris, start breathing under air, report to the BAECO and remove their BA tallies. The BAECO tells the crew there is a deceased casualty on the 10<sup>th</sup> floor in the stairwell (now known to be Khadija Saye, from flat 173, 20<sup>th</sup> floor) (Source: MPS Witness Statements: GTIRT18-00999, GTIRT18-00646, GTIRT18-01018, GTIRT18-00425, BA Data: GTIRT17-02820, CCTV: Camera 4).
- 05:50:36** Two unidentified firefighters enter the building via the main entrance carrying one length of 70mm fire hose. They are also carrying a MPS riot shield protecting them from falling debris (Source: CCTV: Camera 4).
- 05:50:55** SM Wolfenden is in the main lobby and takes a picture of the main lobby wall (see below) next to the community room (Source: MET000175970001, CCTV: Camera 4).



- 05:51** BA Team 61, Firefighter J Wright, Firefighter Bell, Firefighter Alassad and Firefighter N Saunders, reach the fourth floor. They locate and pick up the fire hose which has low water pressure (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00042, GTIRT18-02061, GTIRT18-02054, GTIRT18-00071).
- 05:51:48** Echo 402, Sidcup's Pump, book Status 3, in attendance, at Grenfell Tower. This is the 56<sup>th</sup> fire engine in attendance (this is the 15<sup>h</sup> relief fire engine) (Source: Vision: GTIRT17-02791).
- 05:51:53** Two unidentified firefighters exit the building via the main entrance under a MPS riot shield (Source: CCTV: Camera 4).
- 05:52:07** An unidentified CM leaves the community room and proceeds into the main lobby carrying an enforcer (Source: CCTV: Camera 4).
- 05:52:10** An unidentified firefighter in the main lobby begins to break the glass next to the main entrance using an enforcer (Source: CCTV: Camera 4).
- 05:52:17** An unidentified firefighter leaves the community room and proceeds to the stair lobby whilst carrying a blue salvage sheet. (Source: CCTV: Camera 2 and Camera 4).
- 05:52:18** GM Cook (ORT) and an unidentified WM enter the main lobby via the main entrance under a MPS riot shield protecting them from falling debris (Source: CCTV: Camera 4).
- 05:52:18\*** BA Team 63, Firefighter Folivi and Firefighter Goddard, receive a brief from GM Goulbourne at the bridgehead in the stair lobby. Firefighter Folivi states the brief is to proceed to sixth floor to firefight (*Firefighter Folivi's contemporaneous notes state fifth and sixth*) Firefighter Goddard states they are briefed to search and rescue on the fifth and sixth floors working their way up to the seventh floor (Source: MPS Witness Statement: GTIRT18-00642, GTIRT18-00981).

## OFFICIAL

- 05:52:21** An unidentified firefighter leaves the community room and proceeds into the main lobby whilst carrying an additional blue salvage sheet (Source: CCTV: Camera 4).
- 05:52:28** An unidentified CM leaves the community room and proceeds into the main lobby followed by two MPS officers carrying MPS riot shields. The numbers and letters 0753 MP US3 are on one police helmet and US3 on the other police helmet (Source: CCTV: Camera 4).
- 05:52:50** Two MPS officers carrying MPS riot shields leave the community room and proceed into the main lobby (Source: CCTV: Camera 4).
- 05:53** BA Team 59, Firefighter Perez and Firefighter Dean, complete their search of all flats on the fifth floor as per their brief. They take a gauge reading to check to see what air they have left (Firefighter Dean has 139 bar and Firefighter Perez has 230 bar). Once done they agree they should withdraw and return to the bridgehead as Firefighter Dean only has 139 bar left (Source: MPS Witness Statement: GTIRT18-00063, GTIRT18-00051, BA Data: GTIRT17-02820).
- 05:53\*** BA Team 60, CM Cutbill, Firefighter S Boulton, Firefighter A Wright, Firefighter Vango and Firefighter Pursey, descend the stairs. *Firefighter Vango states "we walk all the way back down the stairs to the mezzanine level where the air was cleaner and dropped Andy off. We knew that he would be safe from there and could walk himself down."* CM Cutbill states *"All five of us start to make our way down towards the bridgehead. I told Firefighter A Wright to go to the BAECO and inform them of his circumstances, which he did"*. The remaining four members of BA Team 60 ascend the stairs to assist with fire hose management (Source: MPS Witness Statement: GTIRT18-01019, GTIRT18-00313, GTIRT18-00951, GTIRT18-01431, GTIRT18-01011).
- 05:53** BA Team 61, Firefighter J Wright, Firefighter Bell, Firefighter Alassad and Firefighter N Saunders enter the fourth floor and turn right, the first flat they encounter is already open (believed to be flat 16). They extinguish small pockets of fire and no casualties are found (Source: BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00042, GTIRT18-02061, GTIRT18-02054, GTIRT18-00071).
- 05:53:06** SM Wainwright is in the main lobby and begins to pull in more 45mm fire hose from outside the main entrance (Source: CCTV: Camera 4).
- 05:53:11** BA Team 62, WM Morrison, WM Niblett , WM Vanstone and Firefighter P Harris, ascend the stairs from the stair lobby towards the 10<sup>th</sup> floor (Source: BA Data: GTIRT17-02820, CCTV: Camera 2).
- 05:53:28** An unidentified CM and an unidentified firefighter exit the building via the main entrance carrying a MPS riot shield protecting them from falling debris (Source: CCTV: Camera 4).

## OFFICIAL

- 05:53:32** BA Team 63, Firefighter Folivi and Firefighter Goddard, are at the bridgehead in the stair lobby. They report to the BAECO, remove their BA tallies and start breathing under air (Source: MPS Witness Statement: GTIRT18-00642, CCTV: Camera 2).
- 05:54:11** GM O'Neill leaves the community room and proceeds into the main lobby with the District Surveyor John Allen who is a Dangerous Structure Engineer (DSE) from Kensington and Chelsea Council (Source: CCTV: Camera 4).
- 05:54:21** GM Cook (ORT) exits the building via the main entrance with an unidentified firefighter who is carrying a MPS riot shield protecting them from falling debris (Source: CCTV: Camera 4).
- 05:54:25** GM O'Neill and Kensington and Chelsea District Surveyor John Allen (DSE) leave the main lobby and proceed into the stair lobby where they have a discussion with GM Goulbourne (Source: CCTV: Camera 2).
- 05:54:39** Two unidentified firefighters proceed into the main lobby carrying white and blue salvage sheets (Source: CCTV: Camera 4).
- 05:55:01** GM O'Neill and Kensington and Chelsea District Surveyor John Allen (DSE) ascend the stairs from the stair lobby (Source: CCTV: Camera 2).
- 05:55:02** SM Walton leaves the community room and proceeds into the main lobby, directing unidentified EDDBA crews, not under air, to proceed into the ground floor lift lobby (Source: CCTV: Camera 4).
- 05:55:10** BA Team 63, Firefighter Folivi and Firefighter Goddard, ascend the stairs from the stair lobby to the sixth floor carrying a Halligan bar (Source: CCTV: Camera 2, BA Data GTIRT17-02820).
- 05:55:11** AOM Ranson takes a call from CU7 who asks for confirmation that there is only one current FSG call and that it is in flat 72. AOM Ranson (who has arrived at Brigade Control early for her day shift and takes up the role of supervisor to assist the night watch) states that there are no FSG calls at the moment (Source: NICE, Admin Phone Line Audio file: GTIRT18-00505).
- 05:55:18** Firefighter Orchard leaves the main lobby and proceeds into the stair lobby, she picks up a large axe and returns back to the main lobby with it (Source: CCTV: Camera 2).
- 05:55:25** An unidentified CM and an unidentified firefighter enter the building via the main entrance carrying a MPS riot shield protecting them from falling debris (Source: CCTV: Camera 4).
- 05:55:44** Hotel 38 Alpha, Sutton's OSU, book Status 6 (Source: Vision: GTIRT17-02791).
- 05:56:00** BA Team 59, Firefighter Perez and Firefighter Dean, descend the stairs to the bridgehead in the stair lobby whilst still under air, they report to CM Morrison and inform him that all flats on the fifth floor have been searched and that any remaining fires are extinguished (Source: MPS Witness Statement: GTIRT18-00063, BA Data: GTIRT17-02820, CCTV: Camera 2).

## OFFICIAL

- 05:56** CM Cutbill, Firefighter S Boulton, Firefighter Vango and Firefighter Pursey, from BA Team 60, reach the seventh floor and decide to withdraw due to low air (Firefighter Vango had the lowest gauge reading of 160 bar), they descend the stairs back to the bridgehead (Source: MPS Witness Statement: GTIRT18-01019, GTIRT18-00313, GTIRT18-01431, BA Data: GTIRT17-02820).
- 05:56:06** An unidentified CM and an unidentified firefighter exit the main lobby via the main entrance under a MPS riot shield protecting them from falling debris (Source: CCTV: Camera 4).
- 05:56:13** WM Wilson leaves the main lobby and proceeds into the stair lobby carrying a rolled up length of 45mm fire hose, he then ascends the stairs (Source: CCTV: Camera 2).
- 05:56:36** CRO Gotts takes a call from a female who is reporting a block of flats on fire. CRO Gotts confirms where the caller is and asks her if she thinks it is Grenfell Tower and the caller confirms that this is correct. CRO Gotts confirms that the Brigade is in attendance. Incident Number 76390, Call Duration 47 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00796).
- 05:56:42** An unidentified CM and four unidentified firefighters leave the main lobby and proceed into the stair lobby whilst carrying salvage sheets. They ascend the stairs with GM Goulbourne (Source: CCTV: Camera 2).
- 05:57** BA Team 62, WM Morrison, WM Niblett, WM Vanstone and Firefighter P Harris, reach the 10<sup>th</sup> floor. They step over a casualty (now known to be Khadija Saye, flat 173, 20<sup>th</sup> floor) and enter the lift lobby (Source: MPS Witness Statements: GTIRT18-00999, GTIRT18-00646, GTIRT18-01018, GTIRT18-00425, BA Data: GTIRT17-02820).
- 05:57:23** Three unidentified firefighters exit the main lobby via the main entrance under a MPS riot shield protecting them from falling debris (Source: CCTV: Camera 4).
- 05:57:24** Firefighter A Wright, from BA Team 60, returns to the bridgehead in the stair lobby, whilst carrying a TIC, and talks to CM Morrison. Firefighter A Wright collects his BA tally, removes his face mask, and closes down his EDBA set (Source: BA Data: GTIRT17-02820, CCTV: Camera 2).
- 05:57:34** WM Wilson descends the stairs to the stair lobby and proceeds in to the main lobby (Source: CCTV: Camera 2).
- 05:57:52** GM Goulbourne and SM Walton descend the stairs to the stair lobby (Source: CCTV: Camera 2).
- 05:57:55** An unidentified firefighter enters the main lobby via the main entrance with SM Mulholland (ORT). They are under a MPS riot shield protecting them from falling debris (Source: CCTV: Camera 4).
- 05:58\*** *BA Team 63, Firefighter Folivi and Firefighter Goddard, reach the fifth floor. Firefighter Goddard states they meet a team of firefighters who are not wearing BA. This team assure Firefighter Goddard the fifth floor has been searched and BA Team 63 continue to ascend the stairs to the*



## OFFICIAL

*sixth floor (Firefighter Folivi makes no mention of meeting any other firefighters)* (Source: MPS Witness Statement: GTIRT18-00981).

- 05:58** BA Team 62, WM Morrison, WM Niblett, WM Vanstone and Firefighter P Harris, search the 10<sup>th</sup> floor lift lobby looking for flat 72. WM Niblett and WM Vanstone find flat 72 and bang on the door shouting "London Fire Brigade, is anyone there". The door opens and the team meet a resident (now known to be Antonio Roncolato). WM Niblett and WM Vanstone immediately enter the flat and shut the door to prevent smoke from the lift lobby polluting the flat and making conditions worse for the resident whilst WM Morrison and Firefighter P Harris remain in the lift lobby. WM Vanstone and WM Niblett tell Antonio Roncolato that they will be leaving with him, he puts on swimming goggles and picks up a back pack. WM Vanstone gets a towel and puts it over Mr Roncolato's head. WM Vanstone and WM Niblett communicate a plan to the remaining members of the team in the lift lobby and agree that WM Vanstone and WM Niblett will lead the casualty out and WM Morrison and Firefighter P Harris will remain and carry out the rest of their team brief (Source: MPS Witness Statements: GTIRT18-00999 GTIRT18-00646, GTIRT18-01018, GTIRT18-00425, BA Data: GTIRT17-02820).
- 05:58:05** SM Wainwright exits the main lobby via the main entrance under a MPS riot shield protecting him from falling debris (Source: CCTV: Camera 4).
- 05:58:09** CRO Gotts takes a call from a female that gives her name as Maria who explains that her ex-husband is stuck in his flat in Grenfell Tower. She states that he will not leave and is now not answering his phone. CRO Gotts confirms his location as flat 72 on the 10<sup>th</sup> floor and states that she will pass the information to the Firefighters and ask them to check and explains that the Brigade have made progress in the last hour and crews will check on him. Incident Number 76391, Call Duration one minute 53 seconds (Source: BOSS Viewer, 999 Audio file and Transcript: GTIRT17- 00797).
- 05:58:25** WM Stewart (CU) descends the stairs to the stair lobby (Source: CCTV: Camera 2).
- 05:58:45** SM Mullholland (ORT) leaves the main lobby and proceeds into the stair lobby where he talks with GM Goulbourne (Source: CCTV: Camera 2).
- 05:59\*** BA Team 63, Firefighter Folivi and Firefighter Goddard, reach the sixth floor. Firefighter Folivi states the conditions *as not being very smoky with good visibility*, however Firefighter Goddard states *that visibility was almost zero*. Firefighter Folivi and Firefighter Goddard enter the lift lobby area taking a fire hose and a firefighting branch that are already in situ with them (Source: MPS Witness Statement: GTIRT18-00642, GTIRT18-00642, GTIRT18-00642).
- 05:59:35** SM Wainwright enters the main lobby via the main entrance, carrying a length of 45mm fire hose, he is followed by GM Cook (ORT) under a MPS riot shield protecting them from falling debris (Source: CCTV: Camera 4).

## OFFICIAL

- 05:59:41** BA Team 59, Firefighter Perez and Firefighter Dean, descend the stairs to the bridgehead, remove their face masks, close down their SDBA sets and collect their BA tallies (Source: CCTV: Camera 2, BA Data: GTIRT17-02820).
- 05:59:45** CM Cutbill, Firefighter S Boulton, Firefighter Vango and Firefighter Pursey, from BA Team 60, are carrying a TIC and descend the stairs to the bridgehead. They remove their face masks and talk to WM O'Keeffe. CM Cutbill reports the location and position of the two casualties (now known to be Khadija Saye from flat 173, 20<sup>th</sup> floor and Mary Mendy from flat 173, 20<sup>th</sup> floor) they collect their BA tallies and close down their EDDBA sets (Source: BA Data: GTIRT17-02820, CCTV: Camera 2).
- 05:59:53** GM Goulbourne leaves the stair lobby and proceeds into the main lobby carrying a firefighting branch where he talks with SM Myatt (Source: CCTV: Camera 4).
- 05:59:54** BA Team 65, CM Ramsey, Firefighter McArthur, Firefighter N Franklin and Firefighter LeMarrec, leave the ground floor lift lobby and proceed into the main lobby wearing EDDBA, not under air. They receive a brief from GM Goulbourne who details them to go to the 11<sup>th</sup> floor to firefight, search and rescue and he also makes them aware that there are deceased casualties on the stairs. GM Goulbourne tells them that BA Team 64, Firefighter S Grant, Firefighter Worley and Firefighter Dowdall, will bring up fire hose and assist with fire hose management. GM Goulbourne hands a firefighting branch (Rosenbauer select flow RB101) to Firefighter N Franklin (Source: CCTV: Camera 4, MPS Witness Statements: GTIRT18-01275, GTIRT18-00056).

Further calls are taken by Brigade Control from residents or callers from outside the building with specific details of those who are still inside are included in the table below.

Time of Call	Flat Number	Floor number	Number of people confirmed by caller	Remarks
05:05:45	72	10	One adult	Name of resident given by caller as Antonio. Caller is his sister-in-law. He cannot leave the flat because it is too smoky outside his door.
05:05:57	113	14	-	Caller is outside the building and says family member trapped with 3 children and "lots" of people
05:11:34	72	10	One adult	Sister-in-law of Antonio calling back to ask if he has been rescued

**OFFICIAL**

05:17:22	72	10	One adult	Sister-in-law of Antonio calling back to ask if he has been rescued
05:22:22	72	10	One adult	Caller is sister-in-law. CRO says she will pass on again
05:25:49	72	10	One adult	Sister-in-law of Antonio calling back to ask if he has been rescued
05:31:00	83	11	One adult	This man is disabled and blind. He cannot get out without assistance. The caller is his daughter-in-law.
05:31:49	72	10	One adult	Sister-in-law of Antonio calling back to ask if he has been rescued
05:38:40	72	10	One adult	Sister-in-law of Antonio calling back to ask if he has been rescued
05:42:47	72	10	One adult	Sister-in-law of Antonio calling back. She says he has stopped answering his phone
05:58:09	72	10	One adult	This caller says she is the ex- wife of Antonio and says he will not leave and is now not answering his phone.

**06:00** BA Team 62: WM Vanstone, WM Morrison, WM Niblett and Firefighter P Harris, are on the 10<sup>th</sup> floor, they lead the male casualty (now known to be Antonio Roncolato) out of flat 72 and proceed into the stairwell. BA Team 62 now separate, WM Niblett and WM Vanstone descend the stairs with Antonio Roncolato while WM Morrison and Firefighter P Harris ascend the stairs to the 11<sup>th</sup> floor (Source, MPS Witness Statements: GTIRT18-00999, GTIRT18-00646, GTIRT18-01018, GTIRT18-00425, BA Data: GTIRT17-02820).

**06:00:06** SM Wolfenden exits the building via the main entrance (Source, CCTV: Camera 4).

**06:00:14** WM Wilson leaves the main lobby, proceeds into stair lobby and ascends the stairs carrying a length of 70mm fire hose (Source, CCTV: Camera 4 and Camera 2).

**06:00:36** Firefighter Toppin leaves the main lobby, proceeds into the stair lobby and ascends the stairs carrying a length of 70mm fire hose (Source, CCTV: Camera 4 and Camera 2).

**06:01\*** BA Team 61: Firefighter J Wright, Firefighter Bell, Firefighter Alassad and Firefighter N Saunders, exit the first flat on the fourth floor (believed to be flat 16) and enter a second flat (believed to be flat 15). Firefighter Bell states *the second flat also has its front door open, and has one area of fire which they put out*. However, Firefighter J Wright states *the second flats' door is locked and they use the axe to break down the door. Once inside, there is no fire or casualties* (Source, BA Data:

## OFFICIAL

GTIRT17-02820, MPS Witness Statements: GTIRT18-00042, GTIRT18-02061, GTIRT18-02054, GTIRT18-00071).

- 06:01\*** BA Team 63: Firefighter Folivi and Firefighter Goddard, are on the sixth floor and see the flats on the right hand side are burnt out. Firefighter Goddard states *they work their way across the floor, checking the flats to establish if any saveable casualties are in them*. Firefighter Folivi states *he thinks they open a few doors and observe that another few of the doors on the floor are already open* (Source, MPS Witness Statement: GTIRT18-00642, GTIRT18-00981, BA Data: GTIRT17-02820).
- 06:01:02** CRO Gotts takes another call from the sister-in-law of Antonio (Roncolato) in flat 72, 10<sup>th</sup> floor, who explains that her brother-in-law may have fainted and asks what will happen if someone knocks at the door. CRO Gotts explains that the crews will force entry to the flat if necessary. Incident Number 76392, Call Duration 40 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00798).
- 06:01:06** SM Wainwright exits the building via the main entrance under a MPS riot shield (Source, CCTV: Camera 4).
- 06:01:13** DAC O'Loughlin, Commissioner Cotton and GM Cook (ORT) enter the building via the main entrance under a MPS riot shield protecting them from falling debris (Source, CCTV: Camera 4).
- 06:01:16** The Radio Operator at Brigade Control sends a radio message to CU8  
"Charlie Uniform 8 from M2FN, go ahead, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03301).
- 06:01:17** BA Team 64: Firefighter S Grant, Firefighter Worley and Firefighter Dowdall, are in the main lobby wearing SDBA, not under air. They speak with SM Myatt who briefs them to take three lengths of 70mm fire hose to the 11<sup>th</sup> floor to assist BA Team 65: CM Ramsey, Firefighter N Franklin, Firefighter McArthur and Firefighter LeMarrec, with fire hose management. (Source, CCTV: Camera 4, MPS Witness Statement: GTIRT18-02298, Contemporaneous Notes: GTIRT17-00069, GTIRT17-00067).
- 06:01:16** CU8 send a radio message to The Radio Operator at Brigade Control  
"This is FN Charlie Uniform 8 from, er, scene of forty pump fire. Request attendance of a BMA, erm, as all resources here are fully utilised, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03302).
- 06:01:25** WM Wilson descends the stairs, leaves the stair lobby and proceeds into the main lobby (Source, CCTV: Camera 2).

## OFFICIAL

- 06:01:34** Commissioner Cotton has a discussion with GM Goulbourne in the main lobby (Source, CCTV: Camera 4).
- 06:01:38** The Radio Operator at Brigade Control sends a radio message to CU8  
"Was that request attendance of a BMA? Over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03303).
- 06:01:45** CU8 send a radio message to The Radio Operator at Brigade Control  
"Answer, yes, yeah, bulk media advisor, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03304).
- 06:01:45** DAC O'Loughlin and GM Cook (ORT) join the discussion between Commissioner Cotton and GM Goulbourne in the main lobby (Source, CCTV: Camera 4).
- 06:01:50** The Radio Operator at Brigade Control sends a radio message to CU8  
"Received."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03305).
- 06:02** WM Morrison and Firefighter P Harris, from BA Team 62, locate fire hose in the stairwell between the 10<sup>th</sup> and 11<sup>th</sup> floors and extend it to the 11<sup>th</sup> floor (Source, MPS Witness Statements: GTIRT18-00646, GTIRT18-00425, BA Data: GTIRT17-02820).
- 06:02:03** GM Cook (ORT) has a discussion with CM Hunter, CM Sephton and CM Morrison at the bridgehead in the stair lobby (Source, CCTV: Camera 2).
- 06:02:12** BA Team 65: CM Ramsey, Firefighter McArthur, Firefighter N Franklin and Firefighter LeMarrec, leave the main lobby and report to the bridgehead in the stair lobby wearing EDPA, not under air. Once at the bridgehead they have a discussion with CM Morrison (BAECO) (Source, CCTV: Camera 2).
- 06:02:25** The Radio Operator at Brigade Control sends a radio message to CU8  
"M2FN out."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03306).
- 06:02:29** GM O'Neill and Kensington and Chelsea District Surveyor John Allen acting as DSE descend the stairs, they leave the stair lobby and proceed into the main lobby (Source, CCTV: Camera 2).
- 06:02:37** Foxtrot 432, Barking's Pump, book Status 3, in attendance, at Grenfell Tower. This is the 57<sup>th</sup> fire engine in attendance (this is the 16<sup>th</sup> relief fire engine) (Source: Vision: GTIRT17-02791).

## OFFICIAL

- 06:02:40** Firefighter Toppin descends the stairs, leaves the stair lobby and proceeds into the main lobby (Source, CCTV: Camera 2).
- 06:02:41** GM O'Neill (Sector Commander Safety) and District Surveyor John Allen (DSE) from Kensington and Chelsea Council are in the main lobby. GM O'Neill (Sector Commander Safety) has a discussion with Commissioner Cotton and DAC O'Loughlin (Source, CCTV: Camera 4).
- 06:02:53** Hotel 24 Sierra, SM Chris Payton, is mobilised as BMA from Hotel 24, Brixton (Source, Vision: GTIRT17-02791).
- 06:03** BA Team 61: Firefighter J Wright, Firefighter Bell, Firefighter Alassad and Firefighter N Saunders, exit a second flat on the fourth floor (believed to be flat 15) (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00042, GTIRT18-02061, GTIRT18-02054, GTIRT18-00071).
- 06:03:24** An unidentified firefighter and GM Welch enter the building via the main entrance under a MPS riot shield protecting them from falling debris, GM Welch proceeds into the stair lobby carrying some water bottles (Source, CCTV: Camera 4).
- 06:03:42** BA Team 65: CM Ramsey, Firefighter McArthur, Firefighter N Franklin and Firefighter LeMarrec are at the bridgehead in the stair lobby, they start breathing under air and hand their BA tallies to CM Hunter (BAECO) (Source, CCTV: Camera 2, BA Data: GTIRT17-02820).
- 06:03:52** GM Welch leaves the stair lobby, proceeds to the community room and joins Commissioner Cotton, GM Goulbourne, DAC O'Loughlin and GM Cook (ORT) (Source, CCTV: Camera 4).
- 06:04\*** BA Team 63: Firefighter Goddard and Firefighter Folivi, are on the sixth floor. *Firefighter Goddard forces a door to a flat which he believes is flat 30 or 31. On opening the door they see a fire, they pulse spray water onto the fire then close the door to contain it. Firefighter Folivi states they do not enter the flat and they stay by the front door as it is quite smoky and they know this is because there is a fire in the flat. BA Team 63 repeat the pulse spray and door procedure a few times then leave the fire hose in situ and return to the sixth floor stairwell* (Source, MPS Witness Statement: GTIRT18-00642, GTIRT18-00981, BA Data: GTIRT17-02820).
- 06:04\*** WM Vanstone and WM Niblett, from BA Team 62, are descending the stairs with the male casualty (now known to be Antonio Roncolato) from flat 72, 10<sup>th</sup> floor. When they reach the fourth floor, they hand Antonio Roncolato over to an unidentified firefighter, who is not wearing BA. *WM Vanstone asks the unidentified firefighter to pass on the message that the casualty is the individual from the FSG call from flat 72 on the 10<sup>th</sup> floor and ensure the BAECO is informed so that the FSG call can be removed from the list. The unidentified firefighter repeats the message back to WM Vanstone. WM Vanstone and WM Niblett then ascend the stairs towards the 10<sup>th</sup> floor to assist the remaining members of BA Team 62, WM Morrison and Firefighter P Harris with*

## OFFICIAL

extending the fire hose to the 11<sup>th</sup> floor (Source, MPS Witness Statements: GTIRT18-00999, GTIRT18-01018, BA Data: GTIRT17-02820).

- 06:04:30** BA Team 64: Firefighter S Grant, Firefighter Worley and Firefighter Dowdall, are at the bridgehead in the stair lobby, they start breathing under air and have a discussion with CM Morrison (BAECO) (Source, CCTV: Camera 2, BA Data: GTIRT17-02820).
- 06:04:47** Hotel 24 Sierra, SM Payton (BMA) books status 2 mobile to incident (Source, Vision: GTIRT17-02791).
- 06:05\*** BA Team 61: Firefighter J Wright, Firefighter Bell, Firefighter Alassad and Firefighter N Saunders, search and firefight in flats 14, 13, 12 and 11 on the fourth floor. *Firefighter Alassad states they search every room in the flats that are open.* They do not find any casualties and do not see any other people on the floor (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00042, GTIRT18-02061, GTIRT18-02054, GTIRT18-00071).
- 06:05:29** GM Welch leaves the main lobby and proceeds into the community room (Source, CCTV: Camera 4).
- 06:05:38** Antonio Roncolato, from flat 72, 10<sup>th</sup> floor, descends the stairs into the stair lobby and is being escorted by two unidentified firefighters, they leave the stair lobby and proceed into the main lobby (Source, CCTV: Camera 2).
- 06:05:41** WM Delaney (CU) leaves the community room and proceeds into the main lobby carrying water bottles (Source, CCTV: Camera 4).
- 06:05:48** GM Welch leaves the stair lobby, proceeds into the main lobby and re-joins Commissioner Cotton (Source, CCTV: Camera 4).
- 06:05:48** BA Team 64: Firefighter S Grant, Firefighter Worley and Firefighter Dowdall, are at the bridgehead in the stair lobby and hand their BA tallies to CM Morrison (BAECO) (Source, CCTV: Camera 2, BA Data: GTIRT17-02820).
- 06:05:51** Antonio Roncolato, from flat 72, 10<sup>th</sup> floor, is escorted through the main lobby by an unidentified firefighter and they exit the building via the community room (Source, CCTV: Camera 4).
- 06:06:30** BA Team 65: CM Ramsey, Firefighter McArthur, Firefighter N Franklin and Firefighter LeMarrec, ascend the stairs towards the 11<sup>th</sup> floor. Firefighter N Franklin is carrying a firefighting branch (Source, CCTV: Camera 2, BA Data: GTIRT17-02820).
- 06:06:58** BA Team 64: Firefighter S Grant, Firefighter Worley and Firefighter Dowdall, leave the stair lobby and proceed into the main lobby whilst under air, they each pick up one length of 70mm fire hose, return to the stair lobby and ascend the stairs towards the 11<sup>th</sup> floor (Source, CCTV: Camera 2, Camera 4, BA Data: GTIRT17-02820).

## OFFICIAL

- 06:07:06** An unidentified firefighter and Commissioner Cotton exit the building via the main entrance under a MPS riot shield protecting them from falling debris (Source, CCTV: Camera 4).
- 06:07:38** GM Goulbourne leaves the main lobby, proceeds into the stair lobby and has a discussion with SM Myatt (Source, CCTV: Camera 2).
- 06:08:05** The Radio Operator at Brigade Control sends a radio message to CU8  
"Charlie Uniform 8 from M2FN, go ahead, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03307).
- 06:08:09** CU8 send a radio message to The Radio Operator at Brigade Control  
"FN Charlie Uniform 8 from AC Roe 05:50 tactical coordination meeting now concluded."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03308).
- 06:08:09** FF Lowe has a discussion with GM Goulbourne then ascends the stairs from the stair lobby carrying a firefighting branch. He then returns to have a discussion with SM Walton in the stair lobby ascending the stairs once again (Source, CCTV: Camera 2).
- 06:08:13** An unidentified firefighter and an unidentified CM enter the building via the main entrance under a MPS riot shield protecting them from falling debris (Source, CCTV: Camera 4).
- 06:08:23** CU8 send a radio message to the Radio Operator at Brigade Control  
"Further meeting scheduled for 0700 hours, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03309).
- 06:08:24** An unidentified firefighter and GM Goodall (FSG Coordinator) leave the main lobby and exit the building via the main entrance under a MPS riot shield protecting them from falling debris (Source, CCTV: Camera 4).
- 06:08:45** The Radio Operator at Brigade Control sends a radio message to CU8  
"From AC Roe, tatico - tactical coordination meeting concluded. Further meeting scheduled for 0700 hours received. Is that correct? Over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03310).
- 06:08:50** WM Wilson and DAC O'Loughlin exit the building via the main entrance under a MPS riot shield protecting them from falling debris (Source, CCTV: Camera 4).
- 06:08:58** CU8 send a radio message to The Radio Operator at Brigade Control  
"FN Charlie Uniform 8, all correct."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03311).



## OFFICIAL

- 06:09:06** The Radio Operator at Brigade Control sends a radio message to CU8  
"Received."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03312).
- 06:09:12** An unidentified CM leaves the main lobby carrying a body recovery bag under his arm and exits the building via the main entrance (Source, CCTV: Camera 4).
- 06:09:30** GM Welch and SM Mulholland (ORT) ascends the stairs from the stair lobby (Source, CCTV: Camera 2).
- 06:10** WM Morrison and Firefighter P Harris, from BA Team 62, roll out a fire hose on the stairs between the 10<sup>th</sup> and 12<sup>th</sup> floor making it easier for crews to further extend the fire hose if required (Source, MPS Witness Statements: GTIRT18-00646, GTIRT18-00425, BA Data: GTIRT17-02820)
- 06:10** AC Roe receives a series of updates from the incident ground sector commanders describing issues with the water supply and the limitations this will have on the safety of firefighting operations in the building. Based on these updates, AC Roe logs a decision to limit the access of crews up to the 12<sup>th</sup> floor of the building pending a re-assessment and an improvement in the water supply. AC Roe asks for this decision to be sent to the fire sector supporting their assessment and validating their recommended decision (Source, MPS Witness Statement: GTIRT17-01254, AC Roe Supplement Decision Log: GTIRT17-00866).
- 06:10\*** BA Team 61: Firefighter J Wright, Firefighter Bell, Firefighter Alassad and Firefighter N Saunders leave the fourth floor lobby to descend the stairs. Firefighter Bell states *they briefly go to the fifth floor but they are told to leave the building by some unidentified firefighters not in BA and situated on the stairs (believed to be Firefighter Aldridge, Firefighter Cachia and Firefighter Desmond)*. Firefighter N Saunders states *they drag the fire hose to the fifth floor where he notices the lobby area is smoky. They do not do any firefighting on the fifth floor as Firefighter J Wright's SDBA set is running low on air* (Firefighter J Wright SDBA set 664 lowest gauge reading 113 bar) (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00042, GTIRT18-02061, GTIRT18-02054, GTIRT18-00071).
- 06:10\*** BA Team 63: Firefighter Folivi and Firefighter Goddard *ascend the stairs to the seventh floor. Firefighter Folivi states that as conditions are very smoky, and they have low air in their BA sets, the team withdraw and descend the stairs to the bridgehead in the stair lobby.* (Firefighter Folivi SDBA set 724 lowest gauge reading 94 bar) (Source, MPS Witness Statement: GTIRT18-00642, BA Data: GTIRT17-02820).
- 06:11:02** Firefighter Aldridge, Firefighter Cachia and Firefighter Desmond descend the stairs, leave the stair lobby and proceed into the main lobby (Source, CCTV: Camera 2).

## OFFICIAL

- 06:11:03** Firefighter Ferguson and an unidentified firefighter enter the building via the main entrance under a MPS riot shield protecting them from falling debris (Source, CCTV: Camera 4).
- 06:11:12** GM Goulbourne leaves the main lobby, proceeds into the stair lobby and ascends the stairs (Source, CCTV: Camera 2).
- 06:11:48** SM Wainwright and GM Goodall (FSG Coordinator) enter the building via the main entrance, under a MPS riot shield protecting them from falling debris, and proceed to the stair lobby (Source, CCTV: Camera 4).
- 06:12\*** BA Team 64: Firefighter S Grant, Firefighter Worley and Firefighter Dowdall, reach the 11<sup>th</sup> floor stairwell and see WM Morrison, from BA Team 62, using a firefighting branch. *Firefighter Dowdall states WM Morrison instructs them to find the DRM situated on the other side of the landing. BA Team 64 are unable to locate the DRM on the 11<sup>th</sup> floor due to heavy smoke logging.* Firefighter S Grant and Firefighter Worley descend the stairs to the 10<sup>th</sup> floor, Firefighter Dowdall remains in the 11<sup>th</sup> floor stairwell (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-02298, GTIRT17-02938).
- 06:12** BA Team 65: CM Ramsey, Firefighter McArthur, Firefighter N Franklin and Firefighter LeMarrec, are ascending the stairs to the 11<sup>th</sup> floor and locate a deceased casualty in the stairwell on the 10<sup>th</sup> floor (now known to be Khadija Saye from flat 173, 20<sup>th</sup> floor). BA Team 65 continue to the 11<sup>th</sup> floor as they understand this is the deceased casualty that they have previously been briefed about by GM Goulbourne (Source, BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT18-00056, GTIRT18-01430, Contemporaneous Notes: GTIRT17-00298).
- 06:12:01** An unidentified firefighter leaves the main lobby, proceeds into the stair lobby and ascends the stairs carrying a TIC (Source, CCTV: Camera 2).
- 06:12:21** An unidentified firefighter leaves the community room and proceeds to the lift lobby carrying a length of 70mm fire hose (Source, CCTV: Camera 4).
- 06:13** AC Roe receives an update from John Allen (DSE) who explains he cannot get into the building safely but he has made an assessment and believes it is unlikely the building will collapse. On the basis of the DSE's update and reports from the incident ground AC Roe asks SM McConochie (loggist) to log that they will continue to commit crews into the building but not beyond the 12<sup>th</sup> floor until water supplies improve (Source AC Roe MPS Witness Statement: GTIRT17-01254, AC Roe Supplement Decision Log: GTIRT17-00866).
- 06:13:09** GM Cook (ORT) ascends the stairs from the stair lobby (Source, CCTV: Camera 2).
- 06:13:54** BA Team 61: Firefighter J Wright, Firefighter Bell, Firefighter Alassad and Firefighter N Saunders return to the bridgehead in the stair lobby. They inform CM Hunter (BAECO) of their actions,

## OFFICIAL

collect their BA tallies and close down their BA sets (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00042, GTIRT18-02061, GTIRT18-02054, GTIRT18-00071).

- 06:14:01** SM Wainwright, GM Goodall (FSG Coordinator) and an unidentified CM exit the building via the main entrance under a MPS riot shield protecting them from falling debris (Source, CCTV: Camera 4).
- 06:14:10** BA Team 63: Firefighter Folivi and Firefighter Goddard return to the bridgehead in the stair lobby, collect their BA tallies and close down their BA sets. BA Team 63 have a discussion with CM Hunter (BAECO) (Source, MPS Witness Statement: GTIRT18-00642, GTIRT18-00981, BA Data: GTIRT17-02820).
- 06:14:47** CRO Gotts at Brigade Control takes a call from a male caller in St Quintin Avenue W10, which is approximately 600 metres due North of Grenfell Tower. He says he can see a huge pile (sic) of smoke. He says he is in the Ladbroke Grove area. CRO Gotts says that there is a fire in Grenfell Tower that is near Latimer Road station. The caller seems satisfied that this is the right place. CRO Gotts tells him the Brigade is there and dealing with the incident. Incident Number 76398, Call Duration 55 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00800).
- 06:15** WM Morrison and Firefighter P Harris, from BA Team 62, enter the 11<sup>th</sup> floor lift lobby and search the flats for casualties, calling out as they go (Source, MPS Witness Statements: GTIRT18-00646, GTIRT18-00425, BA Data: GTIRT17-02820).
- 06:15** The Commissioner enters the CU and asks for the duty counsellor to be paged as she is encountering groups of severely traumatised firefighters on her walk round. AC Roe assures the Commissioner this is happening and will call AC Daly (AC1) to ensure they are drawing together an attendance list for contact (Source, MPS Witness Statement: GTIRT17-01254, AC Roe Supplement Decision Log: GTIRT17-00866).
- 06:15\*** BA Team 65: CM Ramsey, Firefighter McArthur, Firefighter N Franklin and Firefighter LeMarrec, believe they have reached the 11<sup>th</sup> floor. CM Ramsey states *they realise they are not at the 11<sup>th</sup> floor. He states that they realise they are on the 12<sup>th</sup> floor and he says he sees a deceased child casualty on the stairs (it is now believed this is Isaac Paulos from flat 153, 18<sup>th</sup> floor).* BA Team 65 realising they are on the wrong floor go back down to the 11<sup>th</sup> floor in order to carry out their brief. (Source, BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT18-01275, GTIRT18-00056, GTIRT18-01430).
- 06:15\*** BA Team 64: Firefighter S Grant, Firefighter Worley and Firefighter Dowdall, are in the 11<sup>th</sup> floor stairwell. Firefighter Worley and Firefighter S Grant descend the stairs from the 11<sup>th</sup> floor to the 10<sup>th</sup> floor to search for a DRM. *Firefighter Dowdall re-enters the 11<sup>th</sup> floor lift lobby where WM Morrison and Firefighter P Harris from BA team 62 are ahead of him. Firefighter Dowdall walks in behind BA Team 62, turns left and left again where he sees a flat door glowing with embers.*

## OFFICIAL

*Firefighter Dowdall states he pushes the top of door, which wobbles and collapses into a pile of ashes as the flat is 100% alight. Firefighter Dowdall returns to the 11<sup>th</sup> floor stairwell (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-02298, GTIRT17-02938).*

- 06:16** BA Team 65: CM Ramsey, Firefighter McArthur, Firefighter N Franklin and Firefighter LeMarrec connect the firefighting branch to fire hose already in situ however the water pressure is extremely low (Source, BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT18-01275, GTIRT18-00056, GTIRT18-01430).
- 06:16:03** WM Berry leaves the community room, carrying two lengths of 45mm fire hose, and proceeds into the main lobby where he places the fire hose down on the floor (Source, CCTV: Camera 4).
- 06:16:17** SM Wolfenden enters the building via the main entrance and proceeds to the stair lobby (Source, CCTV: Camera 4).
- 06:17:08** GM Welch, GM Cook (ORT) and SM Mulholland (ORT) descend the stairs into the stair lobby (Source, CCTV: Camera 2).
- 06:17:32** GM Cook (ORT) and SM Mulholland (ORT) leave the stair lobby and proceed into the main lobby where they have a discussion with WM Parker, WM Sadler and WM Godber, they are to take over from CM Morrison, WM De Silvo and WM O'Keeffe at the Bridgehead (Source, CCTV: Camera 4).
- 06:17:45** CM Poullais and two unidentified firefighters descend the stairs, leave the stair lobby and proceed into the main lobby (Source, CCTV: Camera 2).
- 06:17:50** BA Team 61: Firefighter J Wright, Firefighter Bell, Firefighter Alassad and Firefighter N Saunders enter the main lobby from the bridgehead, they stop to get drinking water and have a discussion with unidentified firefighters. They then proceed into the community room (Source, CCTV Camera 4).
- 06:17:56** GM Goulbourne descends the stairs into the stair lobby and has a discussion with GM Welch, SM Myatt and CM Morrison at the bridgehead (Source, CCTV: Camera 2).
- 06:18:01** GM Cook (ORT) leaves the main lobby to proceed into the stair lobby but is stopped by SM Walton. They have a discussion and GM Cook (ORT) then proceeds into the stair lobby followed by WM Parker (Source, CCTV: Camera 4).
- 06:18:07** BA Team 66: WM Christmas, WM Aston-O'Donovan, CM Tillotson, Firefighter C Wright and Firefighter Green leave the main lobby and proceed into the stair lobby where they are briefed by CM Morrison to go to the sixth floor and firefight. However, *WM Christmas states they are briefed to go to flat 31, fifth floor* ( Source, CCTV Camera 2, MPS Witness Statements: GTIRT18-02529, GTIRT18-00045, GTIRT18-00064, GTIRT18-00952, GTIRT18-00306).

## OFFICIAL

- 06:18:40** Two unidentified firefighters, carrying two lengths of 45mm fire hose, leave the community room and proceed into the main lobby (Source, CCTV: Camera 4).
- 06:18:41** WM O'Keeffe and WM Parker have a discussion at the bridgehead. They point to several areas on the green wall next to the stair lobby side door where information has been recorded (Source, CCTV: Camera 2).
- 06:19:03** SM Wainwright is in the main lobby and begins to pull in an additional 45mm fire hose from outside the main entrance assisted by WM Godber, CM McAlonen, CM McShee and two unidentified firefighters (Source, CCTV: Camera 4).
- 06:19:07** GM Welch assists with hose management in the stair lobby by hauling charged 45mm fire hose from the main lobby up to the second floor mezzanine (Source, CCTV: Camera 2).
- 06:19:55** WM Sadler takes over hose management in the stair lobby from GM Welch and continues to haul a charged 45mm fire hose up to the second floor mezzanine from the main lobby (Source, CCTV: Camera 2).
- 06:20\*** Firefighter McArthur and Firefighter LeMarrec, from BA Team 65, remain on the 11<sup>th</sup> floor whilst CM Ramsey and Firefighter N Franklin, from BA Team 65, descend the stairs looking for a DRM outlet with a better water supply. Firefighter McArthur *states he opens the lobby door onto the 11<sup>th</sup> floor and he cannot believe how hot the conditions are inside the lift lobby* (Source, BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT18-01275, GTIRT18-00056, GTIRT18-01430).
- 06:20:03** CM McAlonen ascends the stairs from the stair lobby (Source, CCTV: Camera 2).
- 06:20:32** BA Team 66: WM Christmas, WM Aston-O'Donovan, CM Tillotson, Firefighter C Wright and Firefighter Green hand in their BA tallies to CM Hunter (BAECO) and start breathing under air. BA Team 66 ascend the stairs from the stair lobby to the sixth floor (Source, CCTV: Camera 2, BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT18-02529, GTIRT18-00045, GTIRT18-00064, GTIRT18-00952, GTIRT18-00306).
- 06:20:33** Firefighter Cachia and an unidentified firefighter leave the ground floor lift lobby and proceed into the main lobby where they assist SM Wainwright with fire hose management (Source, CCTV: Camera 4).
- 06:21\*** WM Vanstone and WM Niblett, from BA Team 62, believe they are in the 10<sup>th</sup> floor stairwell. They attempt to locate a DRM outlet however they are unable to find one due to the excessive heat and zero visibility (Source, MPS Witness Statements: GTIRT18-00999, GTIRT18-01018, BA Data: GTIRT17-02820).
- 06:21\*** BA Team 67: CM Fearnley, Firefighter Hooper, Firefighter Okoh and Firefighter Sime leave the main lobby and proceed into the stair lobby wearing EDDBA, not under air. They receive a brief

## OFFICIAL

from GM Goulbourne to take a length of fire hose with a firefighting branch and connect to the DRM on the 10<sup>th</sup> floor then firefight on the 11<sup>th</sup> floor and above. During this brief BA Team 67 are made aware of a deceased casualty (now known to be Khadija Saye flat 173, 20<sup>th</sup> floor) on the 10<sup>th</sup> floor stairwell and are told to leave the deceased casualty in situ. (Source, CCTV: Camera 2, MPS Witness Statements: GTIRT18-01075, GTIRT18-00320, GTIRT18-00053 and GTIRT18-01044).

- 06:21:01** Firefighter Desmond and Firefighter Cachia ascend the stairs from the stair lobby (Source, CCTV: Camera 2).
- 06:21:34** WM Godber is in the stair lobby and disconnects the couplings of a 45mm fire hose. This allows him to extend the fire hose by adding another fire hose. (Source, CCTV: Camera 2).
- 06:21:51** WM Sadler attaches a length of 70mm fire hose to the 45mm fire hose that is hanging down from the second floor mezzanine into the stair lobby (Source, CCTV: Camera 2).
- 06:22** Firefighter S Grant and Firefighter Worley, from BA Team 64, are unable to locate a DRM on the 10<sup>th</sup> floor so they ascend the stairs towards the 11<sup>th</sup> floor to re-join Firefighter Dowdall. They all check their gauges and decide to descend the stairs to the bridgehead in the stair lobby as they are running low on air (Firefighter Dowdall SDBA set 824, lowest gauge reading 145 bar) (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT17-02938, GTIRT17-02927).
- 06:22:37** WM Delaney (CU) leaves the community room and proceeds into the main lobby whilst carrying water bottles (Source, CCTV: Camera 4).
- 06:22:41** WM Gregory leaves the community room and proceeds into the main lobby wearing a sector safety surcoat (Source, CCTV: Camera 4).
- 06:22:55** Firefighter Wharnsby descends the stairs, leaves the stair lobby and proceeds into the main lobby (Source, CCTV: Camera 2).
- 06:22:58** SM Wolfenden leaves the stair lobby and proceeds into the main lobby where he has a discussion with an unidentified CM (Source, CCTV: Camera 4).
- 06:23\*** WM Morrison, from BA team 62, believes she and Firefighter P Harris are either on the ninth or 10<sup>th</sup> floor, *WM Morrison states that she hands the firefighting branch to another, unidentified BA Team telling them they will need water as the 11<sup>th</sup> floor is still alight.* WM Morrison and Firefighter P Harris then begin to descend the stairs to the bridgehead in the stair lobby (Source, MPS Witness Statements: GTIRT18-00646, GTIRT18-00425, BA Data: GTIRT17-02820).
- 06:23:14** BA Team 67: CM Fearnley, Firefighter Hooper, Firefighter Okoh and Firefighter Sime are at the bridgehead in the stair lobby, they hand in their BA tallies, start breathing under air and ascend the stairs towards the 10<sup>th</sup> floor. Firefighter Hooper and Firefighter Sime are each carrying one

## OFFICIAL

length of 45mm fire hose (Source, CCTV: Camera 2, BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT18-01075).

- 06:23:54** CM McAlonen descends the stairs, leaves the stair lobby and proceeds into the main lobby (Source, CCTV: Camera 2).
- 06:24\*** WM Christmas, from BA Team 66, describes the stairwell conditions between the fourth and sixth floor. *She states the small stairwell feels very narrow and not much wider than a desk. It is a squeeze to get people down next to them when they are making their way out. As BA Team 66 go up to flat 31 the conditions on the sixth floor are not too bad but the smoke gets worse as they go further up. The lack of visible floor numbers creates some confusion and hampers efforts to identify their location so they count the floors they are ascending* (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-02529).
- 06:24** BA Team 66: WM Christmas, WM Aston-O'Donovan, CM Tillotson, Firefighter C Wright and Firefighter Green are in the stairwell on the sixth floor, they find a firefighting branch and enter the lift lobby. WM Aston-O'Donovan, CM Tillotson and Firefighter Green carry out a left hand search of the sixth floor lobby and find flat 31 which is on fire. WM Christmas and Firefighter C Wright stay in the stairwell on the sixth floor as they state that the lift lobby is very hot and unbearable (Source, BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT18-02529, GTIRT18-00045, GTIRT18-00064, GTIRT18-00952, GTIRT18-00306).
- 06:24:07** WM Gregory leaves the main lobby and proceeds into the community room wearing a sector safety surcoat (Source, CCTV: Camera 4).
- 06:24:07** SM Cook enters the building via the main entrance wearing a Sector Commander Water surcoat and proceeds into the stair lobby (Source, CCTV: Camera 4).
- 06:24:42** SM Cook (Sector Commander Water) has a discussion with GM Goulbourne at the bridgehead in the stair lobby (Source, CCTV: Camera 2).
- 06:25:15** Firefighter Wharnsby leaves the main lobby, proceeds into the stair lobby and ascends the stairs (Source, CCTV: Camera 2).
- 06:25:43\*** GM Welch directs WM Godber towards WM De Silvo at the bridgehead in the stair lobby. WM De Silvo directs WM Godber over to WM O'Keeffe who briefs WM Godber and shows him the information recorded on the green wall in the stair lobby. *WM Godber states that he is tasked by an unidentified GM, outside the building, to take over control of BA and is then briefed at the bridgehead to assist with FSG co-ordination* (Source, CCTV: Camera 2, MPS Witness Statement: GTIRT18-00307).
- 06:27:09** Firefighter Aldridge descends the stairs, talks to CM Morrison in the stair lobby then proceeds into the main lobby (Source, CCTV: Camera 2).

## OFFICIAL

- 06:27:11** SM Wainwright has a discussion with GM Welch in the stair lobby (Source, CCTV: Camera 2).
- 06:27:18\*** BA Team 68: Firefighter Bunday, Firefighter Nwagwu, Firefighter T Dotchin and Firefighter McClelland leave the ground floor lift lobby and proceed into the main lobby wearing EDBA, not under air. They receive a brief from GM Goulbourne to go to the 12<sup>th</sup> floor for search and rescue. GM Goulbourne also informs them of a deceased casualty in the stairwell around the 10<sup>th</sup> floor that they are to leave in situ. *However, Firefighter Nwagwu states he is in a crew of three and is tasked to go to the ninth floor and push on as far as they can.* GM Goulbourne tells BA Team 68 to do their best but expect little or no water, he also lets them know that the DRM, radio communication and telemetry are not working (Source, CCTV: Camera 4, MPS Witness Statement: GTIRT18-01076, GTIRT18-01292, GTIRT18-01263 and GTIRT18-01276).
- 06:27:42** GM Goulbourne and CM Morrison join the discussion with SM Wainwright and GM Welch at the bridgehead in the stair lobby. SM Myatt and WM Stewart listen into the discussion (Source, CCTV: Camera 2).
- 06:28** BA Team 66: WM Christmas, WM Aston-O'Donovan, CM Tillotson, Firefighter C Wright and Firefighter Green change crew positions and extinguish the fire in flat 31 on the sixth floor (Source, BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT18-02529, GTIRT18-00045, GTIRT18-00064, GTIRT18-00952, GTIRT18-00306).
- 06:28** AC Roe asks for a reminder to be sent out to the operational sectors that he wants them to be ready to push beyond the 12<sup>th</sup> floor as soon as it is possible. (Source, MPS Witness Statement: GTIRT17-01254).
- 06:28:27** BA Team 64: Firefighter S Grant, Firefighter Worley and Firefighter Dowdall descend the stairs to the bridgehead in the stair lobby, they close down their SDBA sets and collect their BA tallies, Firefighter S Grant has a discussion with CM Morrison (Source, BA Data: GTIRT17-02820, CCTV: Camera 2).
- 06:28:47** WM Morrison and Firefighter P Harris from BA Team 62 report to the bridgehead in the stair lobby, collect their BA tallies and close down their BA sets. WM Morrison debriefs the BAECO on what she and Firefighter P Harris have done (Source, MPS Witness Statements: GTIRT18-00646, GTIRT18-00425, BA Data: GTIRT17-02820, CCTV: Camera 2).
- 06:28:50** SM Cook (Sector Commander Water) exits the building via the main entrance (Source, CCTV: Camera 4).
- 06:28:58** GM Goulbourne talks to WM Stewart and gestures towards the main lobby (Source, CCTV: Camera 2).



## OFFICIAL

- 06:29** WM Vanstone and WM Niblett are on the 11<sup>th</sup> floor stairwell. They decide to withdraw due to the adverse conditions and start to descend the stairs (Source, MPS Witness Statements: GTIRT18-00999, GTIRT18-01018, BA Data: GTIRT17-02820).
- 06:29\*** BA Team 67: CM Fearnley, Firefighter Hooper, Firefighter Okoh and Firefighter Sime believe they reach the ninth floor and find a deceased casualty (now known to be Khadija Saye flat 173, 20<sup>th</sup> floor). CM Fearnley states he checks for signs of life, BA Team 67 have been made aware of a deceased casualty on the 10<sup>th</sup> floor stairwell so they continue with their brief and ascend the stairs to the 11<sup>th</sup> floor (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01075, GTIRT18-01044 and GTIRT18-00320).
- 06:29:24** Firefighter S Wigley and a paramedic can be seen outside the main entrance retrieving what is believed to be a fatality (Source, CCTV: Camera 4).
- 06:30:04** The Radio Operator at Brigade Control sends a radio message to Hotel 24 Sierra, SM Payton (BMA)  
"Hotel 24 Sierra from M2FN, go ahead, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03313).
- 06:30:08** Hotel 24 Sierra, SM Payton (BMA), sends a radio message to the Radio Operator at Brigade Control  
"FN Hotel 24 Sierra now status 3, over."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03314).
- Hotel 24 Sierra, SM Payton is the 11<sup>th</sup> SM in attendance.
- 06:30:04** The Radio Operator at Brigade Control sends a radio message to Hotel 24 Sierra, SM Payton (BMA)  
"Status 3 received."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03315).
- 06:30:18** The Radio Operator at Brigade Control sends a radio message to Hotel 24 Sierra, SM Payton (BMA)  
"FN out."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03316).
- 06:30:35** Firefighter Aldridge leaves the main lobby, proceeds into the stair lobby and ascends the stairs (Source, CCTV: Camera 2).

## OFFICIAL

- 06:30:50** SM Wainwright exits the building via the main entrance under a MPS riot shield protecting him from falling debris (Source, CCTV: Camera 4).
- 06:30:55** BA Team 68: Firefighter Bunday, Firefighter Nwagwu, Firefighter T Dotchin and Firefighter McClelland are in the main lobby wearing EDBA and start breathing under air (Source, CCTV: Camera 4, BA Data: GTIRT17-02820).
- 06:31** BA Team 66: WM Christmas, WM Aston-O'Donovan, CM Tillotson, Firefighter C Wright and Firefighter Green move to flat 32 on the sixth floor and attempt to gain entry, they realise they are getting low on air and make the decision to withdraw and return to the bridgehead in the stair lobby (Source, BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT18-02529, GTIRT18-00045, GTIRT18-00064, GTIRT18-00952, GTIRT18-00306).
- 06:31** GM Cook (ORT) provides AC Roe with a situational update. GM Cook (ORT) confirms the initial clearance has taken place up to the 12<sup>th</sup> floor and there is now an additional BMA in attendance (SM Payton). The water supply has improved so they are going to push beyond the 12<sup>th</sup> floor with EDBA (Source, MPS Witness Statement: GTIRT17-01254, Supplement Decision Log: GTIRT17-00866).
- 06:32\*** BA Team 67: CM Fearnley, Firefighter Hooper, Firefighter Okoh and Firefighter Sime reach the 11<sup>th</sup> floor. *Firefighter Hooper states that CM Fearnley has a discussion with another BA Team, believed to be Firefighter McArthur and Firefighter LeMarrec from BA Team 65, who are already on the 11<sup>th</sup> floor. This BA team are using a fire hose to protect the teams' egress and the fire hose is delivering low water pressure* (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01075, GTIRT8-01055 and GTIRT18-00320).
- 06:32:01** WM Delaney (CU) leaves the main lobby, proceeds into the stair lobby and then ascends the stairs (Source, CCTV: Camera 4 and Camera 2).
- 06:32:29** CRO Howson at Brigade Control takes a call from the sister-in-law of Antonio (Roncolato) from flat 72 on the 10<sup>th</sup> floor who is asking for an update. CRO Howson asks the caller for a name and contact number for the caller which is provided. CRO Howson states that a Brigade officer is making some phone calls and says she will try and find some information for her and call back. Incident Number 76402, Call Duration two minutes (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00801).
- 06:32:36** CM Magee descends the stairs into the stair lobby and has a discussion with GM Goulbourne (Source, CCTV: Camera 2).
- 06:32:50** BA Team 68: Firefighter Bunday, Firefighter Nwagwu, Firefighter T Dotchin and Firefighter McClelland leave the main lobby and report to the bridgehead in the stair lobby wearing EDBA,

## OFFICIAL

under air. BA Team 68 hand in their BA tallies to CM Morrison and have a discussion with him (Source, CCTV: Camera 2, BA Data: GTIRT17-02820).

- 06:32:54** WM Delaney (CU) descends the stairs into the stair lobby (Source, CCTV: Camera 2).
- 06:33:01** GM Welch and WM Delaney (CU) join the discussion with GM Goulbourne and CM McGee (Source, CCTV: Camera 2).
- 06:33:21** Firefighter Aldridge descends the stairs into the stair lobby (Source, CCTV: Camera 2).
- 06:33:29** An unidentified firefighter leaves the community room, carrying a firefighting branch and a 70mm fire hose, and proceeds to the stair lobby (Source, CCTV: Camera 4).
- 06:33:38** SM Cook (Sector Commander Water) enters the building via the main entrance pulling a length of 70mm fire hose from outside the building, assisted by an unidentified firefighter (Source, CCTV: Camera 4).
- 06:33:46** BA Team 68: Firefighter Bunday, Firefighter Nwagwu, Firefighter T Dotchin and Firefighter McClelland ascend the stairs from the stair lobby (Source, CCTV: Camera 2, BA Data: GTIRT17-02820).
- 06:33:47** CM McShee leaves the main lobby and proceeds into the stair lobby. He is assigned to be a BA communications officer and receives a handover from the current BA Communications officer, CM Morrison (Source, MPS Witness Statement: GTIRT18-01537, GTIRT18-00404, CCTV: Camera 2).
- 06:33:54** CM Willsdon and Firefighter Powell can be seen outside the main entrance pulling two lengths of 70mm fire hose, they enter the building via the main entrance (Source, CCTV: Camera 4).
- 06:33:54** SM Cook (Sector Commander Water) and an unidentified firefighter are in the main lobby and move the RLPP to the main entrance of Grenfell Tower (Source, CCTV: Camera 4).
- 06:34:00** SM Oliff at Brigade Control makes a telephone call to CU7 that lasts for 53 seconds. There is no record available of the contents of the discussion (Source, Mobile Phone Call Log: GTIRT18-03467).
- 06:34:02** SM Wainwright enters the building via the main entrance and has a discussion with SM Cook (Sector Commander Water) in the main lobby (Source, CCTV: Camera 4).
- 06:34:20** CM Willsdon, Firefighter Powell and an unidentified firefighter are in the main lobby setting up the RLPP (Source, CCTV: Camera 4).
- 06:34:36** CRO Fox at Brigade Control takes a call from a male caller who states that he can see someone on the eighth floor. He explains that it is a man and he thinks he is on the right hand side of the building when looking at the entrance and that he is three balconies along. The caller states that

## OFFICIAL

the man has been there for hours. CRO Fox says she will pass the information to the scene. Incident Number 76403, Call Duration two minutes 49 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00802).

- 06:34:52** DAC O'Loughlin and an unidentified firefighter enter the building via the main entrance under a MPS riot shield protecting them from falling debris. DAC O'Loughlin proceeds to the stair lobby (Source, CCTV: Camera 4).
- 06:35\*** BA Team 67: CM Fearnley, Firefighter Hooper, Firefighter Okoh and Firefighter Sime are on the 11<sup>th</sup> floor where they have a fire hose and firefighting branch which they attach to the DRM. They test the branch but it delivers very low pressure and is unsuitable for firefighting. *Firefighter Hooper states one of the team's ADSU actuates on their BA set* (Firefighter Sime's ADSU actuates at 06:34:59) and CM Fearnley decides that BA Team 67 will return to the bridgehead. *Firefighter Hooper states he opens the door to the 11<sup>th</sup> floor lift lobby and is hit by a wall of heat and gases which almost knocks him off his feet. He immediately shuts the door and agrees that there is no way they can go in without water* (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00053 and GTIRT18-01075).
- 06:35** CM Ramsey and Firefighter N Franklin, from BA Team 65, return to the 11<sup>th</sup> floor as they have been unsuccessful in finding a better water supply. They meet with the remainder of BA Team 65: Firefighter McArthur and Firefighter LeMarrec and decide that, due to conditions on the 11<sup>th</sup> floor and not having a water supply, they will return to the bridgehead in the stair lobby and inform the BAECO (Source, BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT18-01275, GTIRT18-00056, GTIRT18-01430, Contemporaneous Notes: GTIRT17-00298).
- 06:35:26** CM Sephton and an unidentified firefighter exit the building via the main entrance under a MPS riot shield protecting them from falling debris (Source, CCTV: Camera 4).
- 06:35:38** SM Wolfenden enters the building via the main entrance and proceeds to the stair lobby (Source, CCTV: Camera 4).
- 06:35:40** SM Wainwright leaves the main lobby and proceeds into the stair lobby whilst carrying one 70mm fire hose (Source, CCTV: Camera 4, CCTV Camera 2).
- 06:35:41** DAC O'Loughlin has a conversation with GM Welch in the stair lobby (Source, CCTV: Camera 2).
- 06:36:01** SM Oliff at Brigade Control makes a telephone call to CU7 that lasts for 51 seconds. There is no record of the contents of the discussion (Source, Mobile Phone Call Log: GTIRT18-03467).
- 06:36:13** WM Stewart (CU) leaves the stair lobby, proceeds into the main lobby and has a discussion with WM Delaney (CU) whilst SM Myatt, SM Cook (Sector Commander Water) and GM Goulbourne also have a discussion in the main lobby (Source, CCTV: Camera 4).

## OFFICIAL

- 06:36:42** CM Morrison exits the building via the main entrance (Source, CCTV: Camera 4).
- 06:36:51** WM O'Keeffe has a discussion with GM Goulbourne, GM Welch and DAC O'Loughlin, he is then relieved from his role at the bridgehead, having undertaken the role since shortly after 0100hrs (Source, MPS Witness Statement: GTIRT17-01099, CCTV: Camera 2).
- 06:36:59** Golf 105, GM Andrew Cane is mobilised from his home address as ORT relief (Source, Vision: GTIRT17-02791).
- 06:37:11** Echo 107, GM John Simpson is mobilised from his home address as ORT relief (Source, Vision: GTIRT17-02791).
- 06:37:17** CRO Howson at Brigade Control makes a call to Maria, the sister-in-law of Antonio (Roncolato) who is a resident in flat 72 on the 10<sup>th</sup> floor. CRO Howson gives the information that crews are doing a sweep of floors eight, nine, 10 and 11. CRO Howson clarifies that the crews are going door to door on those floors. Maria states that someone that they know has spoken to Antonio (Roncolato) and he is now out of the building. (Source, NICE, Admin Phone Line Audio file: GTIRT18-01324).
- 06:38** BA Team 65: CM Ramsey, Firefighter McArthur, Firefighter N Franklin and Firefighter LeMarrec descend the stairs from the 11<sup>th</sup> floor to the bridgehead in the stair lobby (Source, BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT18-01275, GTIRT18-00056, GTIRT18-01430, Contemporaneous Notes: GTIRT17-00298).
- 06:38:00** Golf 105, GM Cane books Status 2, mobile to incident (Source, Vision: GTIRT17-02791).
- 06:38\*** BA Team 68: Firefighter Bunday, Firefighter Nwagwu, Firefighter T Dotchin and Firefighter McClelland are ascending the stairs towards the 12<sup>th</sup> floor. *Firefighter McClelland meets another BA Team and realises that it is BA Team 67: Firefighter Hooper and CM Fearnley as they are from the same fire station. BA Team 67 inform him that the floors above are really hot and there is a casualty between the eighth and ninth floors.* BA Team 68 then continue with their brief to go to the 12<sup>th</sup> floor (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01076).
- 06:38:11** Echo 107, GM Simpson books status 2, mobile to incident (Source, Vision: GTIRT17-02791).
- 06:38:30** BA Team 70: CM Atkins and Firefighter Gonnella are at the bridgehead in the stair lobby wearing EDDBA, not under air. They receive a briefing from GM Goulbourne to go to the ninth or 10<sup>th</sup> floor to search and rescue a person who has been seen from outside Grenfell Tower waving a flag or shirt from a window. GM Goulbourne also lets them know that there is no firefighting media and the DRM is not working above the sixth floor (Source, CCTV: Camera 2, Camera 4, MPS Witness Statement: GTIRT18-00916, GTIRT18-01536).

## OFFICIAL

- 06:39** BA Team 68: Firefighter Bunday, Firefighter Nwagwu, Firefighter T Dotchin and Firefighter McClelland reach what they believe is the ninth floor stairwell and find a deceased casualty (known to be Khadija Saye, flat 173, 20<sup>th</sup> floor). As they had been briefed to leave the casualty in situ by GM Goulbourne BA Team 68 continue with their brief and ascend the stairs towards the 12<sup>th</sup> floor (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01076, GTIRT18-01292, GTIRT18-01263 and GTIRT18-01276).
- 06:39:25** A length of 70mm fire hose is lowered to the main lobby from the second floor mezzanine, CM Willsdon takes it and places it into the RLPP (Source, CCTV: Camera 4).
- 06:39:42** BA Team 70, CM Atkins and Firefighter Gonnella are at the bridgehead in the stair lobby wearing EDBA and start breathing under air. They have a discussion with CM McShee, who is the BA Communications Officer, followed by a discussion with GM Goulbourne (Source, BA Data: GTIRT17-02820, CCTV: Camera 2).
- 06:39:50** An unidentified firefighter descends the stairs, leaves the stair lobby and proceeds into the main lobby (Source, CCTV: Camera 2).
- 06:40:01** SM Oliff, at Brigade Control, makes a telephone call to CU7 that lasts for one minute and 46 seconds. There is no record of the contents of the discussion (Source, Mobile Phone Call Log: GTIRT18-03467).
- 06:40:10** SM Cook (Sector Commander Water) is talking to five unidentified firefighters in the main lobby (Source, CCTV: Camera 4).
- 06:40:19** CM Hunter removes the BAECO surcoat and hands it over to WM Sadler who dons the surcoat and assumes the role of BAECO at the bridgehead in the stair lobby. CM Hunter then leaves the bridgehead and proceeds to the main lobby (Source, CCTV: Camera 4 and Camera 2).
- 06:40:46** BA Team 69: Firefighter O'Brien and Firefighter Ngo and BA Team 72, Firefighter Dounias and Firefighter Clarke are in the main lobby and receive a briefing from GM Goulbourne. He tells them to extend the 45mm fire hose and firefighting branch from the sixth floor to the 12<sup>th</sup> floor as there is a defective DRM outlet between those floors preventing the delivery of water above the sixth floor (Source, CCTV: Camera 4, MPS Witness Statement: GTIRT18-01035, GTIRT18-01037, GTIRT18-01069).
- 06:41:36** Firefighter Orchard, Firefighter Stavely, Firefighter Errington, Firefighter Juggins, Firefighter J Saunders and Firefighter Roots leave the main lobby and proceed into the stair lobby. They then ascend the stairs, each carrying one length of 70mm fire hose (Source, CCTV: Camera 4 and Camera 2).
- 06:41:37\*** BA Team 71: Firefighter B Dotchin and Firefighter Earl receive a briefing from GM Welch to go to the 12<sup>th</sup> floor and conduct a search and rescue for a live casualty (believed to be Bonifacio Elpidio

## OFFICIAL

from flat 83, 11<sup>th</sup> floor) who is waving for attention on the non-fire side of the building (believed to be the South elevation). They are informed of a deceased casualty on the stairwell and to leave in situ. *Firefighter B Dotchin states GM Welch tells them radio communications are not working, no breaking in gear is available and that they have no water.* BA Team 71 start breathing under air and hand in their BA tallies to WM Sadler (BAECO) (Source, CCTV: Camera 2, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00924, GTIRT18-01535).

- 06:41:53** BA Team 70: CM Atkins and Firefighter Gonnella are at the bridgehead in the stair lobby, they hand their BA tallies to CM McAlonen (BAECO) and ascend the stairs towards the ninth or 10<sup>th</sup> floor (Source, GTIRT17-02820, CCTV: Camera 2).
- 06:41:57** BA Team 73: Firefighter Geapin and Firefighter Hayward, BA Team 76: Firefighter Toppin and Firefighter Elliott and one unidentified firefighter are in the main lobby wearing SDBA, not under air. They speak with SM Myatt (Source, CCTV: Camera 4).
- 06:42** The BCC contact AC Roe and let him know that Surrey FRS are offering the LFB the use of their 42 metre ALP. AC Roe accepts the offer and requests it to be mobilised (Source, MPS Witness Statement: GTIRT17-01254, Supplement Decision Log: GTIRT17-00866, Contemporaneous Notes: GTIRT17-00359).
- 06:42** BA Team 68: Firefighter Bunday, Firefighter Nwagwu, Firefighter T Dotchin and Firefighter McClelland reach the 12<sup>th</sup> floor and make entry into the lift lobby. They carry out a right hand search and enter the first flat they come to (believed to be flat 96) however the flat is burnt out and they find it is too hot to enter and search. BA Team 68 withdraw to the stairwell on the 12<sup>th</sup> floor where they have a discussion about re-entering and carrying out a left hand search (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01076, GTIRT18-01292, GTIRT18-01263 and GTIRT18-01276).
- 06:42:03** BA Team 69: Firefighter O'Brien and Firefighter Ngo and BA Team 72: Firefighter Dounias and Firefighter Clarke leave the main lobby and report to the bridgehead in the stair lobby wearing SDBA. They start breathing under air at **06:42:25** (Source, CCTV: Camera 4 and Camera 2, BA Data: GTIRT17-02820).
- 06:42:30** WM Vanstone and WM Niblett, from BA Team 62, report to the bridgehead in the stair lobby, collect their BA tallies and close down their BA sets. They brief GM Goulbourne on their actions. WM Vanstone states that he looks at the FSG calls that are written on a wall and can clearly see that flat 72, 10<sup>th</sup> floor is crossed out, WM Vanstone and WM Niblett leave the stair lobby and proceed to the community room (Source, MPS Witness Statements: GTIRT18-00999, GTIRT18-01018, BA Data: GTIRT17-02820, CCTV: Camera 2).
- 06:42:38** BA Team 71: Firefighter B Dotchin and Firefighter Earl ascend the stairs from the bridgehead in the stair lobby to the 12<sup>th</sup> floor (Source, CCTV: Camera 2, BA Data: GTIRT17-02820).

## OFFICIAL

- 06:43:04** BA Team 67: CM Fearnley, Firefighter Hooper, Firefighter Okoh and Firefighter Sime reach the bridgehead in the stair lobby. CM Fearnley and Firefighter Hooper are under air and have a discussion with GM Goulbourne and GM Welch. CM Fearnley then leaves the stair lobby and proceeds into the main lobby where he has a discussion with WM Niblett from BA Team 62. Firefighter Hooper, Firefighter Okoh and Firefighter Sime close down their EDDBA sets and collect their BA tallies (Source, CCTV: Camera 2, MPS Witness Statement: GTIRT18-01075).
- 06:43:47** CM Willsdon and Firefighter Powell exit the building via the main entrance (Source, CCTV: Camera 4).
- 06:44:08** BA Team 65: CM Ramsey, Firefighter McArthur, Firefighter N Franklin and Firefighter LeMarrec descend the stairs to the bridgehead in the stair lobby and have a discussion with GM Goulbourne and GM Welch whilst still under air. They collect their BA tallies and close down their BA sets (Source, CCTV: Camera 2, BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT18-00056).
- 06:44:09** SM Cook (Sector Commander Water) and WM Delaney (CU) leave the main lobby and proceed into the stair lobby carrying one 70mm fire hose each (Source, CCTV: Camera 4).
- 06:44:20** BA Team 69: Firefighter O'Brien and Firefighter Ngo and BA Team 72: Firefighter Dounias and Firefighter Clarke are at the bridgehead in the stair lobby. They have a discussion with GM Goulbourne and then with CM McShee (BA Comms Officer) (Source, CCTV: Camera 2).
- 06:44:21** SM Cook (Sector Commander Water) ascends the stairs from the stair lobby carrying one length of 70mm fire hose (Source, CCTV: Camera 2).
- 06:44:40** WM Delaney (CU) and WM Stewart (CU) leave the main lobby and proceed into the stair lobby and ascend the stairs each carrying one 70mm fire hose (Source, CCTV: Camera 2).
- 06:45:05** CM Fearnley, from BA Team 67, leaves the stair lobby and proceeds into the main lobby where he has a discussion with WM Niblett from BA Team 62 whilst wearing EDDBA, still under air (Source, CCTV: Camera 4).
- 06:45:24** An unidentified firefighter enters the building via the main entrance carrying a dividing breaching. They have a discussion with GM Welch whilst pointing at a burst length of 70mm fire hose outside the main entrance. The unidentified firefighter then leaves the main lobby and proceeds into the stair lobby still carrying the dividing breach (Source, CCTV: Camera 4).
- 06:45:45** WM Dowden leaves the community room, proceeds into the main lobby and has a discussion with GM Welch (Source, CCTV: Camera 4).
- 06:46:09** The Radio Operator at Brigade Control sends a radio message to CU8  
"Charlie Uniform 8 from M2FN, go ahead, over."



## OFFICIAL

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03317).

- 06:46:13** CU8 send a radio message to the Radio Operator at Brigade Control "FN Charlie Uniform 8 delivering informative message from AC Roe" (Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03318).
- 06:46:13** CU8 send an informative radio message to the Radio Operator at Brigade Control "A residential block of 24 - 2-4 floors - 25 metres by 25 metres -"  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03319).
- 06:46:37** BA Team 66: WM Christmas, WM Aston-O'Donovan, CM Tillotson, Firefighter C Wright and Firefighter Green descend the stairs to the stair lobby. They report to WM Godber, collect their BA tallies and close down their SDBA sets (Source, BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT18-02529, GTIRT18-00045, GTIRT18-00064, GTIRT18-00952, GTIRT18-00306).
- 06:46:40** Firefighter Hooper, from BA Team 67, leaves the stair lobby and proceeds into the main lobby where he has a discussion with CM Fearnley, also from BA Team 67, who is still breathing under air. CM Fearnley closes down his EDBA set in the main lobby and collects his BA tally from WM Sadler (BAECO). CM Fearnley and Firefighter Hooper wait in the main lobby for the remainder of BA Team 67 (Source: CCTV: Camera 2 and Camera 4, BA Data: GTIRT17-02820).
- 06:46:13** CU8 continue to send an informative radio message to the Radio Operator at Brigade Control "Fire on all floors from second to 24<sup>th</sup>"  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03320).
- 06:46:49** An unidentified firefighter ascends the stairs from the stair lobby carrying a dividing breech (Source, CCTV: Camera 2).
- 06:46:56** CRO Fox takes a call from a member of the public who states that she has a family member who is in the building and the caller asks if there is a number that she can call to get information. CRO Fox says that she doesn't have any numbers and explains that would be down to the MPS. Incident Number 76405, Call Duration one minute 4 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00803).
- 06:46:57** BA Team 69: Firefighter O'Brien and Firefighter Ngo and BA Team 72: Firefighter Dounias and Firefighter Clarke are at the bridgehead in the stair lobby, breathing under air. They hand in their BA tallies to CM McAlonen (BAECO) (Source, CCTV: Camera 2).
- 06:46:58** CU8 continue to send an informative radio message to the Radio Operator at Brigade Control

## OFFICIAL

-- approximately 100 individuals involved --"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03321).

**06:47** BA Team 68: Firefighter Bunday, Firefighter Nwagwu, Firefighter T Dotchin and Firefighter McClelland re-enter the 12<sup>th</sup> floor lift lobby and carry out a left hand search. They make an unsuccessful attempt to enter the first flat (believed to be flat 91), which is extremely hot, so they withdraw back to the stairwell on the 12<sup>th</sup> floor as they have no firefighting media (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01076, GTIRT18-01263 and GTIRT18-01276).

**06:47** BA Team 70: CM Atkins and Firefighter Gonnella reach the ninth floor enter the lift lobby and they see that the right hand side of this floor is 100% on fire and the left hand side is heavily smoke logged. BA team 70 decide to carry out a left hand search, they find and search the first flat which CM Atkins states is a one bed flat (believed to be flat 61) but they do not find any casualties. BA Team 70 return to the lift lobby door to check that their egress is still safe (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00916, GTIRT18-01536).

**06:47\*** BA Team 71: Firefighter B Dotchin and Firefighter Earl reach the 10<sup>th</sup> floor and find a deceased casualty (now known to be Khadija Saye, flat 173, 20<sup>th</sup> floor). BA Team 71 have been made aware of a deceased casualty on 10<sup>th</sup> floor stairwell so they continue with their brief and ascend the stairs to the 12<sup>th</sup> floor. *Firefighter B Dotchin states that he believes he is around the sixth floor, Firefighter Earl states he is on the 10<sup>th</sup> floor* (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00924, GTIRT18-01535).

**06:47:08** CU8 continue to send an informative radio message to the Radio Operator at Brigade Control

-- major incident declared --"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03322).

**06:47:13** CU8 continue to send an informative radio message to the Radio Operator at Brigade Control

-- high-rise procedure implemented, safety cordon in place --"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03323).

**06:47:18** BA Team 69: Firefighter O'Brien and Firefighter Ngo and BA Team 72: Firefighter Dounias and Firefighter Clarke ascend the stairs from the stair lobby. Firefighter Ngo, Firefighter Dounias and Firefighter Clarke are each carrying a TIC (Source, CCTV: Camera 2, BA Data: GTIRT17-02820).

**06:47:26** CU8 continue to send an informative radio message to the Radio Operator at Brigade Control

-- TL, ALP, ground monitors, five jets, BA main control --"

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03324).

## OFFICIAL

- 06:47:37** BA Team 65: CM Ramsey, Firefighter McArthur, Firefighter N Franklin and Firefighter LeMarrec leave the stair lobby and proceed into the main lobby where they have a discussion with GM Welch. Firefighter LeMarrec then proceeds through the main lobby into the community room (Source: CCTV Camera 4).
- 06:47:42** CU8 continue to send an informative radio message to the Radio Operator at Brigade Control  
"-- steady progress being made, tactical mode Oscar, Charlie Uniform 8."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03325).
- 06:47:57** An unidentified firefighter leaves the main lobby, proceeds into the stair lobby and ascends the stairs (Source, CCTV: Camera 2).
- 06:47:58** The Radio Operator at Brigade Control repeats the informative radio message, started at 06:46:13, back to CU8  
"Charlie Uniform 8 from AC Roe, residential block."  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03326)
- 06:48\*** BA Team 71: Firefighter B Dotchin and Firefighter Earl reach the 12<sup>th</sup> floor and enter the lift lobby. *Firefighter Earl states they carry out a right hand search. Firefighter B Dotchin states there was another unidentified BA crew on the floor so they carry out a left hand search and reach a flat (believed to be flat 91). The door is locked and BA Team 71 shout and knock on the door but there is no response. Firefighter B Dotchin states it is incredibly hot and the visibility is poor* (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00924, GTIRT18-01535).
- 06:48:55** The Radio Operator at Brigade Control sends a radio message to CU8  
"FN out"  
(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-03327).
- 06:48:19** CM Willsdon and Firefighter Powell enter the building via the main entrance (Source, CCTV: Camera 4).
- 06:48:44** CM Batterbee and an unidentified firefighter enter the building via the main entrance (Source, CCTV: Camera 4).
- 06:49:10** An unidentified firefighter proceeds into the stair lobby and has a discussion with WM Sadler (BAECO) at the bridgehead (Source, CCTV: Camera 2).
- 06:49:37** FF O'Donoghue appears to search the stair lobby floor then proceeds into the main lobby (Source, CCTV: Camera 2).
- 06:49:51** GM Welch and CM Batterbee have a discussion in the main lobby (Source, CCTV: Camera 4).

## OFFICIAL

- 06:50** BA Team 68: Firefighter Bunday, Firefighter Nwagwu, Firefighter T Dotchin and Firefighter McClelland are in the 12<sup>th</sup> floor stairwell. They have a discussion and decide to ascend the stairs to the 13<sup>th</sup> floor to search and rescue (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01076, GTIRT18-01263 and GTIRT18-01276).
- 06:50:09** SOM Smith at Brigade Control makes a telephone call to Surrey FRS to take up the offer of the 42 metre ALP. This offer is made during the call taken at **04:23:31** and she gives the RVP as Ladbroke Grove, junction of Elgin Crescent in Kensington. She instructs them to use Airwave radio channel FLON Ops 4. The Surrey CRO gives the call sign of the appliance as Sierra 13 Alpha 1. Surrey provide their reference as 12122 and state that they will call back with an estimated time of arrival (Source, NICE, Admin Phone Line Audio file: GTIRT18-01330).
- 06:50:27** GM Goulbourne leaves the stair lobby and proceeds into the main lobby whilst using a mobile telephone (Source, CCTV: Camera 2).
- 06:50:30** CM Batterbee exits the building via the main entrance (Source, CCTV: Camera 4).
- 06:51** BA Team 68: Firefighter Bunday, Firefighter Nwagwu, Firefighter T Dotchin and Firefighter McClelland reach the 13<sup>th</sup> floor and enter the lift lobby where Firefighter Bunday wedges the door open with a Halligan bar. They encounter extreme heat in the lobby and decide to withdraw to the bridgehead as they do not have any firefighting media with them (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01076 and GTIRT18-01276).
- 06:51** BA Team 70: CM Atkins and Firefighter Gonnella continue the left hand search of the ninth floor and locate a second flat (believed to be flat 62). They enter this flat to search it, noticing that the door is already open, but no persons are found inside. BA Team 70 move to the next flat on the left hand search (believed to be flat 63) the door is unlocked but it is too hot to enter. They find the remaining three flats (believed to be flats 64, 65 and 66) on fire and, as they have no firefighting media, they return to the stairwell and ascend the stairs to the 10<sup>th</sup> floor (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00916, GTIRT18-01536).
- 06:51\*** BA Team 71: Firefighter B Dotchin and Firefighter Earl are still on the 12<sup>th</sup> floor. *Firefighter B Dotchin states they carry out a left hand search and reach the next flat (believed to be flat 92). The door is open and they carry out a thorough search of the flat but do not find any casualties* (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00924).
- 06:51:26** GM Goulbourne leaves the main lobby and proceeds into the stair lobby, finishing a call on his mobile telephone (Source, CCTV: Camera 2).
- 06:51:38** An unidentified firefighter leaves the main lobby, proceeds into the stair lobby and has a discussion with WM Parker and WM Godber at the bridgehead. The unidentified firefighter then proceeds back into the main lobby (Source, CCTV: Camera 2).

## OFFICIAL

- 06:52** BA Team 69: Firefighter O'Brien and Firefighter Ngo and BA Team 72: Firefighter Dounias and Firefighter Clarke reach the sixth floor stairwell and find tangled fire hoses with a firefighting branch attached. They untangle the fire hose and continue to ascend to the 12<sup>th</sup> floor (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01035, GTIRT18-01037, GTIRT18-01069).
- 06:53** BA Team 68: Firefighter Bunday, Firefighter Nwagwu, Firefighter T Dotchin and Firefighter McClelland are descending the stairs from the 13<sup>th</sup> floor and intercept a fire ground radio message stating that there is a person waving from a window on the sixth floor. On hearing this BA Team 68 decide to make their way to the sixth floor to carry out a search (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01076 and GTIRT18-01263).
- 06:53\*** BA Team 71: Firefighter B Dotchin and Firefighter Earl are still on the 12<sup>th</sup> floor, Firefighter B Dotchin *states they carry on their left hand search and reach the next flat (believed to be flat 93.) The door is open and they carry out a thorough search of the flat but no casualties are found. Firefighter B Dotchin states they meet another crew (believed to be BA Team 68: Firefighter Bunday, Firefighter Nwagwu, Firefighter T Dotchin and Firefighter McClelland) who have searched the flats on the right hand side.* BA Team 71 then leave the lift lobby and proceed into the 12<sup>th</sup> floor stairwell (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00924, GTIRT18-01535).
- 06:53:39** Firefighter Aldridge descends the stairs, leaves the stair lobby and proceeds into the main lobby (Source, CCTV: Camera 2).
- 06:54\*** BA Team 69: Firefighter O'Brien and Firefighter Ngo and BA Team 72: Firefighter Dounias and Firefighter Clarke are in the stairwell between the ninth and 10<sup>th</sup> floor. They find a deceased casualty on the stairs (known to be Khadija Saye flat 173, 20<sup>th</sup> floor) and, as there is no visible signs of life, they continue with their brief and ascend the stairs to the 12<sup>th</sup> floor. Firefighter Dounias, from BA Team 72, *states they collect a further two firefighting branches from the 10<sup>th</sup> floor whilst ascending to the 12<sup>th</sup> floor* (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01037, GTIRT18-01035, GTIRT18-01069, GTIRT18-01135).
- 06:54\*** BA Team 71: Firefighter B Dotchin and Firefighter Earl are in the 13<sup>th</sup> floor stairwell, *Firefighter Earl states they can see thick black smoke coming from underneath the closed lift lobby door. They make it in four to five steps but due to the extreme heat they have to retreat back into the stairwell. Firefighter B Dotchin states they make a decision to return to the bridgehead in the stair lobby and report to the BAECO* (Source, BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT18-00924, GTIRT18-01535).
- 06:54:42** Echo 1, DAC Sabrina Cohen-Hatton attends Paddington fire station from her home address (Source, Vision: GTIRT17-02791)

## OFFICIAL

- 06:54:43** An unidentified firefighter leaves the main lobby, proceeds into the stair lobby and has a discussion with WM Parker at the bridgehead (Source, CCTV: Camera 2).
- 06:55** BA Team 70: CM Atkins and Firefighter Gonnella, reach the 10<sup>th</sup> floor and find a deceased casualty on the stairs (now known to be Khadija Saye flat 173, 20<sup>th</sup> floor). There are no signs of life so they continue with their brief enter the 10<sup>th</sup> floor lift lobby and commence a left hand search. BA Team 70 find the first flat (believed to be flat 71), make entry, search the flat and find no casualties. BA Team 70 find the conditions hotter on the 10<sup>th</sup> floor, compared to conditions on the ninth floor, and return to the 10<sup>th</sup> floor stairwell (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01037, GTIRT18-01035, GTIRT18-01069, GTIRT18-01135).
- 06:55:25** Three unidentified firefighters leave the main lobby and proceed into the stair lobby. They search the floor of the stair lobby then return into the main lobby (Source, CCTV: Camera 2).
- 06:56:29** WM Stewart (CU) descends the stairs to the bridgehead in the stair lobby, he is carrying a TIC. Once at the bridgehead he picks up a sealed body bag and then ascends the stairs back to the second floor mezzanine (Source, CCTV: Camera 2).
- 06:56:50** AC Roe enters the building via the main entrance, under a MPS riot shield protecting him from falling debris (Source, CCTV: Camera 4).
- 06:56:58** SM Payton (BMA), WM Johnson and Firefighter Brown enter the building via the main entrance under a MPS riot shield protecting them from falling debris (Source, CCTV: Camera 4).
- 06:57** BA Team 68: Firefighter Bunday, Firefighter Nwagwu, Firefighter T Dotchin and Firefighter McClelland reach the sixth floor and make entry into the sixth floor lift lobby. They start to search on the left hand side entering a flat where they encounter another BA team (believed to be BA Team 71 Firefighter B Dotchin and Firefighter Earl) who inform BA Team 68 that the flat is clear with no one inside (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01263, GTIRT18-01076 and GTIRT18-01276).
- 06:57\*** BA Team 71: Firefighter B Dotchin and Firefighter Earl descend the stairs from the 11<sup>th</sup> floor. *Firefighter Earl states there is another unidentified BA Team on this floor so they search the floor with them. During the search he notices a deceased male in one of the flats (believed to be Abdeslam Sebbar Flat 81, 11<sup>th</sup> floor). BA Team 71 then continue down to the ninth floor* (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01535).
- 06:57:01** AC Roe and GM Welch have a discussion in the main lobby (Source, CCTV: Camera 4).
- 06:57:09** SM Myatt descends the stairs into the stair lobby and has a discussion with GM Goulbourne (Source, CCTV: Camera 2).

**OFFICIAL**

**06:57:19** CRO Adams at Brigade Control takes a call from a male reporting that there is someone stuck in Grenfell Tower. The caller explains that he has called before but about someone else. This person is at the window looking down at the caller, indicating that it is the eighth floor. He then explains that this is a female and she is at the window, on the right hand side of the building and is four columns across near the corner of the building and he cannot see the Brigade. CRO Adams says she will tell them at the incident but also asks if the caller could tell the crews at the scene as well. Incident Number 76410, Call Duration three minutes 16 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00805).

At this point the calls that have been taken and the details recorded by Control since 06:00:00 hours are summarised in the table below.

<b>Time of call</b>	<b>Flat Number</b>	<b>Floor number</b>	<b>Number of people confirmed by caller</b>	<b>Remarks</b>
06:01:02	72	10	One adult	Sister-in-law of Antonio calling back for an update
06:32:29	72	10	One adult	Sister-in-law of Antonio calling back for an update. Gives her name as Maria to Control Room Operator.
06:34:36	-	Eight	One individual	Caller from outside Grenfell Tower reporting individual on eighth floor
06:37:17	72	10	One adult	CRO Howson calls back sister-in-law of Antonio
06:57:19	-	Eight	One individual	Caller from outside Grenfell Tower reporting individual on eighth floor

**06:57:19\*** BA Team 73: Firefighter Geapin and Firefighter Hayward are at the bridgehead in the stair lobby wearing SDBA, not under air. They have a discussion with WM Godber and CM McShee (BA Comms Officer). *Firefighter Hayward states their brief is to search the fifth and sixth floors to locate any saveable life as a person has been reported at a window on the sixth floor. However, Firefighter Geapin states they are briefed to carry out search and rescue on the sixth, eighth and ninth floors* (Source, CCTV: Camera 2, MPS Witness Statement: GTIRT18-00930,GTIRT18-01270 Contemporaneous Notes: GTIRT17-00415, GTIRT17-00220).

## OFFICIAL

- 06:57:23** GM Goulbourne leaves the stair lobby and proceeds into the main lobby and joins in a discussion with GM Welch, AC Roe, SM Payton (BMA) and WM Johnson (Source, CCTV: Camera 4).
- 06:57:29** SM Wainwright descends the stairs into the stair lobby and has a discussion with WM Godber, WM Parker and CM McAlonen (BAECO) at the bridgehead (Source, CCTV: Camera 2).
- 06:57:52** Firefighter M Singh is in the main lobby and takes a photo of the Grenfell Community wall and the green wall at the rear of the main lobby (Source, CCTV: Camera 4).
- 06:58\*** BA Team 71: Firefighter B Dotchin and Firefighter Earl descend the stairs to the ninth floor. *Firefighter Earl states they continue down to the ninth floor and find an enforcer which they use to start forcing doors to flats on that floor and others flats further down. They do not find any casualties and are close to time of whistle so they return back to the bridgehead in the stair lobby* (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01535).
- 06:58\*** BA Team 70: CM Atkins and Firefighter Gonnella re-enter the 10<sup>th</sup> floor lift lobby and continue their left hand search reaching the next flat (Believed to be flat 72) but do not find any casualties. Due to the hot conditions they return to the stairwell on the 10<sup>th</sup> floor. *CM Atkins states that his hands are so hot that he removes his gloves and tries to radial cool in the water coming down the stairs.* CM Atkins checks with Firefighter Gonnella that he is okay and they decide to enter the 10<sup>th</sup> floor lift lobby again (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01037, GTIRT18-01035, GTIRT18-01069, GTIRT18-01135).
- 06:58:06** CM Magee descends the stairs into the stair lobby, has a discussion with WM Godber at the bridgehead then ascends back up the stairs (Source, CCTV: Camera 2).
- 06:58:10** Firefighter Badillo is at the main entrance carrying a MPS riot shield and does not enter the building (Source, CCTV: Camera 4).
- 06:58:33** CM Batterbee enters the building via the main entrance (Source, CCTV: Camera 4).
- 06:58:47** CRO Jones takes a call from a female caller who reports a fire in a tower block. CRO Jones explains there is a fire in Grenfell Tower in the Ladbrooke Grove area and the caller confirms that is where she is calling from. CRO Jones confirms that the Brigade is in attendance. Incident Number 76407, Call Duration 41 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00804).
- 06:58:52** CM Willsdon and Firefighter Powell exit the building via the main entrance (Source, CCTV: Camera 4).
- 06:58:58** Firefighter M Singh exits the building via the main entrance (Source, CCTV: Camera 4).
- 06:59\*** BA Team 69: Firefighter O'Brien and Firefighter Ngo and BA Team 72: Firefighter Dounias and Firefighter Clarke reach the 12<sup>th</sup> floor stairwell where they lay a fire hose and firefighting branch



## OFFICIAL

on the floor ready for the next BA crew. They do not enter the 12<sup>th</sup> floor lift lobby as Firefighter Dounias states *there is an unidentified EDBA crew already on the 12<sup>th</sup> floor. However, Firefighter Ngo states that he thinks that they are on the 13<sup>th</sup> floor* (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01035, GTIRT18-01037, GTIRT18-01069).

- 06:59:07** SM Wainwright ascends the stairs from the bridgehead in the stair lobby carrying a collecting breeching (Source, CCTV: Camera 2).
- 06:59:10** BA Team 73: Firefighter Geapin and Firefighter Hayward leave the stair lobby and proceed into the main lobby wearing SDBA, not under air. They collect an enforcer and a black bag containing breaking in gear and return to the stair lobby where they talk to CM McShee (BA Comms Officer) (Source CCTV: Camera 2, Camera 4, MPS Witness Statement: GTIRT18-00930, GTIRT18-01270).
- 06:59:12** Firefighter Badillo and GM Goodall (FSG Coordinator) enter the building via the main entrance, Firefighter Badillo is holding a MPS riot shield protecting them from falling debris (Source, CCTV: Camera 4)
- 06:59:34** Firefighter Badillo exits the building via the main entrance under a MPS riot shield protecting him from falling debris (Source, CCTV: Camera 4).
- 06:59:35\*** BA Team 74: CM Stevenson, Firefighter R Thomas, Firefighter Thorpe, Firefighter Somers and Firefighter Tyldesley leave the ground floor lift lobby and proceed into the main lobby wearing EDBA, not under air. They receive a brief from GM Goulbourne to go to the 11<sup>th</sup> floor to firefight, search and rescue. *Firefighter Tyldesley states that they are informed by GM Goulbourne that if they come across any bodies to continue on with the main objective of firefighting as it was believed that anyone in the building was assumed deceased* (Source, CCTV: Camera 4, MPS Witness Statement: GTIRT18-02532, GTIRT18-00432, GTIRT17-00380, GTIRT17-00396).
- 06:59:45\*** BA Team 71: Firefighter B Dotchin and Firefighter Earl are descending the stairs to the BAECO with *BA Team 68: Firefighter Bunday, Firefighter Nwagwu, Firefighter T Dotchin and Firefighter McClelland. They meet an unidentified SM at around the seventh floor who is not wearing BA (believed to be SM Wainwright) who informs them that there is a casualty on the sixth floor and that any crews in BA should head to that floor and conduct a search and rescue of the floor* (Source, BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT18-00924, GTIRT18-01535).
- 06:59:48** CM Batterbee exits the building via the main entrance under a MPS riot shield protecting him from falling debris (Source, CCTV: Camera 4).
- 06:59:50** AC Roe exits the building via the main entrance and is escorted by Firefighter Badillo who is waiting outside the main entrance under a MPS riot shield protecting them from falling debris (Source, CCTV: Camera 4).

## OFFICIAL

- 06:59:59** SM Myatt leaves the stair lobby and proceeds into the main lobby and talks to GM Goulbourne (Source, CCTV: Camera 4).
- 07:00\*** BA Team 68: Firefighter Bunday, Firefighter Nwagwu, Firefighter T Dotchin and Firefighter McClelland are on the sixth floor, they search the remaining flats but do not find any casualties. They are getting low on air and decide to withdraw to the bridgehead in the stair lobby. (Firefighter Nwagwu SDBA set 862 lowest gauge reading 146 bar) (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01263, GTIRT18-01076 and GTIRT18-01276).
- 07:00** BA Team 70: CM Atkins and Firefighter Gonnella enter the 10<sup>th</sup> floor lift lobby for a third time and continue to carry out a left hand search until they reach the next flat (believed to be flat 73). They attempt to enter the flat but find the conditions are too hot, so withdraw back to the 10<sup>th</sup> floor stairwell (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT 18-00916, GTIRT 18-01536).
- 07:00\*** BA Team 71: Firefighter B Dotchin and Firefighter Earl reach the sixth floor, Firefighter B Dotchin states that BA Team 68: Firefighter Bunday, Firefighter Nwagwu, Firefighter T Dotchin and Firefighter McClelland carry out a right hand search and BA Team 71 carry out a left hand search, they gain entry to each flat using the enforcer on doors that are locked, BA Team 71 search three flats and find no casualties. BA Team 71 meet BA Team 68 after they have completed their search of the other flats of the sixth floor (Source, BA Data GTIRT17-02820, MPS Witness Statement: GTIRT18-00924).
- 07:00:14** WM Johnson (CU) and SM Payton (BMA) exit the building via the main entrance (Source, CCTV: Camera 4).
- 07:00:26\*** GM Goodall (FSG Co-ordinator) ascends the stairs in the stair lobby to the fourth floor to see floor layout of the building (Source, MPS Witness Statement: GTIRT18-00044, CCTV: Camera 2).
- 07:01\*** BA Team 69: Firefighter O'Brien and Firefighter Ngo and BA Team 72, Firefighter Dounias and Firefighter Clarke, are in the 12<sup>th</sup> floor stairwell. Firefighter Dounias states he and BA Team 69 carry out a gauge check and make the decision to descend the stairs to the bridgehead in the stair lobby (Firefighter O'Brien SDBA set 831 lowest gauge reading 137) (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01069).
- 07:01:03** BA Team 73: Firefighter Geapin and Firefighter Hayward are at the bridgehead in the stair lobby, they start breathing under air and hand their BA tallies to WM Sadler (BAECO) (Source, BA Data: GTIRT17-02820, CCTV: Camera 2).
- 07:01:27** Golf 391, Feltam's PL, book Status 3, in attendance, at Grenfell Tower. This is the 58<sup>th</sup> fire engine in attendance (this is the 17<sup>th</sup> relief fire engine) (Source: Vision: GTIRT17-02791).

## OFFICIAL

- 07:01:33\*** BA Team 74: CM Stevenson, Firefighter R Thomas, Firefighter Thorpe, Firefighter Somers and Firefighter Tyldesley leave the main lobby and report to the bridgehead in the stair lobby wearing EDBA, not under air. They have a discussion with CM McShee (BA Comms Officer) and *CM Stevenson states they are told to go to the 13<sup>th</sup> floor and firefight*. The team then report to WM Sadler (BAECO) (Source, CCTV: Camera 2, MPS Witness Statement: GTIRT18-01834).
- 07:02\*** BA Team 70: CM Atkins and Firefighter Gonnella are in the 10<sup>th</sup> floor stairwell, *CM Atkins states he is getting low on air* (CM Atkins EDBA set 9166 lowest gauge reading 149 bar). They make the decision to descend the stairs and return to the bridgehead in the stair lobby (Source, BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT 18-00916, GTIRT 18-01536).
- 07:02:01\*** BA Team 75: CM Wigley, CM Clarke, Firefighter Alliston and Firefighter Gillam leave the ground floor lift lobby and proceed into the main lobby wearing EDBA, not under air. They receive a briefing from GM Goulbourne to go to the 11<sup>th</sup> floor to firefight, search and rescue. *Firefighter Gillam states we were briefed to go to the 12th floor where we will find charged lengths of fire hose with a firefighting branch and firefight*. *CM Wigley states he is informed about a deceased casualty on the stairs and to leave the deceased casualty in situ* (Source, CCTV: Camera 4, MPS Witness Statements: GTIRT18-02526, GTIRT18-01067, GTIRT18-01129, GTIRT18-18-00069).
- 07:02:01** Firefighter O'Donoghue picks up a SDBA set off the floor in the main lobby and proceeds into the community room (Source, CCTV: Camera 4).
- 07:02:05** GM Welch exits the building via the main entrance (Source, CCTV: Camera 4).
- 07:02:33** BA Team 73: Firefighter Geapin and Firefighter Hayward ascend the stairs from the stair lobby towards the sixth floor carrying an enforcer and a black bag containing breaking in gear (Source, BA Data: GTIRT17-02820, CCTV: Camera 2).
- 07:03:00\*** AC Roe returns to CU8 with Commissioner Cotton. He states that Commissioner Cotton receives a phone call to inform her that Roy Wilsher (NFCC Chair) is about to brief the Home Office (Source, MPS Witness Statement: GTIRT17-01254, Supplement Decision Log: GTIRT17-00866).
- 07:03\*** BA Team 70: CM Atkins and Firefighter Gonnella are descending the stairs and are between the 10<sup>th</sup> and sixth floors. *CM Atkins states he intercepts a radio message on the fire ground radio which reports that there is a casualty on the sixth floor*. *They follow another, unidentified BA team down the stairs to search for the casualty however, the unidentified BA team confirm no assistance is required from BA Team 70* so they continue to descend the stairs to the bridgehead (Source, BA Data: GTIRT17-02820, MPS Witness statement: GTIRT18-00916).
- 07:03:01** WM Smith (RRT) enters the building via the main entrance (Source, CCTV: Camera 4).
- 07:03:13** SM Wainwright descends the stairs into the stair lobby (Source, CCTV: Camera 2).

## OFFICIAL

- 07:03:14** GM Goodall (FSG Co-ordinator) descends the stairs into the stair lobby and proceeds into the main lobby (Source, CCTV: Camera 2).
- 07:03:24** Firefighter O'Donoghue leaves the main lobby, proceeds into the stair lobby and ascends the stairs (Source, CCTV: Camera 2).
- 07:03:27** AC Roe is outside Kensington Leisure Centre and is talking with a very large group of firefighters and WM's (Source, CCTV: Camera OPS1 Kensington Leisure Centre).
- 07:03:53** BA Team 74: CM Stevenson, Firefighter R Thomas, Firefighter Thorpe, Firefighter Somers and Firefighter Tyldesley are at the bridgehead in the stair lobby. They start breathing under air and hand their BA tallies to WM Sadler (BAECO) (Source, CCTV: Camera 2, BA Data: GTIRT17-02820).
- 07:04:11** WM Smith (RRT) leaves the main lobby and proceeds into the community room using a mobile telephone (Source, CCTV: Camera 4).
- 07:04:15** CRO Stibbard takes a call from Surrey FRS informing them that the aerial appliance has been mobilised and they anticipate that they will be on scene in approximately 40 minutes (Source, NICE, Admin Phone Line Audio file: GTIRT18-01337).
- 07:04:37** GM Goulbourne leaves the stair lobby, proceeds into the main lobby and has a discussion with GM Goodall (FSG Co-ordinator) (Source, CCTV: Camera 4).
- 07:04:58** BA Team 75: CM Wigley, CM Clarke, Firefighter Alliston and Firefighter Gillam leave the main lobby and proceed into the stair lobby wearing EDBA, not under air. BA Team 75 have a discussion with CM McShee (BA Comms Officer) and GM Goulbourne. CM McShee (BA Comms Officer) hands a TIC to CM Wigley (Source, CCTV: Camera 4).
- 07:05\*** BA Team 73: Firefighter Geapin and Firefighter Hayward reach the sixth floor and enter the sixth floor lift lobby. Firefighter Hayward states *the lift lobby is heavily smoke logged but they do their best to search the floor*. Firefighter Geapin states *they search the sixth floor but do not find any casualties*. BA Team 73 then withdraw to the stairwell on the sixth floor. This floor was previously searched by BA Teams 68 and 71 (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00930, GTIRT18-01270).
- 07:05\*** BA Team 71: Firefighter B Dotchin and Firefighter Earl are in the sixth floor stair well, they meet an unidentified BA Team on the stairs (*believed to be either BA Team 69 or BA Team 72*) Firefighter B Dotchin states *they check their gauge readings and make the decision to descend the stairs back to the bridgehead in the stair lobby and report to the BAECO (Firefighter B Dotchin EDBA set 9170 lowest gauge reading 182 bar)* (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00924).

## OFFICIAL

- 07:05:09** SM Wainwright leaves the stair lobby, proceeds into the main lobby and has a discussion with WM Smith (RRT) (Source, CCTV: Camera 4).
- 07:05:17** BA Team 74: CM Stevenson, Firefighter R Thomas, Firefighter Thorpe, Firefighter Somers and Firefighter Tyldesley ascend the stairs from the stair lobby towards the 11<sup>th</sup> floor (Source, CCTV: Camera 2, BA Data: GTIRT17-02820).
- 07:05:48** GM Goodall (FSG Co-ordinator) exits the building via the main entrance under a MPS riot shield protecting him from falling debris (Source, CCTV: Camera 4).
- 07:06:35** SM Wainwright and WM Smith (RRT) exit the building via the main entrance (Source, CCTV: Camera 4).
- 07:06:45** BA Team 68: Firefighter Bunday, Firefighter Nwagwu, Firefighter T Dotchin and Firefighter McClelland descend the stairs to the bridgehead in the stair lobby. They close down their EDBA sets and have a discussion with WM Godber and WM Parker who are now at the BAACP (having relieved WM O'Keeffe and WM De Silvo). BA Team 68 then collect their BA tallies from WM Sadler (BAECO) (Source, CCTV: Camera 2, BA Data: GTIRT17-02820).
- 07:06:59** GM Goodall (FSG Co-ordinator) enters the building via the main entrance under a MPS riot shield protecting him from falling debris (Source, CCTV: Camera 4).
- 07:07:02\*** BA Team 69: Firefighter O'Brien and Firefighter Ngo and BA Team 72: Firefighter Dounias and Firefighter Clarke descend the stairs to the bridgehead in the stair lobby. They close down their SDBA sets, collect their BA tallies and have a discussion with CM McShee (BA Comms Officer). *Firefighter Ngo states that they also debrief GM Goulbourne* (Source, CCTV: Camera 2, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01037).
- 07:07:04** BA Team 75: CM Wigley, CM Clarke, Firefighter Alliston and Firefighter Gillam are at the bridgehead in the stair lobby. They start breathing under air and hand their BA tallies to CM McAlonen (BAECO) (Source, CCTV: Camera 2, BA Data: GTIRT17-02820).
- 07:07:13** SM Myatt leaves the main lobby, proceeds to the bridgehead in the stair lobby and talks to CM McAlonen (BAECO) SM Myatt ascends the stairs (Source, CCTV: Camera 2).
- 07:07:44** BA Team 70: CM Atkins and Firefighter Gonnella descend the stairs to the bridgehead in the stair lobby, close down their EDBA sets and collect their BA tallies from CM McAlonen (BAECO). CM Atkins has a discussion with WM Godber and WM Parker (Source, CCTV: Camera 2, BA Data: GTIRT17-02820).
- 07:07:47** SM Cook (Sector Commander Water) descends the stairs into the stair lobby (Source, CCTV: Camera 2).

## OFFICIAL

- 07:07:48** Firefighter O'Donoghue descends the stairs to the bridgehead in the stair lobby and has a discussion with CM McShee (BA Comms Officer) and WM Sadler (BAECO) (Source, CCTV: Camera 2).
- 07:08** AC Roe asks SM McConochie (loggist) to log that he has not changed his position on the stability of the building and, with improved water supply, the crews should try and push up beyond the 12<sup>th</sup> floor again (Source, MPS Witness Statement: GTIRT17-01254, Supplement Decision Log: GTIRT17-00866).
- 07:08** BA Team 73: Firefighter Geapin and Firefighter Hayward are in the stairwell on the sixth floor, they decide to ascend the stairs further to carry out an additional search (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01270, GTIRT18-00930).
- 07:08:11** SM Cook (Sector Commander Water) opens the valve of a LWPP and charges a 70mm fire hose that is running through the main lobby up to the second floor mezzanine (Source, CCTV: Camera 4).
- 07:08:14** Firefighter O'Donoghue leaves the stair lobby and proceeds into the community room carrying an unidentified firefighter's helmet (Source, CCTV: Camera 4, Camera 2).
- 07:08:33** BA Team 71: Firefighter B Dotchin and Firefighter Earl descend the stairs to the bridgehead in the stair lobby and have a discussion with GM Goulbourne whilst they are still under air. They then close down their BA sets and collect their BA tallies from WM Sadler (BAECO) (Source, CCTV: Camera 2, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01270).
- 07:08:41** Firefighter Cook and Firefighter Petty enter the building via the main entrance. Firefighter Cook is carrying a MPS riot shield protecting him from falling debris. They have a discussion with SM Cook (Sector Commander Water) (Source, CCTV: Camera 4).
- 07:08:55** BA Team 75: CM Wigley, CM Clarke, Firefighter Alliston and Firefighter Gillam begin to ascend the stairs from the stair lobby to the 11<sup>th</sup> floor, Firefighter Gillam is carrying a TIC (Source, CCTV: Camera 2, BA Data: GTIRT17-02820).
- 07:08:59** Firefighter Petty, Firefighter Ferguson and Firefighter Cook are in the main lobby operating the LWPP through a broken glass panel. Firefighter Cook is outside the tower (Source, CCTV: Camera 4).
- 07:09:16** Firefighter Aldridge ascends the stairs from the stair lobby (Source, CCTV: Camera 2).
- 07:09:40** CM Magee descends the stairs into the stair lobby where SM Cook (Sector Commander Water) is having a discussion with GM Goulbourne and SM Myatt. He then leaves the stair lobby, proceeds into the main lobby, gets himself a drink and then proceeds back into the stair lobby (Source, CCTV: Camera 2 and 4).

## OFFICIAL

- 07:10\*** BA Team 74: CM Stevenson, Firefighter R Thomas, Firefighter Thorpe, Firefighter Somers and Firefighter Tyldesley reach the eighth floor. *CM Stevenson states that he sees an unidentified SDBA team bringing out a deceased casualty on the seventh or eighth floor. BA Team 73: Firefighter Geapin and Firefighter Hayward are the only SDBA team in the building at this time although they do not mention bringing any deceased casualties out, BA Team 74 continue with their brief and ascend the stairs towards the 11<sup>th</sup> floor (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01834).*
- 07:10:22** GM Welch enters the building via the main entrance and proceeds into the stair lobby (Source, CCTV: Camera 4).
- 07:10:35** GM Goulbourne ascends the stairs in the stair lobby (Source, CCTV: Camera 2).
- 07:10:36** BA Team 71: Firefighter B Dotchin and Firefighter Earl leave the stair lobby, proceed into the main lobby and talk with SM Cook (Sector Commander Water) (Source, CCTV: Camera 2).
- 07:10:39** Firefighter Cuthbert descends the stairs, leaves the stair lobby and proceeds into the main lobby (Source, CCTV: Camera 2).
- 07:10:44** CM Magee ascends the stairs from the stair lobby (Source, CCTV: Camera 2).
- 07:10:48** BA Team 69: Firefighter O'Brien and Firefighter Ngo leave the stair lobby, proceed into the main lobby and have a discussion with Firefighter Laws who is wearing SDBA, not under air (Source, CCTV: Camera 4, Camera 2).
- 07:11\*** BA Team 73: Firefighter Geapin and Firefighter Hayward reach the eighth floor. Firefighter Hayward states *they meet an unidentified BA team making their way out and another unidentified firefighter directs them to the ninth floor. BA Team 73 ascend the stairs to the ninth floor (Source, BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00415).*
- 07:11:03** CM Magee descends the stairs into the stair lobby, proceeds into the main lobby and has a discussion with Firefighter Ferguson and Firefighter Petty (Source, CCTV: Camera 2 and Camera 4).
- 07:12\*** BA Team 74: CM Stevenson, Firefighter R Thomas, Firefighter Thorpe, Firefighter Somers and Firefighter Tyldesley reach the 10<sup>th</sup> floor and see a deceased casualty on the stairs (now known to be Khadija Saye from flat 173, 20<sup>th</sup> floor). *Firefighter Somers states that they have been briefed not to move any deceased casualties that they find. BA Team 74 continue with their brief and ascend the stairs to the 11<sup>th</sup> floor (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00432, GTIRT18-02532).*
- 07:12:59** SM Cook (Sector Commander Water) exits the building via the main entrance (Source, CCTV: Camera 4).

## OFFICIAL

- 07:13** AC Roe chairs a TCG where he provides information in relation to the LFB ascending beyond the 12<sup>th</sup> floor. *GM Pugsley gives an update as to his priorities for the fire investigation with particular emphasis on the LAS providing details on where casualties are being moved to. AC Roe states that GM Pugsley explains all LFB appliances are going back via Paddington Fire Station to be met by Counselling and Wellbeing. Firefighters will also make contemporaneous logs at Paddington.* AC Roe formally requests plans of Grenfell Tower from RBKC. The TCG ends at 07:35:00 and the next one is scheduled for 08:40:00 (Source, MPS Witness Statement GTIRT17-01254, Supplement Decision Log GTIRT17-00866).
- 07:13** BA Team 73: Firefighter Geapin and Firefighter Hayward reach the ninth floor and enter the ninth floor lift lobby, they commence a right hand search and can see pockets of fire in each of the flats they attempt to search. BA Team 73 have no firefighting media to extinguish the fires in the flats so are unable to fully search three or four flats they locate. BA Team 73 hear someone shout to them to get out, they are not sure if this is from the fire ground radio or someone shouting from the stairwell. BA Team 73 withdraw to the stairwell (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01270, GTIRT18-00930).
- 07:13:44** GM Welch ascends the stairs from the stair lobby (Source, CCTV: Camera 2).
- 07:13:47\*** BA Team 76: Firefighter Elliott and Firefighter Toppin are in the ground floor stair lobby where they receive a briefing from SM Myatt. *Firefighter Elliott states they are briefed to follow a specific length of fire hose all the way to the firefighting branch and, if it is suitable for firefighting, assist crews already further up the Tower. If the hose is not suitable they are to try and fix it. However, Firefighter Toppin states that they are briefed to assist Wimbledon's FRU crew then tasked to go to the 12<sup>th</sup> floor to search and rescue* (Source, CCTV: Camera 4, MPS Witness Statements: GTIRT18-01267, GTIRT18-01943).
- 07:14\*** BA Team 74: CM Stevenson, Firefighter R Thomas, Firefighter Thorpe, Firefighter Somers and Firefighter Tyldesley reach the 10<sup>th</sup> floor. *Firefighter Tyldesley states they follow the fire hose, pick up a firefighting branch on the 10<sup>th</sup> floor and proceed towards the 11<sup>th</sup> floor as per their brief* (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00432).
- 07:14:17** CM Magee ascends the stairs from the stair lobby (Source, CCTV: Camera 2).
- 07:15** BA Team 75: CM Wigley, CM Clarke, Firefighter Alliston and Firefighter Gillam reach the 10<sup>th</sup> floor and find a deceased casualty (now known to be Khadija Saye from flat 173, 20<sup>th</sup> floor). *They have been briefed about the casualty and told to leave in situ so they continue with their brief, ascending the stairs to the 11<sup>th</sup> floor* (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00069, GTIRT18-01067, GTIRT18-01129, GTIRT18-02526).



## OFFICIAL

- 07:15:08** CM Sharp and Firefighter Atmore enter the community room and set up two oxygen cylinders believed to be for first aid at the ground floor bridgehead in the stair lobby (Source, CCTV: Camera 4).
- 07:16\*** BA Team 73: Firefighter Geapin and Firefighter Hayward are in the stairwell on the ninth floor. *Firefighter Geapin states they have 10 minutes of air supply left*, BA Team 73 make the decision to descend the stairs to the bridgehead in the stair lobby and report to the BAECO. Firefighter Geapin actuates his withdrawal button which is acknowledged (SDBA 230, 07:16:39) (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00930).
- 07:16\*** BA Team 74: CM Stevenson, Firefighter R Thomas, Firefighter Thorpe, Firefighter Somers and Firefighter Tyldesley reach the 11<sup>th</sup> floor and enter the lift lobby with a firefighting branch and hose. *Firefighter Somers states they attempt to cool the lift lobby area with short and long pulses but the heat is very intense. They continue to use the firefighting branch to try to cool the gasses but this has little impact* (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-02532).
- 07:16:03** Firefighter Atmore and Firefighter Cummins leave the community room and proceed to the stair lobby each carrying an oxygen cylinder with an oxygen mask attached (Source, CCTV: Camera 4).
- 07:16:17** BA Team 76: Firefighter Elliott and Firefighter Toppin are at the bridgehead in the stair lobby and start breathing under air. They have a discussion with CM McShee (BA Comms Officer) and check their fire ground radios before removing their BA tallies and handing them to WM Sadler (BAECO) (Source, CCTV: Camera 2, BA Data: GTIRT17-02820).
- 07:16:26** Firefighter Atmore and Firefighter Cummins each place an oxygen cylinder, with an oxygen mask attached, next to the glass wall in the stair lobby (Source, CCTV: Camera 2).
- 07:17\*** BA Team 75: CM Wigley, CM Clarke, Firefighter Alliston and Firefighter Gillam are on the 12<sup>th</sup> floor where *Firefighter Gillam states they meet GM Goulbourne. GM Goulbourne briefs them to go to the 11<sup>th</sup> floor and Firefighter Gillam asks him to inform the BAECO of their new brief*. BA Team 75 descend the stairs to the 11<sup>th</sup> floor (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00069).
- 07:17:16** WM Stewart (CU) descends the stairs into the stair lobby carrying two TICs and talks to GM Welch. He places the TICs down next to the glass wall in the stair lobby then ascends the stairs (Source, CCTV: Camera 2).
- 07:17:44** BA Team 77: WM McKay, Firefighter Jones, Firefighter Peacock and Firefighter Stuart leave the ground floor lift lobby and proceed into the main lobby wearing EDBA, not under air. GM Welch briefs them to go to the 10<sup>th</sup> floor, find a firefighting branch and fire through the upper floors.

## OFFICIAL

They are also briefed about a deceased casualty on the 10<sup>th</sup> floor (Source, CCTV: Camera 4, MPS Witness Statements: GTIRT18-00942, GTIRT18-01108).

- 07:18\*** CM Stevenson and Firefighter Tyldesley, from BA Team 74, are on the 11<sup>th</sup> floor. *Firefighter Tyldesley states he decides to go up to the 12<sup>th</sup> and 13<sup>th</sup> floors to have a look to see if there is any information he can gather to assist other crews going up next. CM Stevenson states he also decides to ascend to the 13<sup>th</sup> floor* (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00432, GTIRT18-01834).
- 07:18:30** Echo 114, GM Julian Spooner is mobilised as GM relief (Source, Vision: GTIRT17-02791).
- 07:18:31** WM Berry leaves the community room and proceeds into the main lobby carrying an oxygen cylinder, fitted with an oxygen mask. He places it down by the glass wall next to the side exit (Source, CCTV: Camera 4 and Camera 2).
- 07:18:33** BA Team 77: WM McKay, Firefighter Jones, Firefighter Peacock and Firefighter Stuart are in the main lobby and start breathing under air (Source, CCTV: Camera 4, BA Data: GTIRT17-02820).
- 07:19\*** BA Team 75: CM Wigley, CM Clarke, Firefighter Alliston and Firefighter Gillam reach the 11<sup>th</sup> floor. *Firefighter Gillam states that there is a BA Team below them making entry into the 10<sup>th</sup> floor (believed to be Firefighter R Thomas, Firefighter Thorpe and Firefighter Somers from BA Team 74) who ask for their help as the floor is well alight.* BA Team 75 descend the stairs to the 10<sup>th</sup> floor to assist them (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00069).
- 07:19\*** CM Stevenson and Firefighter Tyldesley, from BA Team 74, reach the 12<sup>th</sup> floor. *Firefighter Tyldesley states the lift lobby door is slightly ajar and he can see thick acrid smoke and feel the intense heat.* CM Stevenson and Firefighter Tyldesley withdraw and ascend the stairs to the 13<sup>th</sup> floor (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00432).
- 07:19:13** BA Team 76: Firefighter Elliott and Firefighter Toppin ascend the stairs from the stair lobby towards the 12<sup>th</sup> floor (Source, CCTV: Camera 2, BA Data: GTIRT17-02820).
- 07:19:35** Firefighter Barker leaves the main lobby, proceeds into the stair lobby and ascends the stairs (Source, CCTV: Camera 2).
- 07:19:53** DAC O'Loughlin enters the building via the main entrance under a MPS riot shield protecting him from falling debris (Source, CCTV: Camera 4).
- 07:19:55** Foxtrot 111, GM Jamie Jenkins is mobilised from his home address as GM relief (Source, Vision: GTIRT17-02791).
- 07:20\*** CM Stevenson and Firefighter Tyldesley, from BA Team 74, reach the 13<sup>th</sup> floor. *Firefighter Tyldesley states he ascends the stairs on his hands and knees and sees a deceased casualty by*

## OFFICIAL

the 13<sup>th</sup> floor lift lobby door (now known to be Mary Mendy from flat 173, 20<sup>th</sup> floor). He states the lift lobby is full of thick acrid smoke and the heat is intense. CM Stevenson states they approach the 13<sup>th</sup> floor and Firefighter Tyldesley says there's a deceased child casualty there (now known to be Isaac Paulos, flat 153, 18<sup>th</sup> floor). They recall back to their briefing from GM Goulbourne that if they come across any casualties in the stairwell they are to be presumed as deceased and left in situ (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00432, GTIRT18-01834).

- 07:20\*** Firefighter Elliot, from BA Team 76, comments on the stairwell conditions as he ascends the stairs. He states that visibility is, initially, reasonably good, then there is a large amount of water cascading down onto their heads. They can't see any floor numbers on the walls as these are blackened by smoke so they are counting the floors as they go up to work out when they reach 11<sup>th</sup> floor. Although they have their torches on, these do not give BA Team 76 much visibility due to the dense smoke. The higher they go in the stairwell, the thicker the smoke becomes and the stairs are really wet with fire hose everywhere (Source, MPS Witness Statement: GTIRT18-01267).
- 07:20:19** BA Team 77: WM McKay, Firefighter Jones, Firefighter Peacock and Firefighter Stuart leave the main lobby, proceed into the stair lobby and report to the bridgehead. They have a discussion with CM McShee (BA Comms Officer) and then hand their BA tallies to CM McAlonen (BAECO) (Source, CCTV: Camera 2, BA Data: GTIRT17-02820).
- 07:20:26** WM Hayward leaves the community room, proceeds into the main lobby and has a discussion with SM Walton (Source, CCTV: Camera 4).
- 07:20:35** Echo 65, GM Gregory Ashman is mobilised as GM relief (Source, Vision: GTIRT17-02791).
- 07:20:38** BA Team 73: Firefighter Geapin and Firefighter Hayward descend the stairs to the bridgehead in the stair lobby and collect their BA tallies from WM Sadler (BAECO). They leave the stair lobby and proceed into the main lobby still breathing under air (Source, BA Data: GTIRT17-02820, CCTV: Camera 2).
- 07:20:45** DAC O'Loughlin and GM Welch join the discussion between SM Walton and WM Hayward in the main lobby (Source, CCTV: Camera 4).
- 07:21\*** BA Team 75: CM Wigley, CM Clarke, Firefighter Alliston and Firefighter Gillam are in the 10<sup>th</sup> floor stairwell with Firefighter R Thomas, Firefighter Thorpe and Firefighter Somers. They attempt to enter the 10<sup>th</sup> floor lift lobby but find the conditions are too hot to enter. They have a hose and branches and start pulse spraying to cool the gasses in the lift lobby. Firefighter Gillam states that the TIC reading of the lift lobby remains the same through out their time on the that floor (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00069, GTIRT18-01067, GTIRT18-01129, GTIRT18-02526).

## OFFICIAL

- 07:21:05** Echo 107, GM Simpson (ORT) books status 3, in attendance, at Grenfell Tower (Source, Vision: GTIRT17-02791).
- 07:21:07** Golf 105, GM Cane (ORT) books status 3, in attendance, at Grenfell Tower (Source, Vision: GTIRT17-02791).
- 07:21:27** Echo 101, GM John Graham is mobilised as GM relief (Source, Vision: GTIRT17-02791).
- 07:21:36** BA Team 73: Firefighter Geapin and Firefighter Hayward are in the main lobby where they close down their SDBA sets and are debriefed by WM Godber (Source, CCTV: Camera 4, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00930, Contemporaneous Notes: GTIRT17-00415).
- 07:21:46** BA Team 77: WM McKay, Firefighter Jones, Firefighter Peacock and Firefighter Stuart begin to ascend the stairs from the bridgehead in the stair lobby to the 10<sup>th</sup> floor (Source, CCTV: Camera 2, BA Data: GTIRT17-02820).
- 07:22:06** Echo 114, GM Spooner books status 2, mobile to Grenfell Tower (Source, Vision: GTIRT17-02791).
- 07:22:19** Foxtrot 104, GM Paul Trew is mobilised as GM relief (Source, Vision: GTIRT17-02791).
- 07:23\*** CM Stevenson and Firefighter Tyldesley, from BA Team 74, are in the 13<sup>th</sup> floor stairwell. *CM Stevenson states there is another, unidentified crew behind them who tell them to go to the 11<sup>th</sup> floor. CM Stevenson and Firefighter Tyldesley start to descend the stairs to the 11<sup>th</sup> floor to re-join the rest of BA Team 74* (Source, BA data: GTIRT17-02830, MPS Witness Statement: GTIRT18-00432, GTIRT18-01834).
- 07:23:01** Foxtrot 100, GM Timothy Frost is mobilised as GM relief (Source, Vision: GTIRT17-02791).
- 07:23:23** Firefighter Wharnsby descends the stairs, leaves the stair lobby and proceeds into the community room (Source, CCTV: Camera 2).
- 07:23:41** Foxtrot 111, GM Jenkins books status 2, mobile to Grenfell Tower (Source, Vision: GTIRT17-02791).
- 07:23:43** Foxtrot 100, GM Frost books status 2, mobile to Grenfell Tower (Source, Vision: GTIRT17-02791).
- 07:23:46** SM Mulholland (ORT) and GM Cook (ORT) enter the building via the main entrance under a MPS riot shield protecting them from falling debris (Source, CCTV: Camera 4).
- 07:23:52** Foxtrot 104, GM Paul Trew books status 2, mobile to Grenfell Tower (Source, Vision: GTIRT17-02791).

## OFFICIAL

- 07:23:55** DAC O'Loughlin, GM Welch, GM Cook (ORT), SM Mulholland (ORT) and SM Myatt have a discussion in the main lobby (Source, CCTV: Camera 4).
- 07:24:05** Echo 60, GM Spencer Sutcliff books status 2, mobile to Grenfell Tower (Source, Vision: GTIRT17-02791).
- 07:25:01** CM Morrison enters the building via the main entrance and proceeds into the community room (Source, CCTV: Camera 4).
- 07:25:04** WM Delaney (CU), Firefighter Cook and Firefighter Juggins descend the stairs, leave the stair lobby and proceed into the main lobby (Source, CCTV: Camera 2).
- 07:25:15** WM Delaney (CU) leaves the main lobby and proceeds into the community room (Source, CCTV: Camera 4).
- 07:25:33** An unidentified CM and three unidentified firefighters leave the community room proceed to the ground floor lift lobby wearing EDBA, not under air. One of the unidentified firefighters is carrying a TIC (Source, CCTV: Camera 4).
- 07:26** BA Team 76: Firefighter Elliott and Firefighter Toppin reach the 10<sup>th</sup> floor and find a deceased casualty (now known to be Khadija Saye from flat 173, 20<sup>th</sup> floor) they leave the deceased casualty in situ and continue to ascend the stairs to the 12<sup>th</sup> floor (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01267, GTIRT18-01943).
- 07:26** BA Team 77: WM McKay, Firefighter Jones, Firefighter Peacock and Firefighter Stuart reach the eighth floor stairwell which is heavily congested with other unidentified BA teams (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-03106, GTIRT18-01108, GTIRT18-00942).
- 07:26:01** An unidentified firefighter leaves the stair lobby, proceeds into the main lobby and assists WM Delaney (CU) with a MPS riot shield (Source, CCTV: Camera 4).
- 07:26:30** GM Goulbourne, WM Stewart (CU) and Firefighter Petty descend the stairs and proceed into the main lobby (Source, CCTV: Camera 2 and Camera 4).
- 07:26:32** WM Delaney (CU) and an unidentified firefighter exit the building via the main entrance under a MPS riot shield protecting them from falling debris (Source, CCTV: Camera 4).
- 07:26:35** GM Goulbourne leaves the stair lobby, proceeds into the main lobby and has a discussion with DAC O'Loughlin, GM Welch, GM Cook (ORT), SM Mulholland (ORT) and SM Myatt (Source, CCTV: Camera 4).
- 07:26:38** Firefighter Ferguson descends the stairs, leaves the stair lobby and proceeds into the main lobby (Source, CCTV: Camera 2).

## OFFICIAL

- 07:27** Firefighter Peacock, from BA Team 77, is in the eighth floor stairwell with multiple other, unidentified crews. WM McKay sends him back to the bridgehead to inform them not to send any further BA crews up due to the congestion in the stairwell (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-03106, GTIRT18-00942, GTIRT18-00940).
- 07:28\*** BA Team 76: Firefighter Elliott and Firefighter Toppin are in the stairwell between the 10<sup>th</sup> and 11<sup>th</sup> floors where they meet two EDBA teams ahead of them (believed to be BA Team 74 and BA Team 75) who are trying to gain access into the 11<sup>th</sup> floor lift lobby but are finding conditions very hot. *Firefighter Elliott states one of the other crew members asks him to send a radio message to the BAECO, explaining that they are unable to gain access to the 11<sup>th</sup> floor due to the conditions in the 11<sup>th</sup> floor lift lobby. Firefighter Elliott uses his fire ground radio to send the message to the BAECO which is acknowledged* (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01267).
- 07:29\*** Firefighter Peacock, from BA Team 77, reaches the fourth floor. He states he is unable to find any firefighters to tell about the congestion on the eighth floor so he decides to ascend the stairs again to re-join the rest of his BA team (Source, BA Data: GTIRT17-02820, Contemporaneous Notes: GTIRT17-00288).
- 07:30\*** CM Stevenson and Firefighter Tyldesley from BA Team 74 reach what they believe is the 11<sup>th</sup> floor and re-join the rest of BA Team 74. *Firefighter Tyldesley states he descends to what he believes is the 11<sup>th</sup> floor from the 13<sup>th</sup> floor and informs the CM about the conditions he has experienced on the 12<sup>th</sup> and 13<sup>th</sup> floors. CM Stevenson states that another CM and his BA Team (believed to be BA Team 75: CM Wigley, CM Clarke, Firefighter Alliston and Firefighter Gillam) are also on the 11th floor and have been told to fight the fire. Both BA Teams join forces to try and extinguish the fire on the 11<sup>th</sup> floor.* (Source, BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT18-01834, GTIRT18-00432, GTIRT18-02532).
- 07:30:07** SM Wolfenden enters the building via the main entrance and proceeds into the stair lobby (Source, CCTV: Camera 4).
- 07:31:19** Foxtrot 110, GM Stephen Dudeney is mobilised as GM relief (Source, Vision: GTIRT17-02791).
- 07:31:25** Foxtrot 110, GM Dudeney books status 2, mobile to Grenfell Tower (Source, Vision: GTIRT17-02791).
- 07:31:49** Foxtrot 116, GM Stephen Norman is mobilised as GM relief (Source, Vision: GTIRT17-02791).
- 07:32** Firefighter Peacock, from BA Team 77, reaches the eighth floor and re-joins the rest of his BA team. BA team 77: WM McKay, Firefighter Jones, Firefighter Peacock and Firefighter Stuart then continue with their brief and ascend the stairs towards the 10<sup>th</sup> floor (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00942, GTIRT18-03106).

## OFFICIAL

- 07:32:07** SM Harding and an unidentified firefighter enter the building via the main entrance under a MPS riot shield protecting them from falling debris. The firefighter proceeds to the ground floor lift lobby carrying bottles of drinking water. SM Harding leaves the building via the main entrance carrying the MPS riot shield (Source, CCTV: Camera 4).
- 07:32:07** SM Wolfenden ascends the stairs from the stair lobby (Source, CCTV: Camera 2).
- 07:32:25** Foxtrot 116, GM Norman books status 2, mobile to Grenfell Tower (Source, Vision: GTIRT17-02791).
- 07:32:29** Firefighter Moxley leaves the ground floor lift lobby and proceeds into the stair lobby carrying bottles of drinking water (Source, CCTV: Camera 4).
- 07:32:47** SM Harding and Firefighter Higgs enter the building via the main entrance under a MPS riot shield protecting them from falling debris. Firefighter Higgs proceeds to the ground floor lift lobby carrying bottles of drinking water (Source, CCTV: Camera 4).
- 07:32:51** Alpha 30 Sierra, SM Jason Frisby is mobilised as SM relief (Source, Vision: GTIRT17-02791).
- 07:33** CM Wigley and CM Clarke, from BA Team 75, and CM Stevenson from BA Team 74 are on the 11<sup>th</sup> floor and have a discussion about the conditions and their crews. Because all of the firefighters are being soaked with boiling hot water that is cascading down the building they make the decision to withdraw their BA Teams back to the bridgehead in the stair lobby and report to the BAECO. They leave the fire hose and fighting branch on the 11<sup>th</sup> floor and begin to descend the stairs (Source, BA Data: GTIRT17-02820, MPS Witness Statements: GTIRT18-01834, GTIRT18-02526, GTIRT18-01067).
- 07:33\*** BA Team 76: Firefighter Elliott and Firefighter Toppin *are in the 10<sup>th</sup> floor stairwell, they are trying to make entry to the 10<sup>th</sup> floor lift lobby with another unidentified BA team who are also on the 10<sup>th</sup> floor* (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01267).
- 07:33:43** Firefighter Moxley and Firefighter Higgs exit the building via the main entrance under a MPS riot shield protecting them from falling debris (Source, CCTV: Camera 4).
- 07:33:48** Alpha 36 Sierra, SM Daniel Alie is mobilised as SM relief (Source, Vision: GTIRT17-02791).
- 07:34:00** Alpha 36 Sierra, SM Daniel Alie books status 2, mobile to Grenfell Tower (Source, Vision: GTIRT17-02791).
- 07:34:00** BA Team 77: WM McKay, Firefighter Jones, Firefighter Peacock and Firefighter Stuart reach the 10<sup>th</sup> floor and find a deceased casualty (now known to be Khadija Saye from flat 173, 20<sup>th</sup> floor). BA Team 77 have been made aware of a deceased casualty on the 10<sup>th</sup> floor so they ascend the stairs and continue with their brief 'to locate a firefighting branch and fireproof from the 11<sup>th</sup> floor

## OFFICIAL

and progress upwards if possible' (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-03106, GTIRT18-00942).

- 07:34\*** BA Team 75: CM Wigley, CM Clarke, Firefighter Alliston and Firefighter Gillam are in the 10<sup>th</sup> floor stairwell descending from the 11<sup>th</sup> floor. Firefighter Alliston states *that he crawls about five foot into the 10<sup>th</sup> floor lift lobby on his hands and knees to try and search the lift lobby with a TIC but he finds it too hot and returns to the 10<sup>th</sup> floor stairwell* (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01129).
- 07:34:26** Two unidentified firefighters enter the building via the main entrance under a MPS riot shield protecting them from falling debris wearing EDBA, not under air. Upon entering the main lobby they place the MPS riot shield against the lobby wall (Source, CCTV: Camera 4).
- 07:34:33\*** BA Team 75: CM Wigley, CM Clarke, Firefighter Alliston and Firefighter Gillam are in the 10<sup>th</sup> floor stairwell when CM Clarke's ADSU actuates (EDBA set 9025, 07:34:00). *Firefighter Alliston states they carry out a gauge reading (EDBA set 9025, 153bar) and then continue to descend the stairs to the bridgehead in the stair lobby* (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01129).
- 07:34:56** SM Wolfenden descends the stairs, leaves the stair lobby and proceeds into the main lobby (Source, CCTV: Camera 2).
- 07:35\*** AC Roe asks GM Cook (ORT) and SM Mulholland (ORT) to give DAC O'Loughlin some clear instruction to set up a strategy for systematic search of previously cleared areas. AC Roe states he feels the Brigade are now beginning a transition into a phase where the chances of survivability are less and less, although casualties are still coming out. AC Roe wants GM Cook (ORT) and SM Mulholland (ORT) to help DAC O'Loughlin ascertain his likely EDBA use up to 13:00:00. They all agree that they need to gradually withdraw officers when the 08:00:00 officer relief arrives. GM Cook (ORT) and SM Mulholland (ORT) confirm no SDBA is being used at this time (Source, MPS Witness Statement: GTIRT17-01254).
- 07:35** BA Team 77: WM McKay, Firefighter Jones, Firefighter Peacock and Firefighter Stuart reach the 11<sup>th</sup> floor. Firefighter Stuart finds a firefighting branch in the stairwell which is already set up so the team make entry into the 11<sup>th</sup> floor lift lobby and commence a left hand search. Firefighter Stuart directs the firefighting branch at the door of the first flat they locate (believed to be flat 81) however the water knocks the door off its hinges as the flat is completely burnt out. They return to the lift lobby and continue onto the next flat (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-03106, GTIRT18-00940, GTIRT18-00942, GTIRT18-01108).
- 07:35:08** GM Cook (ORT) and SM Mulholland (ORT) exit the building via the main entrance under a MPS riot shield protecting them from falling debris (Source, CCTV: Camera 4).



## OFFICIAL

- 07:35:19** SM Wolfenden exits the building via the main entrance (Source, CCTV: Camera 4).
- 07:35:49** Hotel 36 Sierra, SM Paul Humphreys is mobilised as SM relief (Source, Vision: GTIRT17-02791).
- 07:35:51** Alpha 30 Sierra, SM Frisby books status 2, mobile to Grenfell Tower (Source, Vision: GTIRT17-02791).
- 07:35:53** Hotel 36 Sierra, SM Humphreys books status 2, mobile to Grenfell Tower (Source, Vision: GTIRT17-02791).
- 07:36\*** BA Team 74: CM Stevenson, Firefighter R Thomas, Firefighter Thorpe, Firefighter Somers and Firefighter Tyldesley are descending the stairwell from the 11<sup>th</sup> floor to the bridgehead. *Firefighter Tyldesley states Firefighter R Thomas says he is getting low on air (Firefighter R Thomas EDBA set 9183 lowest gauge reading 157 bar at 07:35:59) so they continue to descend the stairs towards the bridgehead in the stair lobby* (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00432).
- 07:36:17** WM Niblett leaves the community room and proceeds into the main lobby carrying a crow's foot hydraulic spreading tool (CF2), a Halligan bar and a sledge hammer. He talks to GM Welch then places the breaking in equipment down next to the rear wall (Source, CCTV: Camera 4).
- 07:36:36** SM Wolfenden enters the building via the main entrance and proceeds into the stair lobby (Source, CCTV: Camera 4).
- 07:36:40** CU8 send an informative radio message to the Radio Operator at Brigade Control.
- "CU8 from AC Roe, 07:00hrs tactical coordination meeting now concluded; a further meeting is scheduled at 08:40 hours".
- (Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03329).
- 07:38** BA Team 77: WM McKay, Firefighter Jones, Firefighter Peacock and Firefighter Stuart are in the 11<sup>th</sup> floor lift lobby carrying out a left hand search and find a second flat (believed to be flat 82). BA Team 77 force entry to the flat as bedding has been left behind the front door. BA Team 77 search the flat which has no visible fire and no casualties are found in the flat, BA Team 77 return to lift lobby and continue on to the next flat (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00940, GTIRT18-00942, GTIRT18-01108).
- 07:39\*** BA Team 76: Firefighter Elliott and Firefighter Toppin enter the 10<sup>th</sup> floor lift lobby. *Firefighter Elliott states they carry out a left hand search, with another unidentified BA team, and enter the first flat (believed to be flat 71). The windows have failed and they can see daylight outside, they search the flat but everything is completely burnt out* (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01267).

## OFFICIAL

- 07:39:23** CM Clarke from BA Team 75 descends the stairs to the bridgehead in the stair lobby, his ADSU actuating. WM Sadler (BAECO) resets the ADSU using an SDBA tally taken from the ECB then reinserts the SDBA tally into the ECB. CM Clarke collects his BA tally from CM McAlonen (BAECO) and closes down his EDBA, he has a discussion with GM Goulbourne and SM Myatt (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-02526, CCTV: Camera 2).
- 07:40:27** GM Welch leaves the community room, proceeds into the main lobby and picks up a CF2 hydraulic spreading tool and a Halligan bar (Source, CCTV: Camera 4).
- 07:40:56** Four unidentified firefighters carrying breaking in equipment, leave the community room and proceed to the stair lobby (Source, CCTV: Camera 4).
- 07:41** BA Team 77: WM McKay, Firefighter Jones, Firefighter Peacock and Firefighter Stuart are in the 11<sup>th</sup> floor lift lobby carrying out a left hand search and find a third flat (believed to be flat 83). They push the flat door open and find wet towels behind the front door. Firefighter Peacock and Firefighter Stuart try to extinguish small fires within the flat but are unable to as the fire appears to be coming from a ruptured gas main. A man suddenly appears from a room on the left hand side (now known to be Elpidio Bonifacio flat 83, 11<sup>th</sup> floor). WM McKay and Firefighter Jones escort Elpidio Bonifacio to the stairwell. The BA Team have a quick discussion and it is decided that WM McKay and Firefighter Jones will escort the casualty out of the building. They agree that Firefighter Peacock and Firefighter Stuart will continue to search the 11<sup>th</sup> floor for further casualties (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-03106, GTIRT18-00940, GTIRT18-00942, GTIRT18-01108).
- 07:41:01** GM Welch leaves the main lobby, proceeds into the stair lobby and ascends the stairs carrying a CF2 and a Halligan bar (Source, CCTV: Camera 2 and Camera 4).
- 07:41:18** Four unidentified firefighters ascends the stairs from the stair lobby carrying breaking in equipment (Source, CCTV: Camera 2).
- 07:42:02** SM Wolfenden leaves the stair lobby and exits the building via the main entrance (Source, CCTV: Camera 4).
- 07:42:59** The Radio Operator at Brigade Control sends a radio message to CU8  
"Charlie Uniform 8, Charlie Uniform 8 from M2FN, over".  
(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03335).
- 07:43:03\*** CM Wigley and Firefighter Gillam, from BA Team 75, descend the stairs to the bridgehead in the stair lobby, close down their EDBA sets and collect their BA tallies from CM McAlonen (BAECO). CM Wigley and Firefighter Gillam debrief CM McAlonen (BAECO), WM Sadler (BAECO) and GM Goulbourne. CM Wigley states *he tells GM Goulbourne you have to do something about the*

## OFFICIAL

*poor woman on the 10<sup>th</sup> floor (now known to be Khadija Saye) as crews are worrying about stepping on her (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01067, GTIRT18-00069, CCTV: Camera 2).*

**07:43:07** CU 8 responds to a radio message from the Radio Operator at Brigade Control

"FN, Charlie Uniform 8, go ahead".

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03336).

**07:43:10** Radio Operator at Brigade Control sends a radio message to CU8

"Charlie Uniform 8, where the hose is currently hitting the window, the male that's still in the building is one floor below, over – one win-, one window below"

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03337).

**07:43:22** CU8 repeats the radio message from the Radio Operator at Brigade Control.

"FN, Charlie Uniform 8, just to confirm, there is hose coming from a window and the gentleman is on the floor below".

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03338).

**07:43:43** The Radio Operator at Brigade Control sends a radio message to CU8

"Charlie Uniform 8, the hose that's being put on the south side of the building, the male is at a window one floor below, over".

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03339).

**07:43:45** Echo 101, GM Graham, books status 3, in attendance at Grenfell Tower.

(Source, Vision: GTIRT17-02791)

**07:43:53** CU 8 confirms radio message received from the Radio Operator at Brigade Control.

"Charlie Uniform 8, all received. Will pass, er, to the fire survival command unit".

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03340).

**07:44** AC Roe asks for an update from DAC Drawbridge, who informs him that he is having difficulty getting firefighters to leave the scene but is slowly reducing the incident down to 20 fire engines as per the relief plan (Source, MPS Witness Statement: GTIRT17-01254, Supplement Decision Log: GTIRT17-00866).

**07:44:13** BA Team 74: CM Stevenson, Firefighter R Thomas, Firefighter Thorpe, Firefighter Somers and Firefighter Tyldesley descend the stairs to the bridgehead in the stair lobby, close down their EDBA sets and collect their BA tallies (Source, BA Data: GTIRT17-02820, CCTV: Camera 2).

## OFFICIAL

- 07:45:23** Firefighter Alliston, from BA Team 75, descends the stairs to the bridgehead closes down his EDBA set, collects his BA tally from CM McAlonen (BAECO) and has a discussion with WM Godber (Source, BA Data: GTIRT17-02820, CCTV: Camera 2, MPS Witness Statement: GTIRT18-01129).
- 07:45:47** BA Team 74: CM Stevenson, Firefighter R Thomas, Firefighter Thorpe, Firefighter Somers and Firefighter Tyldesley are at the bridgehead in the stair lobby and debrief GM Goulbourne (Source, CCTV: Camera 2, MPS Witness Statement: GTIRT18-00432).
- 07:46:52** Oscar Echo 50, SM James Flin is mobilised as a fire engineer at the request of GM Pugsley (Source, Vision: GTIRT17-02791).
- 07:47** BA Team 76: Firefighter Elliott and Firefighter Toppin are in the 10<sup>th</sup> floor lift lobby, they carry out a gauge check and decide to withdraw back to the bridgehead in the stair lobby to report to the BAECO due to low air (Firefighter Toppin SDBA set 523 lowest gauge reading 87.11 bar) (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01267, GTIRT18-01943).
- 07:47:01** GM O'Neill (Sector Commander Safety) and GM Cane (ORT) have a discussion with GM Goulbourne in the stair lobby (Source, CCTV: Camera 2).
- 07:47:26** Foxtrot 100, GM Frost books status 3, in attendance at Grenfell Tower (Source, Vision: GTIRT17-02791).
- 07:48\*** WM McKay and Firefighter Jones, from BA Team 77, descend to the 10<sup>th</sup> floor stairwell with the male casualty from flat 83 (now known to be Elpidio Bonifacio). Having left the rest of his BA Team on the 11<sup>th</sup> floor WM McKay states *that as the casualty is walking it would be better if he checks on the rest of his BA Team. WM McKay ascends the stairs to the 11<sup>th</sup> floor to check on Firefighter Peacock and Firefighter Stuart.* Firefighter Jones remains on the 10<sup>th</sup> floor stairwell with the male casualty (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00940, GTIRT18-03106).
- 07:50:41** The Radio Operator at Brigade Control sends radio message to CU8.  
"Charlie Uniform 8, Charlie Uniform 8 from M2FN, over".  
(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03345).
- 07:50:48** CU 8 respond to the radio message from the Radio Operator at Brigade Control.  
"FN, Charlie Uniform 8, go ahead".  
(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03346).
- 07:50:51** The Radio Operator at Brigade Control sends radio message to CU8

## OFFICIAL

"Charlie Uniform 8, the police have now stated that the male is back at the window. They're asking to confirm what we're doing to try and rescue this male, over".

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03347).

**07:51\*** WM McKay, from BA Team 77, reaches the 11<sup>th</sup> floor, enters the lift lobby and locates Firefighter Peacock and Firefighter Stuart. WM McKay states *that Firefighter Stuart looks very fatigued so WM McKay takes over carrying the fire hose and firefighting branch as they continue to search the 11<sup>th</sup> floor. The flats on the right hand side are badly fire damaged and they struggle to get the firefighting branch to reach the flats.* WM McKay, Firefighter Peacock and Firefighter Stuart leave the firefighting branch on the 11<sup>th</sup> floor stairwell due to fatigue and descend the stairs to the 10<sup>th</sup> floor (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00940, GTIRT18-00942, GTIRT18-01108).

**07:51:02** CU 8 respond to the radio message from the Radio Operator at Brigade Control.

"FN, Charlie Uniform 8, er, all received. Er, I will, er, get in contact with CU7 and, er, update them on this information".

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03348).

**07:51:24** The Radio Operator at Brigade Control sends radio message to CU7.

Charlie Uniform 7, Charlie Uniform 7 from M2FN, over.

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03349).

**07:51:32** CU 7 respond to the radio message from the Radio Operator at Brigade Control.

"Charlie Uniform 7, go ahead, over".

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03350).

**07:51:33** BA Team 76: Firefighter Elliott and Firefighter Toppin are descending the stairs around the eighth when their low pressure alarms actuate (Firefighter Toppin SDBA set 523 at 07:51:36, Firefighter Elliott SDBA set 191 at 07:51:33) (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01267, GTIRT18-01943).

**07:51:36** The Radio Operator at Brigade Control sends a radio message to CU7 requesting further information .

"Charlie Uniform 7, do you have any information as to what you're doing to rescue the male from the window, over"

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03351).

**07:51:42** CU7 request repeat of radio message from the Radio Operator at Brigade Control.

## OFFICIAL

"FN, from Charlie Uniform 7, say again, over".

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03352).

**07:51:46** The Radio Operator at Brigade Control repeats radio message to CU7 .

"Charlie Uniform 7, can you confirm to us what is in place for rescuing this male at the window, over".

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03353).

**07:51:58** CU7 send an 'informative' radio message to the Radio Operator at Brigade Control.

"FN, from Charlie Uniform 7, we are committing crews to the 11<sup>th</sup> floor, but access is difficult at the moment, over".

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03354).

**07:52:09** The Radio Operator at Brigade Control confirms receipt of radio message from CU7.

"Charlie Uniform 7, that's all received, M2FN out".

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03355).

**07:53:39** Oscar Foxtrot 61, SM Neil Guyett is mobilised for FSG from brigade headquarters (Source, Vision: GTIRT17-02791).

**07:53:47** Oscar Foxtrot 61, SM Guyett, books status 2, mobile to Grenfell Tower (Source, Vision: GTIRT17-02791).

**07:54:50** BA Team 76: Firefighter Elliott and Firefighter Toppin descend the stairs to the bridgehead in the stair lobby, still under air, and debrief GM Goulbourne. They then collect their BA tallies from WM Sadler (BAECO), close down their SDBA sets and have a discussion with CM McShee (BA Comms Officer), GM Goulbourne and SM Myatt (Source, CCTV: Camera 2, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-01267).

**07:55:36** SM Myatt leaves the stair lobby, proceeds into the main lobby and summons an unidentified BA team of four firefighters wearing SDBA, not under air from the ground floor lift lobby. SM Myatt then returns to the stair lobby (Source, CCTV: Camera 4).

**07:57** WM McKay, Firefighter Peacock and Firefighter Stuart, from BA Team 77, descend the stairs to the 10<sup>th</sup> floor stairwell and re-join Firefighter Jones who is waiting with Elpidio Bonifacio (flat 83, 11<sup>th</sup> floor). Firefighter Peacock and Firefighter Jones carry Elpidio Bonifacio and together with the rest of BA team 77 descend the stairs towards the bridgehead in the stair lobby (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-00942, GTIRT18-03106).

## OFFICIAL

- 07:57:20** SM Myatt leaves the stair lobby and proceeds into the main lobby and summons a BA team of four firefighters: Firefighter Rice, Firefighter Harold, Firefighter Harris and Firefighter Gonzalez into the main lobby, wearing EDDBA not under air (Source, CCTV: Camera 4).
- 07:57:24** GM Goulbourne leaves the stair lobby and proceeds into the main lobby and has a discussion with Firefighter Rice, Firefighter Harold, Firefighter Harris and Firefighter Gonzalez (Source, CCTV: Camera 4).
- 07:57:37** BA Team 76: Firefighter Elliott and Firefighter Toppin leave the stair lobby and proceed into the main lobby to re-hydrate with bottled water (Source, BA Data: GTIRT17-02820, CCTV: Camera 2).
- 07:58:20** SM Walton leaves the community room, proceeds into the main lobby and has a discussion with SM Myatt (Source, CCTV: Camera 4).
- 07:59:05** BA Team 78: Firefighter Rice, Firefighter Harold, Firefighter Harris and Firefighter Gonzalez put their EDDBA facemasks on and start breathing under air in the main lobby (Source, CCTV: Camera 4).
- 07:59:46** GM Welch and four unidentified firefighters descend the stairs to the stair lobby and proceed into the main lobby carrying breaking in equipment (Source, CCTV: Camera 2).
- 08:05** BA Team 77: WM McKay, Firefighter Jones, Firefighter Peacock and Firefighter Stuart descend the stairs to the second floor mezzanine carrying Elpidio Bonifacio (flat 83, 11<sup>th</sup> floor) and hand him over to WM Coltress and CM Sharp (Source, BA Data: GTIRT17-02820, MPS Witness Statement: GTIRT18-03106, GTIRT18-00940, GTIRT18-01108, GTIRT18-00942).
- 08:07:48** WM Coltress and CM Sharp carry Elpidio Bonifacio (flat 83, 11th floor) down the stairs from the second floor mezzanine floor to stair lobby and proceed to the community room (Source, CCTV: Camera 2 and 4).
- 08:08:23** BA Team 77: WM McKay, Firefighter Jones, Firefighter Peacock and Firefighter Stuart descend the stairs to the bridgehead in the stair lobby, close down their EDDBA and collect their BA tallies (Source, BA Data: GTIRT17-02820, CCTV: Camera 2).
- 08:10** MPS enter the CU and confirm the Mass fatalities group has been established and all fatalities are to be left in situ. AC Roe states he asks for that message to be passed to the incident ground as a priority (Source, MPS Witness Statement: GTIRT17-01254, Supplement Decision Log: GTIRT17-00866).
- 08:11:16** BA Team 77: WM McKay, Firefighter Jones, Firefighter Peacock and Firefighter Stuart leave the stair lobby and proceed to the community room (Source, CCTV: Camera 2 and 4).





## 8 Appendix 1: Glossary

### 8.1 Glossary of abbreviations

AC	Assistant Commissioner
ADSU	Automatic Distress Signal Unit
AFA	Automatic Fire Alarm
ALP	Aerial Ladder Platform
AOM	Assistant Operations Manager
BA	Breathing Apparatus
BAECO	Breathing Apparatus Entry Control Officer
BARIE	Breathing Apparatus Radio Interface Equipment
BAECP	Breathing Apparatus Entry Control Point
BCC	Brigade Coordination Centre
BSR	Bereaved, Survivors and Residents
BT	British Telecom
BMA	Bulk Media Advisor
BWV	Body Worn Video
CCTV	Closed Circuit Television
CM	Crew Manager
CPR	Cardiopulmonary Resuscitation
CRO	Control Room Operator
CU	Command Unit
DAC	Deputy Assistant Commissioner
DRM	Dry Riser Main
DSE	Dangerous Structures Engineer
DSI	Detective Superintendent

**OFFICIAL**

ECB	Entry Control Board
EDBA	Extended Duration Breathing Apparatus
ESSEX COUNTY	Essex County Fire and Rescue Service
ETA	Estimated Time of Arrival
FFE	Firefighter Emergency
FIO	Fire Investigation Officer
FIU	Fire Investigation Unit
FRU	Fire Rescue Unit
FRS	Fire Rescue Service
FSG	Fire Survival Guidance
GM	Group Manager
GPS	Global Positioning System
GTI	Grenfell Tower Inquiry
GTIRT	Grenfell Tower Investigation and Review Team
HART	Hazardous Area Response Team (LAS)
Hertfordshire FRS	Hertfordshire Fire and rescue service
HMEPO	Hazardous Materials Environment Protection Officer
HP	Hydraulic Platform
IC	Incident Commander
IEC	Immediate Emergency Care Pack.
JESIP	Joint Emergency Services Interoperability Principles
KENT FRS	Kent Fire and Rescue Service
LALO	Local Authority Liaison Officer
LAS	London Ambulance Service
LDV	Lung Demand Valve



**OFFICIAL**

LESLP	London Emergency Services Liaison Panel
LFB	London Fire Brigade
LPM	Litres per Minute
LPWA	Low Pressure Warning Whistle
LRG	London Resilience Group
MDT	Mobile Data Terminal
mm	Millimetre
MO	Monitoring Officer
MPIR	Metropolitan Police Incident Room
MPS	Metropolitan Police Service
NICE	Where this is annotated as a source it indicates the NICE Inform reconstruction application. This is a play back tool that allows the user to search for recordings stored on various underlying data sources and then replay as required. The application time stamps the start of all recordings of telephone calls and radio messages in and out of the Control Room. (Neptune Intelligence Computer Engineering)
NFCC	National Fire Chiefs Council
NPAS	National Police Air Service
OM	Operations Manager
OOD	Officer Of the Day
OOW	Officer Of The Watch
ORT	Operational Review Team
OSU	Operational Support Unit
PDA	Pre Determined Attendance
PEG	Protective Equipment Group
POM	Principal Operations Manager
PPE	Personal Protective Equipment



**OFFICIAL**





PPV	Positive Pressure Ventilation
RML	Resource Management Logistics
RPE	Respiratory Protective Equipment
RPELO	Respiratory Protective Equipment Logistics Officer
SAI	Senior Accident Investigator
SDBA	Standard Duration Breathing Apparatus
SERT	Specialist Entry Recovery Team
SM	Station Manager
SOG	Special Operations Group
SOM	Senior Operations Manager
SOR	Special Operations Room
StARS	Staff Attendance Recording System
SURREY FRS	Surrey Fire and Rescue Service
TCG	A tactical coordination group meeting of multi agencies and interested parties
TIC	Thermal Image Camera
TL	Turntable Ladder
UKPN	UK power networks
WM	Watch Manger

## 8.2 Glossary of terms with descriptions and images





Term	Description	Image
<p>'Airwave' Radio, handheld and Main Scheme</p>	<p>The LFB use a digital radio system to communicate with fire engines and senior officers. The radios operate by accessing a communications network managed by Airwave Solutions Limited. The Motorola MTH800 hand-held radio is issued to senior officers and other selected key personnel. Fire engines have the same radio which is not portable and is permanently fixed on the dashboard.</p>	
<p>Adjusted Times</p>	<p>Video or camera footage times that have been adjusted by a plus(+) or a minus(-) to reflect the correct time relating to GMT (Greenwich Mean Time) or BST (British Summer Time).</p>	
<p>Aerial Ladder Platform (ALP) – London Fire Brigade</p>	<p>A vehicle-mounted ladder which can reach up to 32 metres (approximately 10 floors). It has a cage at the top which can hold four people. It can be operated either from the ground level or from within the cage.</p>	
<p>Aerial Ladder Platform (ALP) – Surrey Fire and Rescue Service</p>	<p>A vehicle –mounted ladder which can reach up to 42 metres high (approximately 14 floors). It has a cage at the top which can hold four people and can be operated either from ground level or from within the cage.</p>	

**OFFICIAL**

<p>Automatic Distress Signal Unit (ADSU)</p>	<p>An ADSU is automatically actuated when the wearer is still for 45 seconds. It can also be manually-operated. The alarm, is connected to each BA set to attract the attention of other BA wearers if an individual is in distress.</p>	
<p>Breathing Apparatus (BA) tally</p>	<p>A rectangular yellow plastic tally carrying a key to activate and deactivate the Automatic Distress Signal Unit (ADSU) that belongs to a Breathing Apparatus (BA) set. The BA tally bears the BA set's individual number and also records the name of the firefighter wearing it, the pressure of the air in the cylinder and the time at which the firefighter is scheduled to report back to the Breathing Apparatus Entry Control Officer (BAECO). It is inserted into a slot in the BA Entry Control Board (ECB) before the firefighter goes into a fire.</p>	 <p><b>BA Tally with (Designated) Radio Module Unit ID Number (160)</b></p>
<p>BA Personal Line</p>	<p>The BA personal line is 6 metres long and divided into two sections by a 'D' ring secured to the line 1.25 m from the running end.</p> <p>This is attached to the BA set waistbelt in a pouch.</p>	
<p>Body Worn Video (BWV)</p>	<p>This equipment is worn by MPS police officers and captures and records video footage. The BWV is time stamped and verified by the MPS.</p>	



<p>Bodyguard (BG)</p>	<p>Part of the BA set electronic monitoring system, indicating cylinder pressure which is measured in BAR. It has within it a LPWA to alert the firefighter that they are running low on air.</p>	
<p>Firefighting branch</p> <p>Rosenbauer Project 2</p> <p>Rosenbauer Selectflow</p>	<p>The nozzle at the end of any fire hose which is used to direct and control water flow onto a fire.</p> <p>The Rosenbauer Project II is designed to provide a combination of a solid core jet or spray at the same time or independently of each other.</p> <p>The jet control handle and the spray adjustment nozzle operate independently of each other. The jet control handle controls the solid core jet. The spray adjustment nozzle controls the spray pattern including shutting it down</p> <p>The Rosenbauer SelectFlow RB101 is an adjustable litreage nozzle providing flexibility of flow and a choice of jet or spray.</p>	 
<p>Breaking in equipment (Crow's foot CF2)</p>	<p>Crow's foot hydraulic spreading tool (CF2). This can be used to apply a controlled load to the lock of a door, often with enough force so that the lock is broken.</p>	

**OFFICIAL**

<p>Enforcer (Breaking in equipment)</p>	<p>Enforcer: Used as a ram to apply a force on inward opening doors. The enforcer can be used in conjunction with the Halligan bar to help gain entry through outward opening doors.</p>	
<p>Sledge hammer</p>	<p>A sledge hammer is a tool with a large, flat, often metal head, attached to a handle. It allows more force to be applied to gain entry through doors and windows, etc.</p>	
<p>Breathing Apparatus (BA)</p>	<p>Breathing Apparatus is a piece of equipment comprising an airtight mask, a harness and a cylinder containing air which, when activated, allows the firefighter wearing it to breath in smoky or unbreathable air.</p>	
<p>Breathing Apparatus (BA) 'A' Test</p>	<p>An 'A' Test is the testing of a BA set to ensure the set is working correctly and has the minimum amount of air in its cylinder to be worn at an incident</p> <p>The test will normally be carried out at the Fire Station by firefighters when they assume responsibility for a BA set or at an incident.</p> <p>Firefighters will sign an individual BA log book at the fire station to confirm they have undertaken the test and it has passed or failed. A fire ground 'A' test is also performed at a incident if a cylinder change is required .</p>	





**OFFICIAL**

<p>Breathing Apparatus Entry Control Board (BAECB)</p>	<p>A computerised board which supplies two-way data communication between the firefighters wearing BA, their BA set and the ECB. The ECB gives the Entry Control Officer (ECO) real time information in relation to each firefighter who has been logged onto that particular board.</p>	
<p>Breathing Apparatus Entry Control Officer (Now Operative) (BAECO)</p>	<p>A firefighter or officer who is responsible for managing the BA Entry Control Board. The fire officer will monitor the remaining time available to the BA wearers and will alert the officer in charge if they do not return to the BAECO in the allotted time.</p>	
<p>Breathing Apparatus Entry Control Point (BAECP)</p>	<p>BAECP is the location near to and within sight of the physical entry and exit points to buildings for firefighters wearing BA. At it is the Entry Control Board (ECB) which is controlled by an Entry Control Officer (ECO) and all firefighters tasked to wear BA must report to the BAECP before and after they go in to extinguish a fire.</p>	
<p>Bridgehead</p>	<p>A strategic location, positioned at least two floor levels below the floor which the fire is on, where the BA Entry Control Point (BAECP) is located.</p>	
<p>Brigade Control</p>	<p>See London Operations Centre</p>	



**OFFICIAL**


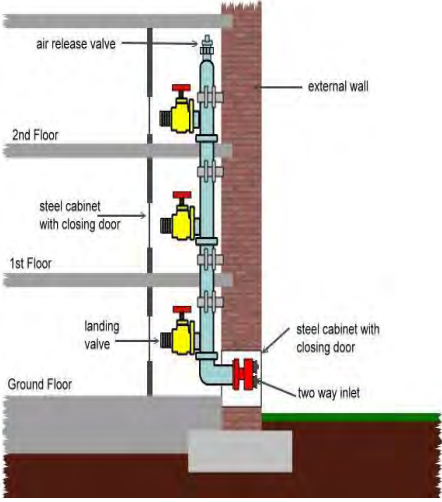
<p>Brigade Coordination Centre (BCC)</p>	<p>Provides support to and implements the actions and decisions of the Duty AC and/or Gold Commander (Fire) during incidents which require a more senior level of wider control or operational management than day-to-day incidents.</p>	
<p>Brigade Distribution Centre (BDC)</p>	<p>The BDC, located in Croydon, is the Brigades logistics centre that comprises of four warehouses and a fleet of vehicles responsible for internal deliveries to all Brigade locations.</p>	
<p>Bulk Media Advisor (BMA)</p>	<p>This officer is advises on tactics and provides support and technical expertise in the use of bulk firefighting media. Firefighting media is the term used to describe material used to extinguishing fires, which are predominantly water and foam. At fires where large volumes of water or foam would be required, a Bulk Media Advisor would attend. Their attendance would be triggered by the attendance of a lorry carrying many miles of fire hose or a pump capable of supplying a large volume of water.</p>	
<p>Call Out Base (SM or GM)</p>	<p>A call out base is where senior officers stay when on duty overnight and can either be privately provided within LFB-agreed boundaries or provided by the LFB at specific fire stations. The officers must inform the LOC where they are each time they are on duty and will respond to emergency incidents from there.</p>	

## OFFICIAL




Call Sign	Each fire engine, specialist appliance and senior officer is allocated an individual call sign by which they are recognised and which is used primarily over the radio for concise and precise communications either to or from the LOC.	
Charged / Uncharged fire hose	The term 'charged or uncharged fire hose' is fire brigade terminology that refers to the physical state of a fire hose. A charged fire hose is full of water and under pressure and an uncharged fire hose is empty and will require being filled with water before use.	
Chinagraph	A waxy pencil used to write on china ,glass or other hard surfaces .	
Closed Circuit Television (CCTV)	Cameras inside and outside the building that have recorded footage.	
Collecting Breeching	This allows you to joins two firehose into one	
Commissioner	The London Fire Commissioner is responsible for providing London's fire and rescue service, ensuring that it is effective and efficient.	

**OFFICIAL**


<p>Command Unit (CU)</p>	<p>Fire engine that can be used by the Incident Commander to plan their response to an incident. It can also be used to hold meetings or co-ordinate other functions needed at the incident.</p>	
<p>CU Staff</p>	<p>CUs have a minimum of two WMs. One will take the role of Team Leader who will liaise with the IC to ensure all relevant information is collated and transferred to the CU</p>	
<p>Contemporaneous Notes</p>	<p>As firefighters left the incident on the morning of 14<sup>th</sup> June 2017, they were directed to attend Paddington Fire Station and asked to write down their actions and recollections in the form of a contemporaneous note.</p>	

<p>Covering Jet</p>	<p>A large fire hose spraying water onto the outside of a building to protect the building or surrounding buildings or structures from spread of fire or protect firefighters carrying out rescues or specific actions.</p>	
<p>Dividing Breeching</p>	<p>This allows you to split one firehose into two firehose</p>	
<p>Duty Welfare Officer</p>	<p>London Fire Brigade on call counsellor</p>	
<p>Dry Riser Main (DRM)</p>	<p>A fixed steel pipe, normally 4" (100mm) diameter that runs vertically up a building. The inlet is where the fire hose from the fire engine is attached (normally ground floor level) so that water can be pumped via the fire hose into the pipe. This, in turn, supplies water to outlets attached to the dry riser on every or alternate floors. An outlet is where the fire hose taken into the building by firefighters is attached, and will be on a floor either on or near the floor with the fire. Outlets open like taps to supply water to extinguish a fire. The inlets and outlets are normally protected within locked cabinets.</p>	
<p>Embedded Video</p>	<p>Video footage inserted into a document or presentation to enable playback on any computer.</p>	


**OFFICIAL**

<p>Extended Duration Breathing Apparatus (EDBA)</p>	<p>EDBA is carried on FRUs. It allows firefighters to use it for up to 45 minutes if they breathe air at a rate of 58 litres per minute. If this rate increases because the firefighter is breathing faster and/or working harder, the time available decreases as the air will be used up more quickly.</p>	
<p>Firefighter Axe</p>	<p>The axe has a forged carbon steel head bonded to a solid Nuplaglas® shaft by an epoxy bond between the head and handle</p> <p>Weight: 0.95 kg.</p> <p>Length: 38 cm (15 ").</p>	
<p>Fire Engine</p>	<p>An emergency vehicle used by the LFB to carry water, firefighters and fire service equipment to an incident.</p> <ul style="list-style-type: none"> <li>• A Pump is a fire engine that can carry up to six firefighters and it carries a 9 metre ladder.</li> <li>• A Pump Ladder is the same as a Pump but carries a 13.5 metre ladder.</li> </ul>	


**OFFICIAL**

<p>Firefighter Emergency (FFE)</p>	<p>This is whenever Fire Service personnel, or personnel working under the control of the LFB, are unaccounted for and/or in need of rescue.</p> <p>On receipt of the FFE message, Brigade Control will mobilise the following:</p> <ul style="list-style-type: none"> <li>• 6Ps (including three PLs with WMs in charge)</li> <li>• 2xFRUs</li> <li>• 1xFIU</li> <li>• 1xCU</li> <li>• An ambulance</li> <li>• PLO</li> <li>• FSO</li> <li>• 3xSMs</li> <li>• GM</li> <li>• DAC</li> <li>• SAI</li> </ul>	
<p>Fire Investigation Officer</p>	<p>A specially trained fire officer who attends fires in an FIU to gather evidence, investigate and establish the most likely cause for the development of a fire.</p>	
<p>Fire Investigation Unit (FIU)</p>	<p>An emergency vehicle specifically designed to carry specialist equipment used to investigate and establish the most likely cause of a fire.</p>	

**OFFICIAL**

<p>Fire Rescue Unit (FRU)</p>	<p>An emergency vehicle that carries specialist rescue equipment and is the only emergency vehicle to carry EDDB. It does not carry ladders or water.</p>	 A red and yellow Fire Rescue Unit (FRU) truck. The truck is a Mercedes-Benz Sprinter van with a red body and yellow accents. It has 'LFB' and 'FIRE' written on the side and front. The license plate is 'R154 NKE'. There is a sign on the side that says 'PLAN YOUR ESCAPE ROUTE'. The truck is parked on a paved area.
<p>Fire Survival Guidance (FSG)</p>	<p>An FSG call is one received by Brigade Control where the caller believes they are unable to leave the premises due to the effects of fire and where the control officer remains on the line providing appropriate advice. The call continues until either the caller is able to leave by their own means, is rescued by the LFB or the telephone line is cleared. It should be noted that a caller may clear the line after the FSG process has commenced but that will not necessarily mean a cancellation of the response by the LFB.</p>	








<p>Forward Information Board (FIB)</p>	<p>The FIB is an information recording system which consists of a perspex back board and two double-sided laminated sheets, printed with four templates. The templates are designed to support the gathering and recording of information at a range of different incident types. The four templates supplied with the FIB are: (a) Incident information. (b) High rise incident record, (c) Incident plan and (d) Casualty information.</p>	
<p>Functional Sector</p>	<p>A sector is the term used when an Incident Commander splits the incident into sections and designates areas of responsibility to ensure the level of command and safety.</p> <p>A Functional Sector is an area of responsibility given to an officer to carry out a specific role, e.g. safety and it is their responsibility to ask for equipment and personnel needed to complete the task.</p>	
<p>Gold Commander (Fire)</p>	<p>A senior officer who acts as the Commissioner's representative at multi-agency meetings as Fire Gold and liaises closely with the Commissioner's Group, the BCC and the Continuity Management Team (CMT) to ensure that LFB priorities and needs are understood, resourced and met.</p>	


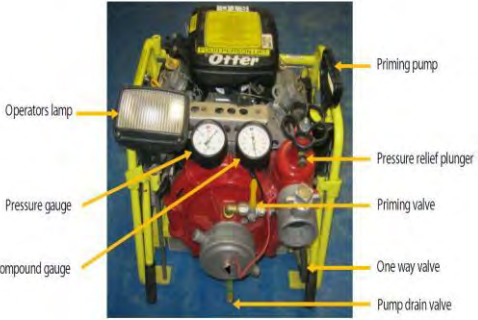
**OFFICIAL**

<p>Grenfell Tower Investigation and Review Team (GTIRT)</p>	<p>A dedicated team called the 'Grenfell Tower Investigation and Review Team' (GTIRT), which has full responsibility for undertaking all the work relating to the LFB's 'safety and learning' review.</p>	
<p>Ground Monitor</p>	<p>The ground monitor is a nozzle fed by fire hose that may be set up and left unattended safely on the ground supplying a jet of water.</p>	
<p>Halligan Bar (Breaking in equipment)</p>	<p>A tool which has been specifically designed to lever, puncture and prise and is ideally suited to force entry into outward opening door and grilles.</p>	
<p>Handheld Radio</p>	<p>Handheld ultra high frequency (UHF) fire ground radios are issued to every operational firefighter and senior officer to provide local communication between personnel at incidents.</p>	
<p>HART</p>	<p>LAS's Hazardous Area Response Team.</p>	
<p>HMEPO</p>	<p>Hazardous Materials and Environmental Protection Officer. An LFB officer with specialist training who offers advice to Incident Commanders on how to best proceed at an incident where hazardous materials are involved.</p>	


**OFFICIAL**

<p>Hydraulic Platform (HP)</p>	<p>An aerial appliance that has a maximum working height of 23.5 metres. This is currently a spare appliance within the LFB fleet.</p>	
<p>Immediate Emergency Care (IEC)</p>	<p>An IEC is a package of training and equipment developed by the LFB and the LAS to give firefighters an enhanced capability to treat casualties whilst carrying out their duties.</p>	
<p>In Attendance</p>	<p>Once a fire engine or officer has been assigned by Brigade Control to attend an incident, when they arrive they must book "in attendance" (otherwise known as Status 3) either over the radio or by computer to log that they have arrived and are available at the incident.</p>	
<p>Incident Commander (IC)</p>	<p>The fire officer in charge of the incident. This will not necessarily be the most senior officer at the incident. The number of fire engines required at the incident will dictate the rank of officer required to be in charge.</p>	

<p>Incident Ground</p>	<p>The term used to define the physical area of the incident.</p>	
<p>JESIP</p>	<p>The Joint Emergency Services Interoperability Principles (JESIP) manual focuses on Police, Fire and Ambulance interoperability in the early stages of the response to a major or complex incident. Its aim is to achieve an effective and co-ordinated response to a major incident.</p>	
<p>Landmark / Landmarking</p>	<p>This is fire brigade terminology used during a BA wear. Landmarking is a method that allows the wearer to place a specific object within a compartment. This is then used to assist the wearer with orientation when there is little or no visibility and to provide accurate information for the debrief that follows a BA wear.</p>	
<p>Large Axe</p>	<p>The axe has a forged carbon steel head, epoxy bonded to a solid fibreglass shaft. The shaft has an ergonomically shaped handle.</p> <p>Weight: 3.8kg. Length: 920mm.</p>	

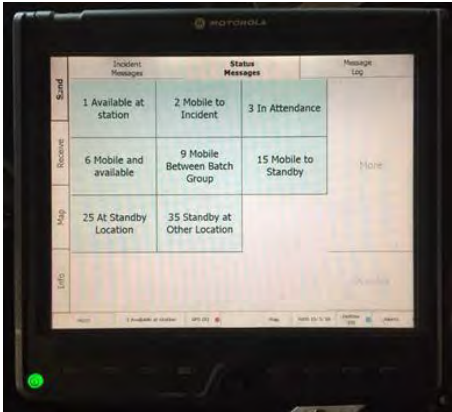
<p>Leaky Feeder</p>	<p>Used in conjunction with a telemetry Repeater and consists of a coaxial cable, 175m in length and wound onto a drum used to roll it out.</p> <p>Normally connected to a Repeater and extended as required. An antenna is fitted at the drum end to transmit the signal.</p>	
<p>LESLP</p>	<p>The London Emergency Services Liaison Panel (LESLP) manual is the agreed major incident procedure of the Emergency Services in London. LESLP incorporates JESIP (see JESIP)</p>	
<p>Rosenbauer Lightweight Portable Pump.(RLPP)</p>	<p>The RLPP is a purpose built, petrol powered, light weight pump with a 1,000 lpm output.through a single delivery. It is fitted with a combined tachometer and operation hour counter. Whilst the pump is running the display will indicate the rpm of the engine. At all other times it will indicate the total elapsed engine run time. The pump is fitted with both a pressure gauge and a compound gauge. Fitted with a 55 watt operator's lamp, mounted on an adjustable 800mm mast.</p>	 <p style="text-align: center; font-size: small;">LFB Image id 413861</p>
<p>London Operations Centre (LOC) known as Brigade Control</p>	<p>The London Operations Centre is at 6 Jubilee Way, London SW19 3XD. It is a purpose-built facility that hosts the LFB control room, the Resource Management Centre and the London Resilience Group.</p>	

## OFFICIAL

Long Line in Line Bag	This is a rope of 30 meters constructed of 16 mm polypropylene or polyester whipped at both ends.	
Low pressure warning whistle (LPWA)	An automatic alarm that sounds when the firefighter wearing BA reaches a predetermined level of air in their BA set cylinder. It indicates the wearer is low on air.	
Major Incident	This is any emergency that requires special arrangements to be implemented by one or all of the Emergency Services and will generally include the involvement, either directly or indirectly, of large numbers of people.	
Maritime and Coastguard Agency: Search and Rescue (MCA SAR)	The Maritime and Coastguard Agency (MCA) is an executive agency of the United Kingdom working to prevent the loss of lives at sea and is responsible for implementing British and international maritime law and safety policy. Its responsibilities include coordinating search and rescue (SAR)	


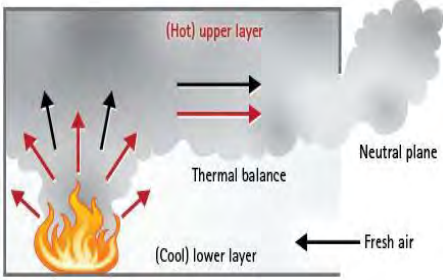
**OFFICIAL**

<p>Messages - Assistance/Priority</p> <p>Informative</p> <p>Stop</p>	<p>'Assistance message' - is sent on behalf of the IC (normally by radio) to Brigade Control to request more fire engines and/or other specialist vehicles which the Incident Commander considers are required to deal with the incident. If a message is urgent, it is prefixed by the word "Priority".</p> <p>'Informative messages' - used to provide Brigade Control or officers not in attendance at the incident with an accurate description of the incident and the progress being made.</p> <p>'Stop message' - is the final message sent on the main scheme radio to indicate the incident has ended and to provide a summary.</p>	
<p>Metropolitan Police Incident Room (MPIR)</p>	<p>This term was used to describe the Metropolitan Police operational control room that manages resources across London during large events and incidents, both pre-planned or spontaneous. The name for this control room changed around six years ago. It is now referred to as the Special Operations Room (SOR) during pre-planned events or Pan-London Control during no notice/spontaneous events and incidents.</p>	
<p>Metropolitan Police Service (MPS)</p>	<p>Service responsible for policing across London with exception of the City of London and transport hubs. Policing in these areas are provided by City of London Police and British Transport Police respectively.</p>	


<p>Metropolitan Police Service Witness Statements</p>	<p>Information provided by LFB personnel and recorded and written up by the MPS as part of their criminal investigation as formal witness statements (named Operation Northleigh).</p> <p>To be allowed in court, section 9 of the Criminal Justice Act (CJA) 1967 states that a witness statement must:</p> <ul style="list-style-type: none"> <li>• be a formal written document of a person</li> <li>• be a set of facts relating to a certain event, or events</li> <li>• be signed by the person who makes it, to confirm that the contents of the document are true, (known as a statement of truth)</li> <li>• have a copy made available to other parties beforehand</li> </ul>	
<p>Mobile Data Terminal (MDT)</p>	<p>The Mobile Data Terminal MDT is a vehicle-mounted fixed tablet computer, fitted with a 12" touch screen.</p> <p>MDTs are fitted to most operational vehicles, enabling crews to access incident details, messages and operational data.</p> <p>MDTs are fitted with GPS trackers that record where an appliance is when MDT actions are made</p>	 <p>The image shows a Motorola MDT tablet computer. The screen displays a software interface with several sections: 'Incident Messages', 'Status Messages', and 'Message Log'. Under 'Status Messages', there are three columns: '1 Available at station', '2 Mobile to Incident', and '3 In Attendance'. Below that, there are three rows: '6 Mobile and available', '9 Mobile Between Batch Group', and '15 Mobile to Standby'. At the bottom, there are two rows: '25 At Standby Location' and '35 Standby at Other Location'. The Motorola logo is visible at the top of the screen.</p>




**OFFICIAL**

<p>Monitoring Officer (MO)</p>	<p>A fire officer who attends incidents to monitor the actions of the IC and provide support and guidance. The MO is normally one rank above the IC.</p>	
<p>Neutral Plane</p>	<p>The term 'Neutral Plane' is a reference to fire behaviour. It is the boundary between heated smoke and cooler air. As a fire develops the 'neutral plane' will lower as the the thickness of the smoke gases increase.</p>	
<p>North West Fire Control (NWFC)</p>	<p>NWFC is a public sector company set up exclusively by the Fire Services in the North West to jointly handle all 999 emergency calls and be responsible for mobilising firefighters and fire engines to incidents in Cumbria, Lancashire, Greater Manchester and Cheshire.</p>	
<p>Notification Action</p>	<p>Sent out by Brigade Control staff, notification actions comprise information regarding pre-determined attendances to incidents and are received by senior and principal LFB managers and other agencies. They are also sent to specialist tactical advisors and supporting resources.</p>	


## OFFICIAL


<p>Officer of the Day (OOD)</p>	<p>The role of the of the Officer of the Day (OOD) is to act as the initial representative of Principal management in ensuring that Brigade resources, both human and physical are deployed on a strategic basis to best effect and any other issues which may affect the Brigade.</p> <p>OODs are at Station manager level .</p> <p>They are to act as liaison between Brigade control, members of the public, Brigade personnel and principal officers and ensure managerial issues are dealt with effectively and efficiently.</p>	
<p>Officer Of The Watch (OOW)</p>	<p>On any given shift in Brigade Control, the officer in charge is locally referred to as the Officer of the Watch. This is not a defined role in the context of the formal management structure.</p>	
<p>Operational Review Team (ORT)</p>	<p>A team of senior officers tasked with reviewing all aspects of performance at incidents throughout the LFB.</p>	

**OFFICIAL**


<p>Operational Sector</p>	<p>The incident ground can be split into different sections (or sectors) to allow the IC to maintain control and delegate tasks.</p> <p>The Operational Sector is an area of responsibility defined by a physical area of the incident ground. Where possible, clearly identifiable boundaries such as floors or walls should be used.</p>	
<p>Operational Support Unit (OSU)</p>	<p>OSU carries a variety of additional equipment and consumable resource packs, including fuel, water, BA cylinders etc.</p>	
<p>Operations Commander</p>	<p>In order to maintain the span of control at very large and/or complex incidents and where a greater level of command is required, the IC may appoint one or more Operations Commanders to take responsibility for a number of sectors, each of which will attract its own Sector Commander.</p>	

**OFFICIAL**

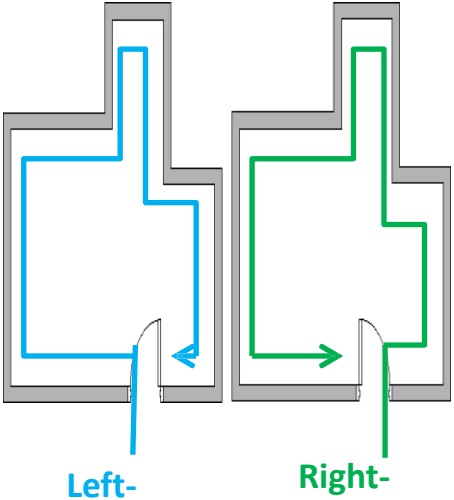

<p>Pager</p>	<p>A small wireless <u>telecommunications</u> device that can be clipped onto a belt and that receives and displays alphanumeric messages. These are carried by senior officers, officers in charge of fire engines and specialist personnel to alert them of incidents and communicate pertinent information regarding them.</p>	
<p>Persons reported (PR)</p>	<p>This is a priority message sent by the IC to inform Brigade Control that it is believed people may be involved in the fire. This will automatically prompt Brigade Control to dispatch an ambulance and an FIU if this has not already been done.</p>	
<p>Pre-Determined Attendance (PDA)</p>	<p>The pre-determined attendance is the number and type of fire engines and equipment pre-planned to be sent to deal with a particular type of incident. The Brigade Control operator selects the appropriate incident type code which then matches the relevant resources that have been pre-determined to deal with that incident type.</p>	



<p>Pre-Alarm</p>	<p>A Pre-alarm is part of the Automatic Distress Signal Unit (ADSU) function with a BA set Bodyguard Unit. If a firefighter wearing BA is stationary for more than 30 seconds, they receive a continuous warning bleep for an additional 15 seconds which is called the Pre-Alarm sequence. If the wearer moves within this time, the pre-alarm is cancelled. If they remain motionless beyond 15 seconds, the ADSU will go into full alarm and cannot be cancelled until the BA tally key is inserted into the Bodyguard unit.</p>	
<p>Protective Equipment Group (PEG)</p>	<p>LFB group who maintain all the LFB protective equipment including BA sets, ropes and fire hose.</p>	
<p>Prybar (Breaking in equipment)</p>	<p>This tool is used primarily for creating enough space in an opening to allow the Hydraulic tool to be used .</p>	
<p>Pulse Spray</p>	<p>Pulse Spray / Pulse Spraying Describes the tactic of applying water using an appropriate firefighting branch into fire gases to stabilise and control conditions within or directly outside the compartment into which crews are entering. Using long Pulses and short Pulses .</p>	
<p>Pump Delivery</p>	<p>The pump delivery is an outlet of a firefighting pump. It has a female coupling with a screw down valve. The male end of a fire hose is connected to it to provide water at an incident.</p>	

**OFFICIAL**

<p>Radial Cooling</p>	<p>A method of cooling the core temperature of the human body. This method involves submerging the hands and wrists into buckets of cool or cold water, in order to assist the cooling of the circulating blood via the radial artery.</p>	
<p>Radio Repeater</p>	<p>Radio repeaters are only used with handheld incident ground radios. These have the potential to enhance radio coverage in locations where radio signal penetration is severely limited or not usually possible due to building construction or location.</p>	
<p>Radio Workshop's Engineer</p>	<p>Radio workshop engineers are available to be mobilised to incidents and to provide technical advice and equipment to assist with radio reception issues. The engineers have individual call signs for example Romeo Whiskey Sierra/two</p>	
<p>Remote Monitoring</p>	<p>Carried out by a senior officer who is allocated via pager to incidents of a certain size or type and monitors messages over the radio from Incident Commanders. The senior officer may subsequently attend the incident if ordered by Brigade Control or if they deem it necessary.</p>	

**OFFICIAL**

<p>Resource Management Logistics (RML)</p>	<p>The Resource Management Logistics cell are part of the LOC function. They are responsible for a range of activities which include Safety Event notifications, Principal Officer and Authority Member notifications, arranging delivery and movement of large items of equipment such as firefighting foam, BA equipment and contracted equipment provision e.g. cranes.</p>	
<p>Right and Left hand search</p>	<p>BA Teams when instructed to search a room or compartment, normally enter via a door. The wall upon which this door is situated becomes the start point for a search of the perimeter of the compartment. When entering, a crew will turn left and move along this wall (Left-hand search) or right and move along this wall (Right-hand search)</p>	 <p>The diagram shows two room layouts. The left layout features a blue line tracing the perimeter of a room, starting from a doorway on the right and moving counter-clockwise. A blue arrow points left from the doorway, labeled 'Left-'. The right layout features a green line tracing the perimeter of a room, starting from a doorway on the left and moving clockwise. A green arrow points right from the doorway, labeled 'Right-'.</p>
<p>Safety Officer</p>	<p>A Safety Officer has to be of a minimum role of competent firefighter. Their role is to ensure the safety of firefighters working within a particular physical area. E.g. A sector.</p>	 <p>A photograph of a high-visibility safety vest. The vest is primarily yellow with blue panels on the shoulders and upper chest. A red rectangular label is centered on the chest with the words 'SAFETY OFFICER' printed in white capital letters. The vest has reflective silver stripes at the bottom.</p>

<p>Second Set and Second Set Bag</p>	<p>A 'Second Set' is a SDBA or EDDBA set that is used to provide respiratory protection to a BA wearer who has damage to their air supply or is low on air.</p> <p>The 'Second Set' will be provided by an emergency team committed specifically for that task.</p> <p>A 'Second Set Bag' is a carrying bag that has been produced to facilitate carrying an SDBA or EDDBA set.</p> <p>Two 'Second Set Bags' are allocated to every FRU, CU and OSU.</p>	
<p>Sector</p>	<p>Sector is the term used when an IC has sectioned an incident and designates areas of responsibility to ensure the level of command and safety.</p>	
<p>Sector Commander (SC)</p>	<p>A Sector Commander is an officer nominated to take command of a sector, whether it is an Operational Sector or a Functional Sector.</p> <p>The example picture is a surcoat that would be worn by the SC in Sector 1.</p>	
<p>Sector Command Command Support</p>	<p>This is designated as a link between the Incident commander to the functional sectors .</p>	
<p>Senior Accident Investigator (SAI)</p>	<p>LFB officer assigned to investigate any accident, injury or near miss that takes place at an incident or in the workplace.</p>	






**OFFICIAL**


<p>Smoke logging</p>	<p>When smoke has entered a compartment or area and makes it difficult or impossible to breathe or see clearly.</p>	
<p>Special Operations Room (SOR)</p>	<p>SOR is frequently opened as a multi-agency command and co-ordination centre for major planned events in London, as well as for major spontaneous events and major incidents. The SOR has a fundamental role in pan-London contingency arrangements, such as London Emergency Services Liaison Panel (LES�P). SOR is one of the pre-designated locations that it is anticipated the LFB "Gold Commander" may be deployed during a multi-agency event under the Brigade's strategic response arrangements.</p>	
<p>Staff Attendance Recording System (StARS)</p>	<p>This is a computer based application used across the LFB that records information on staff attendance at work and which fire engine the individuals are allocated to.</p>	
<p>Standard Duration Breathing Apparatus (SDBA)</p>	<p>SDBA is carried on all front line fire engines, except Fire Rescue Units (FRU). The BA set will give a working time of 31 minutes if the firefighter wearing it breathes at a rate of 50 litres per minute. If this rate increases because the firefighter is breathing faster and/or working harder, the time available decreases as the air will be used up more quickly.</p>	

<p>Status</p>	<p>Status changes can be sent via a variety of means. Appliances use the Brigade's main-scheme radio (voice) or the MDT. Senior officers use a telephone (status 2) or Airwave radio (status 3).</p> <p><b>Status Code Descriptions:</b></p> <p><u>Fire engines only</u></p> <p>Status 1: Available at the fire station for emergency calls.</p> <p>Status 6: Available by radio, returning from a call or outside activity.</p> <p><u>Fire engines and senior officers Status</u></p> <p>2: En route to the incident. Status 3: In attendance at the incident.</p> <p>Status 7: "Second line" availability, for appliances carrying out Strategic Resource activity and senior officers on recall.</p> <p><u>Senior officers only</u></p> <p>Status paging : Available by pager at a specific location within the LFB.</p>	
<p>Tactical mode Delta</p>	<p>Tactical mode 'Defensive' is relayed over the radio by phonetic alphabet as D=Delta. Delta "Defensive" tells Brigade Control that firefighters are holding the fire by surrounding it but without advancing on the fire.</p>	
<p>Tactical mode Oscar</p>	<p>Tactical mode 'Offensive' is relayed over the radio by phonetic alphabet, O=Oscar. Oscar "Offensive" tells Brigade Control that firefighters are attacking and advancing on the fire.</p>	

**OFFICIAL**

<p>Telemetry Repeater</p>	<p>A Telemetry Repeater is used to restore lost signal when BA (BA) wearers go beyond the range of signal provided by the Entry Control Board (ECB).</p> <p>A Telemetry Repeater does not boost the radio signal; it stores transmissions and passes them onward to another repeater, Entry Control Board (ECB) or BA set(s).</p>	
<p>Three Sixty (360)</p>	<p>A circum navigation of the incident ground to give the incident commander situational awareness</p>	
<p>Thermal Image camera (TIC)</p>	<p>A camera that detects heat and identifies the temperature of the items being observed by the operator. It can capture still and video images.</p>	
<p>Turntable Ladder (TL)</p>	<p>A vehicle with a ladder which has the capability of reaching 32 metres (approximately 10 floors). It has a detachable cage which can hold three people. It can be operated at ground level or from the cage.</p>	
<p>Uncharged fire hose</p>	<p>See charged fire hose.</p>	

## OFFICIAL

<p>Urban Search and Rescue (USAR)</p>	<p>Specialist team within the LFB and nationally that respond to specialist incidents including building collapses or body retrieval.</p>	
<p>Ventilate / Ventilation</p>	<p>The removal from a building of the hot smoke and gases produced by a fire by replacing them with a supply of fresher air. This can happen in an uncontrolled way if part of the building's structure fails, for example, a door or a window, as a consequence of firefighting when teams enter buildings via doors and windows or as part of the Incident Commander's coordinated plan.</p>	

<p>'Vision' Mobilising System</p>	<p>The LFB Control room use the Capita Fortek 'Vision' mobilising system to record the location of the incident, and then despatch the nearest appropriate resources in response to emergency calls. The 'Vision' system displays a number of actions that control room staff need to undertake and 'Vision' records all these actions when taken, as well as a number of automated system actions. The system also supports a telephone and radio recording facility. This allows for the recording of incident updates and situational reports. This mobilising system incorporates a Global Positioning System (GPS) to ensure the nearest available appliances are sent to incidents.</p>	
-----------------------------------	---	--

## 9 Appendix 2: Source Data

The following table details the data sources that the Brigade has used in producing this report. The table provides a brief explanation of each information source and details whether the source data is owned by the Brigade, been supplied by Operational Northleigh (the MPS's Criminal Investigation into the Grenfell Tower fire), or has come from a publically available source. The table also details whether the time data within each data source is 'hard', 'soft' or both.

Brigade Owned Data Sources	Descriptor	Time Designation
'Vision'	This is the name of the Brigade's computer based mobilising system. It is used to support the Brigade Control functions and logs all 999 Emergency Calls, the movement of fire engines, Brigade assets and senior officers. All messages between Brigade Control, the scene of operational incidents, external agencies and members of public requesting the fire service using the 999 Emergency Call number are also logged on this system and time stamped.	Hard
Breathing Apparatus (BA) Bodyguard data	Bodyguard data is generated by an electronic gauge attached to the Brigade's BA equipment. It incorporates an electronic whistle and distress signal capability and records 'time stamped' information about the set activation and firefighter breathing rates when the BA is in use.	Hard
Breathing Apparatus (BA) Telemetry	Telemetry is a capability fitted to a BA set that transmits and records certain information relating to the use of the BA equipment. This data can be retrospectively downloaded and analysed to corroborate actions taken by firefighters. This includes when the BA apparatus set was started up, breathing rates and amount of air consumed.	Hard
Contemporaneous Notes	As firefighters left the incident on the morning of 14 <sup>th</sup> June 2017, they were directed to attend Paddington Fire Station and asked to write down their actions and recollections in the form of a contemporaneous note.	Soft

**OFFICIAL**

Thermal Image Cameras (TICs)	A TIC is carried on every fire engine and provides a capability whereby firefighters are able identify the temperature of the objects/environment being viewed. The TIC is able to take 'still' pictures and record video footage whilst firefighters are undertaking firefighting and search and rescue operations. The images recorded on this equipment are timestamped, but because the TICs are not automatically synced with an independent time source the timings cannot be taken to be accurate.	Soft
Fire Engine Global Positioning System (GPS)	This device is fitted to all fire engines and tracks/records the position of the vehicle. The data recorded is time stamped but not completely accurate as the GPS signal is only plotted every 15 seconds.	Soft
Staff Attendance Recording System (StARS)	This is a computer based application used across the Brigade that records information on staff attendance at work and which fire engine the individuals are allocated to.	N/A
Log books (Station and BA)	All LFB stations maintain a log book which identifies personnel on duty and their allocated roles for the shift. Each BA set has a log book allocated to it which is completed by the firefighter to whom the set is allocated. It is used to record an 'acceptance' test at the start of the shift and any 'after use' test following operational or training use.	Hard
Brigade witness statements (taken by Operation Northleigh)	This information is the formal witness statements provided by Brigade personnel, which have been taken by the MPS as part of their criminal investigation. (named Operation Northleigh).	Soft
Close Circuit Television (CCTV) footage	There were five CCTV cameras (C1, C2, C3, C4 and C5) on the ground floor at Grenfell Tower that captured footage covering some of the Brigade's operational response activity during the fire. There are further cameras in the fire lift (C18), seventh floor lobby (C15) and one camera on the second floor (Camera 1, Boxing Club). There are six external cameras (CH01, CH02, CH05, CH06, CH07, CH09). Internal CCTV times have been verified by the MPS. External CCTV times have not been	Soft

**OFFICIAL**

	verified.	
Police 'Body Worn Video' (BWV) footage	This equipment is worn by MPS police officers and captures and records video footage. The BWV has been verified by the MPS who have confirmed to LFB that it is correct. To obtain BST you need to add one hour as currently the BWV is set at GMT.	Hard
MPS 'Named Exit Residents List'	This is an MPS data-set of the information detailing all the Grenfell residents who left the building after the fire started.	Soft
Other Images	These are images that the MPS has collated from 'open source' information. Some of this footage has a verified time stamp.	Hard and Soft
MPS External Fire Spread Report	This report contains images recording the external spread of fire. Sources for the images include BWV, External CCTV, Media, and the National Police Air Service. Only the BWV images are verified by MPS as detailed above.	Soft
DVI Recovery Floor Plan	This presentation contains plans for every floor at Grenfell Tower and details the flat of origin for all residents, which residents safely evacuated and the location where fatalities were recovered.	Soft



## 10 Appendix 3: Media References

<b>Media References (attached separately)</b>
20170614_010536
20170614_010806
20170614_010926
20170614_011200
20170614_011532
20170614_012100
20170614_012251
CCTV-27

## 11 Appendix 4: GTIRT References

GTIRT References	Description of GTIRT Reference
CCTV Footage	CCTV Footage from Metropolitan Police Service
GTIRT17-00004	Contemporaneous Notes for Andrew Walton
GTIRT17-00005	Contemporaneous Notes for Brett Loft
GTIRT17-00006	Contemporaneous Notes for Gareth Cook
GTIRT17-00009	Contemporaneous Notes for David Badillo (1)
GTIRT17-00010	Contemporaneous Notes for Daniel Bills
GTIRT17-00011	Contemporaneous Notes for Daniel Brown (1)
GTIRT17-00012	Contemporaneous Notes for Charles Batterbee (1)
GTIRT17-00013	Contemporaneous Notes for Christopher Secrett
GTIRT17-00014	Contemporaneous Notes for Thomas Abell (1)
GTIRT17-00015	Contemporaneous Notes for Alex De St Aubin
GTIRT17-00016	Contemporaneous Notes for Justin O'Beirne
GTIRT17-00017	Contemporaneous Notes for Christopher Dorgu
GTIRT17-00018	Contemporaneous Notes for Brien O'Keeffe (1)
GTIRT17-00019	Contemporaneous Notes for Jamal Stern
GTIRT17-00020	Contemporaneous Notes for Charles Cornelius
GTIRT17-00021	Contemporaneous Notes for Desmond Murphy
GTIRT17-00022	Contemporaneous Notes for Benjamin Broderick
GTIRT17-00024	Contemporaneous Notes for Wayne Archer
GTIRT17-00025	Contemporaneous Notes for John O'Hanlon
GTIRT17-00026	Contemporaneous Notes for David Davies
GTIRT17-00027	Contemporaneous Notes for Nicholas Barton
GTIRT17-00028	Contemporaneous Notes for Ben Felton
GTIRT17-00029	Contemporaneous Notes for Patrick Murray
GTIRT17-00030	Contemporaneous Notes for Matthew Sephton
GTIRT17-00031	Contemporaneous Notes for Paul Watson
GTIRT17-00032	Contemporaneous Notes for Mark Brodrick
GTIRT17-00034	Contemporaneous Notes for Geoffrey Campbell
GTIRT17-00035	Contemporaneous Notes for James Wolfenden
GTIRT17-00036	Contemporaneous Notes for Harry Bettinson
GTIRT17-00037	Contemporaneous Notes for Ben Gallagher
GTIRT17-00042	Contemporaneous Notes for Guy Tillotson
GTIRT17-00043	Contemporaneous Notes for James Cuthbert
GTIRT17-00044	Contemporaneous Notes for Graham Shaw
GTIRT17-00046	Contemporaneous Notes for Steven Mills
GTIRT17-00047	Contemporaneous Notes for Nathan Ashe
GTIRT17-00048	Contemporaneous Notes for Harvey Sanders (1)
GTIRT17-00049	Contemporaneous Notes for Nicke Merrion
GTIRT17-00050	Contemporaneous notes for William Murphy
GTIRT17-00051	Contemporaneous Notes for Dean Roberts
GTIRT17-00052	Contemporaneous Notes for Russell Gonzalez
GTIRT17-00053	Contemporaneous Notes for Martin Gilliam

**OFFICIAL**

GTIRT17-00054	Contemporaneous Notes for Thomas Abell (2)
GTIRT17-00058	Contemporaneous notes for Vincent Williams
GTIRT17-00060	Contemporaneous notes for Agnel Fernandes
GTIRT17-00061	Contemporaneous Notes for Greg Lawson
GTIRT17-00062	Contemporaneous Notes for Katie Foster
GTIRT17-00063	Contemporaneous Notes for Tom Welch
GTIRT17-00065	Contemporaneous Notes for Craig Eden
GTIRT17-00067	Contemporaneous notes of Joe Worley
GTIRT17-00069	Contemporaneous notes of Simon Grant
GTIRT17-00074	Contemporaneous notes for Michael Pole
GTIRT17-00076	MPS Witness Statement for Chris Cheesman
GTIRT17-00077	MPS Witness Statement for Niki Mitchell
GTIRT17-00108	Contemporaneous notes for Terence Roots
GTIRT17-00109	Contemporaneous notes for Richard Mitchell
GTIRT17-00111	Contemporaneous notes for Laurence Stavelly
GTIRT17-00112	Contemporaneous notes for Oliver Desforges
GTIRT17-00115	Contemporaneous notes for Adam Johnson
GTIRT17-00120	Contemporaneous notes for Leon Whitley
GTIRT17-00122	Contemporaneous notes for Marc Aston-O'Donovan
GTIRT17-00139	Contemporaneous Notes for James Berry
GTIRT17-00140	Contemporaneous notes for Christopher Perez
GTIRT17-00142	Contemporaneous notes for Robert Dwyer
GTIRT17-00157	Contemporaneous notes for Raoul Codd
GTIRT17-00158	Contemporaneous notes for Nikki Upton
GTIRT17-00159	Contemporaneous notes for Tom Reddington
GTIRT17-00197	Contemporaneous notes for Marcus Johnson
GTIRT17-00220	Contemporaneous notes of James Geapin
GTIRT17-00228	Contemporaneous notes for Charlie Rawlings
GTIRT17-00229	Contemporaneous notes for John Joseph
GTIRT17-00230	Contemporaneous notes for Andrew Brooks
GTIRT17-00231	Contemporaneous notes for James Morcos
GTIRT17-00235	Contemporaneous Notes of Robert Chart
GTIRT17-00240	Contemporaneous Notes of Dean Abbess
GTIRT17-00241	Contemporaneous Notes of Melchizedek Anderson
GTIRT17-00243	Contemporaneous Notes of Parvinder Singh
GTIRT17-00263	MPS Witness Statement of CN Reference not correct
GTIRT17-00278	Contemporaneous Notes for Andrew Walton (1)
GTIRT17-00288	Contemporaneous Notes for Richard Peacock
GTIRT17-00293	Contemporaneous Notes for Mike Dowden (1)
GTIRT17-00298	Contemporaneous notes of Kenneth LeMarrec
GTIRT17-00359	Contemporaneous notes of Andrew Roe
GTIRT17-00380	Contemporaneous notes of Martin Stevenson
GTIRT17-00396	Contemporaneous notes of Marc Thorpe
GTIRT17-00415	Contemporaneous notes of Stephen Hayward
GTIRT17-00419	Contemporaneous Notes for Nicke Merrion
GTIRT17-00431	Contemporaneous Notes for David Badillo (2)
GTIRT17-00458	Contemporaneous Notes for Charles Batterbee (2)

**OFFICIAL**

GTIRT17-00459	Contemporaneous Notes for Harvey Sanders (2)
GTIRT17-00460	Contemporaneous Notes for Daniel Brown (2)
GTIRT17-00470	Incoming 999 Call
GTIRT17-00471	Incoming 999 Call
GTIRT17-00472	Incoming 999 Call
GTIRT17-00473	Incoming 999 Call
GTIRT17-00474	Incoming 999 Call
GTIRT17-00476	Incoming 999 Call
GTIRT17-00477	Incoming 999 Call
GTIRT17-00478	Incoming 999 Call
GTIRT17-00479	Incoming 999 Call
GTIRT17-00480	Incoming 999 Call
GTIRT17-00481	Incoming 999 Call
GTIRT17-00482	Incoming 999 Call
GTIRT17-00483	Incoming 999 Call
GTIRT17-00484	Incoming 999 Call
GTIRT17-00486	Incoming 999 Call
GTIRT17-00487	Incoming 999 Call
GTIRT17-00488	Incoming 999 Call
GTIRT17-00490	Incoming 999 Call
GTIRT17-00491	Incoming 999 Call
GTIRT17-00492	Incoming 999 Call
GTIRT17-00493	Incoming 999 Call
GTIRT17-00494	Incoming 999 Call
GTIRT17-00495	Incoming 999 Call
GTIRT17-00496	Incoming 999 Call
GTIRT17-00497	Incoming 999 Call
GTIRT17-00498	Incoming 999 Call
GTIRT17-00499	Incoming 999 Call
GTIRT17-00500	Incoming 999 Call
GTIRT17-00501	Incoming 999 Call
GTIRT17-00502	Incoming 999 Call
GTIRT17-00503	Incoming 999 Call
GTIRT17-00505	Incoming 999 Call
GTIRT17-00506	Incoming 999 Call
GTIRT17-00507	Incoming 999 Call
GTIRT17-00508	Incoming 999 Call
GTIRT17-00509	Incoming 999 Call
GTIRT17-00510	Incoming 999 Call
GTIRT17-00511	Incoming 999 Call
GTIRT17-00512	Incoming 999 Call
GTIRT17-00513	Incoming 999 Call
GTIRT17-00514	Incoming 999 Call
GTIRT17-00515	Incoming 999 Call
GTIRT17-00516	Incoming 999 Call
GTIRT17-00517	Incoming 999 Call
GTIRT17-00518	Incoming 999 Call

**OFFICIAL**

GTIRT17-00519	Incoming 999 Call
GTIRT17-00520	Incoming 999 Call
GTIRT17-00521	Incoming 999 Call
GTIRT17-00522	Incoming 999 Call
GTIRT17-00523	Incoming 999 Call
GTIRT17-00524	Incoming 999 Call
GTIRT17-00525	Incoming 999 Call
GTIRT17-00526	Incoming 999 Call
GTIRT17-00527	Incoming 999 Call
GTIRT17-00528	Incoming 999 Call
GTIRT17-00529	Incoming 999 Call
GTIRT17-00530	Incoming 999 Call
GTIRT17-00531	Incoming 999 Call
GTIRT17-00532	Incoming 999 Call
GTIRT17-00533	Incoming 999 Call
GTIRT17-00534	Incoming 999 Call
GTIRT17-00535	Incoming 999 Call
GTIRT17-00536	Incoming 999 Call
GTIRT17-00537	Incoming 999 Call
GTIRT17-00538	Outgoing Call Back to Member of Public
GTIRT17-00539	Incoming 999 Call
GTIRT17-00540	Incoming 999 Call
GTIRT17-00541	Incoming 999 Call
GTIRT17-00542	Incoming 999 Call
GTIRT17-00543	Incoming 999 Call
GTIRT17-00545	Incoming 999 Call
GTIRT17-00546	Incoming 999 Call
GTIRT17-00547	Incoming 999 Call
GTIRT17-00548	Incoming 999 Call
GTIRT17-00549	Incoming 999 Call
GTIRT17-00550	Incoming 999 Call
GTIRT17-00551	Incoming 999 Call
GTIRT17-00552	Incoming 999 Call
GTIRT17-00553	Incoming 999 Call
GTIRT17-00554	Incoming 999 Call
GTIRT17-00555	Incoming 999 Call
GTIRT17-00556	Incoming 999 Call
GTIRT17-00557	Incoming 999 Call
GTIRT17-00558	Incoming 999 Call
GTIRT17-00559	Incoming 999 Call
GTIRT17-00560	Incoming 999 Call
GTIRT17-00561	Incoming 999 Call
GTIRT17-00562	Incoming 999 Call
GTIRT17-00563	Incoming 999 Call
GTIRT17-00564	Incoming 999 Call
GTIRT17-00565	Incoming 999 Call
GTIRT17-00566	Incoming 999 Call

OFFICIAL

GTIRT17-00567	Incoming 999 Call
GTIRT17-00568	Incoming 999 Call
GTIRT17-00569	Incoming 999 Call
GTIRT17-00570	Incoming 999 Call
GTIRT17-00571	Incoming 999 Call
GTIRT17-00572	Incoming 999 Call
GTIRT17-00573	Incoming 999 Call
GTIRT17-00574	Incoming 999 Call
GTIRT17-00575	Incoming 999 Call
GTIRT17-00576	Incoming 999 Call
GTIRT17-00577	Incoming 999 Call
GTIRT17-00578	Incoming 999 Call
GTIRT17-00579	Incoming 999 Call
GTIRT17-00580	Incoming 999 Call
GTIRT17-00581	Incoming 999 Call
GTIRT17-00582	Incoming 999 Call
GTIRT17-00583	Incoming 999 Call
GTIRT17-00584	Incoming 999 Call
GTIRT17-00585	Incoming 999 Call
GTIRT17-00586	Incoming 999 Call
GTIRT17-00587	Outgoing Call Back to Member of Public
GTIRT17-00588	Incoming 999 Call
GTIRT17-00589	Incoming 999 Call
GTIRT17-00590	Incoming 999 Call
GTIRT17-00591	Incoming 999 Call
GTIRT17-00592	Incoming 999 Call
GTIRT17-00593	Incoming 999 Call
GTIRT17-00594	Outgoing Call Back to Member of Public
GTIRT17-00595	Incoming 999 Call
GTIRT17-00596	Incoming 999 Call
GTIRT17-00597	Incoming 999 Call
GTIRT17-00598	Incoming 999 Call
GTIRT17-00599	Incoming 999 Call
GTIRT17-00600	Incoming 999 Call
GTIRT17-00601	Incoming 999 Call
GTIRT17-00602	Incoming 999 Call
GTIRT17-00603	Incoming 999 Call
GTIRT17-00606	Incoming 999 Call
GTIRT17-00607	Incoming 999 Call
GTIRT17-00608	Incoming 999 Call
GTIRT17-00609	Incoming 999 Call
GTIRT17-00610	Incoming 999 Call
GTIRT17-00611	Incoming 999 Call
GTIRT17-00612	Incoming 999 Call
GTIRT17-00613	Incoming 999 Call
GTIRT17-00614	Incoming 999 Call
GTIRT17-00615	Incoming 999 Call

OFFICIAL

GTIRT17-00616	Incoming 999 Call
GTIRT17-00618	Incoming 999 Call
GTIRT17-00619	Incoming 999 Call
GTIRT17-00620	Incoming 999 Call
GTIRT17-00621	Incoming 999 Call
GTIRT17-00622	Incoming 999 Call
GTIRT17-00623	Incoming 999 Call
GTIRT17-00624	Incoming 999 Call
GTIRT17-00625	Incoming 999 Call
GTIRT17-00626	Incoming 999 Call
GTIRT17-00628	Incoming 999 Call
GTIRT17-00629	Incoming 999 Call
GTIRT17-00630	Incoming 999 Call
GTIRT17-00631	Incoming 999 Call
GTIRT17-00632	Incoming 999 Call
GTIRT17-00633	Incoming 999 Call
GTIRT17-00634	Incoming 999 Call
GTIRT17-00635	Incoming 999 Call
GTIRT17-00636	Incoming 999 Call
GTIRT17-00637	Incoming 999 Call
GTIRT17-00638	Incoming 999 Call
GTIRT17-00639	Incoming 999 Call
GTIRT17-00641	Incoming 999 Call
GTIRT17-00642	Incoming 999 Call
GTIRT17-00645	Incoming 999 Call
GTIRT17-00646	Incoming 999 Call
GTIRT17-00647	Incoming 999 Call
GTIRT17-00648	Incoming 999 Call
GTIRT17-00649	Incoming 999 Call
GTIRT17-00650	Incoming 999 Call
GTIRT17-00651	Incoming 999 Call
GTIRT17-00652	Incoming 999 Call
GTIRT17-00653	Incoming 999 Call
GTIRT17-00654	Incoming 999 Call
GTIRT17-00655	Incoming 999 Call
GTIRT17-00656	Incoming 999 Call
GTIRT17-00657	Incoming 999 Call
GTIRT17-00658	Incoming 999 Call
GTIRT17-00660	Incoming 999 Call
GTIRT17-00661	Incoming 999 Call
GTIRT17-00662	Incoming 999 Call (Audio file for transcript no. GTIRT17-01533)
GTIRT17-00663	Incoming 999 Call
GTIRT17-00664	Incoming 999 Call
GTIRT17-00665	Incoming 999 Call
GTIRT17-00666	Incoming 999 Call
GTIRT17-00667	Incoming 999 Call
GTIRT17-00668	Incoming 999 Call

**OFFICIAL**

GTIRT17-00669	Incoming 999 Call
GTIRT17-00670	Incoming 999 Call
GTIRT17-00671	Incoming 999 Call
GTIRT17-00672	Incoming 999 Call
GTIRT17-00673	Incoming 999 Call
GTIRT17-00674	Incoming 999 Call
GTIRT17-00675	Incoming 999 Call
GTIRT17-00676	Incoming 999 Call
GTIRT17-00677	Incoming 999 Call
GTIRT17-00678	Incoming 999 Call
GTIRT17-00679	Incoming 999 Call
GTIRT17-00680	Incoming 999 Call
GTIRT17-00681	Incoming 999 Call
GTIRT17-00682	Incoming 999 Call
GTIRT17-00683	Incoming 999 Call
GTIRT17-00685	Incoming 999 Call
GTIRT17-00686	Incoming 999 Call
GTIRT17-00687	Incoming 999 Call
GTIRT17-00688	Incoming 999 Call
GTIRT17-00689	Incoming 999 Call
GTIRT17-00690	Incoming 999 Call
GTIRT17-00691	Incoming 999 Call
GTIRT17-00692	Incoming 999 Call
GTIRT17-00693	Incoming 999 Call
GTIRT17-00694	Incoming 999 Call
GTIRT17-00696	Incoming 999 Call
GTIRT17-00697	Incoming 999 Call
GTIRT17-00698	Incoming 999 Call
GTIRT17-00699	Incoming 999 Call
GTIRT17-00700	Incoming 999 Call
GTIRT17-00701	Incoming 999 Call
GTIRT17-00702	Incoming 999 Call
GTIRT17-00703	Incoming 999 Call
GTIRT17-00704	Incoming 999 Call
GTIRT17-00705	Incoming 999 Call
GTIRT17-00706	Incoming call from Surrey FRS
GTIRT17-00707	Incoming 999 Call
GTIRT17-00709	Incoming 999 Call
GTIRT17-00710	Incoming 999 Call
GTIRT17-00711	Incoming 999 Call
GTIRT17-00713	Incoming 999 Call
GTIRT17-00714	Incoming 999 Call
GTIRT17-00715	Incoming 999 Call
GTIRT17-00716	Incoming 999 Call
GTIRT17-00717	Incoming 999 Call
GTIRT17-00718	Incoming 999 Call
GTIRT17-00719	Incoming 999 Call



**OFFICIAL**

GTIRT17-00720	Incoming 999 Call
GTIRT17-00721	Incoming 999 Call
GTIRT17-00722	Incoming 999 Call
GTIRT17-00723	Incoming 999 Call
GTIRT17-00724	Incoming 999 Call
GTIRT17-00725	Incoming 999 Call
GTIRT17-00726	Incoming 999 Call
GTIRT17-00727	Incoming 999 Call
GTIRT17-00728	Incoming 999 Call
GTIRT17-00729	Incoming 999 Call
GTIRT17-00731	Incoming 999 Call
GTIRT17-00732	Incoming 999 Call
GTIRT17-00733	Incoming 999 Call
GTIRT17-00734	Incoming 999 Call
GTIRT17-00735	Incoming 999 Call
GTIRT17-00736	Incoming 999 Call
GTIRT17-00737	Incoming 999 Call
GTIRT17-00738	Incoming 999 Call
GTIRT17-00739	Incoming 999 Call
GTIRT17-00740	Incoming 999 Call
GTIRT17-00741	Incoming 999 Call
GTIRT17-00742	Incoming 999 Call
GTIRT17-00743	Incoming 999 Call
GTIRT17-00744	Incoming 999 Call
GTIRT17-00745	Incoming 999 Call
GTIRT17-00746	Incoming 999 Call
GTIRT17-00747	Incoming 999 Call
GTIRT17-00748	Incoming 999 Call
GTIRT17-00749	Incoming 999 Call
GTIRT17-00750	Incoming 999 Call
GTIRT17-00751	Incoming call from Essex FRS
GTIRT17-00752	Incoming 999 Call
GTIRT17-00754	Incoming 999 Call
GTIRT17-00755	Incoming 999 Call
GTIRT17-00756	Incoming 999 Call
GTIRT17-00757	Incoming 999 Call
GTIRT17-00758	Incoming 999 Call
GTIRT17-00759	Incoming 999 Call
GTIRT17-00760	Incoming 999 Call
GTIRT17-00761	Incoming 999 Call
GTIRT17-00762	Incoming 999 Call
GTIRT17-00763	Incoming 999 Call
GTIRT17-00764	Incoming 999 Call
GTIRT17-00765	Incoming 999 Call
GTIRT17-00766	Incoming Call from Kent FRS
GTIRT17-00767	Incoming 999 Call
GTIRT17-00768	Incoming 999 Call

**OFFICIAL**

GTIRT17-00769	Incoming 999 Call
GTIRT17-00771	Incoming 999 Call
GTIRT17-00773	Incoming 999 Call
GTIRT17-00774	Incoming 999 Call
GTIRT17-00775	Incoming 999 Call
GTIRT17-00776	Incoming 999 Call
GTIRT17-00777	Incoming 999 Call
GTIRT17-00778	Incoming 999 Call
GTIRT17-00779	Incoming 999 Call
GTIRT17-00780	Incoming 999 Call
GTIRT17-00781	Incoming 999 Call
GTIRT17-00798	Incoming 999 Call
GTIRT17-00800	Incoming 999 Call
GTIRT17-00801	Incoming 999 Call
GTIRT17-00802	Incoming 999 Call
GTIRT17-00803	Incoming 999 Call
GTIRT17-00804	Incoming 999 Call
GTIRT17-00805	Incoming 999 Call
GTIRT17-00866	Contemporaneous Notes for Andrew Roe
GTIRT17-00908	Policy 238 - Incident Command Procedures
GTIRT17-01099	MPS Witness Statement of Brien O'Keeffe (1)
GTIRT17-01103	MPS Witness Statement for Christopher Batcheldor
GTIRT17-01107	MPS Witness Statement for Richard Welch
GTIRT17-01108	MPS Witness Statement for Patrick Goulbourne
GTIRT17-01137	Contemporaneous Notes for Andrew Walton (2)
GTIRT17-01138	Contemporaneous Notes for Andrew Walton (3)
GTIRT17-01139	Contemporaneous Notes for Andrew Walton (4)
GTIRT17-01197	Contemporaneous Notes for Thomas Abell (3)
GTIRT17-01198	Contemporaneous Notes for Richard Hippel
GTIRT17-01215	Contemporaneous Notes for Mike Dowden (2)
GTIRT17-01252	MPS Witness Statement for Brien O'Keeffe (2)
GTIRT17-01254	MPS Witness Statement for Andrew Roe (1)
GTIRT17-01363	MPS Witness Statement for Mark Brodrick
GTIRT17-01434	MPS Witness Statement for Daniel Brown
GTIRT17-01522	Contemporaneous Notes for Brien O'Keeffe (2)
GTIRT17-01533	Incoming 999 Call (Transcript for audio file no. GTIRT17-00662)
GTIRT17-01534	Incoming 999 Call
GTIRT17-01551	MPS Witness Statement for Christopher Secrett
GTIRT17-01573	MPS Witness Statement for Behailu Kebede (1)
GTIRT17-01574	MPS Witness Statement for Behailu Kebede (2)
GTIRT17-01607	Incoming 999 Call
GTIRT17-01608	Incoming 999 Call
GTIRT17-01609	Incoming 999 Call
GTIRT17-01610	Incoming 999 Call
GTIRT17-01611	Incoming 999 Call
GTIRT17-01612	Incoming 999 Call
GTIRT17-01613	Outgoing call back to member of public

**OFFICIAL**

GTIRT17-01614	Outgoing call from Surrey FRS to Kent FRS
GTIRT17-01615	Outgoing call back to member of public
GTIRT17-01616	Outgoing call from Surrey FRS to Essex FRS
GTIRT17-01618	Incoming 999 Call
GTIRT17-01619	Incoming 999 Call
GTIRT17-01620	Incoming 999 Call
GTIRT17-01621	Outgoing call back to member of public
GTIRT17-01622	Incoming 999 Call
GTIRT17-01627	Breathing Apparatus Timeline (01:30:00 to 02:00:00)
GTIRT17-01715	MPS Witness Statement for Nikki Upton
GTIRT17-01730	Incoming 999 Call
GTIRT17-01731	Incoming 999 Call
GTIRT17-01732	Incoming 999 Call
GTIRT17-01734	Incoming 999 Call
GTIRT17-01735	Incoming 999 Call
GTIRT17-01736	Incoming 999 Call
GTIRT17-01737	Incoming 999 Call
GTIRT17-01738	Incoming 999 Call
GTIRT17-01739	Incoming 999 Call
GTIRT17-01740	Incoming 999 Call
GTIRT17-01741	Incoming 999 Call
GTIRT17-01743	Incoming 999 Call
GTIRT17-01744	Incoming 999 Call
GTIRT17-01745	Incoming 999 Call
GTIRT17-01746	Incoming 999 Call
GTIRT17-01747	Incoming 999 Call
GTIRT17-01748	Incoming 999 Call
GTIRT17-01749	Incoming 999 Call
GTIRT17-01750	Incoming 999 Call
GTIRT17-01751	Incoming 999 Call
GTIRT17-01770	Incoming admin line call from Surrey FRS
GTIRT17-01772	Outgoing Call Back to Member of Public
GTIRT17-01775	Incoming call from NWFC to Brigade Control
GTIRT17-01830	Incoming 999 Call
GTIRT17-01831	Incoming 999 Call
GTIRT17-01832	Incoming 999 Call
GTIRT17-01838	Incoming 999 Call
GTIRT17-01839	Incoming 999 Call
GTIRT17-01948	MPS Witness Statement for Daniel Meyrick
GTIRT17-01956	MPS Witness Statement for Joanne Smith
GTIRT17-01958	MPS Witness Statement for Brian Flanagan
GTIRT17-01959	MPS Witness Statement for Martin Hoare
GTIRT17-02353	FSG Call Log
GTIRT17-02357	MPS Witness Statement for Brien O'Keeffe (3)
GTIRT17-02438	Decision Log for Andrew Roe (handwritten by Jacqueline McConochie)
GTIRT17-02474	Radio Message
GTIRT17-02475	Radio Message

**OFFICIAL**

GTIRT17-02476	Radio Message
GTIRT17-02477	Radio Message
GTIRT17-02478	Radio Message
GTIRT17-02479	Radio Message
GTIRT17-02480	Radio Message
GTIRT17-02481	Radio Message
GTIRT17-02483	Radio Message
GTIRT17-02484	Radio Message
GTIRT17-02485	Radio Message
GTIRT17-02487	Radio Message
GTIRT17-02489	Radio Message
GTIRT17-02491	Radio Message
GTIRT17-02492	Radio Message
GTIRT17-02493	Radio Message
GTIRT17-02494	Radio Message
GTIRT17-02495	Radio Message
GTIRT17-02496	Radio Message
GTIRT17-02497	Radio Message
GTIRT17-02498	Radio Message
GTIRT17-02499	Radio Message
GTIRT17-02500	Radio Message
GTIRT17-02501	Radio Message
GTIRT17-02502	Radio Message
GTIRT17-02504	Radio Message
GTIRT17-02505	Radio Message
GTIRT17-02506	Radio Message
GTIRT17-02507	Radio Message
GTIRT17-02513	Radio Message
GTIRT17-02514	Radio Message
GTIRT17-02515	Radio Message
GTIRT17-02516	Radio Message
GTIRT17-02518	Radio Message
GTIRT17-02519	Radio Message
GTIRT17-02520	Radio Message
GTIRT17-02523	Radio Message
GTIRT17-02524	Radio Message
GTIRT17-02525	Radio Message
GTIRT17-02526	Radio Message
GTIRT17-02527	Radio Message
GTIRT17-02528	Radio Message
GTIRT17-02529	Radio Message
GTIRT17-02530	Radio Message
GTIRT17-02531	Radio Message
GTIRT17-02532	Radio Message
GTIRT17-02535	Radio Message
GTIRT17-02537	Radio Message
GTIRT17-02538	Radio Message

**OFFICIAL**

GTIRT17-02539	Radio Message
GTIRT17-02540	Radio Message
GTIRT17-02541	Radio Message
GTIRT17-02543	Radio Message
GTIRT17-02544	Radio Message
GTIRT17-02545	Radio Message
GTIRT17-02546	Radio Message
GTIRT17-02547	Radio Message
GTIRT17-02550	Radio Message
GTIRT17-02551	Radio Message
GTIRT17-02552	Radio Message
GTIRT17-02553	Radio Message
GTIRT17-02558	Radio Message
GTIRT17-02567	Operational Response Register Tracking Spreadsheet
GTIRT17-02612	Radio Message
GTIRT17-02613	Radio Message
GTIRT17-02614	Radio Message
GTIRT17-02615	Radio Message
GTIRT17-02616	Radio Message
GTIRT17-02617	Radio Message
GTIRT17-02618	Radio Message
GTIRT17-02619	Radio Message
GTIRT17-02621	Radio Message
GTIRT17-02623	Radio Message
GTIRT17-02626	Radio Message
GTIRT17-02627	Radio Message
GTIRT17-02628	Radio Message
GTIRT17-02629	Radio Message
GTIRT17-02630	Radio Message
GTIRT17-02631	Radio Message
GTIRT17-02632	Radio Message
GTIRT17-02633	Radio Message
GTIRT17-02638	Radio Message
GTIRT17-02639	Radio Message
GTIRT17-02640	Radio Message
GTIRT17-02641	Radio Message
GTIRT17-02642	Radio Message
GTIRT17-02643	Radio Message
GTIRT17-02645	Radio Message
GTIRT17-02648	Radio Message
GTIRT17-02650	Radio Message
GTIRT17-02655	Radio Message
GTIRT17-02657	Radio Message
GTIRT17-02658	Radio Message
GTIRT17-02659	Radio Message
GTIRT17-02660	Radio Message
GTIRT17-02661	Radio Message

**OFFICIAL**

GTIRT17-02662	Radio Message
GTIRT17-02663	Radio Message
GTIRT17-02664	Radio Message
GTIRT17-02665	Radio Message
GTIRT17-02667	Radio Message
GTIRT17-02668	Radio Message
GTIRT17-02669	Radio Message
GTIRT17-02670	Radio Message
GTIRT17-02671	Radio Message
GTIRT17-02672	Radio Message
GTIRT17-02673	Radio Message
GTIRT17-02674	Radio Message
GTIRT17-02675	Radio Message
GTIRT17-02676	Radio Message
GTIRT17-02677	Radio Message
GTIRT17-02678	Radio Message
GTIRT17-02679	Radio Message
GTIRT17-02680	Radio Message
GTIRT17-02681	Radio Message
GTIRT17-02682	Radio Message
GTIRT17-02683	Radio Message
GTIRT17-02684	Radio Message
GTIRT17-02685	Radio Message
GTIRT17-02686	Radio Message
GTIRT17-02687	Radio Message
GTIRT17-02688	Radio Message
GTIRT17-02689	Radio Message
GTIRT17-02690	Radio Message
GTIRT17-02691	Radio Message
GTIRT17-02693	Radio Message
GTIRT17-02694	Radio Message
GTIRT17-02695	Radio Message
GTIRT17-02696	Radio Message
GTIRT17-02697	Radio Message
GTIRT17-02698	Radio Message
GTIRT17-02699	Radio Message
GTIRT17-02700	Radio Message
GTIRT17-02701	Radio Message
GTIRT17-02705	Radio Message
GTIRT17-02706	Radio Message
GTIRT17-02707	Radio Message
GTIRT17-02708	Radio Message
GTIRT17-02709	Radio Message
GTIRT17-02710	Radio Message
GTIRT17-02711	Radio Message
GTIRT17-02712	Radio Message
GTIRT17-02713	Radio Message

**OFFICIAL**

GTIRT17-02714	Radio Message
GTIRT17-02715	Radio Message
GTIRT17-02716	Radio Message
GTIRT17-02791	Vision System End of Incident Report Log
GTIRT17-02820	Breathing Apparatus Timeline Master
GTIRT17-02917	MPS Witness Statement for Andrew Harris
GTIRT17-02922	MPS Witness Statement for Gareth Cook
GTIRT17-02923	MPS Witness Statement for Gareth Cook
GTIRT17-02924	MPS Witness Statement for Greg Yeoman
GTIRT17-02925	MPS Witness Statement for Harry Bettinson
GTIRT17-02927	MPS Witness Statement for Joe Worley
GTIRT17-02930	MPS Witness Statement for Marcus Lundquist
GTIRT17-02932	MPS Witness Statement of Oliver Desforges
GTIRT17-02934	MPS Witness Statement for Peter May
GTIRT17-02938	MPS Witness Statement for Simon Grant
GTIRT17-02939	MPS Witness Statement for Terrance Lowe
GTIRT17-02978	Radio Message
GTIRT17-02979	Radio Message
GTIRT17-02980	Radio Message
GTIRT17-02981	Radio Message
GTIRT17-02982	Radio Message
GTIRT17-02984	Radio Message
GTIRT17-02990	Radio Message
GTIRT17-02991	Radio Message
GTIRT17-02992	Radio Message
GTIRT17-02993	Radio Message
GTIRT17-02994	Radio Message
GTIRT17-02995	Radio Message
GTIRT17-02996	Radio Message
GTIRT17-02997	Radio Message
GTIRT17-02998	Radio Message
GTIRT17-02999	Radio Message
GTIRT17-03000	Radio Message
GTIRT17-03001	Radio Message
GTIRT17-03002	Radio Message
GTIRT17-03003	Radio Message
GTIRT17-03004	Radio Message
GTIRT17-03005	Radio Message
GTIRT17-03006	Radio Message
GTIRT17-03007	Radio Message
GTIRT17-03012	Radio Message
GTIRT17-03013	Radio Message
GTIRT17-03014	Radio Message
GTIRT17-03015	Radio Message
GTIRT17-03016	Radio Message
GTIRT17-03017	Radio Message
GTIRT17-03018	Radio Message

**OFFICIAL**

GTIRT17-03019	Radio Message
GTIRT17-03020	Radio Message
GTIRT17-03021	Radio Message
GTIRT17-03022	Radio Message
GTIRT17-03023	Radio Message
GTIRT17-03024	Radio Message
GTIRT17-03025	Radio Message
GTIRT17-03026	Radio Message
GTIRT17-03029	Radio Message
GTIRT17-03030	Radio Message
GTIRT17-03031	Radio Message
GTIRT17-03032	Radio Message
GTIRT17-03033	Radio Message
GTIRT17-03034	Radio Message
GTIRT17-03035	Radio Message
GTIRT17-03036	Radio Message
GTIRT17-03038	Radio Message
GTIRT17-03039	Radio Message
GTIRT17-03040	Radio Message
GTIRT17-03041	Radio Message
GTIRT17-03042	Radio Message
GTIRT17-03043	Radio Message
GTIRT17-03045	Radio Message
GTIRT17-03046	Radio Message
GTIRT17-03047	Radio Message
GTIRT17-03048	Radio Message
GTIRT17-03049	Radio Message
GTIRT17-03052	Radio Message
GTIRT17-03053	Radio Message
GTIRT17-03054	Radio Message
GTIRT17-03055	Radio Message
GTIRT17-03056	Radio Message
GTIRT17-03057	Radio Message
GTIRT17-03058	Radio Message
GTIRT17-03059	Radio Message
GTIRT17-03061	Radio Message
GTIRT17-03062	Radio Message
GTIRT17-03063	Radio Message
GTIRT17-03064	Radio Message
GTIRT17-03065	Radio Message
GTIRT17-03066	Radio Message
GTIRT17-03067	Radio Message
GTIRT17-03068	Radio Message
GTIRT17-03069	Radio Message
GTIRT17-03070	Radio Message
GTIRT17-03073	Radio Message
GTIRT17-03074	Radio Message



**OFFICIAL**

GTIRT17-03075	Radio Message
GTIRT17-03076	Radio Message
GTIRT17-03078	Radio Message
GTIRT17-03079	Radio Message
GTIRT17-03080	Radio Message
GTIRT17-03081	Radio Message
GTIRT17-03082	Radio Message
GTIRT17-03083	Radio Message
GTIRT17-03084	Radio Message
GTIRT17-03088	Radio Message
GTIRT17-03089	Radio Message
GTIRT17-03090	Radio Message
GTIRT17-03092	Radio Message
GTIRT17-03093	Radio Message
GTIRT17-03094	Radio Message
GTIRT17-03096	Radio Message
GTIRT17-03097	Radio Message
GTIRT17-03100	Radio Message
GTIRT17-03101	Radio Message
GTIRT17-03102	Radio Message
GTIRT17-03103	Radio Message
GTIRT17-03104	Radio Message
GTIRT17-03107	Radio Message
GTIRT17-03111	Radio Message
GTIRT17-03112	Radio Message
GTIRT17-03113	Radio Message
GTIRT17-03114	Radio Message
GTIRT17-03115	Radio Message
GTIRT17-03116	Radio Message
GTIRT17-03117	Radio Message
GTIRT17-03118	Radio Message
GTIRT17-03119	Radio Message
GTIRT17-03120	Radio Message
GTIRT17-03121	Radio Message
GTIRT17-03122	Radio Message
GTIRT17-03123	Radio Message
GTIRT17-03124	Radio Message
GTIRT17-03125	Radio Message
GTIRT17-03126	Radio Message
GTIRT17-03127	Radio Message
GTIRT17-03128	Radio Message
GTIRT17-03131	Radio Message
GTIRT17-03132	Radio Message
GTIRT17-03133	Radio Message
GTIRT17-03134	Radio Message
GTIRT17-03135	Radio Message
GTIRT17-03136	Radio Message

**OFFICIAL**

GTIRT17-03137	Radio Message
GTIRT17-03138	Radio Message
GTIRT17-03139	Radio Message
GTIRT17-03140	Radio Message
GTIRT17-03141	Radio Message
GTIRT17-03142	Radio Message
GTIRT17-03143	Radio Message
GTIRT17-03144	Radio Message
GTIRT17-03145	Radio Message
GTIRT17-03146	Radio Message
GTIRT17-03147	Radio Message
GTIRT17-03148	Radio Message
GTIRT17-03150	Radio Message
GTIRT17-03151	Radio Message
GTIRT17-03152	Radio Message
GTIRT17-03153	Radio Message
GTIRT17-03154	Radio Message
GTIRT17-03155	Radio Message
GTIRT17-03156	Radio Message
GTIRT17-03157	Radio Message
GTIRT17-03158	Radio Message
GTIRT17-03160	Radio Message
GTIRT17-03161	Radio Message
GTIRT17-03162	Radio Message
GTIRT17-03163	Radio Message
GTIRT17-03165	Radio Message
GTIRT17-03166	Radio Message
GTIRT17-03167	Radio Message
GTIRT17-03168	Radio Message
GTIRT17-03169	Radio Message
GTIRT17-03170	Radio Message
GTIRT17-03171	Radio Message
GTIRT17-03172	Radio Message
GTIRT17-03173	Radio Message
GTIRT17-03174	Radio Message
GTIRT17-03175	Radio Message
GTIRT17-03176	Radio Message
GTIRT17-03177	Radio Message
GTIRT17-03178	Radio Message
GTIRT17-03179	Radio Message
GTIRT17-03180	Radio Message
GTIRT17-03181	Radio Message
GTIRT17-03182	Radio Message
GTIRT17-03183	Radio Message
GTIRT17-03184	Radio Message
GTIRT17-03185	Radio Message
GTIRT17-03186	Radio Message

**OFFICIAL**

GTIRT17-03187	Radio Message
GTIRT17-03188	Radio Message
GTIRT17-03189	Radio Message
GTIRT17-03190	Radio Message
GTIRT17-03191	Radio Message
GTIRT17-03192	Radio Message
GTIRT17-03193	Radio Message
GTIRT17-03194	Radio Message
GTIRT17-03195	Radio Message
GTIRT17-03196	Radio Message
GTIRT17-03197	Radio Message
GTIRT17-03198	Radio Message
GTIRT17-03199	Radio Message
GTIRT17-03200	Radio Message
GTIRT17-03201	Radio Message
GTIRT17-03203	Radio Message
GTIRT17-03204	Radio Message
GTIRT17-03205	Radio Message
GTIRT17-03207	Radio Message
GTIRT17-03208	Radio Message
GTIRT17-03209	Radio Message
GTIRT17-03210	Radio Message
GTIRT17-03211	Radio Message
GTIRT17-03213	Radio Message
GTIRT17-03214	Radio Message
GTIRT17-03215	Radio Message
GTIRT17-03216	Radio Message
GTIRT17-03217	Radio Message
GTIRT17-03218	Radio Message
GTIRT17-03219	Radio Message
GTIRT17-03221	Radio Message
GTIRT17-03222	Radio Message
GTIRT17-03223	Radio Message
GTIRT17-03224	Radio Message
GTIRT17-03225	Radio Message
GTIRT17-03226	Radio Message
GTIRT17-03227	Radio Message
GTIRT17-03228	Radio Message
GTIRT17-03229	Radio Message
GTIRT17-03230	Radio Message
GTIRT17-03231	Radio Message
GTIRT17-03232	Radio Message
GTIRT17-03233	Radio Message
GTIRT17-03234	Radio Message
GTIRT17-03235	Radio Message
GTIRT17-03236	Radio Message
GTIRT17-03237	Radio Message

**OFFICIAL**

GTIRT17-03238	Radio Message
GTIRT17-03239	Radio Message
GTIRT17-03240	Radio Message
GTIRT17-03241	Radio Message
GTIRT17-03243	Radio Message
GTIRT17-03244	Radio Message
GTIRT17-03245	Radio Message
GTIRT17-03246	Radio Message
GTIRT17-03249	Radio Message
GTIRT17-03250	Radio Message
GTIRT17-03251	Radio Message
GTIRT17-03252	Radio Message
GTIRT17-03253	Radio Message
GTIRT17-03255	Radio Message
GTIRT17-03256	Radio Message
GTIRT17-03257	Radio Message
GTIRT17-03258	Radio Message
GTIRT17-03259	Radio Message
GTIRT17-03260	Radio Message
GTIRT17-03261	Radio Message
GTIRT17-03262	Radio Message
GTIRT17-03263	Radio Message
GTIRT17-03264	Radio Message
GTIRT17-03265	Radio Message
GTIRT17-03266	Radio Message
GTIRT17-03267	Radio Message
GTIRT17-03268	Radio Message
GTIRT17-03269	Radio Message
GTIRT17-03270	Radio Message
GTIRT17-03271	Radio Message
GTIRT17-03273	Radio Message
GTIRT17-03274	Radio Message
GTIRT17-03275	Radio Message
GTIRT17-03276	Radio Message
GTIRT17-03277	Radio Message
GTIRT17-03278	Radio Message
GTIRT17-03280	Radio Message
GTIRT17-03281	Radio Message
GTIRT17-03282	Radio Message
GTIRT17-03283	Radio Message
GTIRT17-03284	Radio Message
GTIRT17-03285	Radio Message
GTIRT17-03287	Radio Message
GTIRT17-03288	Radio Message
GTIRT17-03289	Radio Message
GTIRT17-03291	Radio Message
GTIRT17-03292	Radio Message

**OFFICIAL**

GTIRT17-03293	Radio Message
GTIRT17-03294	Radio Message
GTIRT17-03295	Radio Message
GTIRT17-03296	Radio Message
GTIRT17-03297	Radio Message
GTIRT17-03298	Radio Message
GTIRT17-03300	Radio Message
GTIRT17-03301	Radio Message
GTIRT17-03302	Radio Message
GTIRT17-03303	Radio Message
GTIRT17-03304	Radio Message
GTIRT17-03305	Radio Message
GTIRT17-03306	Radio Message
GTIRT17-03307	Radio Message
GTIRT17-03308	Radio Message
GTIRT17-03309	Radio Message
GTIRT17-03310	Radio Message
GTIRT17-03311	Radio Message
GTIRT17-03312	Radio Message
GTIRT17-03313	Radio Message
GTIRT17-03314	Radio Message
GTIRT17-03315	Radio Message
GTIRT17-03316	Radio Message
GTIRT17-03317	Radio Message
GTIRT17-03318	Radio Message
GTIRT17-03319	Radio Message
GTIRT17-03320	Radio Message
GTIRT17-03321	Radio Message
GTIRT17-03322	Radio Message
GTIRT17-03323	Radio Message
GTIRT17-03324	Radio Message
GTIRT17-03325	Radio Message
GTIRT17-03326	Radio Message
GTIRT17-03327	Radio Message
GTIRT17-03329	Radio Message
GTIRT17-03335	Radio Message
GTIRT17-03336	Radio Message
GTIRT17-03337	Radio Message
GTIRT17-03338	Radio Message
GTIRT17-03339	Radio Message
GTIRT17-03340	Radio Message
GTIRT17-03345	Radio Message
GTIRT17-03346	Radio Message
GTIRT17-03347	Radio Message
GTIRT17-03348	Radio Message
GTIRT17-03349	Radio Message
GTIRT17-03350	Radio Message

**OFFICIAL**

GTIRT17-03351	Radio Message
GTIRT17-03352	Radio Message
GTIRT17-03353	Radio Message
GTIRT17-03354	Radio Message
GTIRT17-03355	Radio Message
GTIRT18-00041	MPS Witness Statement for Agnel Fernandes
GTIRT18-00042	MPS Witness Statement for John Wright
GTIRT18-00043	MPS Witness Statement for Thomas Abell
GTIRT18-00045	MPS Witness Statement for Marc Aston-O'Donovan
GTIRT18-00046	MPS Witness Statement for Stephen O'Donoghue
GTIRT18-00047	MPS Witness Statement for Glynn Williams
GTIRT18-00048	MPS Witness Statement of Mandeep Singh
GTIRT18-00053	MPS Witness Statement for Ernest Okoh
GTIRT18-00054	MPS Witness Statement for Lewis Rice
GTIRT18-00056	MPS Witness Statement of Neill Franklin
GTIRT18-00064	MPS Witness Statement for Guy Tillotson
GTIRT18-00066	MPS Witness Statement of Ian Barritt
GTIRT18-00067	MPS Witness Statement of Leslie Tucker
GTIRT18-00068	MPS Witness Statement for Gregory Lawson
GTIRT18-00069	MPS Witness Statement for Martin Gillam
GTIRT18-00070	MPS Witness Statement for Abdul Malik
GTIRT18-00071	MPS Witness Statement for Neil Saunders
GTIRT18-00072	MPS Witness Statement for Justin O'Beirne
GTIRT18-00073	MPS Witness Statement for Paul Watson
GTIRT18-00098	MPS Witness Statement for Jamie Mayne
GTIRT18-00099	MPS Witness Statement for Tom Welch
GTIRT18-00240	Radio Message
GTIRT18-00242	Radio Message
GTIRT18-00243	Radio Message
GTIRT18-00244	Radio Message
GTIRT18-00251	Incoming Admin Call from SM Jason Oliff
GTIRT18-00252	Incoming Admin Call from DAC Andrew O'Loughlin
GTIRT18-00253	Radio Message
GTIRT18-00254	Incoming Admin Line Call from SM Brett Loft
GTIRT18-00255	Incoming Admin Line Call from SM Andrew Walton
GTIRT18-00257	Outgoing unanswered call to GM Patrick Goulbourne
GTIRT18-00258	Outgoing Admin Call to GM Patrick Goulbourne
GTIRT18-00259	Incoming Admin Line Call from GM Richard Welch
GTIRT18-00274	MPS Grenfell Tower Plan - Internal and External CCTV Camera Position presentation
GTIRT18-00306	MPS Witness Statement for Neil Green
GTIRT18-00307	MPS Witness Statement of Paul Godber
GTIRT18-00308	MPS Witness Statement for Enrico Beltrami
GTIRT18-00309	MPS Witness Statement for Craig Eden
GTIRT18-00312	MPS Witness Statement for Wayne Archer
GTIRT18-00317	MPS Witness Statement for Daniel Pegram
GTIRT18-00321	MPS Witness Statement for John O'Hanlon
GTIRT18-00387	MPS Witness Statement for Nicholas Barton

**OFFICIAL**

GTIRT18-00392	MPS Witness Statement for Matthew Cook
GTIRT18-00393	MPS Witness Statement for Tristan Daoud
GTIRT18-00396	MPS Witness Statement for Adrian Fenton
GTIRT18-00402	MPS Witness Statement for Steven Mills
GTIRT18-00404	MPS Witness Statement of Daniel Morrison
GTIRT18-00409	MPS Witness Statement for Anthony Nelson
GTIRT18-00414	MPS Witness Statement for Dean Roberts
GTIRT18-00424	MPS Witness Statement for Christopher Frost
GTIRT18-00425	MPS Witness Statement of Paul Harris
GTIRT18-00426	MPS Witness Statement for David Hill
GTIRT18-00427	MPS Witness Statement for Richard Hippel
GTIRT18-00428	MPS Witness Statement of Richard Knight
GTIRT18-00432	MPS Witness Statement of Adrian Tyldesley
GTIRT18-00433	MPS Witness Statement for Jon Wharnsby
GTIRT18-00506	Outgoing Admin Call to CU
GTIRT18-00507	Outgoing Admin Call to WM Daniel Meyrick on CU8
GTIRT18-00508	Outgoing Admin Call to CU8
GTIRT18-00509	Outgoing Admin line call to CU8
GTIRT18-00512	Outgoing Admin line call to CU8
GTIRT18-00562	SAI Witness Statement for David Badillo
GTIRT18-00570	SAI Witness Statement for Christopher Dorgu
GTIRT18-00577	SAI Witness Statement for Justin O'Beirne
GTIRT18-00583	SAI Witness Statement for Daniel Brown
GTIRT18-00639	MPS Witness Statement of Mark Beer
GTIRT18-00641	MPS Witness Statement for Christopher Dorgu
GTIRT18-00642	MPS Witness Statement of Albert Folivi
GTIRT18-00646	MPS Witness Statement of Amanda Morrison
GTIRT18-00647	MPS Witness Statement for Teresa Orchard
GTIRT18-00651	MPS Witness Statement for Nicke Merrion
GTIRT18-00652	MPS Witness Statement of Richard Mitchell
GTIRT18-00653	MPS Witness Statement for David Green
GTIRT18-00860	Outgoing Call to MPS
GTIRT18-00865	Outgoing Call to TWA
GTIRT18-00869	Outgoing Call to LAS
GTIRT18-00878	Incoming Admin Call from SOM Joanne Smith
GTIRT18-00880	Incoming Call from Radio Workshops Duty Engineer
GTIRT18-00882	Incoming Admin Call from TWA
GTIRT18-00885	Incoming Admin Call from SOM Adam Crinion
GTIRT18-00886	Incoming Admin Call from LAS
GTIRT18-00895	Incoming admin line call to Brigade Control
GTIRT18-00903	Outgoing admin line call to the LAS
GTIRT18-00904	Outgoing Call to MPS
GTIRT18-00905	Outgoing Call to RBKC
GTIRT18-00910	Outgoing call to HSE, Paul Monaghan
GTIRT18-00916	MPS Witness Statement of Thomas Atkins
GTIRT18-00917	MPS Witness Statement for David Badillo (1)
GTIRT18-00918	MPS Witness Statement for Alexander Cardy

**OFFICIAL**

GTIRT18-00920	MPS Witness Statement for Steven Collins
GTIRT18-00924	MPS Witness Statement of Benjamin Dotchin
GTIRT18-00926	MPS Witness Statement for Richard Evans
GTIRT18-00927	MPS Witness Statement for Katie Foster
GTIRT18-00929	MPS Witness Statement of Ben Gallagher
GTIRT18-00930	MPS Witness Statement of James Geapin
GTIRT18-00932	MPS Witness Statement for Matthew Harold
GTIRT18-00934	MPS Witness Statement of Paul Howard
GTIRT18-00935	MPS Witness Statement for Adam Johnson
GTIRT18-00940	MPS Witness Statement for Andrew McKay
GTIRT18-00941	MPS Witness Statement of Ian Moore
GTIRT18-00942	MPS Witness Statement for Richard Peacock
GTIRT18-00944	MPS Witness Statement for Andrew Roe (2)
GTIRT18-00945	MPS Witness Statement for Nicky Sanders
GTIRT18-00952	MPS Witness Statement of Carrie Wright
GTIRT18-00967	MPS Witness Statement for Geoffrey Campbell (1)
GTIRT18-00969	MPS Witness Statement of Paul Charity
GTIRT18-00972	MPS Witness Statement for David Davies
GTIRT18-00981	MPS Witness Statement of Luke Goddard
GTIRT18-00982	MPS Witness Statement for Paul Gray
GTIRT18-00993	MPS Witness Statement for Desmond Murphy
GTIRT18-00996	MPS Witness Statement for Mathusael Sonson
GTIRT18-00998	MPS Witness Statement for Matthew Tanner
GTIRT18-00999	MPS Witness Statement of Richard Vanstone
GTIRT18-01000	MPS Witness Statement for Andrew Walton
GTIRT18-01002	MPS Witness Statement for James Wolfenden
GTIRT18-01010	MPS Witness Statement of Elliot Juggins
GTIRT18-01016	MPS Witness Statement for Christopher Reynolds
GTIRT18-01018	MPS Witness Statement of Mark Niblett
GTIRT18-01020	MPS Witness Statement for Peter Herrera
GTIRT18-01035	MPS Witness Statement of Denis O'Brien
GTIRT18-01036	MPS Witness Statement for Matthew Sephton
GTIRT18-01037	MPS Witness Statement of Steven Ngo
GTIRT18-01038	MPS Witness Statement for Gemma Bloxham
GTIRT18-01042	MPS Witness Statement of Gary Hiscock
GTIRT18-01044	MPS Witness Statement for Alan Sime
GTIRT18-01051	MPS Grenfell Tower CCTV Named Exits spreadsheet
GTIRT18-01065	MPS Witness Statement for Mike Dowden
GTIRT18-01066	MPS Witness Statement for Patrick Murray
GTIRT18-01067	MPS Witness Statement for Philip Wigley
GTIRT18-01069	MPS Witness Statement of Stephen Dounias
GTIRT18-01071	MPS Witness Statement for Marcus Johnson
GTIRT18-01072	MPS Witness Statement of Michael Wood
GTIRT18-01075	MPS Witness Statement of Martin Hooper
GTIRT18-01076	MPS Witness Statement of Kyle McClelland
GTIRT18-01077	MPS Witness Statement for Dean Nelson
GTIRT18-01105	MPS Witness Statement for Vincent Williams



**OFFICIAL**

GTIRT18-01110	MPS Witness Statement for Ben Felton
GTIRT18-01111	MPS Witness Statement for Jamal Stern
GTIRT18-01114	MPS Witness Statement for David Friend
GTIRT18-01129	MPS Witness Statement for Andrew Alliston
GTIRT18-01134	MPS Witness Statement for Harvey Sanders
GTIRT18-01136	MPS Witness Statement for Alex De St Aubin
GTIRT18-01141	MPS Grenfell Tower Residents List by Flat and Floor Number document
GTIRT18-01166	Outgoing Call to RBKC
GTIRT18-01169	Incoming admin line call from HSE, Paul Monaghan
GTIRT18-01172	Incoming admin line call to Brigade Control
GTIRT18-01175	Outgoing Call to RBKC
GTIRT18-01179	Outgoing admin line call to Duty Welfare Officer, Sam Kindred
GTIRT18-01181	Outgoing Call to RBKC
GTIRT18-01182	Outgoing call to LUL
GTIRT18-01188	Incoming admin line call from LRG, Matthew Hogan
GTIRT18-01200	Incoming Admin Line Call from Surrey NILO
GTIRT18-01212	Incoming Admin Line Call from LFB Counselling and Wellbeing
GTIRT18-01218	Incoming Admin Line Call from London Resilience Group
GTIRT18-01250	Mobile phone call log for Andrew Roe
GTIRT18-01263	MPS Witness Statement of Thomas Dotchin
GTIRT18-01266	MPS Witness Statement for Andrew O'Loughlin
GTIRT18-01267	MPS Witness Statement for Scott Elliott
GTIRT18-01270	MPS Witness Statement of Stephen Hayward
GTIRT18-01275	MPS Witness Statement of Carl Ramsay
GTIRT18-01276	MPS Witness Statement of Thomas Bunday
GTIRT18-01279	MPS Witness Statement of Alan Hanlon
GTIRT18-01283	MPS Witness Statement of Anthony Welden
GTIRT18-01284	MPS Witness Statement of Michael Worman
GTIRT18-01292	MPS Witness Statement of Constantine Nwagwu
GTIRT18-01296	MPS Witness Statement for Ricky Nuttall
GTIRT18-01299	MPS Witness Statement for Raoul Codd
GTIRT18-01324	Outgoing call back to member of public
GTIRT18-01330	Outgoing call to Surrey FRS
GTIRT18-01337	Incoming call from Surrey FRS
GTIRT18-01411	MPS Witness Statement for David Badillo (2)
GTIRT18-01412	MPS Witness Statement for Nathan Ashe
GTIRT18-01416	MPS Witness Statement for Charles Cornelius
GTIRT18-01417	MPS Witness Statement for Benjamin McAlonen
GTIRT18-01426	MPS Witness Statement of Melchizedk Anderson
GTIRT18-01428	MPS Witness Statement for James Berry
GTIRT18-01430	MPS Witness Statement of Andrew McArthur
GTIRT18-01440	MPS Witness Statement for Benjamin Broderick
GTIRT18-01464	MPS Witness Statement of Alan Hudson
GTIRT18-01470	MPS Grenfell Tower Disaster Victim Identification Recovery Floor Plan
GTIRT18-01529	MPS Witness Statement of Richard Benaicha
GTIRT18-01532	MPS Witness Statement for Jason Oliff
GTIRT18-01534	MPS Witness Statement for Graeme Shaw

**OFFICIAL**

GTIRT18-01535	MPS Witness Statement of Jonathan Earl
GTIRT18-01536	MPS Witness Statement of Ennio Gonnella
GTIRT18-01537	MPS Witness Statement of Richard McShee
GTIRT18-01548	MPS Witness Statement for Robert Dwyer
GTIRT18-01590	MPS External Fire Spread Report
GTIRT18-01597	Outgoing call back to member of public
GTIRT18-01598	Incoming 999 Call
GTIRT18-01599	Incoming 999 Call
GTIRT18-01829	MPS Witness Statement for Luke Cook
GTIRT18-01834	MPS Witness Statement for Martin Stevenson
GTIRT18-01835	MPS Witness Statement for Russell Gonzalez
GTIRT18-01837	MPS Witness Statement for Charles Batterbee
GTIRT18-01839	MPS Witness Statement for Dean Lawrence
GTIRT18-01841	MPS Witness Statement of Jason Hunter
GTIRT18-01842	MPS Witness Statement for Terence Roots
GTIRT18-01844	MPS Witness Statement of James Cuthbert
GTIRT18-01846	MPS Witness Statement of Steven Page
GTIRT18-01943	MPS Witness Statement for Adrian Toppin
GTIRT18-02051	MPS Witness Statement for Geoffrey Campbell
GTIRT18-02054	MPS Witness Statement for Zade Alassad
GTIRT18-02061	MPS Witness Statement for Scott Bell
GTIRT18-02094	MPS Witness Statement for Brett Loft
GTIRT18-02298	MPS Witness Statement of Colin Dowdall
GTIRT18-02299	MPS Witness Statement of Craig Edwards
GTIRT18-02308	MPS Witness Statement of William Boulton
GTIRT18-02335	Incoming 999 Call
GTIRT18-02336	Outgoing call back to member of public
GTIRT18-02356	MPS Witness Statement for Jonathan Saunders
GTIRT18-02370	Outgoing call back to member of public
GTIRT18-02374	Outgoing call back to member of public
GTIRT18-02452	Incoming 999 Call
GTIRT18-02453	Outgoing call from NWFC
GTIRT18-02454	Incoming 999 Call
GTIRT18-02463	Outgoing call back to member of public
GTIRT18-02464	Incoming 999 Call
GTIRT18-02500	Information from MPS regarding BSR Information (dated 13 February 2018) This is a email from Victoria Yusuf with extracts from Survivors' MPS Witness Statements.
GTIRT18-02526	MPS Witness Statement for Adam Clarke
GTIRT18-02529	MPS Witness Statement of Helen Christmas
GTIRT18-02532	MPS Witness Statement of Steven Somers
GTIRT18-02535	MPS Witness Statement of Kylei Holmes-Lewis
GTIRT18-02577	Outgoing call back to member of public
GTIRT18-02652	Radio Message
GTIRT18-02654	Radio Message
GTIRT18-02656	Radio Message
GTIRT18-02666	Radio Message
GTIRT18-02860	Incoming 999 Call

**OFFICIAL**

GTIRT18-02865	MPS Witness Statement for Jessamine Bate
GTIRT18-02869	MPS Witness Statement for Michael Smith
GTIRT18-02885	Incoming 999 Call
GTIRT18-03104	MPS Witness Statement for Peter Clark
GTIRT18-03106	MPS Witness Statement for Ian Jones
GTIRT18-03108	MPS Witness Statement for Christopher Perez
GTIRT18-03382	Incoming 999 Call
GTIRT18-03467	Mobile phone call log for Jason Oliff
GTIRT18-03474	Email from LAS Deputy Director of Operations
GTIRT18-03702	MPS Witness Statement for Paul Sadler
GTIRT18-03728	MPS Witness Statement for Aldo Diana
GTIRT18-00044	MPS Witness Statement for Thomas Goodall
GTIRT18-04270	GTI Transcript for 25 September 2018
GTIRT18-04310	MPS Witness Statement of Robbie Gentry
IWS00000064	BSR Witness Statement for Nicholas Trevanion Burton
IWS00000498	BSR Witness Statement for Rabia Yahya
IWS00000523	BSR Witness Statement for Oluwaseun Talabi
IWS00000704	BSR Witness Statement for Farhad Neda
IWS00000729	BSR Witness Statement for Fadumo Ahmed
IWS00000781	BSR Witness Statement for Omar Alhaj Ali
IWS00000852	BSR Witness Statement for Rosemary Oyewole
IWS00001048	BSR Witness Statement for Francis Dean
LFB Image: 909897	Image taken by SM Mullholland
LFB Image: 909915	Image taken by SM Mullholland
LFB Image: 909916	Image taken by SM Mullholland
LFB Image: 972384	Image taken by SM Brett Loft
MET00006591	Flame Spread image (Relativity Reference)
MET000080463	MPS CCTV exit times by time and camera
MET000080605	MPS Witness Statement for Paul Warnett (MPS Staff)
MET000085885	Fire spread image (Relativity Reference)
MET000085887	Fire spread image (Relativity Reference)
MET000085889	Fire spread image (Relativity Reference)
MET000085891	Fire spread image (Relativity Reference)
MET000085893	Fire spread image (Relativity Reference)

## 12 Appendix 5: Document amendments from 00:50hrs to 07:00hrs

Listed below is an audit trail, detailing amendments made to the Operational Response Report between disclosure of versions 0.1, 0.2, 0.3, 0.3a, 0.4, 0.5 and 0.6.

Page/Incident time	Brief description of change	Date
8.2 Glossary	ETA – Estimated Time of Arrival	05/09/18
02:30*	Added Firefighter Okoh contact with member of public giving advice	05/09/18
01:55*	Added Firefighter Okoh interaction with member of the public	05/09/18
02:42:07	H346 FRU Book status 3 in Dulford road This is the 6 <sup>th</sup> FRU in attendance (Source , Vision)	05/09/18
02:45:00	BA Team 36 talk of drawings on walls of general layout drawings on walls of general layout	05/09/18
02:55:08	BA Team 37 new BA data and CCTV received confirming actions	20/09/18
02:55:19	BA Team 37 new BA data and CCTV received confirming actions	20/09/18
02:56:08	BA Team 37 new BA data and CCTV received confirming actions	20/09/18
02:57:45	BA Team 37 new BA data and CCTV received confirming actions	20/09/18
8.2 Glossary	Prybar added to Glossary	21/09/18
01:38* Resident exit list Line 3	Maria Jafari flat correction from flat 103,13 <sup>th</sup> floor to flat 86, 11 <sup>th</sup> floor.	21/09/18
01:38* Resident exit list Line 4	Fatima Jafari flat correction from flat 103,13 <sup>th</sup> floor to flat 86, 11 <sup>th</sup> floor.	21/09/18
01:38* Resident exit list Line 8	Name correction for Mohammed Mahmud, Flat 25, 5 <sup>th</sup> floor	21/09/18
01:38* Resident exit list Line 26	Name correction for Munira Mahmud, Flat 25, 5 <sup>th</sup> floor	21/09/18
01:38* Resident exit list Line 27	Name correction for Zahra Razoul Mahmud. Flat 25, 5 <sup>th</sup> floor	21/09/18
01:24*	Name correction for Munira Mahmud. Flat 25, 5 <sup>th</sup> floor	21/09/18
01:26:52	Flat and name correction for Nadia Jafari from flat 103,13 <sup>th</sup> floor to flat 86, 11 <sup>th</sup> floor.	21/09/18
01:27:50*	Name correction for Munira Mahmud. Flat 25, 5 <sup>th</sup> floor	21/09/18
8.1 Glossary	Added BT and explanation of abbreviation . – British Telecom	21/09/18
8.2 Glossary	Enforcer added to glossary	21/09/18

**OFFICIAL**

8.2 Glossary	Chinagraph Pencil to glossary	21/09/18
8.2 Glossary	Prybar to glossary	21/09/18
Throughout the report	Wording changes. To maintain consistency for the reader multiple entries have been amended i.e. 'ground floor lobby', 'main foyer', 'main lobby area' have all been amended to read 'main lobby'.	24/09/18
8.2 Glossary	Addition of Long Line in Long Line Bag	24/09/18
8.1 Glossary	Explanation of TCG . A tactical coordination group meeting of multi agencies and interested parties	24/09/18
5 Methodology and Presentation of Information	'soft' time* - corroborated activity, the asterisk has been removed.	26/09/18
02:55*	BA Team 22 , CM Batcheldor , upon further investigation this entry has been deleted and a new entry has been added at 03:22*	27/09/18
8.2 Glossary	Three sixty (360) explanation added	27/09/18
01:04:11	Wording changed to reflect correct BA procedure – Changed from 'remove their BA tallies, put their facemasks on and start breathing from their BA sets '. Changed to 'put their facemasks on, start breathing from their BA sets and remove their BA tallies'.	27/09/18
01:38:02	Conditions in the stairwell	26/09/2018
01:44:58	Conditions in the stairwell	26/09/2018
01:51:46	Conditions in the stairwell	26/09/2018
01:51:56	Conditions in the stairwell	26/09/2018
01:53:00	Conditions in the stairwell	26/09/2018
01:53:50	Conditions in the stairwell	26/09/2018
01:56:29	Conditions in the stairwell	26/09/2018
01:57:02	Conditions in the stairwell	26/09/2018
01:57:14	Conditions in the stairwell	26/09/2018
01:57:24	Conditions in the stairwell	26/09/2018
01:59:42	Conditions in the stairwell	26/09/2018
01:59:49	Conditions in the stairwell	26/09/2018
02:00:23	Conditions in the stairwell	26/09/2018
02:02:30	Conditions in the stairwell	26/09/2018
02:03:12	Conditions in the stairwell	26/09/2018
02:04:41	Conditions in the stairwell	26/09/2018
02:04:43	Conditions in the stairwell	26/09/2018
02:07:46	Conditions in the stairwell	26/09/2018

**OFFICIAL**

02:10:24	Conditions in the stairwell	26/09/2018
02:10:25	Conditions in the stairwell	26/09/2018
02:16:39	Conditions in the stairwell	26/09/2018
02:17:00	Conditions in the stairwell	26/09/2018
02:17:12	Conditions in the stairwell	26/09/2018
02:17:35	Conditions in the stairwell	26/09/2018
02:44:39	Conditions in the stairwell	26/09/2018
02:55:05	Conditions in the stairwell	26/09/2018
01:11:34	Wording changed to reflect correct BA procedure – Changed from 'remove their BA tallies, and start breathing from their BA sets'. Changed to 'put their facemasks on and start breathing from their BA sets'.	27/09/2018
01:17:22	Wording changed to reflect correct BA procedure – Changed from 'remove their BA tallies, and start to breathe under air'. Changed to 'start breathing under air and remove their BA tallies'.	27/09/2018
01:32:11	Wording changed to – 'insert their BA tallies into their bodyguards. It is believed that they were manually logged off the ECB prior to this time. however, there is no data available to confirm this action as the ECB data has been overwritten at this time'	27/09/2018
01:33:58 changed to 01:33:33	Wording changed to reflect correct BA procedure – Changed from 'remove their BA tallies and go under air'. Changed to 'go under air, remove their BA tallies'.	27/09/2018
01:34:59	Wording removed that is not correct – 'which is immediately responded to by the BAECO by pressing the corresponding button on the ECB'	27/09/2018
01:35:46	Wording removed – 'and Firefighter Barton'	27/09/2018
01:14	Wording changed from – 'BA Team Two report to ECB and close down. They also brief'. Changed to – 'Firefighter Barton, BA Team Two, reports to ECB and closes down. They brief'	27/09/2018
01:39:00 changed to 01:37:51hrs	The action in this statement from the BA data occurred at 01:37:51hrs and not 01:39:00hrs	27/09/2018
01:40:44hrs changed to 01:40:24hrs	Time change from BA data and source is GTIRT17-01627	27/09/2018
01:51:46	Wording changed to reflect correct BA procedure – Changed from 'remove their BA tallies and start breathing under air'.	27/09/2018

OFFICIAL

	Changed to 'start breathing under air and remove their BA BA tallies'.	
All Pages affected	Wording changed to reflect correct BA terminology Change from LPWA (Low Pressure Warning Whistle). Changed to LPWA (Low Pressure Warning Device).	27/09/2018
02:04:43	Wording changed to reflect correct BA procedure – Changed from 'remove their BA tallies and start breathing under air'. Changed to 'start breathing under air and remove their BA tallies'.	27/09/2018
02:16:39	Wording changed to reflect correct BA procedure – Changed from 'remove BA tallies and start breathing under air'. Changed to 'start breathing under air and remove their BA tallies'.	27/09/2018
02:20:42	Wording changed to reflect correct BA procedure – Changed from 'remove their BA tallies and start breathing under air'. Changed to 'start breathing under air and remove their BA tallies'.	27/09/2018
02:21:36	Wording removed – 'BA Team 7, CM Tillotson, CM Gallagher, Firefighter Bettinson, Firefighter Wolfenden and Firefighter Felton return to the bridgehead and close down their BA sets (Source: BA Data: GTIRT17-02820).'	27/09/2018
02:06:37	Inserted: BA Team 7 – Firefighter Felton returned to the bridgehead and closed down his BA set'. (Source GTIRT17-01627)	28/09/2018
02:08:23	Inserted: BA Team 7 – CM Tillotson. <i>It has been established from CM Tillotson's witness statement that he undertakes an 'Exchange Of Air' procedure at this time [BA data confirms the time of this action] and connects to a second unidentified BA set (Source GTIRT17-01627) CM Tillotson Witness Statement (GTIRT17-02143_ORF)</i>	28/09/2018
02:15:42	Inserted: BA Team 7 – Firefighter Bettinson returned to the bridgehead and closed down his BA set'. (Source GTIRT17-01627)	28/09/2018
02:17:46	Inserted: BA Team 7 – Firefighter Wolfenden returned to the bridgehead and closed down his BA set'. (Source GTIRT17-01627)	28/09/2018
02:17:57	Inserted: BA Team 7 – CM Gallagher returned to the bridgehead and	28/09/2018

OFFICIAL

	closed down his BA set'. (Source GTIRT17-01627)	
02:24:24	Wording changed to reflect correct BA procedure – Changed from 'They then both remove their BA tallies and start breathing under air. Changed to 'They then both start breathing under air and remove their BA tallies'	28/09/2018
02:26:44	Wording changed to reflect correct BA procedure – Changed from: 'remove their BA tallies and start breathing under air'. Changed to: 'start breathing under air and remove their BA tallies'	28/09/2018
02:26:37*	Wording removed - 'with LPWA sounding'. Firefighter A Johnson's BA data shows that it his LPWA that is operating and not the 2 BA wearers of BA Team 22	28/09/2018
02:44:07	Wording changed to reflect correct BA procedure – Changed from: 'remove their BA tallies and start breathing under air'. Changed to: 'start breathing under air and remove their BA tallies'	28/09/2018
02:51:28	Wording changed to reflect correct BA procedure – Changed from: 'remove their BA tallies and start breathing under air'. Changed to: 'start breathing under air and remove their BA tallies'	28/09/2018
02:56:50	Wording changed to reflect correct BA procedure – Changed from: 'remove their BA tallies and start breathing under air'. Changed to: 'start breathing under air and remove their BA tallies'	28/09/2018
01:17 time change to 01:23	Soft time changed to reflect new information after review of Rashia Ali BRS statement, name change of Casualty meet by Firefighter Dorgu	01/10/2018
01:24 time change 01:25	Time change regarding BA team four due to new CCTV evidence.	01/10/2018
8.1 Glossary	(DSI) Detective Superintendent	01/10/2018
8.1 Glossary	Kent Fire rescue Service (KFRS)	01/10/2018
8.1 Glossary	Essex County Fire and Rescue Service	01/10/2018
8.1 Glossary	Surrey Fire and Rescue Service	01/10/2018
8.1 Glossary	Hertfordshire Fire and rescue service	01/10/2018
03:46*	Added BA 38 narrative to include BA team 40	03/10/2018
03:57:58	SM Cook enters the lobby wearing SDBA	03/10/2018
02:29:08	Unidentified Firefighter found and added	03/10/2018
02:10	Insert image of developing fire of Grenfell Tower	08/10/2018
02:25	Inserted image of developing fire of Grenfell Tower	08/10/2018
01:30	Inserted image of developing fire of Grenfell Tower	08/10/2018



**OFFICIAL**

02:08:23	CM Tillotson name spelling updated	10/10/2018
02:24:01	GTIRT reference number updated and radio message transcript text added	10/10/2018
02:41:03	Radio message transcript text added	11/10/2018
02:42:07	Wording updated	11/10/2018
01:55	Wording updated	11/10/2018
03:03:24	GTIRT reference number updated	11/10/2018
03:04*	GTIRT reference number updated	11/10/2018
03:04:52	GTIRT reference number updated	11/10/2018
03:07:52*	GTIRT reference number updated	11/10/2018
03:08*	GTIRT reference number updated	11/10/2018
03:10*	GTIRT reference number updated	11/10/2018
03:10:00	GTIRT reference number updated	11/10/2018
03:12:16	GTIRT reference number updated	11/10/2018
02:23	GTIRT reference number updated	11/10/2018
03:24:43	GTIRT reference number updated	11/10/2018
03:35:45	New GTIRT reference number added	11/10/2018
Throughout the report	GTIRT reference numbers updated for BA Team 41	11/10/2018
03:50*	CCTV reference updated	11/10/2018
03:58:00	GTIRT reference number updated	11/10/2018
03:57:30	FF I Moore added entering Grenfell Tower	12/10/2018
01:30	Flat correction for Hamid Wahbi	12/10/2018
01:21:57	Casualty amendment from 3 to 2 persons Carmen Vieiro and Jose Vieiro	12/10/2018
Throughout the report	Changed any references for 'P' to 'Pump'	15/10/2018
Throughout the report	Changed and removed Asterisk(*)	15/10/2018
Throughout the report	Wording change from speaks to talks and speaking to talking	16/10/2018
Large Axe	Added to Glossary of terms	17/10/2018
Firefighter axe	Added to Glossary of terms	17/10/2018
01:22:05	Wording change from main entrance to side entrance . change of CCTV Camera from 4 to CCTV Camera 2.	17/10/2018
02:20:42	Name correction from Cristina to Kristina and addition of Georgina Smith and Katarzyna Dabrowska.	17/10/2018
01:22:12	Added CCTV named exits for Salah Chebiouni, Mohammed Ahmed and Cyreem Ahmed	17/10/2018

**OFFICIAL**

03:55	Resident exit times between 03:07 and 03:55 added in.	17/10/2018
Throughout the report	First names added for the first time individuals are mentioned in the report.	18/10/2018
01:37:47	Name correction from Jordy Norbis to Jody Martin	19/10/2018
Throughout the report	Changed rank from firefighter to CM and added initial to CM R Evans	19/10/2018
01:14:21	Changed source for radio traffic message from Contemporaneous Notes and Vision to GTIRT17-02477	19/10/2018
Throughout the report	Added the initial K to Firefighter K Foster	19/10/2018
Throughout the report	Added the initial W to Firefighter W Boulton	19/10/2018
Throughout the report	Added the initial S to Firefighter S Grant	19/10/2018
Throughout the report	Added the initial A to Firefighter A Harris	19/10/2018
Added to Glossary	BA Personal Line	22/10/2018
01:28:05	Changed reference from 'Radio Message Audio file' to 'Admin Phone Line Audio file'. The GTIRT reference still remains as GTIRT18-00252	19/10/2018
01:48:00*	Soft time changed to <b>01:43:00*</b>	22/10/2018
02:07:21	Changed source from GTIRT18-03191 to IWS00000498. This the same document but was changed to reflect the rest of the report.	22/10/2018
01:41:24	Brigade Manager 8 changed to Bravo Mike 8 to be consistent with the use of the Phonetic Alphabet in the rest of the report	22/10/2018
02:32:18	Brigade Manager 8 changed to Bravo Mike 8 to be consistent with the use of the Phonetic Alphabet in the rest of the report	22/10/2018
01:55:29*	Flat number in text changed from flat 175 to 176.	22/10/2018
01:00:00 /01:00*	Two duplicate text entries removed.	23/10/2018
03:34:17	Spelling of name amended	23/10/2018
01:27:56	Spelling of name amended	23/10/2018
Throughout the report	Spelling of name amended from Helen Gebremeskar to Helen Gebremeeskal	23/10/2018
01:31:51	Spelling of name amended to Sophia Fletcher and taken out Lily	23/10/2018
01:14:32	Added narrative for FF D Brown on compartment conditions	25/10/2018

**OFFICIAL**

01:14:16*	Added narrative for FF D Brown on compartment conditions	25/10/2018
01:20:25	FF D Brown does not notice a drop in temperature added	25/10/2018
01:17:09	<i>BA Team One close the door to the kitchen due to the severe heat. Changed to reflect Firefighter D Brown's MPS : BA Team One Firefighter D Brown is at the kitchen door firefighting but closes the door due to the attack having no effect on the now very visible flames</i>	25/10/2018
Throughout the report	Any entries stating 'tally' or 'tallies' have been amended to read 'BA tally' or 'BA tallies' for clarity and to reflect the terminology in the glossary	25/10/2018
Throughout the report	Any entries that state: 'wearing a/an SDBA set' or 'wearing a/an EDDBA set' have been amended to read: 'wearing SDBA' or 'wearing EDDBA' for consistency	25/10/2018
Throughout the report	Any references to a 'branch' have been amended to read 'firefighting branch' to confirm that it is a piece of fire fighting equipment being used/requested and not, for example: a tree branch. The glossary has also been amended to reflect this	25/10/2018
Throughout the report	All status message entries stating that the appliance 'books' Status... have been amended to 'book' Status...  All status messages stating that officers 'book' Status... have been amended to 'books' Status...	25/10/2018
01:24:28	Makrem Harzi and Yusif Harzi flat 54 8 <sup>th</sup> floor added to ORR	25/10/2018
01:24:29	Rawda Said flat 54 8 <sup>th</sup> floor added to ORR	25/10/2018
01:36:48	Maher Khoudair flat 66, 9 <sup>th</sup> Floor added to the ORR	25/10/2018
Throughout the report	Any entries stating that firefighters ascend/descend the 'stairwell' to/from the stair lobby has been amended to read:  ascend/descend the 'stairs' from the stair lobby as the stairwell is located in the second floor lobby	25/10/2018

**OFFICIAL**

Throughout the report	'Ground floor stair lobby' had been amended to 'stair lobby' as there is only one stair lobby which is on the ground floor	25/10/2018
01:37:14	Maher Khoudair flat 66, 9 <sup>th</sup> Floor added to the ORR	25/10/2018
01:27:17	Source changed from CCTV: camera 4 to camera 2	25/10/2018
Throughout the report	Any entries that only state 'lobby' have been amended to include the location where relevant i.e main lobby or stair lobby.	25/10/2018
03:14:18	(now known to be Yehualashet Enyew whose address is unknown) Address now known to be flat 155 , 18 <sup>th</sup> floor	29/10/2018
03:13:26	Two casualties (now known to be Paulos Tekle from flat 203, 22nd floor and Genet Shawo from flat 153, 18 <sup>th</sup> floor) Amended to be flat 153, 18 <sup>th</sup> floor for both casualties	29/10/2018
Throughout the report	Breathing Apparatus Radio Interface Equipment	29/10/2018
01:24:37	Catherine and Mary Hanley flat 52, 8 <sup>th</sup> floor added to ORR	29/10/2018
01:24:29	Catherine and Mary Hanley flat 52, 8th floor added to ORR	29/10/2018
Throughout the report	'LRG' has been amended to 'London Resilience Group'	29/10/2018
Throughout the report	Added to glossary: Door procedure is a safe method of making entry into a compartment which is suspected to be involved in a fire	29/10/2018
Throughout the report	All 'Source' entries have been amended to the same format for consistency, for example: 'Source: camera 4 CCTV' has been amended to: 'Source: CCTV: Camera 4'	29/10/2018
Throughout the report	Any entries with more the one 'Source' reference within the same entry have been amended so there is only one 'Source' reference at the end of the entry	30/10/2018
01:54:29	Source reference was duplicated so one has been deleted	30/10/2018
01:21:57	'Belived to be' added to entry for Carmen Vieiro and Jose Vieiro as the entry is taken from a MPS statement not CCTV	30/10/2018

**OFFICIAL**

02:03	Mr Karim El Ansari added to the entry following the receipt of his witness statement confirming he assisted with the 135 ladder	30/10/2018
03:10	Amendment made to read a nine people in flat 153,(18 <sup>th</sup> floor) conscious casualties (believed to be Ayesha El-Guenuni (flat 152), Mohammed El- Guenuni (flat 152) , Naila El-Guenuni (flat 152), Rabia Yahya (flat 152),Yehualashet Enyew (flat 155) Paulos Tekle (flat 153), Isaac Paulos (flat 153), Lukas Paulos (flat 153), Genet Shawo (flat 153)  Isaac Paulos and Yehualashet Enyew added to people found in flat	01/11/2018
04:00 – 05:00 and Glossary	Images entered between 04:00 – 05:00 and the glossary have been centred for consistant formatting	01/11/2018
04:00 – 05:00	All entries with a font size of 12 have been amended to 11 for consistant formatting	01/11/2018
Throughout the report	The term 'lift lobby on the X floor' has been amended to 'X floor lift lobby' for consist terminology.	01/11/2018
Throughout the report	The term 'on the X floor stairwell' has been amended to 'in the stairwell on the X floor' as there is only one stairwell in the tower from the third – 23 <sup>rd</sup> floor. There are no individual stairwells on each floor.	01/11/2018
Throughout the report	Where applicable the word 'conversation' has been replaced with 'discussion' or 'talk'	01/11/2018
04:47:06	Firefighter Franklin amended to Firefighter Christopher Franklin	04/11/2018
Throughout the report	First initial added to all names in entries that contain a firefighter that has the same surname as another firefighter at the incident	04/11/2018
Throughout the report	'Source,' amended to 'Source:' To ensure clarity for the reader	04/11/2018
Throughout the report	'BA Team X,' amended to 'BA Team X:' To ensure clarity for the reader	04/11/2018
01:45:53	'consisting of' removed (wording unnecessary)	04/11/2018

**OFFICIAL**

03:03*, 03:07*, 03:55	Ethiopia Assefal amended to Ethiopia Assefa. Ms amended to Ethiopia	05/11/2018
Throughout the report	All entries where BA teams are missing team members have been amended to read 'Firefighter X from BA team X' to avoid confusion (entries were previously list as BA Team X: Firefighter X... and might appear to suggest it is the whole BA team being listed)	05/11/2018
6 Data Sources	'fire survival conversation' has been amended to 'fire survival guidance calls'	05/11/2018
03:30	'BA Team 18' removed from entry as this takes place after the BA wear and are effectively no longer BA team 18	05/11/2018
02:05:32*	List of BA team 18 members removed – unnecessary entry	05/11/2018
03:51:44	BA Team 41: Firefighter Rice, Firefighter D Nelson and Firefighter Friend amended to BA Team 41: Firefighter Rice and Firefighter Friend from BA team 41 and Firefighter D Nelson from BA team 38	05/11/2018
02:26:12	Firefighter Ngo removed from entry. Firefighter Okoh inserted	05/11/2018
01:55:50	BA amended to SDBA	05/11/2018
02:17:12*	BA team 21 amended to BA team 22	05/11/2018
01:56:00	'A BA team from Wandsworth' amended to 'BA team 20'	05/11/2018
Throughout the report	The term 'at round this time' and 'at this time' removed from all entries	05/11/2018
03:04	'Firefighter Upton and Firefighter Reddington and the unconscious female child' amended to: 'Firefighter Upton, Firefighter Reddington and the unconscious female child'	05/11/2018
Throughout the report	BA team members listed for all BA team entries for consistency	05/11/2018
Throughout the report	'Report to ECB' amended to 'Report to BA ECB'	05/11/2018

**OFFICIAL**

Throughout the report	All status entires (where engines /officers book in attendance at the incident) have been amended to the same format: Callsign, location, status, incident, order of attendance	05/11/2018
01:27:01	Low Pressure Warning Whistle amended to Low Pressure Warning Alarm	06/11/2018
01:26*	'(flat 96, 12 <sup>th</sup> floor)' amended to 'from flat 96, 12 <sup>th</sup> floor'	06/11/2018
Glossary	Brigade Distribution Centre (BDC) added to Glossary	06/11/2018
02:59:51	Third amended to second	06/11/2018
03:18:33	Fourth amended to third	06/11/2018
Glossary	Marine and Coastguard Agency (MCA) Search and Rescue (SAR) added to glossary	06/11/2018
03:46:14	'Foxtrot 43' amended to 'CU3'	06/11/2018
03:36:39, 04:17:08, 04:45:25, 04:50:49	This is the third OSU in attendance added to entry. Subsequent OSU entries amended to show correct order of attendance	06/11/2018
01:44:00 & 01:44:40	01:44:00 moved to 01:45:15. 01:44:40 deleted. Both entries refer to CM Stern entering the main lobby and exiting the building	07/11/2018
01:45:08 & 01:45:15	Both entries referencing CM Stern and Kerry O'Hara amalgated to 01:45:20 following CCTV review showing that they exit the building together.	07/11/2018
02:12:00	'from Golf 371, Chiswick's PL' removed from entry. Firefighter's are already listed with their respective appliance the first time the appliance is referred to	07/11/2018
02:15:42	Entry amended to present tense fom past tense	07/11/2018
Throughout the report	Entries that list a firefighter's call sign and station have been amended to remove the call sign and station . Firefighter's are already listed with their respective appliance the first time an appliance is referred to in the report	7/11/2018

**OFFICIAL**

02:38*	'Having given one of the children to a firefighter' amended to Firefighter Hill is carrying down one of the children from flat 95. He gives the child to a firefighter. The original entry was not clear where the child was from and also used past tense.	7/11/2018
02:45:00	BA team changed from 36 to 35 to reflect current numbering of BA teams. Past tense changed to present tense.	7/11/2018
Throughout the report	<p>Entries that contain the action 'proceeds' has been amended where a Firefighter/resident moves from one area to another area directly connected to it i.e 'proceeds from the stair lobby to the main lobby' is amended to 'enters the main lobby from the stair lobby'. Proceeds will only be used when travelling between areas not directly connected. i.e 'enters the main lobby from the stair lobby and proceeds into the community room'</p> <p>Please note: this was reversed on 30/11/2018 to ensure consistency throughout versions of the report.</p>	<p>7/11/2018</p> <p>30/11/2018</p>
03:24:13, 14 & 16	<p>3 entries amended from 'exit the stairs to the stair lobby' to 'enter the main lobby from the stair lobby'</p> <p>All CCTV entries where firefighters and officers simply move between the community room, main lobby or stair lobby on the ground floor have been removed.</p>	<p>7/11/2018</p> <p>03/01/2019</p>
03:44:07	'BA Team 15' removed from entry as the crew have exited the building and are carrying out an 'A' test which means the firefighter's will now be assigned to a new BA Team if they wear BA again.	7/11/2018
Glossary	'Pulse spray' added to Glossary.	8/11/2018
Throughout the report	Any entries that reference a 'fire ground 'A' test amended to include type of set (SDBA/EDBA) and set number.	8/11/2018
02:54:26	'From the stairs' amended to 'down the stairs'.	8/11/2018



**OFFICIAL**

02:59:59	'Goes up stairs' amended to 'ascends the stairs'	8/11/2018
Throughout the report	Where appropriate 'Area' has been removed from all entries with the term 'lobby area'	8/11/2018
Throughout the report	'Leaves the stair lobby and proceeds into the main lobby' amended to 'enters the main lobby from the stair lobby'  Please note: this was reversed on 30/11/2018 to ensure consistency throughout versions of the report.	8/11/2018  30/11/2018
04:12:04	'enters the main lobby from the stair lobby and proceeds <u>to the lobby</u> into the community room' amended to 'enters the main lobby from the stair lobby and proceeds into the community room'  Please note: this was reversed on 30/11/2018 to ensure consistency throughout versions of the report.	8/11/2018  30/11/2018
04:39:03	'Quick talk' amended to 'brief discussion'	8/11/2018
04:47:48	'carried downstairs into the stair lobby' amended to 'carried down the stairs to the stair lobby'	8/11/2018
Throughout the report (Elsa Afewaorki, flat 16)	'Afeworki' amended to 'Afewaorki' to match the spelling in the Grenfell Enquiry core participant list.	8/11/2018
01:36:12 and 01:38	Entry added to show Iman Alkuedi (flat 64, floo 9) exiting the building and exit table updated	8/11/2018
01:37:14	Extra bracket ') ' removed. 'Exits' amended to 'leaves'	8/11/2018
04:43, 04:43:35 & 04:47:51	'Shayla amendedr to 'Shyla'	9/11/2018
03:17:26	Entry added to show Mohammed Aymen El-Guenuni leaving the building	9/11/2018

**OFFICIAL**

01:17:45 and 01:18*	Alt Haxhisefa added to entries	9/11/2018
01:13:29	'Hiris' amended to 'Hirsi'	9/11/2018
01:13:29	'Shuhayab Hersee (address unknown)' amended to Suhayb Hirsi (flat 7, floor 2)	9/11/2018
01:27:15, 34 and 51	Nadifi 'amended to 'Nadia'	9//11/2018
02:41:31 and 53	Christina Smith amended to Kristina Smith	9/11/2018
01:20:39 and 01:38*	'Winton' amended to 'Wintom' to match the spelling in the Grenfell Enquiry core participant list	11/11/2018
01:28:04	'Yousuf' amended to 'Yousef' – other entries throughout report are correct	11/11/2018
Throughout the report	Various errors for residents of flat 25 amended: 'Razoul, 'Rassoul' and 'Mahmud' amended to Rasoul. Mohammad Hassan amended to Elsa Afeworki	11/11/2018
Throughout the report	'Staircase' amended to 'stairwell' or 'X floor lift lobby – control report transcripts not amended	13/11/2018
02:03	Flat 21, 5 <sup>th</sup> removed – residents are from flat 23	13/11/2018
01:36:48 and 01:37:14	'Maher Khoudair' amended to 'Maher Khdeir' to match the spelling in the Grenfell Enquiry core participant list	13/11/2018
01:36:12 and 01:38	'Rawan Khdeir' added to entry. Previously omitted from the report leaving the building. Exit table updated	13/11/2018
01:27:05 and 01:38*	'Gavin Lavine (not listed as a resident)' amended to 'Jean Lavine (flat 42, 7 <sup>th</sup> floor)' to match the spelling in the Grenfell Enquiry core participant list and include flat number	13/11/2018
01:49:32 and 01:58	'Mirian Lovsin (address unknown)' amended to 'Miran Lovsin (flat 84, 11 <sup>th</sup> floor)' to match the spelling in the Grenfell Enquiry core participant list and include flat number	13/11/2018
Added to Glossary	Discription of Lightweight Portable Pump (RLPP)	13/11/2018

**OFFICIAL**

01:40:33 and 01:58	'Mamudu Rukayetu' amended to 'Mamadu Rukeyatu' to match the spelling in the Grenfell Enquiry core participant list	13/11/2018
01:30:11	'Marlon Mangoba' amended to 'Marlon Mangoba Snr' and 'Marlon Mangoba Jnr' to differentiate between father and son.	13/11/2018
01:30:36	'Daniel' amended to 'Danel' 'Camera 2 removed' from 'Source'	13/11/2018
01:30:32	Amiel Miller entered to show leaving the building	13/11/2018
01:38	Amiel Miller, Danel Miller and Corrine Jones added to table of residents that have left the building.	13/11/2018
01:18*	'Amna Moehemmed' amended to 'Amna Mohammed' to match the spelling in the Grenfell Enquiry core participant list	13/11/2018
01:00:07	'Maryan Adam', 'Abdulwahab Abdulhamid' and 'Amna Mohammed' shown leaving the building	13/11/2018
01:07:40	Entry added to show Alison Moses leaving the building.	13/11/2018
01:19:54	'Leaves the building via the main entrance' amended to 'leave the building via the side door in the stair lobby'. Camera 4 removed from source	13/11/2018
01:44:22	'Leaves the building' amended to 'leaves the building via the side door in the stair lobby'. Camera 4 removed from source. Time changed to 01:44:31	13/11/2018
01:44:27	'Leaves the building' amended to 'leavesthe building via the side door in the stair lobby'. Camera 4 removed from source. Time changed to 01:44:36	13/11/2018
01:22:47	Mr 'West' amended to Mr 'Paramasivan'. 'They leave the building via the main entrance' removed from entry (this happens at 01:24:36)	13/11/2018
01:24:33	Entry added to show Hannah West leaving the building	13/11/2018
Throughtout the report	'Leave' amended to 'leaves' and 'leaves'amended to 'leave' in all entries that were entered incorrectly.	14/11/2018
01:28:04	'Sabah Abdullah (believed to be a non resident)' amended to 'Sabah Abdullah (flat 143, 17 <sup>th</sup> floor)'	14/11/2018

**OFFICIAL**

Throughout the report	'Foyer' amended to 'stair lobby' or 'main lobby' for clarity	14/11/2018
Throughout the report	A full stop '.' added to multiple entries missing one at the end of the entry	14/11/2018
Throughout the report	All variants of 'oxygen cylinder' (bottle, canister, medical oxygen) amended for clarity	14/11/2018
01:18	'Oscar Millan' amended to 'Oscar Millan Gonzalez', 'Stephanie Millan' removed from entry (not in at time of fire) and 'Claudia' (Surname unknown) added to entry	14/11/2018
01:38*	Oscar Millan Gonzalez '(unknown)' amended to '(flat 36, sixth floor)'	14/11/2018
03:14:35	'Rabia' added to 'Yahya' to read 'Rabia Yahya'	14/11/2018
03:17:26	'Mohammed Aymen El-Guenuni' amended to 'Mohamed Aymen El-Guenuni' to match the spelling of his surname on the Grenfell Enquiry core participant list	14/11/2018
00:56:55	'Mr Manual Alves' amended to 'Mr Manuel Miguel Alves' to match the spelling in the Grenfell Enquiry core participant list	14/11/2018
01:08:40 and 01:18*	'Miguel Alves ' amended to 'Manuel Miguel Alves' Alves' to match the spelling in the Grenfell Enquiry core participant list	14/11/2018
01:27:56, 01:28:04 and 01:38*	'Fied Bayam' amended to 'Said Bayan' to match the spelling in the Grenfell Enquiry core participant list	14/11/2018
01:22:12	'Salah Chebiouni' amended to 'Saleh Eddine Chebiouni' to match the spelling in the Grenfell Enquiry core participant list	14/11/2018
01:38*	' Saleh Eddine Chebiouni (flat 66, ninth floor)' added to exit table	14/11/2018
03:03:48	Entry updated to include new information received from ISP request: GTIRT18-04835	14/11/2018
01:24:58, 01:25:09 and 01:38*	'Shanti', 'Shrantilal' and 'Shantilal' amended to 'Shantila' to match the spelling in the Grenfell Enquiry core participant list	14/11/2018
Added to glossary of Abbreviations	NFCC – National Fire Chiefs Council	15/11/2018

**OFFICIAL**

01:31:51	'Haymanot Gashaw' amended to 'Hime Gashaw' to match the spelling in the Grenfell Enquiry core participant list	16/11/2018
Added to firefighting Branch discription in Glossary of terms	Rosenbauer Project 2 Rosenbauer Selectflow	15/11/2018
01:38*	Rose Lewis, Octina Lewis, Theodore Charles, Saeda Ahmed, Hime Gashaw, Richard Fletcher and Sophia Fletcher added to exit table as previously omitted	16/11/2018
01:17:45 and 01:18*	'Avni Haxhisefa' amended to 'Anvi Haxhisefa' to match the spelling in the Grenfell Enquiry core participant list	16/11/2018
01:25:09	'Amina Mohammed' amended to 'Amina Mohamed' to match the spelling in the Grenfell Enquiry core participant list. No amendment required for entry at 01:38*	17/11/2018
01:23:56	'Giti Pahlavani' amended to 'Gitiara Pahlavani' to match the spelling in the Grenfell Enquiry core participant list. No amendment required for entry at 01:38*	17/11/2018
Throughout the report	Any references to flats recorded as (Flat X, floor X) amended to (Flat X, X floor) for example (Flat 84, floor 11) is amended to (Flat 84, 11 <sup>th</sup> floor)	17/11/2018
03:13:26 and 03:55	'Tekle Paulos' amended to 'Paulos Tekle' to match the spelling in the Grenfell Enquiry core participant list	17/11/2018
01:22:18, 01:22:25 and 01:22:38	Aziza Raihani (flat126, 15 <sup>th</sup> floor) added to the report	17/11/2018
01:22:02	Entry added to show Rashida Ali and Hyam Atmani (flat 125, 15 <sup>th</sup> floor) shown re-entering the building.	17/11/2018
01:10:43 and 01:18*	'Sedrati' amended to 'Sedradi' to match the spelling in the Grenfell Enquiry core participant list	17/11/2018
01:18*	'Adrianna Zymberaj' amended to 'Adriana Zymberaj' to match the spelling in the Grenfell Enquiry core participant list. No amendment required for entry at 01:17:45	17/11/2018
Throughout the report	(SERT) Added : Specialist Entry Recovery Team	18/11/2018
Throughout the report	(PLO) Press Liason Officer	18/11/2018

**OFFICIAL**

04:46:14	<p>Entry added following CCTV review: Firefighter Devani from BA Team 54 enters the main lobby from the community room wearing EDBA not under air (Source: CCTV Camera 4)</p> <p>All CCTV entries where firefighters and officers simply move between the community room, main lobby or stair lobby on the ground floor have been removed.</p>	<p>19/11/2018</p> <p>03/01/2019</p>
04:46:14	Time amended to 04:46:16 and names added to unidentified crews following further CCTV reviews	19/11/2018
04:54:53	Entry added following CCTV review: CM Tillotson, one unidentified CM and one unidentified firefighter wearing SDBA sets not under air enter the main lobby via the community room	19/11/2018
04:55:27	<p>Names added to entry following CCTV review: BA Team 63: Firefighter Folivi and Firefighter Goddard and Firefighter Grant and Firefighter Worley from BA Team 64 wearing SDBA sets not under air enter the main lobby from the community room.</p> <p>All CCTV entries where firefighters and officers simply move between the community room, main lobby or stair lobby on the ground floor have been removed.</p>	<p>19/11/2018</p> <p>03/01/2019</p>
04:55:38	<p>Names added to entry following CCTV review: Firefighter Perez and Firefighter Dowdall wearing SDBA not under air enter the main lobby from the community room.</p> <p>All CCTV entries where firefighters and officers simply move between the community room, main lobby or stair lobby on the ground floor have been removed.</p>	<p>19/11/2018</p> <p>03/01/2019</p>
03:03:16, 03:22:54, 03:25:08 & 03:56:10	Entries added following CCTV review for BA Team 38: CM Diana and Firefighter Nelson	19/11/2018
Throughout the report	(SOG) Special Operations Group	19/11/2018
Throughout the report	Amending all radio traffic from Italics to normal font	20/11/2018
04:42:44	Names and BA Team added to entry following CCTV review of BA team 66	19/11/2018
04:54:53	Names and BA Team added to entry following CCTV review of BA team 66	19/11/2018
Throughout the report	Entries that state 'Return to the bridghead' have been amended to show crews 'descending the stairs' where the source is CCTV. Entries where the source is BA data have not been amended.	20/11/2018

**OFFICIAL**

Throughout the report	Added MPS riot shields	20/11/2018
01:36:34, 01:38*	Entries add to show Mohammed Rasoul (flat 25, fifth floor) and Ahmed Rasoul (flat 25, fifth floor) leaving the building	20/11/2018
01:38*	'Mahammed Mahmud (unknown)' deleted from exit table. This has now been identified as Mahammed Rasoul (flat 25, fifth)	20/11/2018
Glossary	'Charged/uncharged' added to the glossary	21/11/2018
01:27:16 & 01:38*	Fung (girlfriend of Mesrob Kassemajian surname unknown) (flat 141, 17 <sup>th</sup> floor) added to report	21/11/2018
04:59:42	BA Team 50: Firefighter Hanlon and Firefighter Benaicha close down their sets and collect their tallies " taken out	22/11/2018
01:02:45	'Firefighter O'Beirne and Firefighter De St Aubin leave the ground floor lift lobby and head to the stairs' amended to 'Firefighter O'Beirne and Firefighter De St Aubin leave the ground floor lift lobby and proceeds to the stair lobby'	22/11/2018
01:10:00	'Firefighter Hippel and CM Stern both wearing SDBA enter through the main entrance and proceed up the stairs with Firefighter O'Hanlon and Firefighter Barton' amended to 'Firefighter Hippel and CM Stern, both wearing SDBA, enter the building via the main entrance and proceed up the stairs with Firefighter O'Hanlon and Firefighter Barton'	22/11/2018
01:10:35	'Firefighter D Murphy and Firefighter Cornelius leaves the building via the main entrance' amended to 'Firefighter D Murphy and Firefighter Cornelius exit the building via the main entrance'	22/11/2018
01:12:30	'Firefighter O'Beirne goes up stairs to the third floor and meets Firefighter Dorgu and assists him with the second line of fire hose from the DRM outlet' amended to 'Firefighter O'Beirne ascends the stairs to the third floor and meets Firefighter Dorgu and assists him with the second line of fire hose from the DRM outlet'	22/11/2018
01:14*	'BA Team Two: Firefighter O'Hanlon and Firefighter Barton make their way up the stairwell from the bridgehead. They meet Firefighter Badillo who has already plugged the second fire hose into the third floor DRM outlet. BA Team Two proceed up the stairs to the fourth floor with this fire hose. Both firefighters see members of public self-evacuating as they go up the stairs' amended to 'BA Team Two: Firefighter O'Hanlon and Firefighter Barton, ascend the stairwell from the bridgehead. They meet Firefighter Badillo who has already plugged the second fire hose into the third floor DRM outlet. BA Team Two ascend the stairs to the fourth floor with this fire hose. Both firefighters see members of public self-evacuating as they go up the stairs'	22/11/2018

OFFICIAL

01:15:03	'WM O'Keeffe goes up the stairs' amended to 'WM O'Keeffe ascends the stairwell'	23/11/2018
01:16:00	'Firefighter Abell leaves the building via the main entrance' amended to 'Firefighter Abell exits the building via the main entrance'	23/11/2018
Throughout the report	Entries with the term 'in BA/EDBA/SDBA' have been amended to 'wearing BA/EDBA/SDBA'	27/11/2018
Glossary	'Neutral Plane', 'Landmark' and 'Second Set/Second Set Bag' added to glossary. 'Status 6' and 'Status 7' added to 'Status' within the glossary	27/11/2018
01:22:23	'Rashida Ali and Hayam Atmani (flat 125, 15 <sup>th</sup> floor) enter the stair lobby from the main lobby' amended to 'Rashida Ali and Hayam Atmani (flat 125, 15 <sup>th</sup> floor) leave the main lobby and proceed into the stair lobby'	28/11/2018
01:09:09	Firefighter O'Beirne removed from this time as exiting the main lobby.  Firefighter O'Beirne exits the building via the main entrance at 01:10:35 with Firefighter D Murphy, Firefighter O'Beirne and Firefighter Cornelius exit the building via the main entrance (Source: CCTV: Camera 4).	29/11/2018
01:56:00	BA Team 20: Firefighter Alassad, Firefighter Bell and Firefighter J Wright enter the main entrance wearing BA and carrying a second set bag, containing a spare BA set (Source: CCTV: Camera 4).  This has been removed from 01:56:00 and placed at 01:53:27  BA Team 20 are not carrying a second set bag , they are carrying an 'Enforcer', Haligan Bar and a bag containg breaking in gear. This is added to the new time of 01:53:27	30/11/2018
01:15:05*	CM Davies approaches Firefighter Archer and tells him to get rigged in BA. Firefighter Archer hands the jet to Firefighter D Murphy and Firefighter Cornelius from Kensington .( Comment added following new CCTV from Camera OPS1)	30/11/2018
01:11:11	CM Davies approaches Firefighter Archer and tells him to get rigged in BA. Firefighter Archer hands the jet to Firefighter D Murphy and Firefighter Cornelius from Kensington (Comment removed from this time )	30/11/2018
01:11:29	Firefighter Archer puts water from a firefighting jet onto falling debris on the ground floor that is alight from the window of flat 16 on the east elevation of Grenfell Tower (Source, CCTV: Camera OPS1 Kensington leisure centre). Added due to new CCTV	30/11/2018



**OFFICIAL**

01:20:24	Firefighter Archer is at the East elevation and directs the firefighting jet upwards towards the Tower fire believed to be in the direction of flat 16 (Source, CCTV: Camera OPS1 Kensington leisure centre). Added due to new CCTV	30/11/2018
01:11:45	Firefighter Archer is at the East elevation and directs the firefighting jet down to the ground floor level and puts water onto fallen debris from the Tower (Source, CCTV: Camera OPS1 Kensington leisure centre). Added due to new CCTV	30/11/2018
01:11:53	Firefighter Archer is at the East elevation and directs the firefighting jet upwards to the Tower fire believed to be in the direction of flat 16 (Source, CCTV: Camera OPS1 Kensington leisure centre). Added due to new CCTV	30/11/2018
01:12:13	A large amount of steam can be seen emanating at the ground floor level outside the East elevation below what is believed to be flat 16 (Source, CCTV: Camera OPS1 Kensington leisure centre).	30/11/2018
03:09:18	Change of flat from 143 to 142 due to BSR Statement correction	6/12/2018
01:21:21	Lydia Liao (flat 195, 22 <sup>nd</sup> floor), leaves the building via the main entrance (Source: CCTV: Camera 4). Action removed as wrong entry at this time	06/12/2018
Throughout the report	All entries listing 'Hamed Wahbi' have been amended to 'Hamid Wahbi'	07/12/2018
Throughout the report	All entries listing 'helmet' have been amended to 'fire helmet' where applicable	07/12/2018
02:08*	Added: Alpha 402, Hendon's Pump are status 2, mobile to Grenfell Tower.	11/12/2018
Throughout the report	Rosenbauer Projet II and Projet II amended to firefighting branch	12/12/2018
Throughout the report	Where Firefighters / Officers / MPS are 'Holding' equipment, i.e fire hose, riot shields, firefighting branches, tripods, blue sheets etc this has been amended to 'Carrying'	12/12/2018
03:08:46	Amended fire ground held radio to fire ground radio	12/12/2018

**OFFICIAL**

04:01*	Entries from 04:01 regarding Khadija Saye have been amended from believed to be - to - known to be.	12/12/2018
Amendment sheet	Spacing and text indent format errors amended	13/12/2018
00:50*	'the resident of flat 16' amended to 'The resident of flat 16'	13/12/2018
Glossary	'Crow's foot (CF2 Hydraulic spreading tool.' Amended to 'Crow's foot hydraulic spreading tool (CF2).	17/12/2018
Throughout the report	Reference number for Brien O'Keeffe's third MPS witness statement amended to GTIRT17-02357.	18/12/2018
Throughout the report	All CCTV entries where firefighters and officers simply move between the community room, main lobby or stair lobby on the ground floor have been removed.	03/01/2019
Throughout the report	Wording changed from "enters the stair lobby from the main lobby" to "leaves the main lobby and proceeds into the stair lobby".	03/01/2019
Throughout the report	Wording changed from "enter the stair lobby from the main lobby" to "leave the main lobby and proceed into the stair lobby".	03/01/2019
Throughout the report	Wording changed from "enters the main lobby from the community room" to "leaves the community room and proceeds into the main lobby".	03/01/2019
Throughout the report	Wording changed from "enter the main lobby from the community room" to "leave the community room and proceed into the main lobby".	03/01/2019
01:42:34*	Wording changed from 'Mr Norbis' to 'A member of public (now known to be Jody Martin)'	03/01/2019
Throughout the report	Wording changed from "enters the main lobby from the stair lobby" to "leaves the stair lobby and proceeds into the main lobby".	03/01/2019
Throughout the report	Wording changed from "enter the main lobby from the stair lobby" to "leave the stair lobby and proceed into the main lobby".	03/01/2019
Throughout the report	Wording changed from "exits the main lobby into the community room" to "leaves the main lobby and proceeds into the community room".	03/01/2019
Throughout the report	Wording changed from "exit the main lobby into the community room" to "leave the main lobby and proceed into the community room".	03/01/2019

**OFFICIAL**

Throughout the report	'Booked Status 2 on route to incident' amended to 'booked status 2 on route to Grenfell Tower'	08/01/2019
02:21:04	Line deleted "It is believed that this call is linked to 01:38:38"	08/01/2019
02:10:59	Mariko Toyoshima-Lewis is wheeled out of Grenfell Tower by Firefighter Ferguson and Firefighter Repas towards the leisure centre, however due to the charged fire hose they can not proceed out and return 20 seconds later past the main entrance	16/01/2019
02:11:21	Mariko Toyoshima-Lewis is wheeled back passed Grenfell Tower main entrance as the path to the leisure centre is covered with charged fire hose and they are unable to pass with the wheelchair, they take great care to lift the wheelchair over one length of charged 70mm fire hose and push Mariko towards the undercroft of Grenfell Tower	16/01/2019
02:12:44	Mariko Toyoshima-Lewis is wheeled is wheeled out through the undercroft of Grenfell Tower towards the leisure centre	16/01/2019
02:15:31	Mariko Toyoshima-Lewis is handed over to the LAS at the casualty handling area outside Kensington leisure centre by a unidentified Firefighter	16/01/2019
02:18:05	Mariko Toyoshima-Lewis is removed from the LAS casualty area outside Kensington leisure centre by a unidentified Police officer and wheeled towards Bormore road	16/01/2019
02:21:41	Sharon Laci (flat 65, ninth floor) wearing a SDBA set is escorted passed Kensington lesuire centre by a unidentified Firefighter heading towards Bormore Road	16/01/2019
Throughout the report	(TCM) amended to (TCG)	18/01/2019
02:43	New entry added	18/01/2019
01:15:29	Burning debris from fire flat added to report following review of CCTV Camera OPS1	21/01/2019
01:32:08	A Fire engine is reversing up the east slope towards Kensington leisure centre	21/01/2019
01:40:57	SM Cook is outside Grenfell Tower on the East elevation walkway taking pictures (Source: CCTV Camera OPS1 Kensington leisure centre).	21/01/2019

**OFFICIAL**

01:44:57	A245 Soho ALP arrives at the East elevation slope outside Kensington leisure centre (Source: CCTV Camera Kensington leisure centre OPS1).	21/01/2019
02:28:31	Fadouma Ahmed (flat 164, 19 <sup>th</sup> floor) is on a wheeled ambulance stretcher and moved by four unidentified Firefighters and one ambulance paramedic passed Kensington leisure centre towards Bomore road	21/01/2019
02:30:52	Khadija Khalloufi (flat 143, 17 <sup>th</sup> floor) is carried by CM Stern , two unidentified Firefighters and one ambulance paramedic passed Kensington leisure centre, two unidentified Firefighters relieve CM Stern and the paramedic and continue with the casualty towards Bomore road	21/01/2019
02:34:22	Maria Del-Pilar Burton (flat 165, 19 <sup>th</sup> floor) is on a wheeled stretcher being pushed by three unidentified firefighters and a paramedic outside Kensington leisure centre towards Bomore road (Source CCTV: Camera OPS1 Kensington leisure centre).	22/01/2019
02:50:57	CM Diana is outside Kensington leisure centre wearing EDDBA looking up at Genfell Tower	22/01/2019
03:00:25	GM O'Neil is outside Kensington leisure centre on the east elevation of Grenfell Tower, he gathers and talks to a very large number of Firefighters	23/01/2019
03:01:44	Ethiopa Assefal is placed on a wheeled stretcher and is attended to by two paramedics with a unidentified firefighter in front of the Kensington leisure centre on the east elevation of Grenfell Tower	23/01/2019
04:01:40	AC Roe is in front of Kensington leisure centre at the east elevation of Grenfell tower and is talking to a very large group of officers and firefighters	23/01/2019
03:55:29	AC Roe leaves the stair lobby and proceeds into the main lobby and talks to SM Mulholland (ORT), WM Williams joins in the discussion	23/01/2019
03:56:30	AC Roe leaves the main lobby and proceeds into the community room	23/01/2019
04:20:50	Adam Supereogsanond (flat 73, 10 <sup>th</sup> floor) is handed over to the LAS by a unidentified firefighter outside Grenfell Tower at the east elevation	23/01/2019
04:22:59	Ann Chance (from flat 73, 10 <sup>th</sup> floor) is handed over to the LAS by a unidentified firefighter outside the east elevation of Grenfell Tower heading towards Kensington leisure centre	23/01/2019

OFFICIAL

04:23:19	Waewta Supareogsanond and Chalalai Supaeogsanond (from flat 73, 10 <sup>th</sup> floor) are handed over to the LAS by a unidentified firefighter outside the east elevation of Grenfell Tower heading towards Kensington leisure centre	23/01/2019
04:07:50	Two Positive Pressure Ventilation Fans (PPV) are being taken down the slope outside Kensington leisure centre towards Grenfell Tower by two unidentified firefighters .	24/01/2019
02:51:31	CM Batcheldor is at the casualty handling area outside Kensington leisure centre and hands over Georgina Smith (flat 95, 12 <sup>th</sup> floor) to her father Ray Smith and mother Katarzyna Dabrowska who are being treated by the LAS (Source , MPS BWV: GTIRT18-04610).	31/01/2019
02:30*	Wording changed	01/02/2019
02:43*	New entry	01/02/2019
Throughout the report	'Proceed to/proceed' into the bridgehead amended to 'report to the bridgehead' where appropriate.	01/02/2019
06:02:37	Pump relief in attendance table removed	06/02/19
01:12:59	O'Keefe changed to O'Keefe	07/02/19



# Actions by Control in Response to Grenfell Tower

OFFICIAL  
31 July 2018

## Contents

1	Introduction .....	2
2	Scope of the Report .....	2
3	Methodology and Presentation of Information.....	2
4	Data Sources .....	3
5	Grenfell Tower fire.....	4
6	Chronology of Events .....	5
7	Appendix 1: Overview of Brigade Control .....	173
8	Appendix 2: Glossary .....	181
9	Appendix 3: References .....	187
10	Appendix 4: Exhibit Variances against Control Report .....	201



# 1 Introduction

The purpose of this report is to detail the key activities and actions undertaken by the London Fire Brigade (LFB) Control Room (Brigade Control) in responding to the Grenfell Tower fire, which occurred on the 14 June 2017. The report forms a key component of the wider 'safety and learning' review that has been initiated by the Brigade as part of its statutory duty under the Fire and Rescue Services Act 2004.

In preparing this report the Brigade appreciates that not all readers will be familiar with the fire service's Control Room procedures, equipment and language. Therefore, a Glossary of abbreviations and commonly used fire service terminology that are regularly referenced throughout the report is appended as Appendix 1. To further assist the reader additional information is covered in Appendix 2 detailing the wider aspects of the Brigade Control facilities, working protocols and staff structures. It should be noted that on the night of the Grenfell Tower fire the Brigade Control functions were being performed from the Brigades' 'fallback' facility in Stratford. This was as a result of planned maintenance on the IT systems at the primary site.

## 2 Scope of the Report

The report covers the period from when the Brigade received the first call to the Grenfell Tower fire up to 08:00hrs on 14 June 2017. In relation to the 999 Emergency and Fire Survival Guidance (FSG) calls the report only references those calls that were routed, via the British Telecommunications (BT) 999 Exchange, to Brigade Control or those that the Brigade was notified about from other emergency service control centres. For the same time period the report also details the Brigade Control's interaction with other agencies, control rooms and the operational crews/officers in attendance at the fire.

## 3 Methodology and Presentation of Information

The majority of the information detailed in this report is taken from the Brigade's computer based mobilising system and associated software solutions. The time of the 999 calls handled by the Brigade Control which are listed in the report, are taken, in the majority of cases, from the BOSS desk top viewer Call time. BOSS is a remote desktop viewer of the Vision mobilising system. It can be used by staff within the Brigade to look at live incidents in progress or at closed historical incidents. The advantage of BOSS is that it gives access to the information recorded in Vision by Control Room Operators, but without having to access to the live system. Where calls were handled by other Fire and Rescue Services control rooms, the times have been taken from the information provided by those control rooms.

Brigade Control's key activities and actions during the fire are presented in chronological order starting with the time the Brigade received the first 999 Emergency Call reporting a fire at Grenfell Tower. It includes a factual account of the actions taken by the Brigade Control staff and includes a summative narrative of all the 999 and FSG calls taken by and/or notified to the Brigade. Brigade Control's interaction with other agencies,

control rooms and the operational crews/officers in attendance at the fire for the same time period are also included.

The information entered on the Vision mobilising system and available on the BOSS viewer is also detailed on the Short Incident Log (SIL). The SIL also provides a time stamped record of the individual actions of Control Room Operators (CRO). In the SIL these are shown as Service Requests. In relation to the 999 calls taken on the night of the Grenfell Tower the SIL shows where a Service Request has been created by a Control Room Operator which requests that information be passed to the incident ground by radio. The CRO will specify the call sign of the appliance that they want the radio message to go to and the content of that message. The Service Request is prefixed with the abbreviation for the radio position that is being used, in this case RT4. The SIL then shows the time that the Service Request has been completed by the Radio Operator. It should be noted that the method to indicate the request has been completed is a manual one. The Radio Operator will select the complete button on the Service Request.

## 4 Data Sources

The data sources used in this report are as follows:

- London Fire Brigade Control policies and procedures for emergency call handling, fire survival guidance and incident communications
  - Policy 539 – Emergency call management
  - Policy 790 – Fire survival guidance calls
  - Policy 488 – Incident communications
  - Policy 412 - Mobilising policy
- Incident data from the Brigades electronic call handling and mobilising systems, taken from Vision Control logs.
- Transcripts of the Emergency 999 and FSG calls handled by Brigade Control and control rooms across the country
- Audio recordings of both the radio and telephone communications between the Brigade Control Room, senior operational officers and incident command vehicles
- The witness statements of fire service personnel taken by the Metropolitan Police Service (MPS) as part of their Op Northleigh investigation

For each activity and action the report includes a reference to the source data that was used to identify the activity and its associated time. This reference information appears in brackets under each activity description. Many of these references use a 'GTIRT' number, which is the internal references used by the Brigade to store and index all the relevant Brigade owned information. The majority of the GTIRT referenced information has already been disclosed to both the Grenfell Tower Inquiry (GTI) and the MPS's criminal investigation team

(Operation Northleigh). To assist the reader an index of all the GTIRT reference numbers and the detail of the source information evidence they each relate to is appended to this report in Appendix 3.

## 5 Grenfell Tower fire

On the night of the Grenfell Tower fire, Brigade Control was operating at the 'fall back' control room at the Stratford site. This was a planned move to the 'fallback' control to enable routine maintenance at the primary control room. Operating from the 'fallback' Control is an activity that is routinely undertaken either as part of the planned maintenance schedule or testing of the Brigade's business continuity arrangements.

The number 2 Watch in Brigade Control were performing a night duty, which started at 20:00hrs on 13 June 2017. Alexandra Norman was the Operations Manager (OM) in charge of the watch with Assistant Operations Managers (AOM) Peter May and Deborah Real. Senior Operations Manager (SOM) Joanne Smith was the designated duty Brigade Control Senior Manager (BCSM). At the start of the night shift the Control Room Operators (CRO) roles were allocated as follows:

Call takers:	Heidi Fox (HF), Angela Gotts (AG), Christine Howson (CH), Peter Duddy (PD), Pamela Jones (PJ)
Paging Operator:	Yvonne Adams (YA)
Radio Operators:	Channel 2 - Sarah Russell (SR) Channel 4 - Sharon Darby (SD)

While dealing with the fire at Grenfell Tower the Brigade continued to provide emergency cover across the rest of London. Between 23:00hrs on the 13/6/2017 and 20:00hrs on the 14/6/2017 the Brigade received 504 Emergency 999 calls, which resulted in 241 incidents being attended.

## 6 Chronology of Events

**00:54:29** Control Room Operator (CRO) Pamela Jones, working in the London Fire Brigade Control Room, takes a call from Mr Behailu Kebede reporting a fire at Grenfell Tower, Lancaster West Estate, London, W11 1TG. He sounds panicked and explains that his fridge is alight in the kitchen. CRO Jones confirms the address and asks how many floors there are in the building to which Mr Kebede replies four. CRO Jones then asks if he is out of the flat and Mr Kebede says that he is. A smoke alarm is audible in the background and he can be heard speaking to other people in a language that does not seem like English. Mr Kebede then confirms once again that he is out of the flat and CRO Jones states that the Brigade is on their way and ends the call.

Incident Number 076029. Call duration one minute 37 seconds. (Source, BOSS Viewer, 999 Audio file and Transcript :GTIRT17-00470)

**00:55:14** Whilst on the telephone to Mr Kebede, CRO Jones enters the relevant details that she is receiving from the caller onto a call collection form on 'Vision' and the Pre-Determined Attendance (PDA) is automatically selected for a fire in a residential dwelling. This is known as an 'A1 Fire in a Residential Dwelling Mobilisation' and the Vision system identifies and selects three fire engines as being the nearest available through the Automatic Vehicle Location. These are Golf 272, North Kensington's Pump , Golf 271, North Kensington's Pump Ladder and Golf 331, Kensington's Pump Ladder . (Source: 'Vision', GTIRT17-02791.)

<b>Pre Determined Attendance for A1 Fire in a Residential Dwelling Mobilisation</b>
<ul style="list-style-type: none"><li>• 3 Fire Engines</li></ul>



<b>Operational Response to the incident</b>
<ul style="list-style-type: none"><li>• Golf 272, North Kensington's Pump</li><li>• Golf 271, North Kensington's Pump Ladder</li><li>• Golf 331, Kensington's Pump Ladder</li></ul>



**00:57:44** CRO Christine Howson takes a call from a remote monitoring company called 'Tunstall Response'. The Tunstall Operator confirms that the main fire alarm panel at Grenfell Tower is showing that there has been an actuation of an Automatic Fire Alarm. CRO Howson explains that the Brigade has already received a call from a member of the public to this address and that they are attending. The caller starts to give information about how to access the premise but is stopped by CRO Howson who states that the Brigade will be forcing an entry". CRO Howson proceeds by giving the Tunstall Response Operator the original Brigade call number (076029) for their records.

Incident number 76032, Call Duration one minute 26 seconds. (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00515).

**00:58:26** Assistant Operations Manager (AOM) Deborah Real takes a call from a Member of the Public who is outside Grenfell Tower and confirms the Brigade is on their way.

Incident number 76033, Call duration 37 seconds. (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00472).

**00:58:48** The Radio Operator at Brigade Control contacts Golf 271, North Kensington's Pump Ladder.

*"Golf 271, can you confirm Status 2 to Grenfell Tower. Over"*

(Source: NICE, Radio Message Audio file: GTIRT18-00240).

**00:58:54** AOM Peter May at Brigade Control sees the incident on the Vision screen at his work station and observes that the caller has given the address as a Tower. He makes a decision to "Google" the name Grenfell Tower and the result comes back describing a high rise building with at least 20 floors. He amends the incident type code to a fire in a high rise building (A1HR) which triggers an additional fire engine as part of the PDA. 'Vision' assigns Golf 362, Hammersmith's Pump, to the incident to complete the high rise attendance. (Source, Vision GTIRT17-02791 and MPS Witness Statement: GTIRT17-02934).

**00:58:55** Golf 271, North Kensington's Pump Ladder, responds to the Radio Operator at Brigade Control.

*"-- Golf 271 are Status 2"*

(Source, NICE, Radio Message Audio file: GTIRT17-00241).

**00:59:01** The Radio Operator at Brigade Control responds to Golf 271.

*"Further traffic, this is a high rise we're, err, attend-, err, put in additional appliance. Over"*

(Source, NICE, Radio Message Audio file: GTIRT18-00242).

**00:59:08** Golf 271, North Kensington's Pump Ladder, respond to the Radio Operator at Brigade Control.

*"FN Golf 271, err, all received."*

(Source, NICE, Radio Message Audio file: GTIRT18-00243).

**00:59:12** The Radio Operator at Brigade Control sends "further traffic" back to Golf 271.

*"There's also further calls being received to this incident. Over"*

(Source, NICE, Radio Message Audio file: GTIRT18-00244).

**01:00:28** AOM May pages Station Manager (SM) Andrew Walton as the closest officer at this rank who is on duty to the incident address. This is a prescribed "notification action" for high rise pre-determined attendance. (Source, Paging logs GTIRT18-02098).

**01:02:43** SM Walton rings control and CRO Yvonne Adams informs him that a high rise attendance PDA has been sent to Grenfell Tower. SM Walton enquires about the officer in charge of the first fire engine, and CRO Adams states that this will be Watch Manager (WM) Michael Dowden. She informs him that there have been three calls and when asked about the nature of the calls, CRO Adams explains that she can't help because she didn't take the calls. (Source, NICE, Admin Phone Line Audio file: GTIRT18-00255).

**01:12:59** Golf 331, Kensington's Pump Ladder, sends a priority radio message to the Radio Operator at Brigade Control.

*"M2FN Golf 331 from WM O'Keefe make pumps 6 request 1TL, sorry, HP, Golf 331, over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02473).

As a point of note, the Control Room are not only responsible for ensuring the correct fire service resources are sent to an incident, they are also responsible for carrying out a range of actions and notifications. Throughout this document a table of the operational response and notification actions is provided to give an indication of the volume of work required by the Control Room staff during large incidents. The AOMs would take on the role of executing the notification actions. A large proportion of these would be telephone calls to partner agencies and senior and principal officers.

**Six Pump fire operational response and notifications**

<b>Incident Type: 6 pump fire</b>	
<b>Operational response</b>	<b>Notification actions</b>
<ul style="list-style-type: none"> <li>• 6 x Pumps including 1 x 135 (Pump Appliance)</li> <li>• 3 x Watch Manager</li> <li>• 1 x Fire Investigation Unit</li> <li>• 2 x Command Unit</li> <li>• 2 x Station Manager</li> <li>• 1 x Group Manager as Monitoring Officer</li> <li>• 1 x Press Officer (exclusive)</li> <li>• 1 x Fire Safety Officer</li> </ul>	<ul style="list-style-type: none"> <li>• Order Water Service Technician (unless incident is a special service)</li> <li>• Inform Police</li> <li>• Inform Environment Agency (EA)</li> <li>• Supervisor inform nearest Tactical Advisor Bulk Media</li> <li>• Supervisor inform Resource Management Logistics</li> <li>• Supervisor inform Operational Review Team</li> <li>• Supervisor inform Duty Brigade Control Senior Manager if incident is of high profile/media interest</li> <li>• Inform Deputy Assistant Commissioner with Assistant Commissioner 1 as Remote Monitoring Officer</li> <li>• Action Make Pumps 6</li> <li>• Officer of the Day (OD1/OD2)</li> <li>• Duty Deputy Assistant Commissioner</li> </ul>

The table below shows the actual resources assigned.

<b>Operational Response to the incident at Make Pump 6</b>
<ul style="list-style-type: none"><li>• Golf 272, North Kensington's Pump</li><li>• Golf 271, North Kensington's Pump Ladder</li><li>• Golf 331, Kensington's Pump Ladder (assigned Watch Manager Romeo attribute, this means a substantive Watch Manager is in attendance)</li><li>• Golf 362, Hammersmith's Pump</li><li>• Golf 361, Hammersmith's Pump Ladder</li><li>• Alpha 212, Paddington's Pump</li><li>• Oscar Kilo 13, Watch Manager Matthew Leaver from the Fire Investigation Team</li><li>• Command Unit 7</li><li>• Command Unit 8</li><li>• Hotel 41 Sierra (Kingston's Station Manager) Station Manager Andrew Walton (as Station Manager)</li><li>• Golf 22 Sierra (Chelsea's Station Manager) Station Manager Brett Loft (as Station Manager)</li><li>• Foxtrot 115 Group Manager Patrick Goulbourne (as Group Manager)</li><li>• Oscar Golf 54 Station Manager Gareth Cook (as the Press Liaison Officer)</li><li>• Oscar Foxtrot 67 Station Manager Daniel Egan (as Fire Safety Officer)</li></ul>

**01:13:19** The Radio Operator at Brigade Control respond to Golf 331, Kensington's pump ladder's message at 01:12:59.

*"Make pump 6 and 1 HP received."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02474)

**01:13:41** Golf 331, Kensington's Pump Ladder, send a message to the Radio Operator at Brigade Control.

*"M2FN Golf 331, er, should be make pump 6, er, 1 aerial, er, Golf 331 over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02475).

The London Fire Brigade have four types of aerial appliance.

1. A Turntable Ladder which is a hydraulic extending ladder mounted on a large flat platform. This can reach up to 30 metres.
2. There are two models of an Aerial Ladder Platform a 320 and a 325. This appliance is made up of a set of booms that open out and allow a reach of 32 metres. At the end of the last boom there is a cage that allows at least two people to stand.
3. A Hydraulic Platform which is similar to the Aerial Ladder Platform but older. They are only used as a reserve for the other aerial appliances if they are damaged or being serviced.

**01:14:21** Golf 272, North Kensington's Pump, send a message to the Radio Operator at Brigade Control.

*"From G272 residential block of flats of 20 floors 25metres x 25metres, five roomed flat on 4th floor, 75 per cent alight, high rise procedure implemented MDT in use, tactical mode Oscar."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02477).

**01:15:16** The Radio Operator at Brigade Control responds to G272, repeating their message.

*"Golf 272, residential block of flats of 20 floors, 25 metres by 25 metres. Five room flat on fourth floor 75% alight. High rise procedure implemented. MDT in use, tactical mode Oscar received, stand by."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02483).

**01:16:05** Golf 272, North Kensington's Pump, sends a message to the Radio Operator at Brigade Control.

*"FN Golf 272 is ICP for this incident, Golf 272, over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02484).

**01:16:14** The Radio Operator at Brigade Control responds to Golf 272, North Kensington's Pump message.

*"Golf 272, received."*

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02485)

**01:16:43** AOM Real calls the Metropolitan Police Service (MPS) to inform them of the six pump fire at Grenfell Tower and is given a MPS reference number from their computer aided despatch system as 482. (Source, NICE, Admin Phone Line Audio file: GTIRT18-00860).

**01:17:12** CRO Howson takes a call from a male who lives in W10 6SX who reports that he can smell burning/fire or rubber coming from a Tower behind them next to the leisure centre. CRO Howson tells the caller that the Brigade are attending a call at Grenfell Tower and the caller confirms that is the one he is calling about. CRO Howson confirms that the Brigade is on the scene.

Incident Number 76038, Call Duration one minute 18 seconds. (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00473).

**01:17:21** SM Brett Loft calls Control and says he has been paged to a 6 pump fire. CRO Peter Duddy confirms he is the first Station Manager. He then informs SM Loft that Golf 271 with WM Dowden, Golf 272 and Golf 331 are all in attendance. Golf 361, Golf 362 and Alpha 212 are on the way. He then says the second Station Manager is Andrew Walton and the Group Manager is Patrick Goulbourne. He continues to say we also have SM Daniel Egan assigned as fire safety officer and SM Gareth Cook as press liaison officer.



SM Loft asks if it has gone straight to six pumps, CRO Duddy says it is a standard fire, 3 pumps first then sends a message back for six pumps and one HP for high rise. SM Loft asks how many calls have been received, CRO Duddy tells him we have four calls altogether. SM Loft asks to be shown as Status 2. (Source, NICE, Admin Phone Line Audio file: GTIRT18-00254).

**01:17:51** SM Walton contacts Control and tells them he is on his way to the incident at Grenfell Tower. (Source, NICE, Admin Phone Line Audio file: GTIRT18-00256).

**01:19:08** Golf 272, North Kensington's Pump, sends a message to the Radio Operator at Brigade Control.

*"M2FN Golf 272, make pumps 8, over"*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02487).

### 8 Pump fire operational response and notifications

Incident type: 8 pump fire	
Operational response	Notification actions
<ul style="list-style-type: none"> <li>• 8 x Pump including 1 x 135 (Pump Appliance)</li> <li>• 3 x Watch Manager</li> <li>• 1 x Fire Investigation Unit</li> <li>• 1 x Fire Rescue Unit</li> <li>• 2 x Command Units</li> <li>• 3 x Station Manager</li> <li>• 1 x Group Manager (Incident Commander 7-10 pumps) Officer</li> <li>• 1 x Fire Safety Officer</li> <li>• 1 x Press Officer (exclusive)</li> <li>• 1 x Deputy Assistant Commissioner as Monitoring Officer</li> <li>• 1 x Breathing Apparatus Unit (on the Operational Support Unit)</li> <li>• 1x Damage Control Unit (on the Operational Support Unit)</li> </ul>	<ul style="list-style-type: none"> <li>• Order Canteen Van or inform of incident upgrade if already attending</li> <li>• Inform Assistant Commissioner on duty type 24 Assistant Commissioner 1 or next in sequence if not available</li> <li>• Order Ambulance</li> <li>• Order Water Service Technician (unless incident is a special service)</li> <li>• Inform Police</li> <li>• Inform Environmental Agency</li> <li>• Supervisor inform Resource Management Logistics</li> <li>• Supervisor inform Operational Review Team</li> <li>• Supervisor inform nearest Tactical Advisor Bulk Media Officer of fires of 8 pumps and above (not grass or special service)</li> <li>• Supervisor inform Duty Radio officer</li> <li>• Supervisor inform Duty non uniformed Press Officer</li> <li>• Supervisor inform Duty Brigade Control Senior Manager</li> <li>• Supervisor considers diverting press line to Duty non uniformed Press Officer.</li> <li>• Inform Assistant Commissioner 1 as Remote Monitoring Officer</li> <li>• Action Make Pumps 8</li> <li>• Officer of the Day 1 or 2</li> <li>• Duty Deputy Assistant Commissioner</li> <li>• Duty Assistant Commissioner</li> <li>• Commissioner and Staff Officers as appropriate</li> <li>• Authority members</li> </ul>

**01:19:58** CRO Howson takes a call from a male caller in W11 1PG, outside Grenfell Tower, who explains that he can see a big fire behind him in the direction of Latimer Road tube station. CRO Howson confirms that the Brigade is attending a fire at Grenfell Tower on the Lancaster West estate and the caller confirms that this sounds like what he can see. He states that he assumes the Brigade is attending because it is so big.

Incident Number 76039, Call Duration one minute seven seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00474).

**01:20:57** The table below shows the resources mobilised to the eight pump fire:

<b>Operational Response to the incident at Make Pumps 8</b>
<ul style="list-style-type: none"> <li>• Golf 272, North Kensington's Pump</li> <li>• Golf 271, North Kensington's Pump Ladder</li> <li>• Golf 331, Kensington's Pump Ladder</li> <li>• Golf 362, Hammersmith's Pump</li> <li>• Golf 361, Hammersmith's Pump Ladder,</li> <li>• Alpha 212, Paddington's Pump</li> <li>• Alpha 211, Paddington's Pump Ladder</li> <li>• Golf 261, Acton's Pump Ladder</li> <li>• Oscar Kilo 13, Watch Manager Leaver from the Fire Investigation Team</li> <li>• Alpha 216, Paddington's Fire Rescue Unit</li> <li>• Command Unit 7</li> <li>• Command Unit 8</li> <li>• Hotel 41 Sierra (Kingston's Station Manager) Station Manager Andrew Walton (as Station Manager)</li> <li>• Golf 22 Sierra (Chelsea's Station Manager) Station Manager Brett Loft (as Station Manager)</li> <li>• Oscar Golf 61 Station Manager Nicholas Saunders (as Station Manager)</li> <li>• Foxtrot 115 Group Manager Patrick Goulbourne (as Group Manager)</li> <li>• Oscar Golf 54 Station Manager Gareth Cook (as the Press Officer)</li> <li>• Echo 6 Deputy Assistant Commissioner O'Loughlin</li> <li>• Oscar Foxtrot 67 Station Manager Daniel Egan (as Fire Safety Officer)</li> <li>• Golf 25 Alpha, Ealing's Operational Support Unit (Breathing Apparatus Unit)</li> <li>• Alpha 39 Alpha, Finchley's Operational Support Unit (Damage Control Unit)</li> </ul>

**01:21:24** CRO Adams takes a call from a female caller reporting the smell of smoke from inside Grenfell Tower. She states that she is from Flat 195 on the 22nd floor. CRO Adams asks if there is smoke coming into her flat and the caller states that there is not but that she can smell smoke coming from the lift side of the building. CRO Adams advises the caller to stay inside and keep the door and window shut. CRO Adams explains that the fire is on the fourth floor and when the caller asks if they should stay where they are, CRO Adams replies that they should stay unless things change.

Incident Number 76042, Call Duration one minute, 34 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00477).

**01:22:16** CRO Howson takes a call from a male caller who reports that he can see a block of flats on fire. He explains that he is between Latimer Road station and Ladbrooke Grove. CRO Howson confirms that the Brigade are attending a fire on the Lancaster Estate.

Incident Number 76043, Call Duration 36 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00478).

**01:23:22** AOM Real from Brigade Control phones Thames Water Authority (TWA) to inform them of the fire in progress at Grenfell Tower and order a water services technician. The TWA Operator asks how many pumps are attending the incident and AOM Real states that it is a ten pump fire. She asks the TWA Operator to hold and when she returns she repeats her request for a water services technician and also asks TWA to remotely increase the pressure. AOM Real confirms to the TWA Operator that it is now a 15 pump fire.

Call Duration five minutes 18 seconds. (Source, NICE, Admin Phone Line Audio file: GTIRT18-00865).

**01:23:50** CRO Adams takes a call from a female caller who reports that she has seen a whole tower block on fire whilst driving down the A40. CRO Adams confirms the Brigade are in attendance and dealing with it. Incident Number 76044, Call Duration 39 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00479).

**01:24:08** CRO Duddy takes a call from a female caller reporting a fire in Grenfell Tower. The caller reports that there is a line of fire going right up the outside of it. CRO Duddy informs the caller that the Brigade is in attendance and additional resources are on their way.

Incident Number 76045, Call Duration 34 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00480).

**01:24:09** Golf 271, North Kensington's Pump Ladder sends a message to the Radio Operator at Brigade Control.

*"M2FN Golf 271, make pump 10, over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02489).

Incident Type: 9 -12 Pumps	
Operational response	Notification actions
<ul style="list-style-type: none"> <li>• 9-12 x Pumps including 1 x 135 (Pumping Appliance)</li> <li>• 4 x Watch Manager</li> <li>• 1 x Fire Investigation Unit</li> <li>• 1 x Fire Rescue Unit</li>   <li>• 2 x Command Units</li> <li>• 5 x Station Manager</li> <li>• 2 x Group Manager (Incident Commander 7-10 pumps)</li> <li>• 1 x Press Officer (exclusive)</li> <li>• 1 x Deputy Assistant Commissioner (Monitoring Officer/Incident Commander 11-15 pumps)</li> <li>• 1 x Assistant Commissioner as Monitoring Officer</li> <li>• 1 x Breathing Apparatus Unit (on the Operational Support Unit)</li> <li>• 1x Damage Control Unit (on the Operational Support Unit)</li> <li>• For incidents of 10 pumps and above;</li> <li>• 1 x Portable Hygiene Unit will be mobilised via Logistics Manager in Resource Management Logistics</li> </ul>	<ul style="list-style-type: none"> <li>• Order Assistant Commissioner 1 or next available Duty Assistant Commissioner</li> <li>• Inform Assistant Commissioner 2 they are now Assistant Commissioner 1</li> <li>• Order Canteen Van or inform of incident upgrade if already attending</li> <li>• Order Ambulance</li> <li>• Order Water Service Technician (unless incident is a special service)</li> <li>• Inform Police</li> <li>• Inform Environment Agency</li> <li>• Supervisor inform Resource Management Logistics</li> <li>• Supervisor inform Operational Review Team</li> <li>• Supervisor inform nearest Tactical Advisor Bulk Media Officer of fires of 8 pumps and above</li> <li>• Supervisor inform Duty Radio Officer</li> <li>• Supervisor inform Duty non uniformed Press Officer</li> <li>• Supervisor inform Duty Brigade Control Senior Manager</li> <li>• Supervisor consider diverting press line to Duty non uniformed Press Officer.</li> <li>• Action Make Pumps 9 - 12</li> <li>• Inform Assistant Commissioner 1 as Remote Monitoring Officer</li> <li>• Officer of the Day 1 or 2</li> <li>• Duty Deputy Assistant Commissioner</li> <li>• Duty Assistant Commissioner (reassigned)</li> <li>• Commissioner and Staff Officers as appropriate</li> <li>• Authority members</li> <li>• Additional for 10 pumps</li> <li>• Supervisor inform Respiratory Protection Equipment officer</li> </ul>

**01:24:33** Golf 271, North Kensington's Pump Ladder, sends a message to the Radio Operator at Brigade Control.

*"M2FN Golf 271, can we request the attendance of the police for crowd control? Golf 271."*

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02491).

**01:24:53** Echo 109 GM Richard Welch rings the paging officer in response to the notification of the six pump fire for a Tactical Advisor Bulk Media. In the London Fire Brigade the term bulk media refers to large volumes of an extinguishing substance such as water or foam. While he is on the phone CRO Adams states the incident is now a 10 pump fire and that there are lots of calls

coming through. GM Welch says he will attend and explains that he has to attend as soon as an incident is declared as an eight pump fire. He is assigned as the Tactical Advisor Bulk Media. (Source, NICE, Admin Phone Line Audio file: GTIRT18-00259).

**01:24:57** CRO Howson takes a call from a male caller in W11 4JJ. He says there is a "Fire in a tower opposite". CRO Howson confirms that Brigade is in attendance at Grenfell Tower.

Incident Number 76046 ,Call Duration 26 seconds. (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00481).

**01:24:57** CRO Duddy takes a call from a BT Operator. A female can be heard shouting very loudly in the background. CRO Duddy asks if the line is still open and the BT Operator explains that it is but that she is not getting any response from the caller except shouting 'Help, Help'. CRO Duddy asks the BT Operator if the caller states that her flat is on fire but the response is interrupted by the caller shouting. CRO Duddy explains that the Brigade are already in attendance and the female caller states that she cannot breathe and that the fire is in the kitchen. The caller then leaves the line. CRO Duddy confirms with the BT operator that the line is still open and says hello several times. He asks the BT Operator to keep the line open.

Incident Number 76047, Call Duration one minute, 57 seconds. (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00482).

**01:25:12** CRO Heidi Fox takes a call from a female caller in W11 4EU. The caller states that there is a building opposite her that is on fire and CRO Fox advises her that the Brigade are already in attendance.

Incident Number 76049, Call Duration 28 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00483).

**01:25:16** OM Alexandra Norman takes a call from a male caller in flat 111, 14th floor. The caller states that he can smell smoke but there is no smoke in his flat so he is advised by OM Norman it is safer to stay in his flat as there may be smoke in the stairwells. OM Norman also advises that if he wants to leave and it is safe to do so then he can. It is believed the caller subsequently opens the front door causing the smoke alarm to actuate and says he can't get out because of the smoke. He explains that there is smoke in the corridor. OM Norman tells him to block the doors and that he should stay put if he cannot get out safely. She tells him that she will tell the crews that he is there.

Incident Number 76058 Call Duration three minutes 57 seconds. (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00492).

**01:25:36** CRO Howson takes a call from an occupant believed to be from flat 91,12th floor. CRO Howson states that there are six appliances in attendance and more on the way and then asks if he is okay and the caller responds by stating that he is scared. The caller says goodbye and the line goes dead.

Incident Number 76050 Call Duration 46 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00484).

**01:25:41** Alpha 216, Paddington's Fire Rescue Unit, contact the Radio Operator at Brigade Control.

*"M2FN Alpha 216, can you confirm we're no longer required for scene of 10 pump fire, over?"*

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02494).

**01:25:41** The Radio Operator at Brigade Control responds to Alpha 216, Paddington's Fire Rescue Unit.

*"Alpha 216, I am not aware that you are not required for the 10 pump. Can you just proceed and we are taking – we're taking emergency calls at the moment. Just proceed. Over"*

(Source: NICE, Radio Message Audio and Transcript : GTIRT17-02493).

**01:25:41** Alpha 216, Paddington's Fire Rescue Unit, contact the Radio Operator at Brigade Control.

*"Alpha 216 received, over."*

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02492).

**01:26:25** CRO Fox takes a call from a BT Operator at Glasgow passing on a call that has dropped out. The BT Operator says it is a female caller asking for the fire brigade and there is a smoke alarm in the background, but the line has dropped out. CRO Fox says she will call her back.

Incident Number 07961793809, Call Duration 27 seconds (Source, NICE, 999 Audio file and Transcript: GTIRT17-02194).

**01:26:27** CRO Angie Gotts takes a call from a male caller who states he can smell burning in the area of his property in W10 6LW but he cannot see the building that is on fire.

Incident Number 76053, Call Duration one minute 34 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00487).

**01:26:43** The table below show the resources mobilised to the 10 pump fire:

(Source: Vision: GTIRT 17-02791).

### Operational Response to the incident at Make Pumps 10

- Golf 272, North Kensington's Pump
- Golf 271, North Kensington's Pump Ladder
- Golf 331, Kensington's Pump Ladder
- Golf 362, Hammersmith's Pump
- Golf 361, Hammersmith's Pump Ladder,
- Alpha 212, Paddington's Pump
- Alpha 211, Paddington's Pump Ladder
- Golf 261, Acton's Pump Ladder
- Golf 371, Chiswick's Pump Ladder
- Golf 281, Willesden's Pump Ladder
- Oscar Kilo 13, Watch Manager Matthew Leaver from the Fire Investigation Team
- Alpha 216, Paddington's Fire Rescue Unit
- Command Unit 7
- Command Unit 8
- Hotel 41 Sierra (Kingston's Station Manager) Station Manager Andrew Walton (as Station Manager)
- Golf 22 Sierra (Chelsea's Station Manager) Station Manager Brett Loft (as Station Manager)
- Oscar Golf 61, Station Manager Nicholas Saunders (as Station Manager)
- Alpha 40 Sierra, Station Manager Peter Wolfenden (as Station Manager)
- Oscar Echo 69, Station Manager Daniel Kipling (as Station Manager)
- Foxtrot 115 Group Manager Patrick Goulbourne (as Group Manager)
- Foxtrot 113 Group Manager Stephen West (Operational Review Team Shadowing)
- Oscar Golf 54 Station Manager Gareth Cook (as the Press Officer)
- Echo 6 Deputy Assistant Commissioner Andrew O'Loughlin
- Oscar Foxtrot 67 Station Manager Daniel Egan (as Fire Safety Officer)
- Golf 25 Alpha, Ealing's Operational Support Unit (Breathing Apparatus Unit)
- Alpha 39 Alpha, Finchley's Operational Support Unit (Damage Control Unit)

**01:26:54** CRO Duddy takes a call which is transferred from a BT Operator in Nottingham. A female caller comes on the line and reports that there is a fire in flat 186, Grenfell Tower. She says there is a fire in the whole building and when CRO Duddy asks if the caller is in the building, she confirms that everyone is out. The caller is advised to stay out, not to go back in and that there are a lot of fire engines already there.

Incident Number 76052, Call Duration one minute 20 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00486).

**01:26:58** CRO Fox takes a call from a female reporting a fire in Grenfell Tower. The caller explains that she is on the 12th floor and asks for some advice on what to do. CRO Fox clarifies the address and the caller explains that she can see the fire through the window and reports that her neighbour says that the fire is in her kitchen already. The caller says that smoke is coming from the main door and CRO Fox advises her to put wet towels down to stop the smoke. There is some audible confusion regarding whether the towels should be wet or dry and CRO Fox then confirms the location and flat number as flat 95. CRO Fox states that she will pass on the information to the crews.

Incident Number 76062, Call Duration two minutes and 10 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00495).

**01:27:02** CRO Howson takes a call from a male outside of Grenfell Tower stating that he can see a really big fire at Grenfell Tower and that it looks like it could collapse. CRO Howson tells the caller that six fire engines are en-route.

Incident Number 76051, Call Duration 25 seconds (Source, BOSS viewer, 999 Audio file and Transcript: GTIRT17-00485). The call time is the BOSS call time but has been referenced as using the Call creation time.

**01:27:02** Golf 271, North Kensington's Pump Ladder, sends a message to the Radio Operator at Brigade Control.

*"M2FN Golf 271, make ALP2, over."*

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02495)

**01:27:03** SM Jason Oliff is the nominated Officer of the Day. He contacts the paging officer to acknowledge receipt of the eight pump fire notification. He confirms that Control are located at Stratford and confirms he will attend. (Source, NICE, Admin Phone Line Audio file: GTIRT18-00255).

### **Officer of the Day**

The Brigade have an on duty officer called the Officer of the Day. This officer is a central point of contact for a range of resourcing issues that occur on a daily basis. The Officer of the Day works closely with the Resource Management Centre and the London Operations Centre to resolve these issues and provide a link to operational staff at fire stations and senior on call duty officers. There are in built notifications on the Vision mobilising system that will activate an alert to inform the Officer of the Day that incidents have reached a certain size. When an incident is eight pumps or greater the Officer of the Day is required to attend the Control Room. Their role in this instance is to support the officer in charge of control and the duty Brigade Coordinating Manager, which in this instance was Deputy Assistant Commissioner (DAC) Adrian Fenton, with resource planning.

**01:27:06** The Radio Operator at Brigade Control confirms receipt of message from G271, North Kensington's Pump Ladder at **01:27:02**

*"Make ALPs 2, further traffic."*

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02496).

**01:27:26** Golf 271, North Kensington's Pump Ladder, sends a message to the Radio Operator at Brigade Control.



*"Further traffic, make pump 15, over."*

(Source, NICE, Radio Message Audio file and Transcript:GTIRT17-02499).

**13+ pumps operational response and notification actions**

<b>Incident Type: 13+ Pumps</b>	
<b>Operational response</b>	<b>Notification actions</b>
<ul style="list-style-type: none"> <li>• 13+ x Pumps including 1 x 135 (Pumping Appliance)</li> <li>• 5 x Watch Manager</li> <li>• 1 x Fire Investigation Unit</li> <li>• 1 x Fire Rescue Unit</li> <li>• 2 x Command Units</li> <li>• 6 x Station Manager</li> <li>• 3 x Group Manager</li> <li>• 1 x Press Officer (exclusive)</li> <li>• 1 x Fire Safety Officer</li> <li>• 1 x Deputy Assistant Commissioner (Incident Commander 11-15 pumps)</li> <li>• 1 x Assistant Commissioner (Monitoring officer/Incident Commander 16+ pumps)</li> <li>• 1 x Breathing Apparatus Unit (on the Operational Support Unit)</li> <li>• 1x Damage Control Unit (on the Operational Support Unit)</li> <li>• 1 x Portable Hygiene Unit will be mobilised via Logistics Manager in Resource Management Logistics</li> </ul>	<ul style="list-style-type: none"> <li>• Order Assistant Commissioner 1 or next available Duty Assistant Commissioner</li> <li>• Inform Assistant Commissioner 2 they are now Assistant Commissioner 1</li> <li>• Order Canteen Van or inform of incident upgrade if already attending</li> <li>• Order Ambulance</li> <li>• Order Water Service Technician (unless incident is a special service)</li> <li>• Inform Police</li> <li>• Inform Environment Agency</li> <li>• Supervisor inform Resource Management Logistics</li> <li>• Supervisor inform Operational Review Team</li> <li>• Supervisor inform nearest Tactical Advisor Bulk Media Officer</li> <li>• Supervisor inform Duty Radio Officer</li> <li>• Supervisor inform Duty non uniformed Press Officer</li> <li>• Supervisor inform Duty Brigade Control Senior Manager</li> <li>• Supervisor consider diverting press line to Duty non uniformed Press Officer.</li> <li>• Action Make Pumps 13+</li> <li>• Inform Assistant Commissioner 1 as Remote Monitoring Officer</li> <li>• Supervisor inform Respiratory Protection Equipment Officer</li> <li>• Officer of the Day 1 or 2</li> <li>• Duty Deputy Assistant Commissioner</li> <li>• Duty Assistant Commissioner (reassigned)</li> <li>• Commissioner and Staff Officers as appropriate</li> <li>• Authority members</li> <li>• Supervisor order Duty Brigade Control Senior Manager</li> </ul>

**01:27:35** The Radio Operator at Brigade Control confirm Golf 271, North Kensington's Pump Ladder's message of **01:27:26**.

*"Make pump 15 and aerals 2 received. Hotel 41 Sierra, did you intercept that road, over?"*

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02500).

**01:27:46** CRO Howson takes a call from a male caller who is incoherent. CRO Howson tries to get some information but the caller doesn't answer. The BT Operator then comes on to the line and states that the initial caller is a female asking for the fire brigade and sounded quite panicky.

Incident Number 76055, Call Duration 46 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00489).

**01:28:00** CRO Gotts takes a call from a member of the public reporting a massive fire in a flat that they can see as they are driving to Shepherds Bush.

Incident Number 76056, Call Duration 52 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00490).

**01:28:02** CRO Duddy takes a call from a female member of the public reporting a fire in Grenfell Tower. She explains that she is in the building opposite. CRO Duddy states that the Brigade is in attendance.

Incident Number 76054, Call Duration 26 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00488).

**01:28:05** Echo 6, DAC Andrew O'Loughlin calls Brigade Control in response to the pager message to an eight pump fire at Grenfell Tower and asks if that it is now a 15 pump fire which Control confirms. DAC O'Loughlin confirms that he is en-route and to book him Status 2, mobile to incident and states that DAC Fenton will be taking over the duty DAC role (Source, NICE, Radio Message Audio file: GTIRT18-00252 and Vision: GTIRT 17-02791).

**01:28:12** Golf 271, North Kensington's Pump Ladder, sends a message to the Radio Operator at Brigade Control.

*"M2FN Golf 271, this is a person-reported fire, over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02501).

A "Persons Reported" message is sent whenever the Incident Commander has been informed, or where they reasonably suspect, that people are trapped by fire, the products of combustion or by release of a hazardous substance. This would usually be, but is not limited to, an incident occurring inside a building. This message can only be sent from the incident ground. When a persons reported message is received by Control they will upgrade the incident with additional resources if not already in attendance. This would include a Watch Manager, Command Unit, Station Manager and a Fire Investigation Unit. Several notification actions also need to be completed as outlined in the table below. (Source: London Fire Brigade Policy 518 Messages from incidents (GTIRT17-00959) and Policy 790 Fire survival calls (GTIRT17-00974).

## Persons Reported operational response and notification actions

Incident Type: PR – Fire – Persons Reported	
Operational response	Notification actions
<ul style="list-style-type: none"> <li>• Normal Predetermined Attendance for the premises/thoroughfare and Fire</li> <li>• 1 x Watch Manager</li> <li>• 1 x Fire Investigation Unit</li> <li>• 1 x Station Manager as Monitoring Officer</li> <li>• 1 x Command Unit</li> </ul>	<ul style="list-style-type: none"> <li>• Order Ambulance</li> <li>• Inform Police</li> <li>• Supervisor inform Resource Management Logistics</li> <li>• Supervisor inform Operational Review Team</li> <li>• Inform Fire Safety Officer if not already attending.</li> <li>• Inform Group Manager as Remote Monitoring Officer</li> </ul>

**01:28:19** CRO Sarah Russell takes a call from the Glasgow BT Operator who states that a male caller is on the line but has now cleared the line. The BT Operator says that the caller starts saying Ladbroke something, but then the line clears. CRO Russell says she will call him back.

Incident Number 76059a, Call Duration 24 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00493). The Call time is the BOSS call time but has been referenced using the Vision Call creation time.

**01:28:19** CRO Russell calls the number provided above and speaks to a delivery driver who wants to report a fire in Grenfell Tower. CRO Russell confirms that the Brigade is in attendance. (Source, 999 Audio Files: GTIRT17-00538).

**01:28:21** The Radio Operator at Brigade Control confirm receipt of Golf 271, North Kensington's Pump Ladder's message of 01:28:12.

*"Golf 271, persons reported also received."*

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02502).

**01:28:26** CRO Duddy takes a call from the occupant of flat 82, 11th floor. The female caller explains that she is stuck on the 11th floor and does not know how to get out. CRO Duddy asks if there is any smoke in her property to which the caller states that there is no smoke in her property but that there is smoke in the landing. CRO Duddy advises her to keep the doors and windows closed.

Incident Number 76057, Call Duration one minute six seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00491).

**01:29:05** AOM Real calls the London Ambulance Service and asks for their attendance. She gives the address of Grenfell Tower and postcode as W11 1TG. The Ambulance Operator says this brings up The Parade off St John's Hill. AOM Real states that it is the Lancaster West estate, the Ambulance Operator asks if this is a "new build". AOM Real answers no. The Ambulance

Operator appears to be having difficulty finding Grenfell Tower. AOM Real passes it as a 25 pump fire. The ambulance reference is given as 247.

Call Duration three minutes 18 seconds, (Source, NICE, Admin Phone Line Audio file: GTIRT18-00869).

**01:29:11** Golf 271, North Kensington's Pump Ladder, sends a message to the Radio Operator at Brigade Control.

*"Authority. ""M2FN Golf 271, make pumps 20 and FRUs 2, over."*

(Source, NICE, Radio Message Audio file: GTIRT18-02503).

**01:29:33** The Radio Operator at Brigade Control sends a message to Golf 271, North Kensington's Pump Ladder.

*"Make pumps 20, FRU's 2 received."*

(Source: NICE, Radio Message Audio file and Transcript: GTIRT17-02504).

**01:29:34** CRO Duddy takes a call from a female caller who lives near Grenfell Tower to report that it is burning. CRO Duddy confirms that the Brigade is already there.

Incident Number 76061, Call Duration 26 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00494). The time shown is the BOSS call time but has been referenced using the Vision call created time.

**01:29:38** CRO Adams takes a call from a female requesting Fire Brigade attendance at Ladbroke Grove, Latimer Road. CRO Adams confirms that this is to Grenfell Tower and explains that the Brigade is already in attendance. The caller asks CRO Adams to send more fire engines and states that the whole of left side of building is on fire. The caller then corrects herself by stating that the whole of the right side is on fire. CRO Adams advises that 20 fire engines are coming and the fire service are already in attendance.

Incident Number 76065, Call Duration 60 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00498).

**01:29:41** Senior Operations Manager (SOM) Joanne Smith who is the Duty Brigade Control Senior Manager is paged and notified of the incident. (Source, Paging logs GTIRT18-02098).

**01:29:48** CRO Gotts takes a call from a male caller who states he has received a call from his girlfriend and that there is a fire in her block near Latimer Road. He is advised that the Brigade is on scene and dealing with the fire.

Incident Number 76064, Call Duration 20 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00497).

**01:29:48** CRO Russell takes a call from the Portadown BT Operator who passes on a mobile number saying the line has cleared. The BT Operator adds that it appears to be a child on the line who asks for the Fire Brigade. She also says the caller sounds in distress. CRO Russell says she will call the number back.

Incident Number 76096a, Call Duration 21 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00527).

**01:30:00** CRO Duddy takes a call from a female caller reporting that there is a fire in Grenfell Tower and that they are stuck on the top floor and that the doors won't open. The caller explains that there is smoke everywhere and the fire is in her house on the 22nd floor. She tells CRO Duddy that everyone is now on the 23rd floor. The caller further explains that the fire has broken into the kitchen of her flat and she has run into the neighbour's flat. FSG is given to explain how to try to prevent smoke from coming in. The line is very poor and keeps cutting out and the caller's voice keeps breaking up. When the line goes quiet, CRO Duddy asks the Operator if the line is open but there is no response and eventually the line drops out.

Incident Number 76063 Call Duration 2 minutes 37 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00496).

**01:30:02** OM Norman takes a call from a female caller who states that her, her husband, three children including a baby are in Grenfell Tower in flat 175 on the 20th floor and that there is a fire in her building. The caller originally states that she is on 17th floor and then corrects herself. OM Norman explains that the fire is on the fourth floor and the caller states that there is smoke coming into her flat. OM Norman advises the caller to stay in the flat unless its safe to leave as she doesn't know what the conditions are like on the stairs. She tells the caller to block the doors and the caller confirms that her husband has done this and that the family have all moved into the sitting room. The caller is scared and panicking and OM Norman confirms that she will send someone up to her. OM Norman repeats her advice to block the door and tells the caller not to open the windows unless there is no smoke because the fire will be coming up the outside of the building.

Incident Number 76079, Call Duration two minutes 40 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00512).

**01:30:08** After completing the call to the BT Operator (call received at **01:29:48**), CRO Russell calls the mobile number given to her and a young girl can be heard saying "Mum". She then says there is a fire in the kitchen, then says there is a fire in the building. The caller is on the 23rd floor. CRO

Russell asks the caller where the smoke is coming from and the caller states it is coming from the floor. She says there are 10 people including her. It appears initially that the caller is on the landing outside the flat. A smoke alarm is sounding and someone is heard saying "come in", "we have to close the door". CRO Russell confirms they need to go inside and try and block underneath the front door to stop the smoke coming in and establishes some information about the location of the fire. The caller says the fire is on the 20th floor but they are on the 23rd. CRO Russell asks the caller who the people are with them. They reply, "I'm not with my family". At **01:39:41** the caller tells CRO Russell they have moved into a bedroom. At **01:47:28** CRO Russell is able to confirm that the caller's name is Jessica, that she is 12 years old, is in flat 201 and that there are 12 people in the flat including herself. CRO Russell continues to support Jessica and asks her to keep her up to date. At **02:09:32** Jessica says "there's a fire in the room". At around **02:13** CRO Russell asks Jessica to talk to other people in the room and ask if they think it would be safer to leave that room and go to another room if the flames are now coming in. Jessica says they have tried already and there is too much smoke. CRO Russell asks to speak to the person that tried to get out but is told he cannot talk. CRO Russell persists in trying to get the phone passed over but Jessica cannot pass it or speak to anyone. The call ends at **02:24:45** when Jessica becomes inaudible for several minutes and CRO Russell cannot get any response. She repeatedly tries to raise a response. Call Number 76096b, Call Duration 55 minutes (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00570).

It should be noted that CRO Russell is allocated to a radio position at the beginning of the shift in the Control Room. She is scheduled to monitor M2FS, which is the call sign for the radio position monitoring all Brigade resources operating south of the River Thames. In her witness statement she says that she can see that the number of calls begin stacking up and she asks her colleague CRO Sharon Darby if she minds managing two radio channels so CRO Russell can help with call handling. This is not an uncommon practice during busy periods and is also used to facilitate rest breaks. (Source, MPS Witness statement: GTIRT17-01255).

**01:30:08** CRO Fox takes a call from a male caller who says there is a fire and that he is on the 22nd floor. CRO Fox confirms that the caller is in Grenfell Tower and confirms that the Brigade are on their way. The caller acknowledges that he can see the Brigade but states that the conditions are terrible and it is not possible to see your hand in front of you. CRO Fox tells the caller to put towels down to prevent smoke from coming in and the caller thanks her and says he will tell the others. Smoke alarms are audible.

Incident Number 076066, Call Duration (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00499).

**01:30:14** CRO Howson takes a call from a male caller who is on his balcony in W2 5TQ and he can see a whole block of flats on fire near Westfield. CRO Howson checks the individual's postcode and is satisfied that the caller is in close enough proximity to Grenfell for it to be the same incident.

Incident Number 76069 Call Duration one minute 38 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00502).

**01:30:33** The table below show the resources mobilised to the 20 pump fire:

<b>Operational Response to the incident at Make Pumps 20</b>
<ul style="list-style-type: none"> <li>• Golf 272, North Kensington's Pump</li> <li>• Golf 271, North Kensington's Pump Ladder</li> <li>• Golf 331, Kensington's Pump Ladder</li> <li>• Golf 362, Hammersmith's Pump</li> <li>• Golf 361, Hammersmith's Pump Ladder,</li> <li>• Alpha 212, Paddington's Pump</li> <li>• Alpha 211, Paddington's Pump Ladder</li> <li>• Golf 261, Acton's Pump Ladder</li> <li>• Golf 371, Chiswick's Pump Ladder</li> <li>• Golf 281, Willesden's Pump Ladder</li> <li>• Golf 341 Chelsea's Pump Ladder</li> <li>• Golf 351, Fulham's Pump Ladder</li> <li>• Golf 291, Park Royal's Pump Ladder</li> <li>• Alpha 411, West Hampstead's Pump Ladder</li> <li>• Alpha 231, Euston's Pump Ladder</li> <li>• Alpha 241, Soho's Pump Ladder</li> <li>• Alpha 242, Soho's Pump</li> <li>• Hotel 271, Battersea's Pump Ladder</li> <li>• Golf 251, Ealing's Pump Ladder</li> <li>• Hotel 331, Wandsworth's Pump Ladder</li> <li>• Oscar Kilo 13, Watch Manager Matthew Leaver from the Fire Investigation Team</li> <li>• Alpha 216, Paddington's Fire Rescue Unit</li> <li>• Command Unit 7</li> <li>• Command Unit 8</li> <li>• Hotel 41 Sierra (Kingston's Station Manager) Station Manager Andrew Walton (as Station Manager)</li> <li>• Golf 22 Sierra (Chelsea's Station Manager) Station Manager Brett Loft (as Station Manager)</li> <li>• Oscar Golf 61 Station Manager Nicholas Saunders (as Station Manager)</li> <li>• Alpha 40 Sierra, Station Manager Peter Wolfenden (as Station Manager)</li> <li>• Oscar Echo 69, Station Manager Daniel Kipling (as Station Manager)</li> <li>• Hotel 33 Sierra, Station Manager Jacqueline McConochie (as Station Manager)</li> <li>• Foxtrot 115 Group Manager Patrick Goulbourne (as Group Manager)</li> <li>• Foxtrot 113 Group Manager Stephen West (Operational Review Team Shadowing)</li> <li>• Foxtrot 118 Group Manager Thomas Goodall (as Group Manager)</li> <li>• Echo 63 Group Manager David O'Neill (as Group Manager)</li> <li>• Oscar Golf 54 Station Manager Gareth Cook (as the Press Officer)</li> </ul>

- Echo 6 Deputy Assistant Commissioner Andrew O'Loughlin (as Deputy Assistant Commissioner)
- Oscar Foxtrot 67 Station Manager Daniel Egan (as Fire Safety Officer)
- Golf 25 Alpha, Ealing's Operational Support Unit (Breathing Apparatus Unit)
- Alpha 39 Alpha, Finchley's Operational Support Unit (Damage Control Unit)

**01:30:38** CRO Gotts takes a call from a female caller who states she is in her neighbours house on the 22nd floor of Grenfell Tower and they can smell smoke. CRO Gotts advises the caller to get fresh air from the window and confirms that the fire is on the fourth floor. The caller asks if they should stay in the flat and CRO Gotts responds that she is unable to advise the caller but will let the crews know that the caller is on the 22nd floor.

Incident Number 076068, Call Duration one minute, 22 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00501).

**01:30:47** CRO Adams takes a call from a male caller who asks her to get firefighters to the Silchester Estate. CRO Adams asks if the caller is referring to Grenfell Tower and explains that the firefighters are already there.

Incident Number 076067, Call Duration 23 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00500).

**01:31:14** CRO Fox takes a call from a member of the public living in North Acton who explains that they are on the 12th floor of their block and can see a burning building. CRO Fox states that the Brigade is attending a huge fire in Grenfell Tower in North Kensington. The caller is satisfied with this explanation.

Incident Number 076070, Call Duration 44 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00503).

**01:31:30** Golf 271, North Kensington's Pump Ladder, sends a message to the Radio Operator at Brigade Control.

*"M2FN Golf 271 make pumps 25, over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02507).

**01:32:04** CRO Adams takes a call from a BT Operator in Nottingham who reports that a male caller is asking for the Fire Brigade but the line drops out. CRO Adams tries to confirm if the caller is ringing about Grenfell Tower and says she will call the number back.

Incident Number 076074a, Call Duration 36 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00507).



The call back is very brief. A male caller says Grenfell Tower is on fire. CRO Adams says that the fire service is there and thanks the caller.

Incident Number 76074b, Call Duration 30 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00544).

**01:32:10** CRO Howson takes a call from what sounds like a child who says they are in a top floor flat. CRO Howson asks the flat number but the caller says she is from flat 155 but is now in a different flat. CRO Howson reassures the caller that there are a lot of fire engines there and asks again what flat they are in and the caller doesn't know the number but reports that there are about eight kids and a lot of adults. CRO Howson asks if the fire is in the flat and is told that it is not but when told that there is smoke in the flat, CRO Howson tells the caller to block the doors with towels and cushions. A smoke alarm is audible in the background. CRO Howson asks if there is an adult there she can speak to and a male adult comes on the line and states that smoke is coming through the window. CRO Howson advises him to shut the window and tries to get the flat number again but does not get a response. The line then drops out.

Incident Number 143550, Call Duration four minutes one second (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01735).

**01:32:32** CRO Gotts takes a call from a female caller reporting a fire in Grenfell Tower. CRO Gotts reassures the caller that the Brigade is there.

Incident Number 76072, Call Duration 33 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00505). For information, this is the BOSS call time but it has been referenced using the BOSS Call creation time.

**01:32:35** CRO Duddy takes a call from a male to report a fire in a whole block of flats. CRO Duddy confirms that the caller is referring to Grenfell Tower and advises that the Brigade is already in attendance.

Incident Number 076071, Call Duration 19 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00504).

**01:32:47** CRO Fox takes a call from a male caller reporting a big fire just after Paddington Station. CRO Fox asks if it is the Lancaster West Estate and the caller isn't sure exactly. She says the Brigade is attending and finishes the call.

Incident Number 076073, Call Duration 24 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00506).

**01:32:51** OM Norman takes a call from a female caller outside Grenfell Tower who is very emotional and panicking. The caller states that she is in Cornwall Crescent and can see the tower disintegrating in front of her eyes. OM Norman reassures her that it is not collapsing but the caller is crying and

says she has friends that live there. OM Norman suggests that the caller rings her friends and speaks to them.

Incident Number 143549, Call Duration one minute, four seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01734).

**01:33:01** CRO Duddy takes a call from a female caller in flat 82 on the 11th floor who immediately asks if someone can come and get her and her daughter out. CRO Duddy confirms that there is no smoke in the flat and advises the caller to close all the doors and windows and tells her that she is well away from the fire. He reassures her that he will get someone up to help her and repeats the flat number to confirm he has the correct location of the caller.

Incident Number 076076, Call Duration 47 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00509).

**01:33:12** CRO Gotts takes a call from a male caller who is shouting "please, please the fire is in my flat". He repeats this again and CRO Gotts tries to get the flat number. The BT Operator then cuts in and says the caller has put the phone down but that he does say to the Operator that he is on the 11th floor of Grenfell Tower. CRO Gotts confirms to the BT Operator that the Brigade is in attendance.

Incident Number 076075, Call Duration 32 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00508).

**01:33:12** CRO Jones takes a call from a female who reports that the block next to her on the Lancaster West Estate is on fire. CRO Jones is advised that the Brigade is on scene and dealing.

Incident Number 076078, Call Duration 49 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00511).

**01:33:50** The table below shows the resources mobilised to the 25 pump fire:

<b>Operational Response to the incident at Make Pumps 25</b>
<ul style="list-style-type: none"><li>• Golf 272, North Kensington's Pump</li><li>• Golf 271, North Kensington's Pump Ladder</li><li>• Golf 331, Kensington's Pump Ladder</li><li>• Golf 362, Hammersmith's Pump</li><li>• Golf 361, Hammersmith's Pump Ladder</li><li>• Alpha 212, Paddington's Pump</li><li>• Alpha 211, Paddington's Pump Ladder</li><li>• Golf 261, Acton's Pump Ladder</li><li>• Golf 371, Chiswick's Pump Ladder</li><li>• Golf 281, Willesden's Pump Ladder</li><li>• Golf 341 Chelsea's Pump Ladder</li><li>• Golf 351, Fulham's Pump Ladder</li></ul>

- Golf 291, Park Royal's Pump Ladder
- Alpha 411, West Hampstead's Pump Ladder
- Alpha 231, Euston's Pump Ladder
- Alpha 241, Soho's Pump Ladder
- Alpha 242, Soho's Pump,
- Hotel 271, Battersea's Pump Ladder
- Golf 251, Ealing's Pump Ladder
- Hotel 331, Wandsworth's Pump Ladder
- Alpha 412, West Hampstead's Pump
- Hotel 421, Richmond's Pump Ladder
- Hotel 221, Lambeth's Pump Ladder
- Hotel 222, Lambeth's Pump
- Golf 301, Wembley's Pump Ladder
- Oscar Kilo 13, Watch Manager Matthew Leaver from the Fire Investigation Team
- Alpha 216, Paddington's Fire Rescue Unit
- Golf 346, Chelsea's Fire Rescue Unit
- Command Unit 7
- Command Unit 8
- Hotel 41 Sierra (Kingston's Station Manager) Station Manager Andrew Walton (as Station Manager)
- Golf 22 Sierra (Chelsea's Station Manager) Station Manager Brett Loft (as Station Manager)
- Oscar Golf 61 Station Manager Nicholas Saunders (as Station Manager)
- Alpha 40 Sierra Station Manager Peter Wolfenden (as Station Manager)
- Oscar Echo 69 Station Manager Daniel Kipling (as Station Manager)
- Hotel 33 Sierra Station Manager Jacqueline McConochie (as Station Manager)
- Foxtrot 115 Group Manager Patrick Goulbourne (as Group Manager)
- Foxtrot 113 Group Manager Stephen West (Group Manager) (Operational Review Team Shadowing)
- Foxtrot 118 Group Manager Thomas Goodall (as Group Manager)
- Echo 63 Group Manager David O'Neill (as Group Manager)
- Oscar Golf 54 Station Manager Gareth Cook (as the Press Officer)
- Echo 6 Deputy Assistant Commissioner Andrew O'Loughlin
- Oscar Foxtrot 67 Station Manager Daniel Egan (as Fire Safety Officer)
- Golf 25 Alpha, Ealing's Operational Support Unit (Breathing Apparatus Unit)
- Alpha 39 Alpha, Finchley's Operational Support Unit (Damage Control Unit)

(Source: Vision: GTIRT17-02791).

**01:33:55** CRO Gotts takes a call from a female caller who is clearly distressed and reports a fire in her building. CRO Gotts confirms the location with the caller as Grenfell Tower and then confirms that the fire service is there. The caller states that she is scared, has three young children and is pregnant and doesn't know what to do. CRO Gotts suggests that the caller go to the window and get some air. She then asks which floor the caller is on to which the caller tells her that she is on the 18th floor. The caller says there is no smoke in her flat at the moment but that she has tried to get out of her flat onto the fire escape but there is thick black smoke. CRO Gotts repeats the advice to try and block the smoke and get some air from the window. CRO Gotts then confirms the floor number and tells the caller that she will let the Brigade know she is there.

Incident Number 143545, Call duration one minute 21 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01730).

**01:34:18** CRO Duddy takes a call from a male caller who asks for lots of fire engines as there is a massive fire in one of the buildings. CRO Duddy asks if it is Grenfell Tower and when the caller confirms this CRO Duddy assures him that the fire service is there and dealing.

Incident Number 76077, Call Duration 27 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00510).

**01:34:50** CRO Duddy takes a call from a female caller who immediately reports that she is trapped in 192 Grenfell Tower. CRO Duddy tells the caller that the fire service is there and the caller asks what they should do as that they have tried to get down the stairs but it is full of smoke. CRO Duddy asks which floor the caller is on and the caller informs him it is the 22nd floor. He then informs the caller that the fire is on the fifth floor and the smoke could be coming up from there. CRO Duddy asks where the smoke is coming from. The caller first says the smoke is coming from the outside then changes her mind and says that it is in the corridor. CRO Duddy explains that if the smoke is coming from the corridor then they should close the door and block it up and if the smoke is coming in from the windows then the caller should close the windows but they can use the window to let smoke out of the flat if it is safe to do so. CRO Duddy states that there are people coming up to the 22nd floor.

Incident Number 076080, Call Duration one minute, 27 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00513).

**01:34:55** The Radio Operator at Brigade Control sends a message to Golf 271, North Kensington's Pump Ladder.

*"Priority, priority, Golf 271, Golf 271 from M2FN, over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02513).

**01:35:09** CRO Fox takes a call and there is faint crying on the line and she asks if the caller can hear her but no one responds. CRO Fox continues to try and get a response for around 50 seconds but ends the call when she fails to get a response.

Incident Number 76084, Call Duration 54 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00516).

**01:35:22** The Radio Operator at Brigade Control sends a message to Golf 271, North Kensington's Pump Ladder.

*"Priority, priority, Golf 271, Golf 271 from M2FN, over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02514).

**01:35:24** OM Norman rings the team leader from Command Unit 8 (who has booked in attendance at the incident at **01:30:48**) and says she needs crews to go and check some flats. The Command Unit Operator Watch Manager Daniel Meyrick explains that he has heard Control trying to reach G271 but that they are in the process of taking over. OM Norman asks him again to get crews to go and check some flats and he asks if the information has already been sent by radio. OM Norman replies saying she doesn't know and then confirms that the radio message is about a caller on the 18th floor. She then makes reference to the large volume of calls being received. The information subsequently passed is summarised below. (Source, NICE, Admin Phone Line Audio file: GTIRT18-00507).

Flat Number	Floor number	Number of people	Remarks
111	14	1 person	Got smoke coming in to the premises
175	20	5 people	Got smoke coming in to the premises
Not given	18		
Not given	Top floor	2 Adults and 8 children	Smoke going in to the flat

**01:35:25** CRO Adams takes a call from a female member of the public reporting a tower block on fire in West London. CRO Adams checks with the caller whether it is Grenfell Tower and the caller says she thinks it is. CRO Adams tells the caller that the Brigade is there and dealing with it.

Incident Number 076082, Call Duration 25 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00514).

**01:35:36** The Radio Operator at Brigade Control sends a message to Golf 271, North Kensington's Pump Ladder.

*"Priority, priority, Golf 271, Golf 271 from M2FN, over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02515).

**01:35:54** Golf 261, Acton's Pump Ladder, interrupt the Radio Operator saying they will take the priority message on behalf of Golf 271, North Kensington's Pump Ladder, who have not responded.

*"M2FN Golf 261 in attendance. Would you like to take that priority? Over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02516).

**01:36:01** The Radio Operator at Brigade Control sends a message to Golf 261, Acton's Pump Ladder.

*"Yeah, golf 261, we've go, um, we've got a caller on the 18th floor, thick smoke is in her flat. We've got persons on the 22nd floor with smoke coming into their flat. And we've had a further call to say there's a fire on the 20th floor, Flat 82, also people trapped. Over"*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02517).

Summary of calls to the Control Room as at **01:36:00**.

Time of Call	Flat Number	Floor number	Number of people confirmed by caller	Remarks
01:21:24	195	22		Smell of smoke
01:24:57				The fire is in the kitchen.
01:25:16	111	14		Trapped by smoke
01:25:36	91	12		
01:26:58	95	12		Caller says "we" but numbers not recorded by Control
01:28:26	82	11		
01:30:00		23		Moved from 22nd floor to 23rd floor.
01:30:02	175	20	5	Smoke coming into the flat
01:30:08	201	23	11	Caller gives her name as Jessica
01:30:08		22	1	Male caller
01:30:38		22		Female caller who says she is in someone else's flat. No total number of people asked for
01:32:10		Top flat		Caller is a young person and says there are about 8 kids and a lot of adults
01:33:01	82	11	1 adult and 1 child	
01:33:12		11		Caller says the fire is in his flat and told the BT Operator he was on the 11 <sup>th</sup> floor

01:33:55		18	4	Caller says she is pregnant
01:34:50	192	22		

### Fire Survival Guidance Communication

As soon as the Control Room has confirmed that a FSG call is in progress they will contact the incident ground and start to pass initial information. This is normally the first pumping appliance that has been sent. In the case of Grenfell this is Golf 271, North Kensington's Pump Ladder. Once the first appliances arrives the incident commander will nominate an Initial Command Pump and a Command Pump Officer. This information is sent to control and the Radio Operator will send all further messages to that vehicle. Ordinarily as an incident progresses this vehicle would change from a pumping appliance to a Command Unit. At Grenfell the Initial Command Pump is Golf 271, North Kensington's Pump Ladder. On occasions at particularly dynamic incidents there may be a delay in setting up the Initial Command Pump and allocating a firefighter to monitor radio traffic. However as far as the Control Room is concerned the Initial Command Pump is the point of contact. When no response is received, other appliances will offer to pass the information. At Grenfell Golf 261, Acton's Pump Ladder, took on this responsibility in the initial stages. It is not clear when, how and if the information was the passed onto G271.

The recognised methods of passing FSG call information are detailed below;

- If Control has resources then the radio channel M2FH FLON-OPS-01 could be used to free up the main scheme radio if there are a large number of FSG calls.
- Brigade mobile phone.
- Fixed phones on Command Units.
- Command Support System conferencing facility.
- Command unit critical phone line – only for life critical information
- Command Unit Fax

(Source, London Fire Brigade Fire Survival Guidance Policy 790: GTIRT17-00974, London Fire Brigade Command Support at Incidents Policy 541: GTIRT17-01028 ).

**01:36:04** CRO Jones takes a call from a member of the public living opposite the tower who states that the building in front of them is on fire. The caller states that they think it is Trellick Tower but when CRO Jones asks if they mean Grenfell Tower the caller replies yes and explains that people are screaming and that they can't get out. CRO Jones confirms that the Brigade is in attendance.

Incident Number 076083, Call Duration 27 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00471).

**01:36:15** CRO Gotts receives a call from a BT Operator who passes over a mobile number and states that the caller has cleared the line. CRO Gotts confirms that she will ring back.

CRO Gotts calls back and a male caller says he can see a whole building on fire from outside. He is assured the Brigade has 25 appliances there and are dealing with it.

Incident Number 076087a and b, Call Duration a, 13 seconds, b, 42 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00518, GTIRT17-00555).

**01:36:23** The Glasgow BT Operator passes a caller to the North West Fire Control (NWFC). The caller gives her name as Mariko Koisuma-Lewis and is in flat nine on the third floor. She tells the BT Operator that she can feel heat and it is smoky. The caller says five people are in the flat. Caller says there is a wheelchair user and she cannot get down the stairs. The caller references an explosion and a tree alight outside the tower. FSG is given and the NWFC Operator stays on the line until crews arrive (Breathing Apparatus Team 19, Firefighter Desforges and Firefighter Mitchell, Alpha 24, Soho).

Incident Number 76639, call Duration 30 minutes, 33 seconds (Source, BOSS Viewer, 999 Audio file and Transcript:GTIRT17-00567).

During very busy times at Brigade Control it is difficult for all calls to be answered. When a BT Operator cannot get through to Brigade Control they will attempt to pass to another control room. London Fire Brigade have an agreement in place with the NWFC room which allows for sharing of calls during busy times and for the passing of information between control rooms. The current method for sharing information is by landline telephone. During the Grenfell Tower incident several other control rooms took 999 calls in addition to NWFC. These were Surrey, Essex, Kent and Merseyside and are included in this report. Calls were also taken by Surrey Police, the MPS and the London Ambulance Service but these are not included within this report.

**01:36:27** Golf 261, Acton's Pump Ladder, send a message to the Radio Operator at Brigade Control.

*"M2FN Golf 261, that's received. Could you just confirm fire survival guidance calls received on the 18th floor, 22nd floor and 20th floor and confirm the flat numbers? Over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02518).

**01:36:32** CRO Jones takes a call from a caller requesting assistance at Grenfell Tower. The caller states the fire is getting extreme and the Fire Brigade won't be able to get in because the road is blocked. The caller confirms they are not inside the premises and is advised that the Brigade is in attendance and dealing. Call Number 076085, Call Duration 54 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00517).

**01:36:44** The Radio Operator at Brigade Control replies to G261, Acton's Pump Ladder.



*"Um, yeah, sorry, Golf 2 - sorry, um, yes, er, as you are, I'll repeat, sorry, we're getting, um, lots of fire survival calls and people are asking lots of questions. I do apologise. I'll just repeat it. Caller on the 18th floor, thick smoke outside her flat, persons on the 22nd floor, smoke coming into their flat, er, further call to say that there's fire on the 20th floor, Flat 82, also people trapped. We also have a further call to a flat on the top floor, adults and eight children have smoke coming into the flat, um, unable to leave, um, and then the call has dropped out. Over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02519).

**01:37:09** CRO Duddy takes a call from a female in W11 4HE to report that they can see a fire in the building opposite their house. CRO Duddy advises the caller that the Brigade is already in attendance.

Incident Number 076088, Call Duration 26 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00520).

**01:37:09** CRO Howson takes a call from a female caller who states that she can see a massive fire in a tower and that people may jump out. Caller states they are not in the building but can hear people screaming for help. CRO Howson states there are ten fire engines there and more en-route.

Incident Number 76091, Call Duration 41 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00523).

**01:37:18** CRO Fox takes a brief call from a male caller reporting a big fire near Westfield. CRO Fox reassures the caller that the Brigade are dealing with the incident.

Incident Number 76092, Call Duration 21 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00524).

**01:37:18** CRO Gotts takes a call from the London Ambulance Service asking the Brigade to confirm the postcode of the incident. London Ambulance Service then advise CRO Gotts that they have ten or 11 resources assigned and en-route to scene and give their reference number as 247.

Incident Number 76093, Call Duration 53 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00525).

**01:37:22** CRO Adams takes a call from a male caller who states they can see a fire in a tower block quite far away. CRO Gotts advises the caller that the Brigade is in attendance.

Incident Number 76090, Call Duration 29 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00522).

**01:37:26** NWFC receive a call from a BT Operator in Glasgow who reports that they received an abandoned call from a male caller who is requesting the Brigade but the line has since cleared. NWFC confirm that they will call him back.

Incident Number 76640, Call Duration 25 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00519).

The NWFC CRO makes a call back to the number above and the caller states that "they are already here". The NWFC CRO tries to confirm where the caller wants the Fire Service to go, but he just repeats they're already here.

Incident Number 76640a, Call Duration 27 seconds (Source, 999 Audio file and Transcript: GTIRT17-00475).

**01:37:33** CRO Duddy takes a call from a member of the public who asks if the Brigade are aware that Grenfell Tower is on fire. CRO Duddy confirms that the caller is not in the tower and advises that the Brigade is aware and that there are 25 engines in attendance.

Incident Number 76089, Call Duration 20 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00521).

**01:37:37** Golf 261, Acton's Pump Ladder, sends a message back to the Radio Operator at Brigade Control.

*"M2FN Golf 261 that's received. I'll pass this information onto incident commander. Er, we have just arrived so, um, it may take some time to, er, confirm your details. Over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02520).

**01:37:50** OM Norman takes a call from a male caller who reports a fire near Latimer Road station. She asks the caller to confirm if it is a fire in a tower block in Kensington and the caller says yes and he is advised the Brigade is in attendance.

Incident Number 76094, Call Duration 47 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00526).

**01:37:58** CRO Duddy takes a call with a female saying "113, hello". CRO Duddy responds with "hello Fire Brigade". The caller sounds distressed and is speaking very quickly. A smoke alarm is sounding in the background and the caller states that there is smoke coming through the letter box. CRO Duddy confirms that she is calling from Grenfell Tower and asks which floor the caller is on to which she replies the 14th. CRO Duddy advises the caller that the fire is on the fifth floor. The caller says that she doesn't know what to do and she has a baby in the house. She explains that the occupants have tried to run out but there is smoke in the corridor and the whole corridor is black so they have run back in the house. She also explains to CRO Duddy that there is smoke

coming through the door and filling up the whole of the house. CRO Duddy advises her to block up the doors to keep the smoke out. He says he will let the crews know where she is.

Incident Number 143561, Call Duration one minute, 13 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01746).

**01:38:02** CRO Howson takes a call from the MPS saying that they have received a call from a family in flat 142 on the 17th floor. There are five people in the flat and smoke is coming in to the flat. CRO Howson advises she will pass the information to the crews on scene.

Incident Number 143551, Call duration 56 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01736).

**01:38:16** CRO Fox takes a call from a female caller who reports that she is stuck on 23rd floor in flat 205 with six other people. The caller advises there is no visible smoke or fire in the flat and further states she lives in a flat below on 22nd floor but has to move to flat 205 as hers is on fire. Voices are audible in the background. CRO Fox advises the caller that the Brigade crews on scene will be notified.

Incident Number 76099, Call Duration one minute, 31 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00530).

**01:38:17** Brigade Control mobilise the additional resources required for FSG. Command Unit 2, Islington's Command Unit (FSG Command Unit), Alpha 431, Kentish Town's Pump Ladder, (WM), Hotel 27 Sierra SM Nicholas Myatt (FSG SM) are mobilised (Source: Vision: GTIRT17-02791).

**01:38:18** CRO Adams takes a call from a female who is shouting loudly and repeatedly stating that she is on the 14th floor in flat 115. She shouts that the fire is coming into the building and asks how she can get downstairs. CRO Adams confirms that the caller is in Grenfell Tower and frequently asks what flat the caller is in to which the caller responds 14. The caller shouts that she is going to die and CRO Adams informs her that she will get crews to her. CRO Adams then manages to confirm that smoke is coming in under the door and windows and advises the caller to block the door and shut the windows. The caller is very distressed and says there is fire coming through the door and states that she feels like jumping. A smoke alarm is audible in the background.

Incident Number 76113, Call Duration four minutes, 20 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00546).

**01:38:37** CRO Gotts takes a call from a very calm male caller who reports a fire in Grenfell Tower and asks what to do because the fire is spreading. He asks if he should stay put because the fire is in the next door kitchen. The caller asks if the Brigade is on site and CRO confirms that there are lots of them and that she will let the crews know that he is there. Caller says he is in flat 95 on the 12th

floor and there are children in the flat. He is advised to try and get some fresh air from a window and block anywhere where smoke is coming from. (This is linked to 076062 at 01:26:58 Source GTIRT17-00495).

Incident Number 76100, Call Duration one minute, 19 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00531).

**01:38:38** OM Norman takes a call from a male caller who reports a fire next to the A40 and states it looks "proper crazy". OM Norman asks if it is a tower block and the caller stated that it is. The caller is advised that the Brigade is in attendance with 25 fire engines.

Incident Number 76097, Call Duration 38 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00528).

**01:38:38** CRO Jones takes a call from a female who says she is trapped in flat 182 on the 21st floor and advises the caller to put something by the door and make sure all the doors and windows are closed. A man then comes on the line and explains that they have tried to get down the stairs but it is too smoky and CRO Jones explains that she needs them to stay in the flat and advises him to open the window if it will provide them with fresh air. The caller states that smoke is coming from the front door and reports that there are five people including the caller, his wife and three children aged eight, 16, 21. The caller explains that he is looking through the spy hole in the front door and that it is very smoky. CRO Jones tells them that they will all be alright and asks if the caller wants her to stay on the line. CRO Jones advises that she is going to let the crews know where they are and asks if they are okay in the flat. The phone is passed to the son at this point who asks the CRO to stay on the phone. The phone is then passed to the sister and CRO Jones reassures her that everyone will be alright. The family move to the living room and then to the bedroom. At approximately **02:34** CRO Jones gives specific directions to get out. The line goes quiet and CRO Jones cannot get any response.

Incident Number 143560, Call Duration 59 minutes 40 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01745).

**01:38:51** Assistant Commissioner (AC) Andrew Roe responds to a paging alert and calls and speaks to AOM May at Control. He is told that the incident is a 25 pump fire in a high rise building and the AOM May explains that the incident has escalated quickly with a six, eight, 10, 15, 20, 25 pump progression, stating that there are a lot of people trapped in flats. AC Roe asks who is in charge but AOM May states he is unable to tell him at this time. AC Roe asks which DAC has been mobilised and is informed that Echo Six DAC O'Loughlin is Status 2.

AC Roe asks for any recent radio messages and AOM May says residential block of flats of 20 floors, 25 by 25, 5 room flat on the 4th floor, 75% alight, high rise procedures implemented.

AC Roe asks again who is in charge but the officer of the watch is unable to tell him. Control then confirm that GM Goulbourne is Status 2. GM Cook and SM Stephen West of the Operational Review Team are also Status 2. AC Roe asks to be shown as Status 2, as well. (Source, NICE, Admin Phone Line Audio file: GTIRT18-00253).

The Brigade uses abbreviations to show the operational status of officers. Status Paging is when an officer is available for mobilising to an incident. Status 2 is when they are on their way to an incident. Status 3 is when the officer is at the incident. These status changes have to be instigated by the individual officer.

**01:39:08** AOM Real takes a call from SOM Smith who is calling Brigade Control for an update. AOM Real explains that they are taking lots of FSG calls and states that it is now a 25 pump fire. SOM Smith asks if there are any long FSG calls where people are on the line and AOM Real states that OM Norman is on the line to someone. SOM Smith also checks if the system is coping and tells AOM Real to prioritise the FSG calls over the Resource Management Logistics notifications. SOM Smith confirms she will be attending Stratford. (Source, NICE, Admin Phone Line Audio file: GTIRT18-00878).

**01:39:15** OM Norman takes a call from a male caller in flat 204 on the 23rd floor at Grenfell Tower who is by himself. OM Norman asks if the caller can get out and he replies that he cannot and a smoke alarm is audible in the background. OM Norman asks if there is smoke coming into his flat and the caller explains that there is a little so she advises him to block the door to stop the smoke and stay where he is or leave if he thinks it is safe to do so. OM Norman tells him to go to the room furthest away from the fire and she will let the crews know where he is. She advises him to call back if it gets any worse.

Incident Number 76130, Call Duration 3 minutes, 33 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00563).

**01:39:20** CRO Duddy takes the call from a male caller who states there is a building on fire and he advises the caller that the Brigade is already in attendance.

Incident Number 76098, Call Duration 12 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00529).

**01:40:12** CRO Duddy takes a call from a male caller who is reporting a fire near Shepherds Bush. The caller advises that lots of calls have been put through and that the Brigade are already there.

Incident Number 76101, Call Duration 29 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00532).

**01:40:17** CRO Howson takes a call from a male caller who is shouting "Grenfell Tower, Grenfell Tower". She immediately asks what flat he is in and the caller responds to report that he is on the 14th

floor in flat 111. CRO Howson asks if he has any smoke in his flat and if he is on his own. The caller says that the whole flat is full of smoke and that he is on his own and can't move. He appears to be struggling to speak and says he is locked in the bathroom but there is smoke in there too. He is advised to shut the windows, block the door with towels to stop the smoke coming in and get down low. The caller shouts that he cannot get out and CRO Howson tells him that the crews will come to him.

Incident Number 76114, Call Duration two minutes 35 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00547).

**01:40:40** CRO Duddy takes a call from a female caller who asks if the Brigade is aware of a fire at Grenfell Tower and he advises that the Brigade is aware and there are 25 appliances on scene.

Incident Number 76102, Call Duration 20 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00533).

**01:40:44** CRO Gotts takes a call from a male who is speaking very fast and it is difficult to make out what he is saying. She asks him to slow down and confirm the name of the building that he is calling about but he cannot remember. The caller explains that he received a call from his sister who says there is a fire in the building. The caller states flat numbers 113 and 115 but it is not clear if the caller is reporting his sister is in the building or is safely outside the building. CRO Gotts asks if the caller is referring to Grenfell Tower. She says if he is not sure he needs to find out and ring back. He confirms that it is the correct address and CRO Gotts states that the Brigade is in attendance.

Incident Number 76106, Call Duration one minute and 30 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00537).

**01:40:50** The Radio Operator at Brigade Control sends a message to G271, North Kensington's Pump Ladder.

*"Golf 271, priority, golf 271. Over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02523).

**01:40:58** CRO Fox takes a call from a BT Operator who advises that they have tried to pass a call to Control but that the call has dropped out. The BT Operator passes the mobile number to CRO Fox who says she will call back.

Incident Number 76105a, Call Duration 16 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00536).

**01:40:58** CRO Fox calls the number back and speaks to the caller. The caller asks if the Brigade is aware of a fire at Ladbrooke Grove and is informed that crews are in attendance.

Incident Number 76105b, Call Duration 44 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00587).

**01:41:00** NWFC take a call from a BT Operator in Glasgow who explains that after around 5 minutes trying to pass the call to London, the caller has hung up. The BT Operator states that the caller was reporting a the tower block and the NWFC Operator asks if the caller has given the address. The BT Operator says no and the NWFC Operator confirms that they will call back.

Incident Number 1706004390, Call Duration 36 seconds (Source, BOSS Viewer, 999 Audio file: GTIRT18-02452).

**01:41:18** NWFC take a call from a caller stating that she is on the top floor at Grenfell Tower and that there is thick smoke and she is in someone else's flat. She explains that she is in the bedroom in flat 201 on the 23rd floor and cannot breathe. The NWFC CRO asks if the caller can get to a window to get some air but the caller says she cannot see because the smoke is too thick. The caller then repeats she is in someone else's flat and states that there are about ten of them. The NWFC CRO passes on advice about blocking doors and keeping low. At approximately 01:45 the NWFC CRO states that she has passed on the information to the crews. The caller says her name is Debbie and that she is originally from flat 161. Debbie states that everyone is in the bedroom with the door shut but that everyone is being sick with smoke. At around **01:53** Debbie is told the crews will get you out. The NWFC CRO asks if there are any children and Debbie states that she thinks there are two but maybe more, one baby and one schoolchild. By approximately **02:03** Debbie says the windows are cracking and flames are at the windows. At **2:06:31** Debbie states that the flat is on fire and that they must get out of the room that they are in. There is a lot of commotion and shouting while Debbie tries to get out. It is not clear why she cannot get out of the room. Debbie states that she cannot move or breathe and that she is too hot and the NWFC Operator reiterates the advice to the caller to get out if she can.

Incident Number 76642, Call Duration 40 minutes, 23 seconds. (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00534).

*It should be noted that this call and the call with Jessica Urbano at **01:29:48** are taking place simultaneously and both Debbie and Jessica are in the same bedroom in the same flat.*

**01:41:21** CRO Duddy takes a call from a female caller who says there is a fire downstairs and she cannot evacuate because it is pitch black outside. CRO Duddy asks if the caller is in Grenfell Tower and when this is confirmed, he explains that fire is on the fourth floor and that the caller is well away from the fire. The caller says that the smoke is coming up and the door is hot and asks what they should do. CRO Duddy provides FSG stating they need to stop the smoke by putting things around the door and letterbox and says to close the windows if smoke is coming in. She confirms

they are in flat 73 on the 10th floor. The caller asks what they should do about getting out and CRO Duddy tells her to stay where they are until the crews come and get them.

Incident Number 76104, Call Duration one minute, 58 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00535).

**01:42:05** NWFC take a call from a female caller via a BT Operator at Bangor as the Brigade are unable to take the call. The caller states there is a fire in W11 4HE. The description she gives is a three storey brown building.

Incident Number 76641, Call Duration two minutes 53 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00553).

**01:42:08** CRO Fox takes a call from a member of the public who states that there is a massive fire in Latimer Road. She asks if it is Grenfell estate and the caller confirms. CRO Fox advises that the Brigade is aware and dealing with it.

Incident Number 76108, Call Duration 18 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00539).

**01:42:14** CRO Gotts takes a call from a female caller who reports that there is a fire in the W11 area and that there are people stuck inside the building. The caller passes the phone to a man. CRO Gotts asks the caller if he thinks it is Grenfell Tower and the caller confirms that he thinks that is the one. He is advised that the Brigade is there and dealing with the incident.

Incident Number 76109, Call Duration 49 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00541).

**01:43:00** Essex FRS take a call from a BT Operator reporting an abandoned call for London. The Essex CRO asks the BT Operator if they are aware of the location of the fire currently in progress in London and the BT Operator states that she thinks it is a tower block on fire in the Ladbroke Grove area.

Incident Number 13559, Call Duration 54 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00540).

**01:43:00** OM Norman takes a call from the NWFC who are asking confirmation that London are receiving calls to Grenfell Tower. OM Norman confirms that they are aware and asks if they have people trapped. The NWFC Operator says they have flat nine with two adults and three children. This is the call that is referred to earlier in this report at **01:36:23**. She says they are still on the line and states that one of the residents is a young male who is a wheelchair user. OM Norman confirms that she will let the crews know. The two operators agree that NWFC will only contact London if they have people trapped. The NWFC Operator then adds that they have another call with five



people in flat 175 on the 20<sup>th</sup> floor. (Source, FRS Incident Log, Audio File and Transcript: GTIRT17-01773).

**01:43:04** CRO Fox takes a call from a male caller who is reporting a tower block fire in the Ladbroke Grove area. CRO Fox confirms that the Brigade is dealing.

Incident Number 76111, Call Duration 18 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00543).

**01:43:07** Command Unit 8 contacts the Radio Operator at Brigade Control.

*"FN, this is Charlie Uniform 8, we're in the process of setting up here. Is there any information you want to pass to us?"*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02524).

**01:43:13** The Radio Operator at Brigade Control replies to Command Unit 8 .

*"Yeah, Charlie Uniform 8, we've got several, um, fire survival calls going on. Um, I have passed some of them over. I'll pass them over to you. I'm sure you're aware it's a pro... er, of smoke but we've got people stuck in flats on the 10th floor, seven people in flat 2-0... 205 on the 23rd floor unable to leave their property, persons trapped in a flat on the 12th floor unable to leave, smoke coming into flats on the 14th floor, on the 17th floor in flat 142 we've got five people, er, in the flat with smoke coming in to the flat. In flat, er, in flat 95 on the 12th floor the caller's, er, got smoke coming in. And, er, a caller on the 18th floor has thick smoke outside her flat, er, she's inside the flat as well. Over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02525).

These are detailed in the table below in the table below.

Flat Number	Floor number	Number of people	Remarks
Not given	10	Not given	People stuck
205	23	7	Unable to leave property
Not given	12	Not given	Unable to leave property
Not given	14	Not given	Smoke coming in to flats
142	17	5 people	Smoke coming in to flat
95	12	Not given	Smoke coming in to flat
Not given	18	Not given	Thick smoke outside flat

At this stage Brigade Control at the London Operations Centre have received FSG calls and information about people throughout the building and from various sources. Other calls have been taken by other control rooms and agencies. The table below summarises this information.

Time of Call	Flat Number	Floor number	Number of people confirmed by caller	Remarks
01:36:23	9		5 People	Includes 1x Wheelchair user
01:37:58	113	14	1 Adult and 1 Baby	
01:38:02	142	17	5 people	Smoke coming in the flat
01:38:16	205	23	7 people	
01:38:18	115	14	1 adult 1 child	
01:38:37	95	12		Caller states there are children in the flat
01:38:38	182	21	2 adults 3 children	Caller ends up in bedroom, told to leave after around 57 mins on the line
01:39:15	204	23	1 adult	Cannot see to get out
01:40:17	111	14		
01:41:18	201	23	"About 10"	This is a call taken by NWFC and the caller is identified by herself as Debbie and says there are about 10 of us.
01:41:21	73	10		Caller told to stay where they are and wait for someone to come and get them

**01:43:14** NWFC take a call transferred by BT and the Operator states the call has been passed to them because of a five minute delay in trying to put the call through to the Brigade. The caller says she is in flat 175 of Grenfell Tower on the 20th floor and that there are five of them, two adults and three children including a baby. She also explains that her husband wants them to leave but there is black smoke in the hallway. The NWFC Operator passes the message to London and continues to provide continuous FSG. The call is ended by the NWFC Operator who says she is going to

find out what is going on and tells the caller to ring back if she needs to. The NWFC Operator confirms that there are 20 fire engines there.

Incident Number 76644, Call Duration 7 minutes, 54 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00476).

**01:43:19** CRO Gotts takes a call from flat 82 on the 11th floor. The caller has called previously (incident number 076057 at **01:28:26**). The caller talks about her husband and states she has a daughter but it is unclear if she is in the flat. The caller explains that this is her second call to the Brigade and confirms that they cannot get out because of the smoke outside the door.

Incident Number 76117 (Linked to 76147:GTIRT17-00581, 76191: GTIRT17-00629 and 76200: GTIRT17-00637). Call Duration one minute, 21 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00550).

**01:43:22** CRO Duddy takes a call from a male caller who states that there is a big fire at Grenfell Tower. CRO Duddy advises that the Brigade is aware and dealing with it.

Incident Number 76110, Call Duration 16 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00542).

**01:43:31** The Radio Workshops Duty Engineer contacts Brigade Control and confirms receipt of the message (Source, NICE, Admin Phone Line Audio file: GTIRT18-00880).

**01:43:44** CRO Duddy takes a call which is inaudible. He is advised by the BT Operator that they have spoken to a male who is hard of hearing. He reports a fire in the area. CRO Duddy states they are aware of a large fire and that the Brigade is dealing with it.

Incident Number 76115, Call Duration 59 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00548).

**01:43:46** CRO Fox takes a call from the MPS who state they keep receiving calls, regarding floor 16 and 17. The MPS advise that they do not have flat numbers but have phone numbers. CRO Fox states that they do not have time to ring people back due to the number of calls being handled and informs the MPS Operator to get flat numbers next time and that she will pass on to the fire ground about the floors.

Incident Number 76116, Call Duration 59 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00549).

**01:43:48** NWFC take a call from a BT Operator in Nottingham who are passing on an abandoned call that is meant for the Brigade. The CRO says he will call the number back.

Incident Number 76643, Call Duration 29 seconds (Source, BOSS Viewer, 999 Audio file and Transcript:GTIRT17-01830).

**01:43:49** CRO Adams takes a call from a female caller inside Grenfell Tower. The caller is quite difficult to hear and CRO Adams tries to establish what floor the caller is on and the caller responds by stating the number 7. She advises the caller to block the doors and try and stop the smoke from coming in. At around **01:45:21** the caller is heard talking to a male in a different language and then what sounds like a firefighter wearing a breathing apparatus set is heard. CRO Adams asks the caller who she is talking to and the caller confirms there are firefighters there. CRO Adams responds and ends the call.

Incident Number 014349, Call Duration one minute 52 seconds (Source, NICE system: GTIRT18-03132).

**01:44:19** Command Unit 8 confirm receipt of information in message sent by the Radio Operator at Brigade Control at **01:43:13**.

*"Okay. Just to confirm that's the 10th floor, the 23rd floor, the 12th floor, the 14th floor, the 17th floor, the 12th floor and the 18th floor. The only flat numbers you've given me are the 17th floor is 142 and that's five people and the 12th floor is Flat 95, no further information than that apart from heavy smoke logging. Over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02526).

**01:44:43** CRO Duddy takes a call from a male caller who states that he is stuck in flat 95 on the 12th floor and says he has two children. CRO Duddy explains that the fire is on the fourth floor and the caller informs him that embers have come up and in the window and have started a fire in the kitchen of flat 96 next door. He also says there are other people trapped on the 11th floor. The caller reports that it is very smoky and asks for help. CRO Duddy informs the caller that crews will be sent up to him. CRO Duddy advises him to get to the room furthest away from the fire.

Incident number 76118, Call Duration 3 minutes, 33 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00551).

**01:44:48** Brigade Control make a phone call to GM Goulbourne to check if he has received an incident ordering for the attendance at Grenfell Tower. The call is not answered. (Source, NICE, Admin Phone Line Audio file: GTIRT18-00257).

**01:45:00** NWFC take a call from a BT Operator in Glasgow reporting a female that has requested to speak with the Brigade but who has now cleared the line. (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01772).

NWFC generate a call back to the number given by the BT Operator in Glasgow and the call goes straight to the Vodafone voicemail. The CRO leaves a message asking the caller to call back if they still need assistance.

Incident Number 1706004392, Call Duration 26 seconds (Source, FRS Incident Log and Audio File: GTIRT18-02453).

It should be noted that NWFC make an additional call back to the same mobile at **01:47:28** (GTIRT17-00594).

**01:45:02** CRO Gotts takes a call reporting a fire in Grenfell Tower. The caller is believed to be outside of Grenfell Tower. CRO Gotts confirms that the Brigade is in attendance and dealing with it.

Incident number 76119, Call Duration 19 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00552).

**01:45:23** GM Goulbourne answers a phone call from Control asking if he has received an ordering on his pager to which he replies no. He then checks his pager and confirms the address as Flat 16, Grenfell Tower. Control confirm it is now a 25 pump fire, persons reported and that there are multiple FSG calls. GM Goulbourne explains that he is actually not on duty which is why he did not respond but he says he will attend anyway and books Status 2. (Source, NICE, Admin Phone Line Audio file: GTIRT18-00258).

**01:45:51** CRO Howson takes a call reporting a fire in a tower block near Latimer Road. He explains that the emergency services are on the motorway going the long way round to the fire.

Incident Number 76122, Call Duration one minute, one second (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00557).

**01:45:52** NWFC receive a call from a member of the public who reports a fire in Ladbroke Grove. The NWFC Operator confirms that the Brigade is on their way.

Incident Number 76645 Call Duration one minute, four seconds (Source, BOSS Viewer, 999 Audio file: GTIRT17-00545).

**01:46:00** AOM Real takes a call from NWFC who provide additional information from their call at 01:43:00. NWFC confirm the location of flat nine as being on the third floor and report a call from flat 161 on the 23rd floor where there are 10 people trapped in one bedroom. AOM Real confirms this information and NWFC Operator states that they have someone on the line to the caller. It should be noted that flat 161 is not on the 23rd floor. (This is believed to be a call from Deborah Lamprell who is resident in flat 161 but moves up to flat 201 on the 23<sup>rd</sup> floor). (Source, FRS Incident Log, Audio File and Transcript: GTIRT17-01774).

**01:46:02** OM Norman makes an outgoing call to the resident that she speaks to at **01:39** who reports that he is in flat 204 on the 23rd floor, (GTIRT17-00563). OM Norman calls to check that he is still safe. There is a smoke alarm sounding in the background. OM Norman tells him to keep doing what he is doing and if it gets worse to call back. He explains that he thinks the fire is in the flat next to him and OM Norman says that the fire is on the 4th floor. He says that he thinks it has come up the stairs. She tells him to stay where he is, stop the smoke from coming in and that the crews know where he is. (Source, NICE, Admin Phone Line Audio file: GTIRT18-03148).

**01:46:05** CRO Howson takes a call from a male caller who reports that there is a massive building on fire. He explains that he can hear people screaming inside and wanted to let the Brigade know that there are still people in there. CRO Howson advises him that the Brigade is aware of a large fire on the Lancaster West estate where there are people on several different floors and the Brigade are in attendance.

Incident Number 76120, Call Duration 34 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00554).

**01:46:05** The Radio Operator at Brigade Control contacts Command Unit 8 with a priority message.

*"Go ahead with priority, over."*

*"Yeah, got some further callers, um, ringing in. We've got, um, 11 people in a bedroom of a flat on the 23rd floor. We've got, um, a caller saying a further fire has started on the 12th floor, Flat, Flat 96, outside Flat 96. We've got further calls coming from the police, from callers trapped on the 16th and 17th floors. Over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02527).

Flat Number	Floor number	Number of people	Remarks
	23	11	All in bedroom
96	12		Fire has started on the 12th floor outside flat 96
	16		Persons trapped (information received from the police)
	17		Persons trapped (information received from the police)

**01:46:18** CRO Adams takes a call from the MPS Control Room. The MPS CRO asks if there is any advice they can give callers and explains that she has a caller that is stuck on the 16th floor who is very distressed. The MPS Operator asks if she can set up a conference call between the individual and CRO Adams. CRO Adams agrees and provides advice about blocking doors and closing windows. She asks what flat the caller is in and he replies that he is in flat 133. CRO Adams tells

the caller to call back if it gets worse and the MPS take the call back, releasing CRO Adams from the call.

Incident Number 76126, Call Duration two minutes, 31 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00560).

**01:46:34** Command Unit 8 reply to the Radio Operator at Brigade Control message passed at **01:46:05**

*"FN from Charlie Uniform 8, can you repeat the whole of that message? Over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02528).

**01:46:39** The Radio Operator at Brigade Control repeats back the information sent at **01:46:05**.

*"Yeah. We've got 11 people in a bedroom of a flat on the 23rd floor, um, a further fire started on... on the 12th floor. Um, we've got people trapped in flats 96 and 95 and we've further calls calling from the people of people trapped on the 16th and 17th floors. Over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02529).

**01:47:00** Essex FRS Control take a call from BT Glasgow who explain that they have a caller on the line who has been waiting for six minutes to get through to the Brigade who is requesting the attendance of Police, Fire and Ambulance to a fire in a tower block. The male caller advises that he is driving on the A40 and can see a fire. The Essex CRO is aware of the fire and asks the caller to confirm that it is in the Ladbroke Grove area. The caller confirms that he thinks it is and the Essex CRO says that the Brigade are in attendance.

Incident Number 76636, Call Duration one minute, 17 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00556).

**01:47:06** Command Unit 8 contact the Radio Operator at Brigade Control in response to message received at **01:46:39**.

*"Er, people trapped in flat - in flats 96 and 95, do you know the numbers and what was the rest, rest of the message after that? Over"*

*"Yeah."*

(Source, NICE, Radio Message Audio file and Transcript:GTIRT17-02530 ).

**01:47:13** The Radio Operator at Brigade Control passes the information.

*"Yeah, it was on the 12th floor, er, for peoples trapped in flats 96 and 95 and the police have passed over calls saying that the callers are trapped on the 16th and 17th floors. Over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02531).

**01:47:13** CRO Howson takes a call from Kent FRS Control. The Kent CRO explains that BT have contacted them saying that the Brigade are very busy and that BT may want to pass on overflow calls to them. Kent FRS ask CRO Howson for the details of the incident including the address. CRO Howson explains there is a 25 Pump fire, Persons Reported and the address is Grenfell Tower, W11 1TG. The Kent CRO states that they will collate the information and pass it on when it quietens down a bit. (Source, FRS Incident Log and Audio file: GTIRT18-03149).

**01:47:28** Command Unit 8 send a message to the Radio Operator at Brigade Control in response to message received at **01:47:13**.

*"FN from Charlie, er, Charlie Uniform 8, FN, all received, over."*

*"Received"*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17- 02532).

**01:47:28** NWFC call back the number given that is believed to originate from the abandoned call referenced at **01:45:00** (GTIRT17-01772) earlier in this report. The caller says she called earlier but that the Brigade have since told them to get out and they are now out of the Grenfell Tower.

Incident Number 014728, Call time 41 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00594).

**01:47:44** OM Norman rings Command Unit 8 and passes over a request for the flats below to be checked. (Source, NICE, Admin Phone Line Audio file: GTIRT18-00508).

Flat Number	Floor number	Number of people	Remarks
161*	23	10	FSG being given. *Flat 161 is not on the 23rd floor. This information relates to a call taken by the North West Fire Control and the caller states initially that she is from 161.
204	23	1	
	14	1	In the call OM Norman says she doesn't know the flat number because the caller disappeared.
9		2 adults 3 children	Wheelchair user
175	20	5	



**01:47:49** CRO Gotts takes a call from a caller inside Grenfell Tower. The caller asks how they are going to get out. CRO Gotts confirms the floor number and the caller states they are on the 10th floor. The caller then repeatedly states that they are going outside. The phone is handed to a young child who states there is smoke in the corridor but other residents are leaving. The caller asks for advice on what to do and CRO Gotts advises that they block the doors up and she will tell the firefighters where they are however she is unable to advise the best thing as she is not there. CRO Gotts advises that the fire started on the fourth floor.

Incident Number 76131, Call Duration two minutes, 24 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00564).

**01:48:00** Essex FRS take a call from a BT Operator who passes a 999 call originally for London. The BT Operator explains that all of London's lines are busy and then transfers the call. The Essex CRO speaks to a female caller who states that they are on the 22nd floor and it is getting very smoky in the house. The caller gives her address as flat 193 Grenfell Tower. The Essex CRO confirms that the Brigade is in attendance and says she will pass on the information to London.

Incident Number 76637, Call Duration one minute, 12 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00558).

**01:48:23** CRO Fox takes a call from the Surrey Police Contact Centre reporting a fire at Grenfell Tower. CRO Fox advises that there is a 25 pump fire going on. The Surrey Police Contact Centre Officer explains that they have had a caller reporting that his brother is trapped in his bathroom and smoke is filling the room. The flat number is given as flat 111 on the 14th floor and the name of the person trapped is given as Dennis Murphy.

Incident Number 76127, Call Duration one minute, 39 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00561).

**01:48:23** CRO Howson takes a call from a female caller who repeatedly states that she is on the 14th floor in flat 115. CRO Howson advises the caller that the fire is on the fourth floor and the caller explains that there is smoke is coming into her flat via the door and windows. CRO Howson asks who is there and the caller confirms "me and my baby". CRO Howson asks if there are any rooms without smoke and the caller states that every room has smoke in it. CRO Howson then advises her to block the doors and windows to keep the smoke out and the caller advises that she has already done that. CRO Howson explains that she will tell crews to come and get her as soon as it is safe to do so and that the caller should stay where she is.

Incident Number 76134, Call Duration four minutes, 50 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00568).

**01:48:32** The Officer of the Watch takes a call from TWA who are calling to confirm that they are on their way and should be in attendance within the hour. (Source: Control Call Logs GTIRT18-00882).

**01:48:44** CRO Duddy takes the call from a member of the public outside the Tower who reports a fire in Grenfell Tower in W10. The caller states that it is right to the top.

Incident Number 76125, Call Duration 24 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00559).

**01:49:13** Bravo Charlie 04, SOM Adam Crinion is paged about the 25 pump fire at Grenfell Tower. (Source: Vision: GTIRT17-02791).

**01:50:03** CRO Duddy takes a call from a male caller who confirms that he is in flat 194 on the 22nd floor of Grenfell Tower. The occupant states that smoke is coming through the windows and that he can't see anything. CRO Duddy advises the caller to close his windows and block his doors, get low on the ground and cover his face with a wet cloth if he needs to.

Incident Number 76129, Call Duration one minute, 24 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00562).

**01:50:09** AOM Real makes an outgoing call to MPS Control. She quotes MPS CAD number 482 and provides an update that the incident is a 25 pump fire and that Brigade Control are receiving several calls from people trapped in flats. (Source, NICE, Admin Phone Line Audio file: GTIRT18-03150).

**01:50:49** CRO Adams makes a call on a landline to the mobile phone allocated to Command Unit 8 in order to pass on FSG calls. CRO Adams' police witness statement says she calls the Command Unit at the scene to pass on details of the flats in trouble based on the calls that she has taken. She then explains that whilst this is normally done by message, a call is easier and quicker in these circumstances. (Source, MPS Witness Statement: GTIRT17-01259; Source, NICE, Admin Phone Line Audio file: GTIRT18-00506).

Flat Number	Floor number	Number of people	Remarks
133	16		Smoke coming in
182	21		Cannot stop smoke coming through the front door so have gone into the living room.

The Command Unit Operator asks CRO Adams if there is a priority for the calls being passed to them and asks Control to indicate a priority by smoke density. CRO Adams explains that the caller in 182 is quite panicky, has

smoke in the flat and is still on the phone. The Command Unit Operator summarises that the smoke is heaviest on the 21st floor.

**01:51:42** CRO Fox takes a call from MPS Control who pass on a request that the Brigade monitor Airwave radio channel "PLON ES3". This has been assigned to the Metropolitan Police Air Support (MPAS) which means that the helicopter and the Brigade can talk directly to each other at the scene. CRO Fox says she will pass it by radio. (Source, NICE, Admin Phone Line Audio file: GTIRT18-03151).

**01:52:09** NWFC take a call from BT in Nottingham who explain that they have a caller that they have tried to put through to the Brigade but the lines are all busy. The BT Operator states that the call has now cleared but that the caller says "they're here, they're here" before putting the phone down. The NWFC Operator says they will call back.

Incident number 143565, Call Duration 40 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01607).

**01:52:11** The Radio Operator at Brigade Control sends a message to Command Unit 8.

*"Golf – er, Charlie Uniform 8, Charlie Uniform 8, from - priority from M2FN, over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02537).

**01:52:13** CRO Duddy takes a call from a male caller reporting a fire in a tower block on fire near the A40. CRO Duddy advises that the Brigade is in attendance.

Incident Number 76132, Call Duration 19 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00565).

**01:52:26** The Radio Operator at Brigade Control sends a message to Command Unit 8.

*"Priority, Charlie Uniform 8 - Charlie Uniform 8 from M2FN. Over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02538).

**01:52:34** Bravo Charlie 04, SOM Crinion responds to a pager message and is informed of 25 pump fire at Grenfell Tower (Source, NICE, Admin Phone Line Audio file: GTIRT18-00885).

**01:52:41** The Radio Operator at Brigade Control sends a message to Command Unit 8.

*"Priority, priority, Charlie Uniform 8 - Charlie Uniform 8 from M2FN. Over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02539).

**01:52:54** The Radio Operator at Brigade Control sends a message to Command Unit 8.

*"Priority, priority, Charlie Uniform 8 - Charlie Uniform 8 from M2FN. Over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02540).

**01:52:56** CRO Gotts takes a call from the London Ambulance Service who inform her they are making the Grenfell Tower fire a significant incident. (Source, NICE, Admin Phone Line Audio file: GTIRT18-00886).

The term Significant Incident is used within the ambulance service and not by the fire service or police. A significant incident is defined as any incident which from initial intelligence, will require an attendance of a number of resources along with a management presence or will require a specialist or dedicated response. (Source; London Ambulance service Deputy Director of Operations: GTIRT18-03474).

**01:53:02** Command Unit 8 respond to the Radio Operator at Brigade Control.

*"FN from Charlie Uniform 8, go ahead. Over"*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17- 02541).

**01:53:05** The Radio Operator at Brigade Control pass a message to Command Unit 8.

*"Charlie Uniform 8, go ahead. Over"*

*"Charlie Uniform 8. We're being advised that people on the 10th floor are asking to leave their flats. Are you able to go and check them? Um, and further, er, traffic, we've got info received from Surrey Police. Um, caller on the 14th floor in Flat 111 is in the bathroom with smoke entering the room and he's having difficulties breathing. Over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02542).

**01:53:11** NWFC take a call from a male caller reporting a fire in a large building in W10 which has about 20 floors all burning with people inside. The caller confirms that is Grenfell Tower when asked. The NWFC Operator reassures the caller that the Brigade are in attendance.

Incident Number 76646, Call Duration 51 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00566).

**01:53:31** Command unit 8 reply to the message received at **01:53:05**

*"Okay, that was Flat 111. Can you confirm what floor that's on?."*

*The control operator replies "Fourteen".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02543).

**01:53:40** Command Unit 8 respond to the Radio Operator at Brigade Control.

*"Flat 111 on the 14th floor, received. Over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02544).

**01:53:44** The Radio Operator at Brigade Control respond to Command Unit 8.

*"Answer yes. And, um, people on the 10th floor are leaving their flat or asking to leave their flats. Over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02545).

**01:53:54** Command Unit 8 acknowledge the Radio Operator at Brigade Control.

*"All received, over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02546).

**01:53:57** Bravo Charlie 02, Duty SOM Smith is informed of the '25 pump fire' at Grenfell Tower (Source: Vision: GTIRT 17-02791).

**01:54:14** CRO Duddy answers a call from a male caller in flat 95, 12th floor, who says it is getting worse. The caller says the smoke is thick and they cannot get out, he has two children, aged eight and 12, with him and he can hear the fire in the flat next door. The caller asks if he should leave. The caller says that there is fire outside his flat and pleads with CRO Duddy to come and get him and his daughters. He reiterates that there is a fire next door and he can hear people screaming outside. At **02:31** the caller says that the fire has reached his flat. He says the window is on fire and they need to make a move. He says there is smoke all over the place. At **02:33:36** CRO Duddy says to the caller "right we are going to tell you to leave but you need to stay on the phone". At **02:34:32** a knocking can be heard then the caller is heard saying they are here and a voice saying "hello fire brigade". He then says "save us". Someone else is heard saying "hello mate get out".

Incident Number 76135, Call Duration 40 minutes (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00569).

**01:54:23** CRO Gotts takes a call from a female caller in flat 205 on the 23rd floor who states the fire is starting to rise and they have nowhere to go. The caller explains that the crews know already but that the flat is now full of smoke and there are seven of them in there. The caller says that the fire is going to come through the window and they do not know what to do. CRO Gotts checks with the caller that they cannot get out of the flat and says she will let the crews know urgently.

Incident Number 76137, Call Duration one minute, 19 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00571).

**01:54:31** NWFC make a call back believed to be to the call that was abandoned and referenced at **01:52:09**. The call goes to EE voicemail with no number. The NWFC Operator does not leave a message. Linked to GTIRT17-01607 (Source, BOSS Viewer, 999 Audio file and Transcript:GTIRT18-02335).

**01:54:32** The Radio Operator at Brigade Control sends a message to Command Unit 8.

*"Charlie Uniform 8, Charlie Uniform 8 from M2FN, over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02548).

**01:54:44** The Radio Operator at Brigade Control sends a message to Command Unit 8 again.

*"Charlie Uniform 8, Charlie Uniform 8, from M2FN, over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02547).

**01:54:44** The Radio Operator at Brigade Control relays information to Command Unit 8.

*"Charlie Uniform 8, we've got a caller in Flat 115 on the 14th floor with a young baby, erm, and it's heavily smoke-logged, over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02549).

**01:54:55** Command Unit 8 respond to the Radio Operator at Brigade Control.

*"FN from Charlie Uniform 8, all received, over. Flat 115, over?"*

*The Radio Operator at Brigade Control responds "Answer yes, over"*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02550).

**01:55:31** The Radio Operator at Brigade Control sends a message to Command Unit 8 in relation to the Metropolitan Police Air Support unit.

*"Uniform 8, the police have a helicopter above the flat. Erm, the LFB are requested to monitor the cha... channel P-L-O-N Echo Sierra 3 radio channel to speak to the helicopter direct. Further traffic."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02551).

**01:56:20** Command Unit 8 acknowledge receipt of the information.

*"All received, go ahead with further traffic."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02552).

**01:56:20** CRO Howson takes a call from flat 165 on the 19th floor. The caller states it is him, his wife and their dog in the flat. The smoke alarm is audible in the background and the caller explains that smoke is visible outside the flat in the corridor but it is only in the flat because he opened the door to check. CRO Howson advises the caller to block the doors and stay where he is and explains that the Brigade will go door to door and make sure everyone is safe, advising that the fire is on the fourth floor.

Incident Number 76138, Call Duration one minute 20 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00572).

**01:56:23** The Radio Operator at Brigade Control passes on further information to Command Unit 8:

*"Flat 95 on the 12th floor has flames coming in the window, over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02553).

**01:56:34** Command Unit 8 acknowledge receipt of radio message sent at **01:56:23**

*"Flat 95 on the 12th floor received."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02554).

**01:57:16** CRO Fox takes a call from a female caller who states that her aunt lives in Grenfell Tower. CRO Fox establishes that the aunt lives in flat 203 on the 23rd floor and the caller explains that her aunt is with her two daughters. CRO Fox says she will tell firefighters on the radio.

Incident Number 76140, Call Duration one minute, 13 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00574).

**01:57:21** SOM Smith calls Brigade Control by telephone and speaks to AOM May and asks for an update. AOM May explains that it is quite difficult to get a handle on things because it is so busy. He says they are taking a lot of FSG calls. SOM Smith asks if callers are on the line. AOM May knows of at least one. She reports she is at the Elephant and Castle en-route. (Source, NICE, Admin Phone Line Audio file: GTIRT18-00889).

**01:57:34** The Radio Operator at Brigade Control sends a message to Command Unit 8:

*"Charlie Uniform 8, the caller in Flat 205 on the 23rd floor reports that the fire is coming right up to their flat, over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02558).

**01:57:45** CRO Gotts takes a call from a caller who reports that they have tried to get out but it is full of smoke and they cannot breathe. CRO Gotts asks the caller to confirm that they cannot get out several times which the caller confirms repeatedly. CRO Gotts then suggests that the caller block the doors to try and stop the smoke from getting in and double checks that the caller cannot leave the flat. She says the best thing to do is stay where he is and try and block the smoke. CRO Gotts asks the flat number and the caller states that it is flat 92 which is on the 12th floor. CRO Gotts then confirms that this message will be passed over and the Brigade will get to them as soon as they can.

Incident Number 76141 (Linked to 076208: GTIRT17-00645), Call Duration two minutes, 14 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00575).

**01:57:56** CRO Howson takes a call from a caller reporting an enormous fire on the A40. The caller is advised that it is at Grenfell Tower and that the Brigade is in attendance.

Incident Number 76139, Call Duration 19 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00573).

**01:58:01** The Radio Operator at Brigade Control confirms message sent at **01:57:34**

*"Yeah, she said the flame, er, the fire is coming up to the flat, over."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02609).

**01:58:57** The Radio Operator at Brigade Control sends a message to Command Unit 8.

*"Charlie Uniform 8, Charlie Uniform 8 from M2FN, over"*.

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02612).

**01:59:05** Command Unit 8 reply to the Radio Operator at Brigade Control.

*"Go ahead, over"*.

The Radio Operator at Brigade Control then send information about flat 201. *"Charlie Uniform 8, a further call. We have 11 persons and a baby, er, who are trapped in Flat 201. That's Flat 201. That's 11 persons and a baby, over"*.

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02613).

**01:59:20** Command Unit 8 respond with a query to message received at **01:59:05**.

*"Eleven persons and one baby, flat 201; what floor is that"*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17- 02614).

**02:00:06** The Radio Operator at Brigade Control responds and also passes on further information about flat 203.

*"Yeah, we believe it's about the 23rd -- it's the 23rd floor; and we've had a further call received, a person with two children trapped in 203, and that's on the 23rd floor, over"*.

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02615).

**02:00:11** CRO Fox takes a call from a female caller who states that they called 10 minutes before to ask what they should do about the fire at Grenfell Tower. CRO Fox asks which floor and flat number they are in and the caller answers that it is flat 74 on the 10th floor. CRO Fox then explains that they are passing the information to crews and asks if there is any smoke in the flat. The caller states that there is and CRO Fox then advises them to block the doors to prevent the smoke



coming in and assures them that the Brigade is there and dealing with it. CRO Fox then asks how many people there are and the caller confirms that there are two.

Incident Number 76143, Call Duration one minute and 11 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00577).

**02:00:20** Command Unit 8 acknowledge receipt of radio messages **01:59:20** and **02:00:06**.

*"All received"*.

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02616).

**02:00:28** CRO Gotts takes a call from a female caller who asks if anyone is aware of a big fire in Latimer Road. CRO Gotts confirms that the Brigade is at Grenfell Tower and are in attendance.

Incident Number 76142, Call Duration 27 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00576).

**02:00:33** CRO Howson takes a call from a male caller who says he has been waiting 15 minutes and that his flat is getting worse. The caller explains that it is black in the flat and that he cannot see anything. He then advises CRO Howson that he is a pensioner and she checks that he is preventing smoke from getting into the flat, which the caller states that he is. CRO Howson asks if there is another room in the flat which is less smoky and the caller suggests that the front room is probably the best one. CRO Howson tells him to sit on the floor as the air will be cleaner and asks for the flat number which the caller gives this as 194 on 22nd floor. A smoke alarm is audible in the background. CRO Howson confirms the Brigade will be there as soon as they can. The caller sounds very similar to an earlier call taken by CRO Fox at **01:30:08**.

Incident Number 76145, Call Duration one minute and 32 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00579).

At this point the Control Room have received calls from a number of flats and floors. The information has come from residents themselves, the MPS and other Control rooms. A summary is included below of the information received in control up to 02:00:33.

Time of call	Flat Number	Floor number	Number of people confirmed by caller	Remarks
01:43:14	175	20	2 adults 3 children including a baby	Caller says there is black smoke in the hallway
01:43:19	82	11		Caller states she has a daughter but it is not clear if she is in the flat.

01:44:33	95	12	1 adult 2 children	Caller says that embers have come up and in the window and started a fire in the kitchen of flat 96 next door
01:46:18	133	16		Smoke coming from the front door
01:47:49		10		The young child states there is smoke in the corridor but other residents are leaving
01:48:00	193	22		Call taken by Essex Fire and Rescue Service. It is not clear at this point if this was passed to London
01:48:23	111	14		This is a second call. The name of the person trapped is given as Dennis Murphy . This first call is passed at <b>01:43:13</b> but just as floor 14. There is no firm evidence that this is the same person. It does sound very similar but no names are collected to be able to verify. This flat detail was also passed at <b>01:53:05</b> as 1 male who is trapped in his bathroom and is having difficulty breathing
01:48:23	115	14	1 adult and 1 baby	Caller explains that there is smoke is coming into her flat via the door and windows
01:50:03	194	22		Caller states that smoke is coming through the windows and that he can't see anything
01:54:14	95	12	1 adult and 2 Children	Caller says he can hear the fire next door.
01:54:23	205	23	7 people	Caller says that the fire is going to come through the window
01:56:20	165	19	2 adults and a dog	Caller explains that smoke is visible outside the flat in the corridor
01:57:16	203	23		Caller from outside says aunt and her 2 daughters are trapped in the flat

01:57:45	92	12		Caller reports that they have tried to get out but it was full of smoke and they couldn't breathe
02:00:11	74	10	2 people	Caller states there is smoke in the flat
02:00:33	194	22		Caller explains that it is black in the flat and that he cannot see anything

**02:00:34** CRO Adams phones Command Unit 8 on the team leader mobile number to pass information about calls that have been received which are summarised in the table below. The Command Unit Operator summarises by suggesting that floors 21 to 23 are the most affected and CRO Adams agrees that they seem to be the most worrying. (Source, NICE, Admin Phone Line Audio file: GTIRT18-00509).

Flat Number	Floor number	Number of people	Remarks
182	21	3 children 2 adults	Fire is next door to them and the smoke is pouring in to the flat
201	23	11	People are stuck in bedroom including a 2 year old
92	12		Smoke coming in
165	19	2 adults and 1 baby	Not too bad at the moment
194	22	1 male	Pensioner with heavy smoke

**02:01:14** CRO Gotts speaks to a caller who states they are in W11 watching the fire at Grenfell Tower and wants to report that the lights are being flicked on and off on floor 23. CRO Gotts explains that the Brigade is in attendance and dealing with it and that says she will let them know.

Incident Number 76144, Call Duration one minute and 27 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00578).

**02:02:47** CRO Fox takes a call from a female caller in flat 82 on the 11th floor who is asking how long it will be before the Brigade can come and get them. She explains that she has rung before and confirms that there are two adults and one child. The caller says the smoke alarm has not gone off yet. CRO Fox reiterates the FSG information about blocking doors if the smoke comes in and the caller confirms they have done all of this.

Incident Number 76147, Call Duration one minute and 51 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00581).

**02:02:56** CRO Howson takes a call from a female caller who reports that she can see people waving for help at Grenfell Tower and that they are on top of the tower on the opposite side to the fire. CRO Howson tries to clarify if the people waving are actually outside and on top of the building and the caller states that they are. CRO Howson confirms that the Brigade is in attendance and that she will pass this information on.

Incident Number 76148, Call Duration one minute and 2 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00582).

**02:02:58** CRO Gotts takes a call from a caller who says she can see a huge tower block on fire and that she can see people in the building at the top. CRO Gotts confirms that it is Grenfell Tower and the caller offers their camera footage. CRO Gotts states that the Brigade is in attendance and dealing with it.

Incident Number 76146, Call Duration 41 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00580).

**02:03:13** Command Unit 7 sends an assistance message to the Radio Operator at Brigade Control.

*"FN from Charlie Uniform 7, make pumps 40, further traffic, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02619).

**02:03:44** Command Unit 7 sends an incident ground update to the Radio Operator at Brigade Control.

*"Charlie Uniform 7, Group Manager Welch is now incident commander. Charlie Uniform 7, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02621).

**02:03:47** CRO Gotts takes a call from a caller that reports that they are trapped in flat 192 on the 22nd floor. The caller is very quiet and difficult to hear but they do state that there is smoke in the corridor and they cannot get out. During the call the caller says she can see the fire but it is not in the flat and CRO Gotts suggests that they open a window to get fresh air if they can. CRO Gotts explains that the Brigade is there and dealing with it and that she will let them know the callers location.

Incident Number 76149, Call Duration two minutes and 36 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00583).

**02:05:00** Command Unit 8 send an assistance message to the Radio Operator at Brigade Control.

*"FN from Charlie Uniform 8, er, make CUs four. Charlie Uniform 8, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02624).

**02:05:25** CRO Howson takes a call from a female caller stating she is on the 23rd floor of Grenfell Tower. CRO Howson asks which flat number and the caller confirms it is 203 and that there are five adults and two children. The caller confirms they have smoke in the flat but have closed the doors and they are in the living room/kitchen area. CRO Howson tells them they need to stay there and explains that there is a fire on the fourth floor which is being dealt with and that once it has been dealt with, the firefighters will come up through the building to make sure everyone is safe. The caller asks if the fire is going up the building and CRO Howson replies that Control are not sure exactly what is happening at the moment, but that there is a lot of smoke in the communal areas and in the stairwells, so it is not safe to go outside. CRO Howson advises that the doors should be blocked up with blankets and says she will let the crews know where they are.

Incident Number 76152, Call Duration two minutes 36 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00586).

**02:05:25** The Radio Operator at Brigade Control sends a message to Command Unit 8.

*"Charlie Uniform 8, priority".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02626).

**02:05:28** Command Unit 8 respond to the Radio Operator at Brigade Control.

*"Er, Charlie Uniform 8, go ahead".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02627).

**02:05:32** The Radio Operator at Brigade Control provides information to Command Unit 8.

*"Yeah, we've got reports of people on the roof of the building, and we have two persons trapped in Flat 74 on the 10th floor, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02628).

**02:05:47** Command Unit 8 acknowledge receipt of the information received from the Radio Operator at Brigade Control.

*"FN from Charlie Uniform 8, all received, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02629).

**02:05:50** The table below show the resources mobilised to the 40 pump fire:

<b>Operational Response to the incident at Make Pumps 40</b>
<ul style="list-style-type: none"><li>• Golf 272, North Kensington's Pump</li><li>• Golf 271, North Kensington's Pump Ladder</li><li>• Golf 331, Kensington's Pump Ladder</li><li>• Golf 362, Hammersmith's Pump</li><li>• Golf 361, Hammersmith's Pump Ladder,</li></ul>

- Alpha 212, Paddington's Pump
- Golf 331, Kensington's Pump Ladder,
- Alpha 211, Paddington's Pump Ladder
- Golf 261, Acton's Pump Ladder
- Golf 371, Chiswick's Pump Ladder
- Golf 281, Willesden's Pump Ladder
- Golf 341 Chelsea's Pump Ladder
- Golf 351, Fulham's Pump Ladder
- Golf 291, Park Royal's Pump Ladder
- Alpha 411, West Hampstead's Pump Ladder
- Alpha 231, Euston's Pump Ladder
- Alpha 241, Soho's Pump Ladder
- Alpha 242, Soho's Pump,
- Hotel 271, Battersea's Pump Ladder
- Golf 251, Ealing's Pump Ladder
- Hotel 331, Wandsworth's Pump Ladder
- Alpha 412, West Hampstead's Pump
- Hotel 421, Richmond's Pump Ladder
- Hotel 221, Lambeth's Pump Ladder
- Hotel 222, Lambeth's Pump
- Golf 301, Wembley's Pump Ladder
- Alpha 431, Kentish Town's Pump Ladder
- Alpha 401, Hendon's Pump Ladder
- Alpha 402, Hendon's Pump
- Golf 381, Heston's Pump Ladder
- Golf 382, Heston's Pump
- Alpha 311, Holloway's Pump Ladder
- Golf 302, Wembley's Pump
- Foxtrot 241, Shoreditch Pump Ladder
- Hotel 351, Tooting's Pump Ladder
- Hotel 352, Tooting's Pump
- Hotel 241, Brixton's Pump Ladder
- Hotel 242, Brixton's Pump
- Foxtrot 331 Whitechapel's Pump Ladder
- Echo 351, Old Kent Road's Pump Ladder
- Echo 371, Peckham's Pump Ladder
- Echo 341, Dockhead's Pump Ladder
- Oscar Kilo 13, Watch Manager Matthew Leaver from the Fire Investigation Team
- Oscar Kilo 15, Watch Manager Steve Girling from the Fire Investigation Team
- Alpha 213, Paddington's Turntable Ladder
- Alpha 245, Soho's Aerial Ladder Platform
- Alpha 216, Paddington's Fire Rescue Unit
- Golf 346, Chelsea's Fire Rescue Unit
- Command Unit 7
- Command Unit 8

- Command Unit 2
- Hotel 41 Sierra (Kingston's Station Manager) Station Manager Andrew Walton (as Station Manager)
- Golf 22 Sierra (Chelsea's Station Manager) Station Manager Brett Loft (as Station Manager)
- Oscar Golf 61, Station Manager Nicholas Saunders (as Station Manager)
- Alpha 40 Sierra, Station Manager Peter Wolfenden (as Station Manager)
- Oscar Echo 69, Station Manager Daniel Kipling (as Station Manager)
- Hotel 33 Sierra, Station Manager Jacqueline McConochie (as Station Manager)
- Foxtrot 115, Group Manager Patrick Goulbourne (as Group Manager)
- Foxtrot 113, Group Manager Stephen West (Group Manager) (Operational Review Team Shadowing)
- Echo 109, Group Manager Richard Welch (Bulk Media Advisor)
- Foxtrot 118, Group Manager Thomas Goodall (as Group Manager)
- Echo 63, Group Manager David O'Neill (as Group Manager)
- Oscar Golf 54 Station Manager Gareth Cook (as the Press Officer)
- Echo 6, Deputy Assistant Commissioner Andrew O'Loughlin
- Oscar Foxtrot 67, Station Manager Daniel Egan (as Fire Safety Officer)
- Hotel 34 Sierra, Station Manager Michael Mulholland (as Operational Review Team)
- Bravo Mike 8, Assistant Commissioner Andrew Roe
- Echo 61, Group Manager Matthew Cook (as Operational Review Team)
- Hotel 27 Sierra, Station Manager Nicholas Myatt
- Golf 25 Alpha, Ealing's OSU (Breathing Apparatus Unit)
- Alpha 39 Alpha, Finchley's OSU (Damage Control Unit)

**02:05:51** CRO Adams takes a call from a female caller reporting a fire at Grenfell Tower. The caller is very upset and says that there are people on the top floor waving. CRO Adams assures her that there are 40 fire engines in attendance.

Incident Number 76150, Call Duration 35 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00584).

**02:06:00** SM Oliff opens a telephone call to Command Unit 8. This call lasts for 15 minutes and 58 seconds. There is no record of the contents of the conversation. He has been tasked by DAC Fenton to coordinate the sending of fire survival calls to the incident ground. It is not known exactly what time he starts this work but his first call to the team leader mobile on Command Unit 8 is at **02:06:00**. The system that is set up is that the CROs are recording details on slips of paper, flat and floor numbers and then SM Oliff is marking them up on white boards and passing this information to Command Unit 8. The team leader from Command Unit 8 moves to Command Unit 7 and takes the mobile phone with him.

(Source, MPS Witness statement Station Manager Jason Oliff: GTIRT18-01532)

**02:06:03** Command Unit 8 sends informative message to the Radio Operator at Brigade Control.

*"FN from Charlie Uniform 8, from Group Manager Welch, er, declare this a major incident. Charlie Uniform 8.*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02630).

**02:06:13** The Radio Operator at Brigade Control acknowledges receipt of message.

*"Major incident received".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02631).

**02:06:14** CRO Fox takes a call from a caller outside Grenfell Tower who reports a woman on the upper floors on the tower shouting for help although the caller is unsure which floor. CRO Fox tries to find out what side of the building they can see and the caller confirms they are near Silchester Road which is the other side of the school.

Incident Number 76151, Call Duration two minutes 32 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00585).

**02:06:51** Alpha 301, Islington's Pump Ladder contacts the Radio Operator at Brigade Control and asks for verification of call that they are attending.

*"FN from Alpha 301, can you re-contact caller please with regards to this incident? Are they calling from this block or from the 20 pump that's going on behind us".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02632).

**02:06:55** CRO Gotts takes a call from a female caller who says she is in Grenfell Tower. The caller says they are on the 12th floor in flat 92 and that she has two children with her. She explains that they tried to get down but there is a lot of smoke and they cannot continue. CRO Gotts states that she will pass the information to the crews.

Incident Number 76393, Call Duration one minute 17 seconds (Source, BOSS Viewer and 999 Audio files : GTIRT18-02860).

**02:07:09** The Radio Operator at Brigade Control responds to a message received from Alpha 301, Islington's Pump Ladder at **02:06:51**.

*"Erm, Alpha 301, I'm really sorry but we're not gonna be able to re-contact that caller. We have got multiple fire survival calls going on at the moment. All we can do is just – that – obviously that, that caller was calling from Foreland House and could see smoke but it could, it could be the same. Unfortunately at this moment, we can't re-contact them. We don't have the manpower".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02633).

**02:08:45** CRO Howson takes a call from a female reporting a fire in Grenfell Tower. The caller states that she is nearby and CRO Howson thanks her for the call and explains she needs to take other calls.



Incident Number 76154, Call Duration 43 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00588).

**02:08:48** CRO Fox takes a call from a female caller who explains that she is in Grenfell Tower and there is a fire on the floor below them, the caller is in Flat 175 on the 20th floor. CRO Fox asks how many people there are in the flat and the caller replies that there is her, her husband and three kids, one baby. CRO Fox confirms this and states that she is passing all the details on to our command unit that is on scene. The caller says there is smoke coming into the flat and CRO Fox provides FSG about blocking the doors to keep the smoke out and the caller advises she has already done that. CRO Fox confirms that she has passed on the information to the crews to come and get them and tells the caller to call back if she needs to.

Incident Number 76157 Call Duration two minutes 47 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00593).

**02:08:56** The Radio Operator at Brigade Control sends a message to Command Unit 8.

*"Charlie Uniform 8, priority, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02638).

**02:09:05** The Radio Operator at Brigade Control sends a message to Command Unit 8.

*"Charlie Uniform 8, Charlie Uniform 8, priority, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02639).

**02:09:17** The Radio Operator at Brigade Control sends a message to Command Unit 8.

*"Priority, priority, Charlie Uniform 8, Charlie Uniform 8 from M2FN, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02640).

**02:09:23** Command Unit 8 respond to the Radio Operator at Brigade Control.

*"Charlie Uniform 8, go ahead, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02641).

**02:09:25** CRO Gotts takes a call from the MPS Control Room reporting that they have received an abandoned call from a female who is trapped with her son in flat 115 who states that she does not know where the exits are. The MPS CRO gives a CAD reference number of 543. The MPS CRO informs CRO Gotts that his supervisor is reporting that they are getting lots of calls from people trapped in the building and asks if there is any advice that they can give to callers. CRO Gotts states, close windows, block up doors but if windows offer air – open them. The MPS then confirm that the Brigade are not directing people to fire exits and CRO Gotts explains that they do

not know where the exits are and that she has spoken to a few people who have left but have had to return to their flats because of the amount of smoke. CRO Gotts explains that as fire is unpredictable, the Brigade do not generally tell people to leave but if they think they can leave safely then they should do so. The MPS CRO asks CRO Gotts if she can arrange for the Brigade CRO supervisor to speak to the MPS supervisor in the MPS Control Room. CRO Gotts says she will try but says it is very busy at the moment.

Incident Number 76156, Call Duration three minutes 6 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00592).

**02:09:25** The Radio Operator at Brigade Control sends further information to Command Unit 8, in response to message received at **02:09:23**.

*"We've had further calls, er, we've got two adults and one child trapped inside flat 82 on the 11th floor. We've got a caller in flat 192 on the 22nd floor unable to leave. We've got a fire in the corridor on floor 12. Caller trapped in flat 95. And a caller has attempted to leave from the 22nd floor but they've had to go back. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02642).

Flat Number	Floor number	Number of people	Remarks
82	11	2 adults and 1 child	
192	22	Only caller referred to	Unable to leave their flat
95	12	Only caller referred to	Fire in the corridor
	22		Caller attempts to leave their flat but has to go back

**02:09:35** CRO Howson takes a call from a female caller who is outside the block and she says there is someone in a top floor flat and they are waving their phone light. CRO Howson confirms that she will pass this information to crews.

Incident Number 76155 Call Duration 44 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00589).

**02:10:03** Command Unit 8 acknowledge receipt of the information message sent by the Radio Operator at Brigade Control at **02:09:25**.

*"Charlie Uniform 8 received, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02643).

**02:10:26** NWFC take a call via a BT Operator who pass over a female caller outside the tower in W10 who is reporting a 20-25 storey tower block on fire. The caller states that there are people on the 14th floor on the west side of the building and specifically wants to clarify that there is a woman who is screaming and banging on the windows with her two kids. The NWFC Operator states that he will pass the information to the Brigade.

Incident Number 76649 Call Duration two minutes 16 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00590).

**02:10:31** CRO Howson takes a call from a caller who is in flat 192 on the 22nd floor reporting a fire in her kitchen. CRO Howson clarifies if it is smoke or fire and the caller confirms that it is fire and CRO Howson advises her to shut the kitchen door and get into another room. The caller is heard talking to other people in the flat and CRO Howson advises the caller that the Brigade is dealing with a fire on the fourth floor. CRO Howson passes the flat and floor number to someone in Control, stating that there is a fire in the kitchen. CRO Howson then asks the caller how many people are in the flat. It is difficult to hear this clearly in the call but sounds like 5 people, 3 children then an inaudible word. CRO Howson then advises that caller to put blankets or cushions at the bottom of the door to stop the smoke coming through. At approximately **02:14** the caller confirms again that the fire is in the kitchen and CRO Howson explains that the Brigade is advising people to stay in their flats but if the fire is in the flat they may have to try and leave. CRO Howson then tries to find out how near to the stairs they are but the caller stops responding, voices can be heard but CRO Howson cannot raise the caller. CRO Howson is passing information to other people in the Control Room throughout. At **02:16:55** the BT Operator comes on the line and says the line has dropped out.

Incident Number 76164 Call Duration six minutes 24 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: 76164 GTIRT17-00606).

**02:10:33** NWFC take this call from the BT Operator in Glasgow introducing the call as originally for the Brigade but the lines are all busy. The call is taken by a Team Leader in the NWFC. A male caller says he is at 133 Grenfell Tower. A smoke alarm is sounding in the background. The caller says they are stuck in the flat. He says they have blocked the doors but the smoke is still coming in. He then says he is on the 16th floor. The NWFC Team Leader asks if they can get to a room furthest away from the smoke and confirms with the caller that there are two people. The caller says the smoke is in the room they are in now and they have tried everything to stop the smoke. The Team Leader at NWFC then explains that they should get low to the floor. She then introduces herself as Team Leader at NWFC and asks for the caller's name. Names are given as Sener and Hanife. Sener asks if they should try and run outside. Team Leader NWFC explains that she "doesn't know what your policy would be", but she will try and keep them safe. The Team Leader at NWFC asks him to go and feel the door handle on the front door. The Team Leader at NWFC

keeps providing reassurance. Sener explains that Hanife is running around and panicking. She tells Sener to get Hanife to calm down. The smoke becomes worse and the Team Leader at NWFC advises them to get wet towels and use them to cover their mouths and noses. Sener explains that earlier they tried to go out into the corridor but it was full of black smoke. The Team Leader at NWFC keeps the conversation going and she keeps checking on Hanife. Hanife is on another phone to her family including her daughter. The conditions appear to get worse and Sener starts coughing and gulping for air. At **02:31:06** the Team Leader at NWFC explains to Sener that they think the firefighters are working up from the 14th floor and should be on the 16<sup>th</sup> floor very soon. She reiterates the safety advice and makes sure they are close to the floor. Sener starts coughing more frequently. At **02:35:44** the Team Leader at NWFC tells Sener to get the towels they are using and make them as wet as they can and to cover themselves and leave the flat. The Team Leader at NWFC says that they have been told by the Brigade that is the safest option for them. There is a lot of shouting between Sener and Hanife in a foreign language. Eventually Sener comes back on the line and the Team Leader at NWFC confirms with Sener what she wants him to do. Sener says he is frightened. He says goodbye. The call ends at **02:38:24**.

Incident Number 76655, Call Duration twenty seven minutes 32 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00591).

**02:11:48** Command Unit 8 sends informative message to the Radio Operator at Brigade Control.

*"Charlie Uniform 8 D-A-C O'Loughlin is now Officer in Charge of this incident, D-A-C O'Loughlin. Charlie Uniform 8 over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02648).

**02:11:51** CRO Fox takes a call from a female caller reporting a fire in Grenfell Tower and confirms that the Brigade is on scene. The caller explains that she is calling because her friend who lives across the road has asked her to call.

Incident Number 76159 Call Duration one minute 8 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00599).

**02:11:59** The Radio Operator at Brigade Control acknowledges receipt of message sent by Command Unit 8 at **02:11:48**.

*"D-A-C O'Loughlin rec-, er, in charge, received".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02649).

**02:12:07** CRO Adams takes a call from a member of the public who is outside the tower and asks for Brigade attendance at Grenfell Tower. CRO Adams reassures her that the Brigade are already in attendance and dealing with it.

Incident Number 76158 Call Duration 25 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00597).

**02:12:09** NWFC take a call from the BT Operator at Portadown. He says that they have received another critical call. He says that it seems to be that people are trapped at the top of the building but the caller has dropped out. The mobile number of the caller is passed to the NWFC. The caller is a man saying his sister and nephew are trapped in the building. The NWFC Operator says he will give them a call back. The NWFC Incident Log has an entry that states they are unable to make contact on the number given. It should be noted that the NWFC receives a call from the same mobile at **02:17:24** (GTIRT17-01831).

Incident Number 76648, Call Duration 40 seconds (Source, BOSS Viewer, 999 Audio file: GTIRT18-02454).

**02:12:50** NWFC take this call from the BT Operator at Portadown trying to pass a call intended for the Brigade. The caller is reporting a fire in a tower block in London and the line has dropped out.

Incident Number 76651, Call Duration 34 seconds (Source, BOSS Viewer, 999 Audio file and Transcript :GTIRT17-00596).

**02:12:50** NWFC take this call from the BT Operator at Dundee who pass an abandoned call originally for the Brigade but the lines are all busy. The NWFC Operator says the caller is a lady trapped in a flat and there is a fire in the building, He does not have the flat number. The NWFC Operator says she will ring her back.

Incident Number 76652 Call Duration 39 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00595).

**02:12:50** NWFC make a call back to the number given by the BT Operator in Dundee at **02:12:50** (GTIRT17-00595). The call starts with a female saying "hello". The NWFC Operator introduces herself as the "fire service" and the caller says "yeah". The NWFC Operator says you have called the fire service and asks if the woman wants to report a fire. The female shouts "the firemen are all in my block, Grenfell Tower". The resident gives her floor as 14. The NWFC Operator asks for confirmation that the Fire Brigade are there. The resident says yes. She then gives her flat number as 115. The NWFC Operator asks if the fire crews are getting her out. The resident says, "I don't know, they are saying the fire is too big". The NWFC Operator asks, "If they are aware of where you are". The resident says yes. The NWFC Operator says okay and that that the Brigade will be with her. The call cuts off at this point.

Incident Number 1706004398, Call Duration one minute 5 seconds (Source, FRS Incident Log and Audio file: GTIRT18-02463).

**02:13:03** CRO Adams takes a call from a male caller, who says he is Nick Burton, reporting that his whole tower block is on fire and that he is in flat 165 on the 19th floor. CRO Adams asks how many people there are and the caller states that there are two adults and a dog. The caller explains that there is light smoke in the whole flat and CRO Adams confirms that he has blocked his doors. CRO Adams explains that the Brigade is in attendance and are trying to get to everyone but there are a lot of people trapped and asks the caller to call back if it gets any worse.

Incident Number 76161 Call Duration one minute 22 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00601).

**02:13:12** Essex FRS take a call, via BT, who report there are delays in getting through to the Brigade. The caller reports there is a fire in her block and that the Brigade is aware and when asked by the Essex CRO, she confirms that she is in flat 82 on the 11th floor. The Essex CRO explains that there is a stay put policy unless the caller hears otherwise and asks for the caller's name which is given as Natasha Elcock. Natasha is worried because the fire seems to be spreading and asks them to hurry. The Essex CRO says she will pass on the details to the Brigade.

Incident Number 76638 Call Duration one minute 17 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00598).

**02:13:40** CRO Fox takes a call from a male caller who reports that Grenfell Tower is on fire and says he can see residents in flats moving around slowly as if they don't know what is going on. CRO Fox assures him that the Brigade is there and dealing with the incident.

Incident Number 76163 Call Duration one minute 5 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00603).

**02:13:46** CRO Gotts takes a call from a female caller reporting a fire at Grenfell Tower. The caller asks how many fire engines are there because she does not think there are enough and CRO Gotts tells her there are 40.

Incident Number 76160 Call Duration 29 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00600).

**02:14:12** SOM Smith calls in response to a paging notification and says she is "around the corner". (Source, NICE, Admin Phone Line Audio file: GTIRT18-00895).

**02:14:25** CRO Gotts takes a call from a female caller who says there is a fire near Latimer Road station. CRO Gotts asks if it is Grenfell Tower and the caller confirms that is the one. She says "there are people

right on the top floor waving lights" and CRO Gotts explains that the Brigade is aware and they are dealing with it.

Incident Number 76162, Call Duration 25 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00602).

**02:14:32** Command Unit 8 send assistance message to the Radio Operator at Brigade Control.

*"Charlie Uniform 8 from D-A-C O'Loughlin make CU's 6 tactical mode Oscar, Charlie Uniform 8 over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02662).

**02:14:40** The Radio Operator at Brigade Control acknowledges receipt.

*"Charlie Uniform 8, er, make CU 6 received"*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02663).

**02:15:00** At around this time SOM Smith arrives at the Control Room. She is originally notified at **01:29:41** of the incident when it was an eight pump fire. This is a notification action undertaken by control. In her police witness statement she states that when she calls the Control Room in response to the paging notification, it is very busy and while she is on the phone the incident is upgraded to a 10 pump fire and then a 15 pump fire. She informs the Control Room that she is on her way in. She refers to additional paging notifications in her statement saying that they happen when she is driving to Stratford. There is no hard record of her arrival in the Control Room. In her statement she says it is approximately 02:15:00. (Source, MPS witness statement GTIRT17-01956).

**02:15:07** CRO Gotts takes a call from a male caller who begins by apologising for calling again but reports being very scared and states that they are on the 12th floor. He explains that when they open the front door there is a lot of smoke and CRO Gotts says that she is unable to advise but if the caller thinks its safe to try and leave then that is their choice, however, normally the Brigade would suggest blocking up anywhere that smoke can get in. CRO Gotts reassures the caller that the Brigade is there and will come and find them. The caller states that they can't breathe so CRO Gotts asks if there is a window in the flat that might provide some fresh air. The caller states that there are fire balls falling past the window and that there are three people in the flat. CRO Gotts suggests they try to block it up a bit more or go to the window to get some fresh air if they are unable to get out. CRO Gotts then confirms that the crews are aware that they are on the 12th floor.

Incident Number 76167 Call Duration three minute 39 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00609).

**02:15:08** Command Unit 8 send assistance message to the Radio Operator at Brigade Control.

*"Charlie Uniform 8 from DAC O'Loughlin. Make FRUs 10. RVP is CU at Bramley Road. Enter via Holland Park Avenue. Charlie Uniform 8 over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02664).

**02:15:33** The Radio Operator at Brigade Control requests repeat of message.

*"Can you just repeat all that message? Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02665).

**02:15:49** Command Unit 8 repeat message to the Radio Operator at Brigade Control.

*"Charlie Uniform 8 from station as you were D-A-C O'Loughlin make FRU's 10 entering via Holland Park Avenue. Tactical Mode Oscar. Charlie Uniform 8. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT18-02666).

**02:16:06** The Radio Operator at Brigade Control repeats message received from Command Unit 8.

*"Uh, Charlie Uniform 8, make FRUs 10, RVP I have Bramley Road enter via Holland Park Avenue. Is that all correct? Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02667).

**02:16:14** CRO Fox takes a call from a female caller who says that she can see people leaning out of windows and flashing their phones from the top floor. The caller says they are on the left side of the building as you look from the front. CRO Fox confirms that the Brigade is aware, asks the caller to hold on and she is heard passing on the information in the Control Room and confirms to the caller that this has been passed via radio. The caller goes on to explain that she can also see other people waving their phone lights in a flat on the top floor at the front of the building as well.

Incident Number 76165 Call Duration two minutes 6 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00607).

**02:16:15** Command Unit 8 acknowledges receipt of message sent by the Radio Operator at Brigade Control at **02:16:06**.

*"Charlie Uniform 8, answer, yes. Over"*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02668).

**02:16:58** Command Unit 8 send message to the Radio Operator at Brigade Control.

*"Charlie Uniform 8 request attendance of dangerous structures engineer, Gas and Electricity Board and the Local Authority Liaison Officer. Charlie Uniform 8 over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02669).



**02:17:11** CRO Howson takes a call from Kent FRS who explain that they have an abandoned call, via BT, for London. He explains that he has tried to call the caller back but the phone keeps cutting off. The Kent CRO passes the mobile number to CRO Howson who says she will try and call back.

Incident Number 143552 Call Duration 47 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01737).

**02:17:20** The Radio Operator at Brigade Control acknowledges receipt of message sent by Command Unit 8 at **02:16:58**.

*"Charlie Uniform 8 all received".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02670).

**02:17:24** NWFC take a call from a male who states that someone tried to call him. The caller explains that he is outside the tower and it does not look like anybody is doing enough to rescue people. The caller states that his sister and her son are trapped in flat 115 on the 14<sup>th</sup> floor and that she has called him and says she cannot get out. The NWFC Operator says he will let the Brigade know and that there are 40 fire engines on scene and the caller says he is going to call his sister to see if she is still in her flat. The NWFC Operator tells him to call back and let them know.

Incident Number 76654 Call Duration two minutes 5 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01831).

**02:18:06** CRO Howson takes a call from a female caller on the 22<sup>nd</sup> floor in flat 192. The caller first speaks to the Brigade at **01:34:50** (GTIRT17-00513). She says there are five of them, 2 adults and 3 children and reports that there is a fire in the kitchen. CRO Howson states that if they need to move to get away from the fire then they should and the caller asks if CRO Howson has the landline number for flat 191 to which she replies that she does not. She tells the caller they need to make their way to somewhere safe if the fire is in the flat and then goes on to say they should make their way to the stairwell or somewhere where the smoke is less heavy. She says they should cover themselves with towels and move to a safe place but tells them to keep the mobile phone with them and asks if they would like her to stay on the phone. The caller becomes difficult to hear but banging and screaming are audible and CRO Howson repeatedly asks if they have left the flat and if the caller has all of the children with her. She tries to get the answer several times and the caller confirms that she is still in the flat. The caller asks when is the Brigade coming and CRO Howson explains that the crews are making their way up to them. CRO Howson ends the call because she says she needs to take other calls. The caller says okay.

Incident Number 76176 Call Duration six minutes 39 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00618).

**02:18:47** CRO Fox takes a call from Kent FRS who asks for the reference number of the incident. CRO Fox also asks if they have any further details of callers and reminds the Kent CRO that if they take any calls then they should take flat and floor numbers and pass to London so that the information can be passed on to the Command Unit.

Incident Number 76168 Call Duration 52 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00610 andGTIRT17-01534 ).

**02:18:55** CRO Adams takes a call from Essex FRS who pass the details of a caller in flat 82 on the 11<sup>th</sup> floor and that her name is Natasha Elcock. This call information is originally taken by Essex FRS at **02:13:12** (GTIRT17-00598). CRO Adams asks if there is just one adult but the Essex CRO is unsure. CRO Adams then asks about conditions like smoke in her flat and the Essex CRO says that the caller seems okay. The Essex CRO then reports a further call from the 22<sup>nd</sup> floor but does not have the flat number. The caller has reported that it has started to get smoky. The Essex CRO then states that they are telling people to stay put and checks that this is correct which CRO Adams confirms.

Incident Number 76170, Call Duration one minute 16 seconds (Source, BOSS Viewer, 999 Audio file and Transcript:GTIRT17-00612).

**02:20:08** CRO Gotts takes a call from a female caller who reports that she can see a whole block on fire but the caller doesn't know the address or the name of the tower. CRO Gotts suggests Grenfell Tower and asks if it is near Latimer Road station. The caller thinks that is the one and CRO Gotts confirms that the Brigade is in attendance.

Incident Number 76171, Call Duration one minute 23 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00613).

**02:20:09** CRO Fox takes a call from a female caller reporting a fire near Latimer Road station. CRO Fox tries to confirm that this is Grenfell Tower and reassures her that the Brigade is there.

Incident Number 76169, Call Duration 34 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00611).

**02:21:04** CRO Fox takes a call from a male caller who states that he is still on the 21<sup>st</sup> floor of Grenfell Tower in flat 183. It is believed that this call is linked to **01:38:38**. The caller states that they cannot get out and explains that there is him, his wife, three children and his neighbour in the flat. The caller states that his wife is seven months pregnant. CRO Fox explains that they are passing information to Command Units so that they can come and get them and asks if the caller has put towels down to stop the smoke coming in. The caller confirms he has done.

Incident Number 76172 Call Duration one minute 28 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00614).

**02:21:22** CRO Adams takes a call from the London Ambulance Service Control Room stating that they have had a call from someone inside the building. The flat number is given as flat 102 and it is on the 23rd floor. The Ambulance CRO says the message from the residents is that they are still alive but the caller is very distressed and angry. The Ambulance CRO goes on to state that they have had reports of people jumping out of windows. The Ambulance CRO then passes on a query from St Marys Hospital who are enquiring about the fire at "Grenfell Park".

Incident Number 76173 Call Duration one minute 39 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00615).

**02:21:32** CRO Gotts takes a call from a female caller who reports being stuck on the 23<sup>rd</sup> floor in flat 203 and reports that the flat next door is now on fire. CRO Gotts asks if the caller can get out of the flat and reiterates the need to block the doors and stay away from the side of the flat that is on fire. The caller states that the Brigade need to get them out now and CRO Gotts explains that the Brigade are on the lower floors on their way up. The caller asks why isn't there a helicopter to get them out and CRO Gotts explains that there is a helicopter but just so that the Brigade can see it from the air. CRO Gotts summarises the call by repeating the address as 22<sup>nd</sup> floor, flat 192.

Incident Number 143546 Call Duration three minutes 19 secs (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01731).

**02:22:54** Command Unit 7 send informative message to the Radio Operator at Brigade Control.

*"FN from Charlie Uniform 7, uh, can you run all FSG through scor..., uh, through us now please, Charlie Uniform 7".*

*The Radio Operator at Brigade Control acknowledges receipt of message: "Charlie Uniform 7, all received"*

*(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02696).*

**02:23:00** SM Oliff who is Officer of the Day, makes a call to Command Unit 8 that lasts for two minutes and 40 seconds. There is no record available of the contents of the conversation.

**02:23:30** CRO Adams takes this call which is from the MPS Control Room passing a CAD message that is from a caller on the 23<sup>rd</sup> floor. The caller says that there are persons trapped on the 23<sup>rd</sup> floor. The MPS do not have a flat number as the caller cuts off before they can get any more information. Incident Number 76174 Call Duration 42 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00616).

**02:24:19** CRO Fox takes a call from a female who reports a fire in Grenfell Tower and states that she is on the 12th floor in flat 94. CRO Fox asks how many people there are and the caller confirms that there are two adults and pleads for someone to come and save them. CRO Fox gives guidance on how to stop the smoke coming in the flat. She tells the caller to put towels at the bottom of the door. CRO Fox confirms that she will pass the caller's information over to the Command Unit.

Incident Number 76178 Call Duration one minute 6 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00620).

**02:24:25** CRO Adams takes a call from a caller who is shouting that he is jumping out the window and that he is very frightened. The caller is shouting and pleading for someone to do something. He says he is in flat 194 and that he has been waiting in his flat for 45 minutes. The caller first spoke to the Brigade at **01:50:03** (GTIRT17-00562). CRO Adams asks him to repeat the flat number but the line drops out. A smoke alarm is audible in the background.

Incident Number 76177, Call Duration 42 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00619).

**02:24:31** The Radio Operator at Brigade Control sends a message to Command Unit 7.

*Priority, Priority, Charlie Uniform 7 from M2FN, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02700).

**02:24:42** The Radio Operator at Brigade Control sends informative message to Command Unit

*"Charlie Uniform 7. Flat 183 on the 21<sup>st</sup> floor. Three adults, one pregnant lady and three children are still trapped inside their flat. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02701).

**02:25:00** Command Unit 7 request confirmation from the Radio Operator at Brigade Control.

*"... three. And the floor please"*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02705).

**02:25:03** The Radio Operator at Brigade Control provides further information to Command Unit 7

*"21st, that's two-one. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02706)

Flat Number	Floor number	Number of people	Remarks
183	21	3 adults, 1 pregnant lady and 3 children	Trapped in their flat

At this stage Brigade Control have received a number of calls from various flats and from other control rooms. The table below summarises these calls.

Time of call	Flat Number	Floor number	Number of people confirmed by caller	Remarks
02:02:47	82	11	2 adults 1 child	Passed to Command Unit 8 @02:09:25
02:03:47	192	22		Passed to Command Unit 8 @ 02:09:25
02:05:25	203	23	5 adults 2 children	
02:08:48	175	20	2 adults 2 children and 1 baby	
02:10:31	192	22	2 adults 3 children	
02:10:33	133	16	2 adults named as Sener and Hanife	Call taken by North West Fire Control
02:12:50		14		Call taken by NWFC. Call cuts off during before all details are captured
02:13:03	165	19	2 adults and 1 dog	Callers gives his name as Nick Burton
02:13:12	82	11		Caller gives her name as Natasha Elcock
02:15:07		12	3 people	
02:17:24	115	14		Caller is from outside the tower and is brother of a resident. He says his sister and her son are trapped.
02:18:06	192	22	2 adults 3 children	
02:18:55	82	11	1 Adult	Name given to Essex Fire and Rescue Service as Natasha Elcock
02:21:04	183	21	3 adults 3 children. One adult is pregnant	Neighbour is in the flat.
02:21:32	*192	22		*The caller gives their flat number as 203 on the 23 <sup>rd</sup> floor. However when the CRO summarises the call and says she will pass on the details she says 192 on the 22 floor

02:24:19	94	12	2 Adults	
02:24:25	194			

**02:25:08** CRO Russell takes a call from a male caller reporting a fire and stating that there is someone stuck on the top floor, CRO Russell confirms that the caller is referring to Grenfell Tower. The caller says there is someone flashing their light on the top floor and that they are so close to the fire that they are going to die. CRO Russell says the Brigade is aware and have lots of people trapped all over the building.

Incident Number 76180 Call Duration one minute 16 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00622).

**02:25:09** Command Unit 7 request further information from the message sent by the Radio Operator at Brigade Control at **02:25:03**.

*"Confirm the persons again please, Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02707).

**02:25:12** The Radio Operator at Brigade Control repeats message.

*"It's Flat 183. One hundred and eighty-three, 21<sup>st</sup> floor. Three adults, one pregnant lady and three children. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02708).

**02:25:38** CRO Howson takes a call from a BT Operator at Portadown who explains that she has a female caller on the line who has told the BT Operator that they are on the 23<sup>rd</sup> floor in flat 205, they cannot get out and they are running out of oxygen. CRO Howson speaks to the caller who confirms that the flat is black and that they are cornered by the kitchen. CRO Howson asks how many people there are and the caller confirms there are seven adults. At **02:27:48** the caller shouts that there is fire in the flat and reports it is in the bedroom. CRO Howson tells them to shut the bedroom door and tries to explain about blocking up doors. The caller then explains that they have tried to get out before and the corridor is full of smoke and CRO Howson responds by telling them that they need to decide but if the fire is in the flat then they need to get out. At **02:30:05** the caller says she needs to go. The line goes quiet, CRO Howson tries to raise the caller but the phone is silent. At **02:30:28** the BT Operator comes on the line which indicates the line has gone dead.

Incident Number 143553 Call Duration 4 minutes 54 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01738).

**02:25:43** CRO Gotts takes a call from a male caller who gives an address of Grenfell Tower, Latimer Road. The caller reports that there is a fire and CRO Gotts asks if the caller is inside or outside of the building. The caller responds that they are outside and suggests that some helicopters are needed. CRO Gotts tells him that the Brigade is there dealing with the incident.

Incident Number 76179, Call Duration 33 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00621).

**02:26:01** The Radio Operator at Brigade Control sends a message to Command Unit 7.

*"Charlie Uniform 7, Charlie Uniform 7 from M2FN. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02709).

**02:26:13** The Radio Operator at Brigade Control sends a message to Command Unit 7 again.

*"Priority, priority. Charlie Uniform 7, Charlie Uniform 7 from M2FN. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02710).

**02:26:22** The Radio Operator at Brigade Control sends an informative message to Command Unit 7.

*"We have persons trapped in Flat 192 on the 22<sup>nd</sup> floor. They say that the fire is in the flat next door to them. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02711).

Flat Number	Floor number	Number of people	Remarks
192	22		Caller say the fire is in the flat next door to them

**02:26:48** CRO Russell takes a call from a female caller reporting that she is inside Grenfell Tower in flat 173 on the 20<sup>th</sup> floor in her living room with her mum. CRO Russell checks if there is smoke in the flat and the caller says there is some smoke. CRO Russell advises they have two choices, if it is safe to do so they can leave but if not they should stay and the caller responds to say that she is too high to leave. The caller explains that she has opened the front door and it is very smoky outside. CRO Russell provides FSG including blocking the smoke and keeping away from the doors, shutting any windows that are letting in smoke and advises moving to other rooms as required, keeping low and covering their faces. CRO Russell confirms the floor number and explains that the Brigade is in attendance and she will pass the information onto the crews. She ends the call by saying if anything changes they should call back.

Incident Number 76183 Call Duration two minutes 51 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00624).

**02:26:51** The Radio Operator at Brigade Control asks Command Unit 7 if they received radio message sent at **02:26:22**.

*"Charlie Uniform 7, did you receive that? Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02712).

**02:26:55** Command Unit 7 acknowledges receipt.

*"FN from Charlie Uniform 7, received. Do we know how many people in the flat? Over".*

*The Radio Operator at Brigade Control responds "answer no, over"*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02713).

**02:27:12** CRO Fox takes a call from a female caller in flat 142 on the 17<sup>th</sup> floor who states that no one has come to help them and she thinks they are going to die. The caller states that the fire is right next to the window and confirms that there are five adults, including two elderly people. She asks for help and says they have been waiting over an hour. CRO Fox confirms that she is going to pass the information to the Command Unit on scene.

Incident Number 76182 Call Duration one minute (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00623).

**02:27:21** The Radio Operator at Brigade Control sends message to Command Unit 7.

*"Charlie Uniform 7 from M2FN. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02714).

**02:27:29** The Radio Operator at Brigade Control sends informative message to Command Unit 7.

*"Charlie Uniform 7, we've got two adults trapped inside Flat 94, 9-4 on the 12<sup>th</sup> - 1-2, 12<sup>th</sup> floor. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02715).

Flat Number	Floor number	Number of people	Remarks
94	12	2 Adults	

**02:27:44** - Command Unit 7 acknowledges receipt.

*"Received"*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02716).



**02:28:09** CRO Gotts takes a call from a caller inside Grenfell Tower on the 10th floor in flat 73. The caller asks for information and explains that when she last called (**01:41:21** GTIRT17-00535) she is told to stay put. CRO Gotts states that if the caller feels that they can leave then that is their choice but if not then they should block up the doors. The caller explains that they have blocked the doors but that it is getting very hot. CRO Gotts asks if there is a window they can open without letting in more smoke to help it cool down and the caller says that there may be. The caller then asks if they should wait for someone to come and get them and CRO Gotts explains that the Brigade is currently fighting the fire.

Incident Number 76184 Call Duration one minute 36 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00625).

**02:28:27** CRO Adams rings Command Unit 8 and passes the information in the table below. At **02:22:54** Command Unit 7 advises the Control Room to pass all FSG information to them. CRO Adams is at a call taker's position and dials direct to Command Unit 8. She passes on the following;

Flat Number	Floor number	Number of people	Remarks
205	23	7 adults	Fire is in the living room of their flat.

During the conversation CRO Adams tells the Command Unit that the caller is being told to leave and the Command Unit Operator repeats this back by way of confirmation. In the background a male voice can be heard asking "who by". CRO Adams confirms that Control are trying to persuade them to leave. (Source, NICE, Admin Phone Line Audio file: GTIRT18-00512).

**02:28:53** Surrey FRS take a call from a female caller reporting that her father-in-law is trapped on the 22nd floor of Grenfell Tower. She explains that says he is 70 years old and gives the full address as Flat 194 Grenfell Towers, W11 1TQ. The caller explains that it is Grenfell Tower and that it is on the BBC news. The Surrey CRO says she will contact London but they are not aware of the incident in Surrey because it is not on their ground. The Surrey CRO states that she will pass on the information to London.

Incident Number 22853 Call Duration two minutes 16 seconds. (Source, FRS Incident Log and Audio file: GTIRT17-01610).

**02:29:34** CRO Fox takes a call passed by a BT Operator in Nottingham who reports that they took a call from a man with a baby who is asking for the fire service. There is a smoke alarm audible in the background but the line drops out. CRO Fox asks for more information including flat number and the BT Operator offers to play back the call. The call is heard and it is a man who says what is thought to be, he is on the 14th floor and he has a baby. He then says fire, fire and the call ends.

The BT Operator believes it was the 13th however CRO Fox believes he says the 14th. CRO Fox says she will call him back.

Incident Number 76187 Call Duration one minute 30 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00627).

**02:30:31** The Radio Operator at Brigade Control sends message to Command Unit 7.

*"Priority Charlie Uniform 7 from M2FN. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02978)

**02:30:38** Command Unit 7 respond to the Radio Operator at Brigade Control.

*"FN from Charlie Uniform 7, go ahead. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02979).

**02:30:42** The Radio Operator at Brigade Control sends informative message to Command Unit 7.

*"Charlie Uniform 7, erm, Flat 142, 142 on the 17<sup>th</sup> - 1-7, 17<sup>th</sup> floor level.*

*Five adults including two elderly persons are trapped inside. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02980).

Flat Number	Floor number	Number of people	Remarks
142	17	Five adults including two elderly persons	Trapped inside flat

**02:30:45** CRO Russell takes a call from Surrey FRS who report taking a call from a woman whose grandfather is in flat 194 on the 22<sup>nd</sup> floor of Grenfell Tower. CRO Russell says she will pass it on to crews and provides the incident reference. This call relates to that taken by Surrey FRS at **02:28:53** (GTIRT17-01610) above. CRO Russell asks if it is just one person trapped and the Surrey CRO states that it is believed to be. Surrey confirm their call reference as 12115.

Incident Number 76186 Call Duration one minute 6 seconds (Source, BOSS Viewer, 999 Audio file and Transcript:GTIRT17-00626).

**02:30:51** CRO Howson takes a call from the MPS who are calling to pass some information. The MPS CRO states that they have had a call from a lady who is ringing to report that her friend, her friend's husband and three children are stuck in flat 192 on the 22<sup>nd</sup> floor (MPS CAD 796). CRO Howson confirms that she thinks London have spoken to them but will pass the info to the crews. The MPS CRO then explains that on the 29<sup>th</sup> floor (although he doesn't think the building is that high) there is someone waving blankets or sheets out of the window and then passes brief information about persons waving on 12<sup>th</sup> and 14<sup>th</sup> floors.

Incident Number 143554 Call Duration one minute 43 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01739).

**02:31:00** Command Unit 7 acknowledges receipt of message sent by the Radio Operator at Brigade Control at **02:30:42**.

*"FN from Charlie Uniform 7 received".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02981).

**02:31:19** The Radio Operator at Brigade Control sends a message to Command Unit.

*"Charlie Uniform 8, go ahead. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02982).

**02:31:22** Command Unit 8 send assistance message to the Radio Operator at Brigade Control.

*"Charlie Uniform 8. Can we confirm that Aerials have been made 4 for this incident? Charlie Uniform 8, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02984).

**02:31:22** The Radio Operator at Brigade Control responds to Command Unit 8.

*"Aerials 4 received, will check. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02983).

**02:31:35** CRO Fox tries to call back the number passed by the BT Operator during the call at **02:29:34**. CRO Fox rings the number and it goes to an O2 messaging service. No message is left. (Source, NICE, Admin Phone Line Audio file: GTIRT18-02370).

**02:31:49** CRO Gotts takes a call from a female who says she is on the 14th floor and that there is now a fire on the top. CRO Gotts tries to confirm if she means the fire is at the top of the building or the top of her flat and the caller states it is at the top of my flat. There is a loud scream then a man moans then another scream. The caller then shouts look at the fire and CRO Gotts tries to confirm if the fire is in the callers flat. The caller explains that they can't go out because they were told to stay inside but she goes on to explain but that the fire will come in to the flat. CRO Gotts advises that if they can get out then they should, if not to block up the exits and move away from where the smoke is. The line clears without any further response from the caller.

Incident Number 76190, Call Duration one minute 56 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00628).

**02:32:30** CRO Adams takes a call from a male caller shouting for help. He explains that he is inside Grenfell Tower on the 18<sup>th</sup> floor in flat 153. CRO Adams tries to establish what is happening but the caller

is speaking erratically and it is difficult to hear. The caller explains that the fire was in flat 154 and it is now in their flat. CRO Adams asks how many people there are and the caller explains that his neighbour is with him as well and that there are four adults. CRO Adams asks if he can get out and the caller states that they cannot so CRO Adams advises that they should get to the safest room and asks where they are. The caller states that they are in the living room and CRO Adams advises she will inform crews and that the caller should ring back if it gets worse.

Incident Number 76193, Call Duration three minutes 51 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00630).

**02:32:41** CRO Russell takes a call from a female caller in flat 82 on the 11<sup>th</sup> floor who asks if someone is coming for them. CRO Russell advises her that the fire is bad but that there are lots of firefighters present and making their way through the building. CRO Russell asks about the conditions and the caller advises that they are okay for the moment but that it seems to be getting worse. CRO Russell then asks the caller if it is safer for her to stay or to make her own way out and the caller confirms she cannot leave. CRO Russell advises her to keep away from windows and doors and explains that if smoke starts to come in then the caller should move to a different room and block that up too. The caller states that there is no smoke yet and they have already put towels down but that it is spreading quickly and that she thinks the fire is in the flat next door. CRO Russell confirms that she will pass the message to crews.

Incident Number 76191, Call Duration two minutes 30 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00629).

**02:33:00** SM Oliff makes a telephone call to Command Unit 8 on his Brigade issue mobile phone, which lasts 8 minutes and 44 seconds. There is no record available of the contents of the call. In his police witness statement, he describes that he is instructed by DAC Fenton to take responsibility for the FSG calls. He says he is specifically tasked to relay the information coming into Control onto the Command Unit at the incident ground, which he states as Command Unit 7. He also describes how he uses white boards in the Control Room to write down the details of the calls that were coming in. He explains that normally a specific template called a *Control Information Form* would be completed by the CROs but on this occasion because of the speed and frequency of information, he is handed slips of paper with information written on them. In his statement he says he speaks to Command Unit 7 but he actually dials the number allocated to the mobile phone number of the Team Leader on Command Unit 8. Watch Manager Daniel Meyrick is the Team Leader on Command Unit 8. In WM Meyrick's police witness statement he describes how he is on Command Unit 8 and taking details of fire survival calls and then moves to Command Unit 7 to continue as the dedicated FSG command unit. It is believed that he is using the mobile phone allocated to Command Unit 8 Team Leader and takes this with him when he went to

Command Unit 7. (Source, MPS Witness Statement: Watch Manager Daniel Meyrick GTIRT17-01948, Station Manager Oliff GTIRT18-01532).

**02:34:16** CRO Howson takes a call from a caller in flat 192 on the 22<sup>nd</sup> floor who reports that there is a fire in their flat. CRO Howson asks who is in the flat and the caller states that there are two adults and three kids. CRO Howson then asks the caller to hold the line and in the background a female in the Control Room is heard to state that if they are affected by fire and flames and smoke then they have got to get out. CRO Howson comes back to the caller and asks very specifically is there is fire in the flat and the caller responds that there is. CRO Howson gives explicit instructions that the caller needs to get out. She advises them to stay together and hold hands, advising them to keep their mouths covered with wet towels. CRO Howson then states that she will tell crews so they can come and meet them.

Incident Number 76195, Call Duration 2 minutes 19 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00632).

**02:30-02:35** At around this time, SOM Smith makes a decision to change the "stay put" guidance based on her rationale of the duration and content of the calls and the resources available. SOM Smith states that the information coming back from her staff and the conditions the residents were in meant they could not wait to be rescued. SOM Smith explains that this information was passed to ground crews by Control Room staff. (Source, MPS Witness Statement: GTIRT17-01956).

Deputy Assistant Commissioner Adrian Fenton is in charge of the Brigade Coordination Centre (BCC) and Stratford during the fire. In his Police witness statement he states that he discusses the situation at the incident with SOM Smith in relation to what he had seen on the television in the BCC. He says the images show the whole tower engulfed in flames. He also says he has information from the incident ground that the crews are unable to get above the 15<sup>th</sup> floor. He says he asks SOM Smith for her views on the current advice being given to residents. He states that they both agree that the advice needs to change and SOM Smith goes around the Control Room and tells all the CROs about the change in advice and to tell people to get out of the tower. At the same time he says he asks a CRO to send a message to the incident ground telling them that the advice from Control and the BCC was that the advice needs to change. He goes onto say in his statement that "the change of advice is logged in the Command Unit at 02:47 hours". (Source, MPS Witness Statement; GTIRT18-00396).

Watch Manager Daniel Meyrick is Team Leader on Command Unit 8 and he says in his police witness statement that he is asked by Station Manager Jason Oliff to confirm with AC Roe that Control could change their advice to callers. He states that he does that and relays back to Station Manager Oliff that the advice has been changed. He also says he cannot recall what time that happens. (Source, MPS Witness Statement: Daniel Meyrick GTIRT17-01948).

At this point the Control Room have received additional calls to the following flats;

Time of call	Flat Number	Floor number	Number of people confirmed by caller	Remarks
02:25:38	205	23	7 adults	Told to leave by Control Room Operator
02:26:48	173	20	2	The caller explains that she has opened the front door and it is very smoky outside
02:27:12	142	17	5 Adults including 2 elderly people	The caller states that the fire is right next to the window
02:28:09	73	10		The caller explains that they have blocked the doors but that it is getting very hot
02:28:53	194	22	1 elderly male	Call is from daughter-in-law. Call is taken by Surrey Fire and Rescue Service. Resident is trapped.
02:29:34		14	1 adult and 1 baby	There is some confusion between the BT operator and the Brigade Control which floor he was on.
02:30:45	194	22		Daughter-in-law reports father-in-law is trapped
02:30:51	192	22		This is a call from the MPS to the Brigade to pass on information. The MPS CRO states that a lady rang to report that her friend, her friends husband and three children were trapped.
02:31:49		14		
02:32:30	153	18	4 adults	
02:32:41	82	11		
02:34:16	192	22		Told to leave by Control Room Operator

**02:34:42** CRO Fox takes a call from a female caller on the 18th floor in flat 153 reporting that her flat is on fire and that she has come in to her neighbours. CRO Fox pauses and in the background, a female voice is heard to say 'Get Out'. CRO Fox tells the caller to cover themselves with towels, cover

their mouth and nose and that they need to get out. CRO Fox then asks how many people there are and the caller replies that there are four adults and five children. The caller explains that there is a fire in flat 152 and that she can't get out because there is thick black smoke outside the flat and that "the fire brigade said he was going to come back for us and he hasn't". CRO Fox asks the age range of the children and the caller explains that they are between three and 11 years old and that she is pregnant. CRO Fox says she will contact the command unit and get them to send someone up to them and asks the caller to call back if the situation gets worse.

Incident Number 76198, Call Duration three minutes 13 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00635).

**02:34:52** The Radio Operator at Brigade Control sends message to Command Unit 7.

*"Charlie Uniform 7, priority, priority. Over"*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02990).

**02:34:58** Command Unit 7 respond to the Radio Operator at Brigade Control.

*"FN from Charlie Uniform 7, go ahead. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02991).

**02:35:03** The Radio Operator at Brigade Control provides information to Command Unit 7.

*"Charlie Uniform 7, erm, we've been informed that there is a rope ladder on the southern aspect of the building and it's very close to falling debris. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02992).

**02:35:24** Command Unit 7 request repeat of message.

*"FN from Charlie Uniform 7. Can you repeat message? Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02993).

**02:35:27** The Radio Operator at Brigade Control repeats message.

*"We've been informed there is a rope ladder on the southern aspect very close to falling debris. There's people on it. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02994).

**02:35:31** CRO Duddy takes a call from a caller shouting "firefighters please help us". He keeps shouting 152, 18th floor, followed by "hello" repeatedly. CRO Duddy tries to talk to the caller but is not able to get a response. The BT Operator then comes back on the line to advise that the line has

dropped out and that they tried to get a number but the caller is just screaming. CRO Duddy responds by saying that at least they have a location for the caller.

Incident Number 76194, Call Duration one minute 1 second (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00631).

**02:35:42** Command Unit 7 acknowledges receipt of message sent by the Radio Operator at Brigade Control at **02:35:27**.

*"FN from Charlie Uniform 7, received".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02995).

**02:35:45** The Radio Operator at Brigade Control sends further message to Command Unit 7.

*"Erm, further traffic".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02996).

**02:35:58** Command Unit 7 acknowledge receipt.

*"FN from Charlie Uniform 7. Go ahead with further traffic".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02997).

**02:36:02** The Radio Operator at Brigade Control sends informative message to Command Unit 7.

*"Erm, caller is saying that there's fire coming through to their flat from the 15<sup>th</sup> floor down to the 14<sup>th</sup> floor. I don't have a flat number but it's coming through the 15<sup>th</sup> down to the 14<sup>th</sup>. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02998).

**02:36:07** CRO Russell takes a call from a caller in flat 204 on the 23rd floor of Grenfell Tower who reports that smoke is coming in and that it is very difficult to breathe. CRO Russell asks if the caller thinks it would be better to cover themselves and leave the building but he explains that he has a disability and needs help to get to the stairs. CRO Russell advises the caller to block the doors and shut the windows and the caller confirms that he has but smoke is still coming in. The caller says he is in the sitting room and CRO Russell undertakes to pass on the location of the caller to crews and tell them he needs help to leave. She advises that that he should stay as low to the ground as possible and cover his nose and mouth.

Incident Number 76202, Call Duration three minutes 59 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00639).

**02:36:12** CRO Gotts takes a call from a female caller who is outside the Tower. The caller reports a fire in a building near Bramley Road and CRO Gotts asks if it is a very large fire in Grenfell Tower and the



caller confirms that it is. The caller then states that her dad is in flat 204 on the top floor and that she has spoken to him and there is a lot of smoke in the flat. CRO Gotts explains that the Brigade is aware and will be making their way up the building. The caller asks how the fire will be put out and if they are going to use a helicopter. CRO Gotts says that the experts are there and trying to work out the best way of dealing with it.

Incident Number 76196, Call Duration one minute 9 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00633).

**02:36:16** Command Unit 7 acknowledge receipt of message sent by the Radio Operator at Brigade Control at **02:36:02**.

*"FN from Charlie Uniform 7, received".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-02999).

**02:36:46** The Radio Operator at Brigade Control sends message to Command Unit 7.

*"Priority, priority Charlie Uniform 7"*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03000).

**02:36:47** CRO Duddy takes a call from a female caller who reports that she thinks that the fire is going up beyond the fourth floor. The caller is in flat 73 on the 10th floor and states that there is smoke coming in to her flat. CRO Duddy asks how many people are there and the caller states that there are four of them. CRO Duddy asks if the doors are blocked and explains that the caller needs to make their way to a room furthest from the smoke. He advises wet towels to keep them cool. The caller asks if they should stay put and CRO Duddy says the Brigade is clearing the building as they go but asks the caller if they can see a way out and the caller says that it is pitch black outside her front door. CRO Duddy states that he will pass on the information to crews who will come and get them.

Incident Number 143562, Call Duration two minutes 59 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01747).

**02:37:00** CRO Adams takes a call from a female caller in flat 193 on the 22<sup>nd</sup> floor who is reporting that a lot of smoke is coming into the flat and that she has blocked up the door. The caller states that there are six adults and two children and CRO Adams tries to confirm that it is just smoke at the moment. CRO Adams advises the caller to keep safe, go to a room that has the least smoke and to ring back if the fire comes into their flat. CRO Adams explains that she needs to go as there is a high volume of calls and states that she will let the crews know where they are. The caller starts to get agitated and says the smoke is in this room and CRO Adams advises them to shut the windows. The caller appears to drop the call.

Incident Number 76199, Call Duration three minutes 8 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00636).

**02:37:02** The Radio Operator at Brigade Control sends message to Command Unit 7.

*"Priority, priority, Charlie Uniform 7, Charlie Uniform 7 from M2FN over"*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03001).

**02:37:14** The Radio Operator at Brigade Control sends message to Command Unit 7 again.

*"Priority, priority, Charlie Uniform 7, Charlie Uniform 7 from M2FN over"*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03002).

**02:37:21** Command Unit 7 respond to the Radio Operator at Brigade Control.

*"FN from CU7, go ahead, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03003).

**02:37:25** The Radio Operator at Brigade Control sends informative message to Command Unit 7.

*"We've had a report that the south-east corner of the building is completely alight, and the western aspect is completely smoke-logged over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03004).

**02:37:25** Command Unit 7 request repeat of message.

*"FN from Charlie Uniform, er, can you repeat last part of message over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03005).

**02:37:26** AOM Real makes a call to the London Ambulance Service Control Room to inform them that a Major Incident has been declared by the London Fire Brigade. (Source, NICE, Admin Phone Line Audio file: GTIRT18-00903).

**02:37:32** CRO Gotts takes a call from a female caller who reports being able to see someone at the top of the tower in Latimer Road flashing a light on what appears to be a phone. CRO Gotts acknowledges that the Brigade is aware of people at the top of the tower.

Incident Number 76197, Call Duration 33 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00634).

**02:37:45** The Radio Operator at Brigade Control repeats information requested in message sent by Command Unit 7 at **02:37:25**.

*"Yeah, the western aspect is, er, filling up with smoke - or filled up with smoke, over".*

(Source, NICE, Radio Message Audio file and Transcript:GTIRT17-03006).

**02:37:45** Command Unit 7 acknowledges receipt.

*"FN from Charlie Uniform 7 received".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03007).

**02:37:56** CRO Howson takes a call from flat 82 on the 11<sup>th</sup> floor stating that the fire is on the landing outside although she has not exited her flat so is not completely sure. CRO Howson asks if there is fire in the flat and the caller confirms that there is not. CRO Howson states that if the flat is not on fire then the caller should stay there and try and keep the smoke out and that she will pass the information onto the crews. CRO Howson then asks how many people there are and the caller confirms that there are 3 people in the flat; herself, her husband and her six year old daughter.

Incident Number 76200, Call Duration one minute 41 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00637).

**02:38:06** AOM Real makes a call to the MPS Control Room and inform them that a Major Incident has been declared by the Brigade. (Source, NICE, Admin Phone Line Audio file: GTIRT18-00904).

**02:38:54** CRO Jones takes a call from flat 92 although it is very difficult to hear the caller. CRO Jones establishes that they can't get out and advises the caller to shut the window to stop smoke getting in. The caller explains that there is a bit of smoke and there are "fire balls" at the window and CRO Jones tries to establish where these are coming from. The caller advises that these are falling from above. CRO Jones states that if the caller cannot get out then they should stay there and keep safe. CRO Jones states that the caller should call back if the smoke starts affecting them or if they get scared.

Incident Number 76208, Call Duration three minutes 43 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00645).

**02:39:17** Command Unit 8 send informative message to the Radio Operator at Brigade Control.

*"Charlie Uniform 8, informative message from D-A-C O'Loughlin.*

*Fire on all floors, from 2nd to 27th floor. Large number of persons involved. FSG Calls being dealt with. Major incident declared. High-rise procedure implemented. TL, ALP, EDBA, Main control. F-S-G, ground monitor, five jets, safety cordon in place. Tactical mode Oscar, Charlie Uniform 8, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03012, GTIRT17-03013, GTIRT17-03014, GTIRT17-03015, GTIRT17-03016, GTIRT17-03017, GTIRT17-03018, GTIRT17-03019).

**02:39:48** CRO Gotts takes a call from a caller reporting a whole building on fire near Silchester Road and confirms with the caller that this is Grenfell Tower. CRO Gotts confirms the Brigade is in attendance with 40 fire engines and the caller asks if there are any more that could come. The caller asks if they can hurry up.

Incident Number 76201, Call Duration 47 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00638).

**02:40:30** CRO Duddy takes a call from a BT Operator in Glasgow who passes the mobile number of a caller who requested the Brigade but the line dropped out. CRO Duddy says he will call back.

Incident Number 76203A, Call Duration 18 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT18-01599).

**02:40:39** CRO Gotts takes a call from a member of the public who can see a whole building on fire but they do not know the location. CRO Gotts asks if there is a lot of fire coming from it and whether it is Grenfell Tower, near White City and the caller states that he thinks that is correct. CRO Gotts advises that Brigade is dealing with the incident.

Incident Number 76205, Call Duration one minute 22 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00642).

**02:40:40** CRO Howson takes a call from a female caller who can see a whole building on fire and hear people screaming for help. CRO Howson states that the Brigade is there and dealing with the incident.

Incident Number 76204, Call Duration 55 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00641).

**02:40:47** NWFC take a call from a BT Operator in Portadown who is passing details of a critical caller who is trapped in the fire. The BT Operator states that the caller is in flat 194 and cannot breathe. The NWFC Operator states that he will pass the information on.

Incident Number 76656, Call Duration 49 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01832).

**02:40:48** CRO Duddy calls back the number given to him by the BT Operator at **02:40:30** and the caller states that he wants to report a fire in Grenfell Road. CRO Duddy confirms the Brigade is in attendance.

Incident Number 76203B, Call Duration 31 seconds (Source, NICE, Admin Phone Line Audio file: GTIRT18-01598).

**02:41:31** CRO Fox takes a call from a male caller who reports he is in Grenfell Tower in flat 133 on the 16<sup>th</sup> floor. CRO Fox asks how many people are there and the caller states that there are two adults in the flat. The caller states that they have already attempted to leave the flat but had to turn back. CRO Fox advised the caller to put wet towels around themselves and the doors if it is definitely not safe to get out and states that she will pass on the callers location details to the command unit. She confirms that the crews are getting to people as quickly as they can.

Incident Number 76210, Call Duration one minute 54 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00647).

**02:41:46** CRO Russell takes a call from a MPS CRO who gives details of a call they have taken from Flat 192 in Grenfell Tower where there are two adults and three children. The MPS CRO states that they are in the bedroom and the fire is in the living room. CRO Russell confirms this information and asks if the MPS CRO knows the floor number which he does not. CRO Russell states that she will pass it on to the crews.

Incident Number 76212, Call Duration 51 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00649).

**02:42:06** CRO Howson takes a call from a female caller in flat 203 on the 23rd floor. The caller explains that there is no fire in the flat yet but that the flat next door is on fire and the smoke is getting quite strong. CRO Howson asks if the caller has taken action to stop the smoke coming in and the caller confirms that they have put blankets by the front doors and have closed the windows. CRO Howson suggests that they could block around the windows and states that they should keep low. The caller explains that there are five adults and two children under five. CRO Howson explains she will pass the information onto crews and tells the caller to ring back if things get worse. The caller asks what she should call back on and states that the next call might not be possible. CRO Howson explains that the safest place for the caller at the moment is in the flat as long as there aren't any flames. She also suggests dampening tea towels and putting them over their mouths to help them stop inhaling smoke.

Incident Number 76214, Call Duration two minutes 23 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00651).

**02:42:08** Command Unit 8 send additional informative message to the Radio Operator at Brigade Control.

"Go head with further traffic."

*"Charlie Uniform 8. 58 Adults - 5-8 adults and 16 - 1-6 children believe involved. Tactical mode Oscar, Charlie Uniform 8 over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03023).

**02:42:08** CRO Duddy takes a call from a female caller . A smoke alarm can be heard in the background. The caller is in flat 94 on the 12<sup>th</sup> floor. The caller confirms there is smoke coming in the flat. There are two people, the caller is with her sister. She says the whole flat is full of smoke. A conversation can be heard between CRO Duddy and a female. The female says to CRO Duddy "get out". CRO Duddy then embarks on advising the caller that they have to leave the building. The caller starts crying and saying there is too much smoke. CRO Duddy tells them to go out the front door. The caller says that they can't leave because they can't see anything. The caller asks how can they see where they are going. The caller says she has opened the door and there is a lot of smoke. The caller insists they can't go out. She says she opened the door and smoke smothered her. CRO Duddy says feel along the walls. CRO Duddy is really insistent on trying to get them out. He repeats that they need to get to the stairs. At approximately **02:50** CRO Duddy says "if you don't do what I tell you, you are going to die in that flat". The caller says she will try. No more is heard from the caller and the BT Operator comes on the line and confirms the caller has cleared the line.

Incident number 76206, Call Duration ten minutes 49 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01751). This is the call time but has been referenced using the BOSS Created time. Therefore the Transcript time is not identical to the BOSS call time.

**02:42:14** CRO Gotts takes a call from a male caller who asks for a helicopter to rescue them as they are going to die. He states that there are nine people in flat 153 on the 18th floor and that 152 is alright. CRO Gotts asks if the caller can move away from the side of the flat next to 152 and suggests that the caller blocks up where the smoke is coming in. The caller states that they are trying but that no one is helping them and that they need to be evacuated. The caller says that smoke is coming into the flat and CRO Gotts states that if they cannot leave then they need to block up where the smoke is coming in from. CRO Gotts explains that she will pass the information to the crews. The caller says thank you and goes off the line.

Incident Number 76209, Call Duration three minutes 38 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00646).

**02:42:21** The Radio Operator at Brigade Control acknowledges receipt of message sent by Command Unit 8 at **02:42:08**.

*"Charlie Uniform 8. 58 adults and 16 - 1-6 children believed involved, received. Er tactical mode Oscar, received."*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03024).

**02:42:31** Command Unit 8 request repeats message.

*"Charlie Uniform 8, that's 58 - 5-8 adults. Charlie Uniform 8 over"*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03025).

**02:42:36** The Radio Operator at Brigade Control acknowledges receipt.

*"All received"*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03026).

**02:42:38** AOM Real makes a call to the London Borough of Kensington and Chelsea (LBKC) to report the Major Incident declaration. The LBKC Operator says that they are aware and asks if the Brigade need anything from them. AOM Real explains that she is required to inform the Borough Duty Officer. The LBKC Operator gives the reference as T1585687. (Source, NICE, Admin Phone Line Audio file: GTIRT18-00905).

**02:43:08** CRO Jones takes a call from a caller in flat 73 on the 10th Floor who reports that they think the fire is coming up to their floor. The caller confirms there are four of them in the flat. CRO Jones asks if the caller can get out of the flat and they reply that they do not think they can as the fire is below them. CRO Jones then asks if there is smoke and the caller confirms there is a lot and the front door is hot. CRO Jones suggests that the caller go into a room where it is safe and there is a window to get fresh air. CRO Jones then asks if they can try to get out of the flat and the caller asks if it is the best thing to do. CRO Jones states that current advice is that they should get out. She suggests wetting towels and putting them over their bodies and then trying to get out. The original caller says to CRO Jones that she thinks the fire department are on the phone and there is a brief three way conversation following which the caller states that they must leave now and the line goes silent.

Incident Number 76211, Call Duration 4 minutes 26 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00648).

**02:43:51** Command Unit 8 send informative message to the Radio Operator at Brigade Control.

*"Charlie Uniform 8, for your information AC Andy Roe is now incident commander of this incident. Tactical Mode Oscar. Charlie Uniform 8 over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03029).

**02:43:54** CRO Fox takes a call from a female reporting that she is stuck in her house in flat 182 on the 21st floor opposite the front door. The caller confirms that there are two adults and three children. There is a lot of shouting in the background and a man can be heard shouting we are dying. CRO Fox asks if the caller is able to get out and they say no so she starts to provide FSG advice but the line goes dead.

Incident Number 76213, Call Duration 54 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00650).

**02:43:55** CRO Adams takes a call from a male caller in flat 193 on the 22<sup>nd</sup> floor. She asks if the fire is in the caller's flat and the caller explains that the fire is next door and that there are eight people present. CRO Adams asks if they can get out and the caller responds to say they cannot but asks if the Brigade can send a helicopter and CRO Adams explains that the Brigade do not have helicopters. CRO Adams asks again if they can get out and the caller explains that they cannot because there is so much smoke in the corridors. CRO Adams states again that if the conditions get very bad they should get themselves out of the flat, covering themselves with wet towels. At the end of the call, CRO Adams states to the caller that he should make the decision whether to leave or not.

Incident Number 76215, Call Duration two minutes 23 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00652).

**02:44:01** – The Radio Operator at Brigade Control confirms receipt of message sent by Command Unit 8 at **02:43:51**.

*"Erm, AC Roe now incident commander received"*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03030).

At this stage Control have received multiple calls from several flats throughout Grenfell Tower. These are listed below. These calls are in addition to the previous tables earlier in this report.

Time of call	Flat Number	Floor number	Number of people confirmed by caller	Remarks
02:34:42	153	18	4 adults including a pregnant lady and 5 children	
02:35:31	152	18		Shouts for help and gives flat number. Not totally clear if they are in the tower
02:36:07	204	23		Man is disabled and has difficulty moving on his own
02:36:12	204	"Top"		
02:36:47	73	10	4 people	
02:37:00	193	22	6 adults and 2 children	
02:37:56	82	11	2 adults 1 child	Caller says they are spraying her windows



02:38:54	92			
02:40:47	194			This call is taken by BT and passed to the NWFC
02:41:31	133	16	2 adults	Tried to leave but had to turn back because of the smoke
02:41:46	192		2 adults and 3 children	
02:42:06	203	23	5 adults 2 children	
02:42:08	94	12	2 people, Caller and her sister	Smoke filling the flat. Told to leave
02:42:14	153	18		The caller states there are about 9 people.
02:43:08	73	10	4 people	
02:43:54	182	21	3 adults 2 children	
02:43:55	193	22	8 people	

**02:44:41** CRO Russell takes a call from a female caller in flat 82 on the 11<sup>th</sup> floor reporting that the front door is hot and making popping noises. CRO Russell explains that this may mean there is a fire the other side and takes time to give clear instructions on what to do to keep safe. She tells the caller to move to another room where there is less smoke and that when they get to the room they need to close the door and block the gaps around the doors and windows. CRO Russell tells the caller to keep low to the ground and cover their mouths and noses with some material. The caller keeps pleading with CRO Russell. They move to the back bedroom next to the front door and CRO Russell continues to reassure the caller and provide support and guidance. The caller then states that it is coming in through the kitchen window and CRO Russell tells the caller to stay where they are and keep themselves safe. CRO Russell says she needs to leave the caller explaining that she wants to contact the crews at the scene to let them know where they are and that the caller should call back if it gets worse.

Incident Number 76216, Call Duration five minutes 23 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00653).

**02:44:41** Kent FRS take a call from a BT Operator in Nottingham connecting a call that cannot be put through to London because all the lines are busy. The caller is reporting a fire at Grenfell Tower that he is watching live on "Periscope".

Incident Number 1276, Call Duration one minute 11 seconds (Source, FRS Incident Log, Audio file and Transcript: GTIRT17-01618).

Periscope is a live video streaming application for Android and iOS. The CRO at Kent FRS says he will pass the details of the call on to the Brigade.

**02:45:22** CRO Fox takes a call from a female caller in flat 192 on the 22<sup>nd</sup> floor who shouts that they are dying. The caller says there are five people, and then it is unclear how the caller describes the break down of this number. It sounds like she says there are 3 children and 4 adults. CRO Fox asks if they are able to get out and the caller says that they cannot get out, that they have opened the door and almost die. CRO Fox tells them they need to get out of the flat, covering their bodies with towels. A male caller then comes on the phone. He says that the corridor is full of smoke. CRO Fox insists that they need to get out of the flat and the caller says okay.

Incident Number 76220, Call Duration two minutes 55 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00656).

**02:45:35** CRO Howson takes a call from the MPS who pass on information about a call they have taken from flat 152 on the 18<sup>th</sup> floor. The caller states that there are four persons, three children and a pregnant lady.

Incident Number 76218. Call Duration 38 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00654).

**02:45:45** Surrey FRS take a call via a BT Operator from the daughter-in-law of a resident on the 22<sup>nd</sup> floor. This caller has spoken to Surrey FRS at **02:28:53**. The Surrey CRO takes a mobile phone number of the resident and says she will pass it to London and ask them to call him.

Incident Number 024545, Call Duration one minute 28 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01611).

**02:46:42** CRO Adams takes a call from a female caller who shouts that she is stuck in flat 182 on the 21<sup>st</sup> floor and that there are five of them in the flat. The caller is coughing and struggling to make herself heard but explains that they can't leave because it is too smoky and she cannot breathe. CRO Adams repeatedly tells them they must leave the building. Coughing and choking sounds are audible and CRO Adams explains that they need to make their way out along the corridor, covering themselves with wet towels and sheets as the Brigade are not going to get to them. She waits for a response but she doesn't get any. There is more coughing and choking heard. CRO Adams states that she has to leave the call because there are so many calls coming in.

Incident Number 76221, Call Duration two minutes 38 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00657).

**02:46:42** Merseyside FRS takes a call via a BT Operator in Nottingham who states that they are passing the call because all the lines are busy in London. The caller says he is calling regarding the fire in Grenfell Tower and that the Brigade are present and have told him to call 999 and report that there is someone that needs to be evacuated. He explains that his grandfather is stuck in the toilet in flat 81 on the 11<sup>th</sup> or 14<sup>th</sup> floor. The Merseyside CRO takes the details.

Merseyside Incident number 009192, Call Duration two minutes 42 seconds, (Source, FRS Incident Log and Audio file: GTIRT18-02885).

**02:46:58** CRO Howson takes a call from flat 183 and the caller says they are still waiting but the fire has already reached them. CRO Howson asks if the fire is in his flat. He says no but it is next door. CRO Howson says that if he feels it is unsafe then he should leave the building. She tells him to cover his face and wrap towels around himself and his family and leave the building.

Incident Number 143555, Call Duration one minute 15 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01740).

**02:47:07** CRO Gotts takes a call from a female caller who says her niece and sister-in-law are stuck in Grenfell Tower. The caller says they are on the 18<sup>th</sup> floor. CRO Gotts says she has just spoken to someone on the 18<sup>th</sup> floor and she is going to pass the information to crews. The caller asks what they should tell them. CRO Gotts tells the caller that if she speaks to the family again they should cover themselves with wet towels and try and get out if they can.

Incident Number 76219, Call Duration one minute 16 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00655).

**02:47:37** CRO Jones takes a call from Merseyside FRS who report that they have had a call put through to them by the BT Operator. The Merseyside CRO explains that they have had a call from a man who says his grandfather is stuck in the toilet in one of the flats. The Merseyside CRO then says that it is flat 81 on the 11th or 14th floor and CRO Jones states that they are not going to get to people and are telling people to leave. The mobile number for the caller is then passed to CRO Jones. CRO Jones says she will call him back.

Incident Number 76222, Call Duration one minute 39 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00660).

**02:47:56** The Radio Operator at Brigade Control sends message to Command Unit 7.

*"Charlie Uniform 7, priority, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03031).

**02:48:03** Command Unit 7 respond to the Radio Operator at Brigade Control.

*"FN from Charlie Uniform 7 go ahead, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03032).

**02:48:07** The Radio Operator at Brigade Control provides information to Command Unit 7.

*"Charlie Uniform 7, er, we've got a caller who's trapped in their flat, erm, on - flat 153, on the 18th floor, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03033).

**02:48:20** Command Unit 7 request further information from the Radio Operator at Brigade Control.

*"FN from Charlie Uniform 7, how many persons are there".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03034).

**02:48:22** CRO Howson takes a call from a child resident in flat 153 on the 18th floor who explains that the fire is in the flat next door. The caller says the fire is in the flat next door. CRO Howson asks to speak to an adult and the child passes the phone to her Mum. The female caller explains that she has called before and been told someone would be sent up and CRO Howson responds by telling them if the fire is in the flat next door that they need to leave as the Brigade will not be able to get up to them. She gives instructions to cover their mouths with wet towels and make their way down. CRO Howson asks the caller if they understand but the line cuts off.

Incident Number 76228, Call Duration two minutes 11 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00666).

**02:48:35** The Radio Operator at Brigade Control respond to message sent by Command Unit 7 at **02:48:20**.

*"Er, we don't know how many but about four, approximately. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03035).

**02:48:41** Command Unit 7 acknowledges receipt.

*"FN from Charlie Uniform 7, received".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03036).

**02:48:49** CRO Gotts takes a call from Surrey FRS who have had another call from the daughter-in-law of a resident who is trapped on the 22nd floor. The Surrey CRO passes the mobile phone number of the resident and asks if CRO Gotts could give him a ring. CRO Gotts confirms that we have just been told to tell people to put wet cloths over their mouths and try to get out and the Surrey CRO responds by explaining that the resident is 70 years old.

Incident Number 76226, Call Duration one minute 43 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00664).

**02:49:05** CRO Fox takes a call from a male caller who explains that he is in flat 133 on the 16th floor and still waiting with his wife. CRO Fox gives instructions that they need to get safely out of the flat by wrapping sheets and towels around their body and a damp towel around their face. The caller asks if there is smoke on the stairs and CRO Fox says she doesn't know but that they still need to try and get outside. The caller says they will try and CRO Fox ends the call.

Incident Number 76225, Call Duration one minute 31 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00663).

**02:49:20** CRO Adams takes a call from a male caller that shouts that he can see the flames coming out of the top of the building and down to his flat and that he has been waiting an hour. CRO Adams asks if he can get out the building but the caller says that he cannot as it is too dark and there's too much smoke. The caller explains that he is 67 years of age and cannot go running down the stairs. He is on his own on the 22nd floor and screams for the Brigade to come and get him. CRO Adams says that he needs to leave the building and starts to give advice about wrapping sheets around him but the line clears.

Incident Number 76223, Call Duration one minute 9 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00661).

**02:49:37** NWFC take a call via a BT Operator explaining that the call is originally for London but the lines are busy. Once the caller is passed, they report a fire close to Latimer Road and the CRO asks if it is a high rise building of flats. The caller explains that she does not live there but cannot bear seeing people dying like this.

Incident Number 143566, Call Duration one minute 31 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01608).

**02:50:01** CRO Jones makes a call back to the mobile passed by Merseyside FRS at **02:47:37**. The call rings for 18 seconds and CRO Jones ends the call. (Source, NICE, Admin Phone Line Audio file: GTIRT18-02577).

**02:50:19** CRO Jones takes a call from a member of public who is reporting that his friend is stuck in flat 173 on the 20th floor. CRO Jones says the advice that the Brigade Control Room are currently giving is that they need to try and get out of the building. The caller says he will tell his friend now.

Incident Number 76224, Call Duration 39 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00662 and GTIRT17-01533).

**02:50:48** CRO Howson takes a call from a caller on the 12th floor. The caller says that the fire is coming into the flat by the window and that they are going to die. The caller states that he has a brother and a mum with him. CRO Howson explains that if the fire is in the flat they need to leave the flat and tells him to cover their mouths with wet towels and get out. The caller asks if they should use the lift and CRO Howson tells them not to use the lift.

Incident Number 143556, Call Duration one minute 46 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01741).

**02:50:48** The Brigade Commissioner Dany Cotton contacts the Radio Operator at Brigade Control and books in attendance at the incident.

*"Bravo Mike One now Status 3. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03038).

The table below is a summary of the calls in addition to call shown in previous tables.

Time of call	Flat Number	Floor number	Number of people confirmed by caller	Remarks
02:44:41	82	11	2 adults 1 child	
02:45:22	192	22	2 adults and 3 children	Caller told to leave the building
02:45:35	152	18	1 pregnant adult and 3 children	This is a call from the MPS to the Brigade to pass on information.
02:45:45		22		Surrey Fire and Rescue Service call from daughter-in-law. CRO says she will pass mobile number to London and also will ask them to ring resident
02:46:42	182	21	5 People	Caller told to leave the building
02:46:58	183			Caller told to leave the building
02:47:37	81	11 or 14		Merseyside Control call about a Father stuck in the flat. They say 11th or 14th floor.
02:48:22	153	18		Caller is a child who passes phone to their mum during the call. Caller told to leave the building
02:48:49		22		Information about a 70 year old male passed by Surrey fire and

				rescue service to London
02:49:05	133	16	2 adults	Caller says he is with his wife. Caller told to leave the building.
02:49:20		22	1 adult	Caller told to leave the building
02:50:48		12	1 adult 2 children	Caller says he has a brother and mum with him. He is told to leave the building

**02:51:00** Essex FRS take a call from a male caller who states that he is in flat 153 on the 18th floor of Grenfell Tower. The Essex CRO asks the caller if he is able to get to an emergency exit and the caller says he cannot. The caller then states that the smoke is coming from the outside and the Essex CRO asks if the caller has anything he can put down by the front door to stop the smoke from coming in. The caller explains that the smoke is coming from the windows and the Essex CRO confirms this with him. The Essex CRO then asks if the caller can get out of the front door and the caller states that he cannot. The Essex CRO reiterates that they should exit the building if it is safe to do so and explains that he will pass on the details to London and ask them to come. He finishes the call by repeating that the caller should try and get some fresh air if safe to do so or exit the building if it is safe to do so.

Incident Number 025100, Call Duration one minute 41 seconds. (Source, FRS Incident Log and Audio file: GTIRT17-01828).

**02:51:00** The Essex CRO calls back the resident in flat 153 on the 18<sup>th</sup> floor and tells the caller that he has spoken to the Brigade who confirmed that they are in attendance. The Essex CRO states that the Brigade have told him that current advice is that they should cover themselves in wet bed sheets and make their way to the nearest fire exit. The caller says there is no fire exit and suggests that maybe they could jump onto some sort of sponge but the Essex CRO states that they do not have them. The Essex CRO asks how many people there are and the caller says that there are about four adults and five children. The Essex CRO states that he understands that it will be hard for them to get out. The caller explains that the fire is closer now and that his neighbour is with them and the Essex CRO advises that they should try and get out if they can. The caller states that the front door is full of smoke and the Essex CRO advises the caller to block the smoke if there is no way out. The caller then suggests again that they could jump and the Essex CRO is very clear that the caller must not jump from the 18<sup>th</sup> floor. He tells them to get together in the same room and he will try and get the London crews to them.

Incident Number 73310, Call Duration two minutes 13 seconds (Source, BOSS Viewer, 999 Audio file and Transcript:GTIRT17-00658). Please note: the transcript time for this call is incorrect and contains a typing error.

**02:51:06** CRO Adams takes a call from a caller on the 21st floor who says they are dying. CRO Adams explains that the Brigade is advising people to leave the building and explains that they should cover themselves with wet towels and run. Several voices and coughing can be heard. She goes on to explain that they should open the door carefully and make a run for it. The caller confirms they are going to try and a different voice to the callers is heard in the background saying that it is too smoky. The caller is not engaging in the conversation, CRO Adams tries to get some acknowledgment that they have understood her but the line goes dead.

Incident Number 76227, Call Duration one minute 43 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00665).

**02:51:09** CRO Russell speaks to a female caller in flat 193 on the 22nd floor who is asking for advice. The caller asks if they should stay where they are or run downstairs. CRO Russell asks the caller to explain what the conditions are and the caller says it is very smoky outside the flat. CRO Russell explains that there are two options and proceeds to state that they can either move to a room that is less smoky and close the door and block the smoke, or try to leave the building but that the caller will have to decide which is safer. There is a lot of shouting in the background and the caller asks CRO Russell what they should do. CRO Russell asks how many people there are and the caller states that there are 10 of them and that they are in the living room. The line goes quiet for a period of time and when CRO Russell returns, she explains to the caller to get wet towels and blankets and cover themselves and get out. She says that there are lot of people in the building and the firefighters are struggling to get to everyone. The BT Operator comes on the line which indicates that the line has been dropped.

Incident Number 76237, Call Duration five minutes 32 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00675).

**02:51:22** AOM Real makes a call to the Health and Safety Executive to report the Major Incident at Grenfell Tower and the current advice of telling residents to get out of the building. She tells them that it is a 40 pump fire. The name of the Health and Safety Executive is given as Paul Monaghan. (Source, NICE, Admin Phone Line Audio file: GTIRT18-00910).

**02:51:38** CRO Gotts makes a call to the mobile number given to her by Surrey FRS at **02:48:49**. A male answers the phone and is very distressed and shouts that the flames are coming from next door. CRO Gotts tells him to cover himself with wet towels and get out. He asks if she is serious and states that he is 67 years of age. CRO Gotts asks if a neighbour can help him but the caller says



there is no one up there and the call cuts off. (Source, NICE, Admin Phone Line Audio file: GTIRT18-02374).

**02:52:20** CRO Fox takes a call from a female reporting that her friend is stuck in her flat, cannot get out and that the fire is outside the front door. They are in flat 73 but the caller does not know what floor. CRO Fox explains that the advice is to wrap themselves in wet towels and try and get out. She explains that crews are on lots of floors and they can assist them down. CRO Fox asks the caller to get her friend to ring 999 and they can advise her how best to get out.

Incident Number 76231, Call Duration one minute 17 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00669).

**02:52:51** CRO Adams takes a call from Essex FRS who have had a call from a resident in flat 153 on 18th floor. This relates to the call at **02:51:00** above. CRO Adams tells the Essex CRO that the advice they are giving to everyone is to leave the building. The Essex CRO says he has told the caller that but they are saying it is not safe to do so because the fire is in the flat next door and the smoke is coming through the windows. CRO Adams reiterates the current advice and that the fire has spread throughout the building. CRO Adams also tells the Essex CRO that if Essex FRS receive any more calls from Grenfell Tower they should tell them to leave the building.

Incident Number 76230, Call Duration one minute 6 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00668).

**02:53:14** CRO Duddy takes a call from a female member of the public who says she is watching a massive block of flats on fire. CRO Duddy confirms the Brigade is in attendance.

Incident Number 76229, Call Duration 21 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00667).

**02:53:17** CRO Jones takes a call from a caller in flat 192 who states that they cannot leave. CRO Jones asks if there is smoke coming into the flat and the caller says yes. CRO Jones says that they need to try and get out and explains that they need to get wet towels. The caller states that they have no water because they are in the bedroom and CRO Jones again states that they have to try and get out. CRO Jones keeps trying to raise the attention of the caller who can be heard talking in the background but the line cuts off.

Incident Number 76232, Call Duration two minutes 32 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00670).

**02:53:57** CRO Howson takes a call from flat 182 on the 21st floor. The caller says the fire is in the flat and CRO Howson states that they must leave. The caller says they tried to leave before and CRO Howson explains that they need cover themselves with wet towels and get out. She explains that

if the fire is in the flat the crews will not be able to get to them. There are conversations going on in the background and a voice is heard to say that they are trying to leave.

Incident Number 76238, Call Duration three minutes 3 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00676).

**02:54:21** CRO Fox takes a call from a member of the public who is reporting a friend who is stuck in flat 194 on the 22nd floor. She says she can see him at the window and that the fire is all around him. CRO Fox explains they are telling people to leave and that the resident should call 999 but the caller explains that her battery has died and she can't ring him back. CRO Fox says she will contact crews at the scene and let them know.

Incident Number 76234, Call Duration one minute 4 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00672).

**02:54:31** CRO Duddy takes a call from a resident of Flat 153 on the 18th Floor who is outside of the building as he was not in when the fire started. The caller explains that his wife and three children are trapped and the fire is burning his children. CRO Duddy says that they need to get out of the flat but the caller explains that they can't get out because it is too smoky, they can't see where they are going and that one of his children has lost consciousness. CRO Duddy says he will get someone to them and asks if the caller has a phone number for them, the caller says he has a number. CRO Duddy tells the caller they should ring in to the Brigade or he should tell them to get out, using wet towels to cover themselves as it is their only option. The caller says he will try and call them and the line goes dead.

Incident Number 76233, Call Duration one minute 17 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00671).

**02:54:51** CRO Adams takes a call from a female caller that just repeats "Latimer Road station". The caller states that the fire brigade are not doing enough. CRO Adams assures her they are doing everything that they can.

Incident Number 143564, Call Duration 46 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01749).

**02:55:38** CRO Gotts takes a call from a male caller in flat 183 on the 21st floor who states that they cannot get out because it is too smoky. CRO Gotts says they need to put wet towels over themselves and leave the flat but the caller explains that they cannot. CRO Gotts then asks if they can block up where the smoke is coming in or get to a window that can provide fresh air and the caller states that is what they are doing but there are three kids, three adults and one heavily pregnant wife. CRO Gotts confirms and states that she will let the crews know.

Incident Number 76248, Call Duration one minute 17 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00686).

**02:55:44** CRO Adams takes a call from a caller says she can see people on one of the top floors that are flashing lights. She tries to describe the side of the building they are on and states that these people will die. CRO Adams states that the Brigade is aware and are trying to get to them as soon as possible.

Incident Number 76236, Call Duration one minute 8 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00674).

**02:55:47** CRO Jones takes a call from a caller who explains that Latimer Road is getting worse. She explains that there is a family with three children on the 18th floor who cannot get out. The caller asks if there is a helicopter available and CRO Jones explains that the Brigade is doing all they can and passes the advice to cover themselves in wet towels and try to get out.

Incident Number 76235, Call Duration one minute 30 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00673).

**02:55:59** CRO Duddy answers a call to a woman screaming from the 22nd floor. Another female says that the fire is everywhere and they cannot see each other and asks for a helicopter. CRO Duddy tries to tell them to cover themselves in wet towels and get to the stairwell but is constantly interrupted and there is a lot of screaming and shouting. CRO Duddy keeps repeating that they need to get out and he explains that their only chance of survival is to get to the stairwell. The caller says okay and ends the call.

Incident Number 76242, Call Duration two minutes 38 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00680).

**02:56:04** CRO Fox takes a call from a caller in flat 73 on the 10th floor who explains there are four adults still inside. CRO Fox states that the caller should try and get out safely by covering their mouths with wet towels. The caller asks if they should go up and CRO Fox states that they should not go up and explains that there are multiple fires on multiple floors. She tells them to cover themselves with wet towels and get out of the building. The caller confirms that they have to go and then he ends the call.

Incident Number 76241, Call Duration one minute 47 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00679).

**02:56:51** CRO Adams takes a call from a caller stating that his friend is stuck on 20th floor of Grenfell Tower. CRO Adams tells the caller to ring her back and tell her to leave. She goes on to say that

the caller should advise her that she needs to cover herself with wet towels and leave. The caller says he will call her back.

Incident Number 76240, Call Duration 34 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00678).

**02:57:18** CRO Jones takes a call from a female caller who says she is calling on behalf of her friend who cannot get through on 999. Her friend is stuck in flat 73 on 10th floor and there are four people in the flat. CRO Jones tells the caller that people are going to have to try and get out, using wet blankets to cover themselves. CRO Jones tells the caller to ask her friend to ring 999, but that the advice is to try and get out. The caller confirms the advice.

Incident Number 76239, Call Duration two minutes (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00677).

**02:57:32** Kent FRS take this call from the BT Operator in Nottingham because the lines are all busy in the London Control Room. The caller is in flat 73 on 10th floor and there are four people in the property. The Kent CRO confirms with the BT operator flat 73 and incorrectly the 4th floor, then begins talking with a female caller who confirms flat 73 on the 10th floor. The caller says the fire is getting worse and they cannot open the door and asks if someone can come to get them. The CRO gives advice to stay low and block the smoke using wet towels on their faces and to move to another room. The caller states they have done that and asks if they can use the stairs. The CRO states he is Kent FRS and he will pass the caller's number to London and they can call her back. The CRO is heard passing information to a colleague who is on the line to the London Control Room. The CRO comes back on the line to the caller and confirms details of their location have been passed to London crews and firefighters will be on their way to them. The caller says that she is confused because Kent FRS is telling them to stay and on the other line they are being told to evacuate. The CRO says that if it safe to evacuate then they should but the caller says it isn't safe. The CRO summarises that if there is flame in the corridor then it will not be safe to go outside. The caller says there is flame outside their front door. The caller explains that her brother is on the phone to "another emergency service" who is telling them to get out and the CRO is telling them to stay put. The CRO tries to explain that he agrees that they should get out if it safe to do so and explains that he is trying to keep them safe. The CRO asks the caller to find out who the other residents are talking to. There is a discussion in the flat and the caller says they are going to try and get out. A smoke alarm sounds and the caller says it is "too hot, we can't get out". There are long periods of silence during the call. The caller says they now cannot close the front door and does not know why the door will not close. The CRO continues to give FSG advice and the caller reports on the conditions within the flat and also reports seeing firefighters spraying water at the Tower and seeing debris falling.

The caller asks the CRO to hold on and she speaks with someone else on another phone, when she returns she says that they have been told by the Brigade to leave the premises, they have no choice but to leave. The caller says they are going to try and leave. The operator says he will stay on the line while they try and get out. A smoke alarm is heard and the caller comes back on the line and says they cannot get out. There is a lot of coughing and choking in the background and the smoke alarm continues to sound. The operator coaches the caller through staying safe again and the occupiers stay in the flat. At **04:15:52** the caller says to the control operator "I think someone's coming to help". There is a lot of noise in the background and the call continues with the operator waiting for a response. At **04:30:01** the caller tells the control operator that they are outside and all of them are safe.

Incident Number 149817, Call Duration ninety six minutes 41 seconds (Source, FRS Incident Log, Audio File and Transcript: GTIRT17-01838).

**02:57:34** CRO Russell takes a call via a BT Operator in Dundee who tries to connect a call with a caller who is saying they are stuck. There is no response to CRO Russell when she tries to raise the caller. The line is closed by the BT Operator in consultation with CRO Russell .

Incident Number 76243, Call Duration 52 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00681).

**02:57:39** CRO Howson takes a call from a member of the public outside the Tower who says that there are people shouting from the building. CRO Howson confirms that the caller is not in the building and reassures her that the Brigade is there but needs to end the call because the Control Room are trying to help people inside the building.

Incident Number 143558, Call Duration 30 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01743).

**02:57:53** The Radio Operator at Brigade Control sends message to Command Unit 7.

*"Charlie Uniform 7 from M2FN, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03045).

**02:57:57** Command Unit 7 respond to the Radio Operator at Brigade Control.

*"FN from Charlie Uniform 7. Go ahead. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03046).

**02:57:59** CRO Adams takes a call from a caller in flat 92 on the 12th floor who states that they cannot get out. CRO Fox asks why they cannot leave and the caller confirms that the corridor is full of smoke. CRO Fox explains that the caller needs to try and get out of the building by covering

themselves in wet towels and running through the smoke to the staircase. The caller asks what if they cannot get out and CRO Adams says the caller will have to decide what is safest but that she cannot guarantee that the Brigade will get to them as there are so many people trapped in the building. The caller confirms that they have heard this and says goodbye, CRO Fox tells them to run.

Incident Number 76247, Call Duration two minutes 35 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00685).

**02:58:01** The Radio Operator at Brigade Control responds to message received Command Unit 7 at **02:57:57**.

*"Charlie Uniform 7, we just had another call from persons trapped in Flat, erm, Flat 183 on the 21<sup>st</sup> floor. It's six persons with one, one of them's pregnant. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03047).

Flat Number	Floor number	Number of people	Remarks
183	21	6 persons, 1 pregnant	Trapped inside flat

**02:58:16** Command Unit 7 repeat of message from Radio Operator at Brigade Control

*"FN from Charlie Uniform 7. Er, six persons, one pregnant, is that correct? Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03048).

**02:58:22** Control confirm information message from Command Unit 7.

*"Answer yes. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03049).

**02:58:42** CRO Howson takes a call from a caller who is outside the building reporting that members of his family are in flat 203 on the 23rd floor. He states that the MPS will not let him into the building and that he was told to call 999 to tell the Brigade that his sister, two children and neighbour are in the flat. CRO Howson tells the caller if he gets a phone call from his sister then he should tell them to leave the building and asks if the caller has spoken to her recently. The caller says that he spoke to her one minute prior to this call and CRO Howson asks what the conditions are like in the flat. The caller states that there is smoke from the windows and CRO Howson says she will pass on the details to the crews.

Incident Number 76250, Call Duration one minute 56 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00688).

**02:58:44** CRO Duddy takes a call from a caller in flat 94 where there is a smoke alarm audible in the background. The caller states that it is very smoky and that they cannot see and CRO Duddy explains that the only chance of surviving is to cover themselves with wet towels and get out of the building. The caller thanks CRO Duddy and finishes the call.

Incident Number 143563, Call Duration one minute 22 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01748).

**02:58:52** CRO Russell takes a call from a female caller whose father-in-law is trapped in flat 83 on the 11th floor. He is blind, disabled and his hearing is not very good and he has told the caller that it is smoky in his flat. The caller explains that he will not be able to get out and that he is frantic. CRO Russell says she will pass the information to crews. The daughter explains that the smoke alarm is sounding in the background. CRO Russell advises that he should try and leave if he can but if not he should shut the windows, cover his face with wet towels, stay low and close the windows.

Incident Number 76252, Call Duration three minutes 29 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00690).

**02:58:56** CRO Adams takes a call from a member of the public who is reporting a block of flats on fire that they can see across on the Westway. CRO Adams confirms the Brigade is in attendance.

Incident Number 76245, Call Duration 42 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00683).

**02:59:04** CRO Gotts takes a call from Kent FRS who is reporting that they have a caller on the line in flat 73 on the fourth floor with four persons trapped. CRO Gotts says the current advice to pass to them is to cover themselves with wet towels and leave the building. This call is linked to the call at **02:57:32** that Kent FRS are dealing with.

Incident Number 143547, Call Duration one minute (Source, BOSS Viewer, 999 Audio file and Transcript:GTIRT17-01732).

**02:59:10** CRO Jones takes a call from a male caller stating that his dad is trapped in flat 72 on the 10th floor. The caller is outside the building. CRO Jones provides advice that he needs to try and get out and explains that if people are affected by smoke or fire then they should cover themselves with towels and try and get out. The caller says his dad is not affected at the moment. CRO Jones confirms that crews are in attendance but that the advice is for people to try and get out.

Incident Number 76244. Call Duration one minute 37 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00682).

**03:00:10** CRO Duddy takes a call from Essex FRS who state that having seen the fire on the news they understand that the fire has spread through the whole building, CRO Duddy states that he has

not seen it. The Essex CRO explains that they have taken another call from an individual trapped in Flat 153 on the 18th floor where there are four adults and five children. The Essex CRO states that the caller cannot escape to an exit at all and is considering jumping. The Essex CRO states that they have given safety advice about blocking the smoke and waiting for the Brigade. CRO Duddy explains that they are aware of this flat but informs the Essex CRO that the current advice is to get out. He takes the mobile number for the caller and says he will give them a call.

Incident Number 76249, Call Duration two minutes 27 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00687).

**03:00:50** CRO Adams takes a call from flat 82 on the 11th floor who states that the fire is by her front door. The caller says the door is popping, it is very hot and there is smoke everywhere. CRO Adams tells her that they need to leave the building and make a run for it, covering themselves with wet sheets. The caller says okay and can be heard preparing to move. CRO Adams explains that they should open the door slowly and if it is just some smoke they should make a run for it. The caller says thank you and goodbye.

Incident Number 76251, Call Duration one minute 27 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00689).

The table below is a summary of the calls that have been received by Brigade Control between 02:50 and 03:00.

Time of call	Flat Number	Floor number	Number of people confirmed by caller	Remarks
02:51:00	153	18	4 adults 5 children	Told to leave the building
02:51:06		21		Told to leave the building
02:51:09	193	22	10 people	Told to leave the building
02:52:20	73			Told to leave the building. Caller is friend outside. The caller is also told that they should tell their friend to dial 999 if they want more advice.
02:52:51	153	18		Told to leave the building. The call was taken by Essex Fire and Rescue Service
02:53:17	192			Told to leave
02:53:57	182	21		Told to leave the building



02:54:21	194	22		This is a friend of a resident calling from outside the building. She says she can see him at the window.
02:54:31	153	18	1 adult and 3 children	This call is from a male outside the premises
02:55:38	183	21	3 adults including 1 pregnant wife and 3 children	Told to leave. Caller says they cannot. Told to get fresh air from a window
02:55:59		22		Fire is in the flat. Told to leave the building
02:56:04	73	10	4 adults	Told to leave the building
02:56:51		20		Caller is from outside the Tower and is calling about her friend who is stuck.
02:57:18	73	10		This is a call from a friend outside the building and caller says 4 people in the flat. The CRO tells the caller to pass on advice to get out
02:57:32	73	10		This is Fire Survival Guidance where Kent Fire Control are on call until 04:30
02:57:59	92	12		Told to get out and that it cannot be guaranteed that the fire service will get to you.
02:58:42	203			Brother calling from outside the building and he says his sister, 2 children and neighbour are in the flat. Told to pass on advice to leave the building.
02:58:44	94			Told to leave the building
02:58:52	83			This is a call from the daughter of the resident. She says he is blind and disabled.
02:59:04	73	4*	4 persons	This call was taken by Kent Fire and Rescue Service. They speak to a resident from flat 73. *The

				Kent operator says the 4 <sup>th</sup> floor but flat 73 is on the 10 <sup>th</sup> floor.
02:59:10	72	10		Caller is son, says the resident is not affected by the fire or smoke yet. Told that he needs to try and get out
03:00:10	153	18	4 adults and 5 children	This is a call taken by Essex Fire and Rescue Service. The caller is adamant that he cannot leave because it is too smoky
03:00:50	82	11		Told to leave the building and make a run for it

**03:01:20** CRO Fox takes a call from a caller in flat 194 on the 22nd floor who is pleading to be rescued. The caller shouts that the fire is in the next door flat and CRO Fox says he needs to wrap himself in wet towels and get out. The caller pleads for someone to come up and get him, explaining that he cannot get out because its too dark and too hot. The line cuts out in mid call.

Incident Number 76255, Call Duration one minute 19 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00693).

**03:01:27** CRO Jones takes a call from the daughter of residents of Grenfell Tower. The caller explains that her parents are inside and there are a lot of people on the 16th floor. CRO Jones explains that they are telling people to get out, covering themselves in wet towels. The caller asks if the Brigade cannot get up there with oxygen masks and starts to cry on the phone. CRO Jones reiterates that they need to try and get down the building. The caller asks for a message to be passed to crews to tell them to take oxygen masks and CRO Jones confirms the current advice, stating that crews are aware that there are people in the building.

Incident Number 76253, Call Duration two minutes 44 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00691).

**03:02:06** CRO Howson takes a call from flat 193 on the 22nd floor in which the caller keeps shouting about sending up a helicopter as he cannot leave. He says there are 20 people in the flat and CRO Howson explains that the Brigade cannot rescue them with a helicopter and that they need to leave the building. She reassures the caller that there is only smoke in the stairwell, not fire. CRO Howson then explains about covering themselves with wet towels and blankets and leaving the building. The caller does not respond and the line goes dead.

Incident Number 76256, Call Duration one minute 52 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00694).

**03:02:06** Kent FRS take a call from a BT Operator passing a call because the lines are all busy in London. The BT Operator explains that she can hear coughing and groaning. The Kent CRO can hear a smoke alarm sounding in the background and keeps trying to raise the caller but no one comes on the line.

Incident Number 1278, Call Duration one minute 42 seconds (Source, FRS Incident Log, Audio file and Transcript: GTIRT17-01619).

**03:02:27** CRO Adams takes a call from a caller in flat 133 on the 16th floor where there are two people. The caller is very difficult to hear so CRO Adams explains that the advice is to leave the building. The caller explains that they tried to leave the flat but it was too smoky and they had to turn back. CRO Adams asks if they can cover themselves in wet towelling but the caller advises that they cannot get out. CRO Adams says that if they cannot get out then they should try and block the smoke from coming in and that she will pass a message to the crews. CRO Adams asks if they are sure that they cannot leave and the caller says they cannot. CRO Adams explains that if the fire starts coming into the flat they will need to make an attempt to leave the premises.

Incident Number 76259, Call Duration one minute 53 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00697).

**03:02:35** CRO Duddy makes a call back to the mobile number given to him by Essex FRS at **03:00:10**. The resident confirms that he is in flat 153 and CRO Duddy tells them to cover their faces with wet towels and get out of the building. The resident says okay and ends the call. (Source, NICE, Admin Phone Line Audio file: GTIRT18-01597).

**03:03:05** CRO Gotts takes a call from a female caller who states that it is not possible to go out there as it is too hot. She cries briefly and CRO Gotts advises that current advice is that they need to leave the flat. The caller tells her she is in flat 82 on the 11th floor and CRO Gotts confirms she will make crews aware. The caller agrees to try and leave the flat.

Incident Number 76254, Call Duration 40 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00692).

**03:03:45** CRO Duddy takes a call from a male caller who says he has been trying to call about his family stuck on the 15th floor. The caller states that he has children and a wife. CRO Duddy tells him that he has to leave the building and emphasises that it is their only option, he then tries to confirm that the caller is doing this, but the line goes dead.

Incident Number 76258, Call Duration 50 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00696).

**03:03:48** NWFC take a call via a BT Operator at Portadown who had a caller on the line but could not get through to the London Control Room. The BT Operator did get the address of the caller as flat 123 on the 15th floor. The NWFC Operator asks if the caller says if they were still in the tower and the BT Operator replies that they are and that they cannot breathe but then the call cuts off.

Incident Number 143567, Call Duration 38 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01609).

**03:03:56** CRO Russell takes a call from Kent FRS reporting a caller in flat 73 on the 10th floor. The Kent CRO explains that they originally passed this to the Brigade as the fourth floor (**02:59:04**). The Kent CRO explains that the caller has been advised to leave the building but has told them that the door handle is too hot to open and there are flames directly outside the flat. CRO Russell asks how many people there are and the Kent CRO confirms that there are four adults. CRO Russell states that she will pass it to the crews. This call is linked to the call at **02:57:32** being handled by Kent FRS.

Incident Number 76260, Call Duration one minute 25 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00698).

**03:04:00** NWFC make a call back to the number given by the BT Operator at Portadown in a call at **03:03:48** (GTIRT17-01609). The NWFC Operator introduces herself and asks if the male on the line is in flat 123 on the 15th floor. He states that he is on the 16th floor, and then says "They are here". The NWFC Operator explains that the London Fire Brigade advice is to get wet towels, cover themselves, and get out any way possible. She says explicitly that the person needs to get out, He replies "okay". She asks how many people are there. He just says "cool" and the call cuts off.

Incident Number 1706004407, Call Duration 41 seconds (Source, FRS Incident Log and Audio file: GTIRT18-02464).

**03:04:15** CRO Gotts takes a call from a member of the public who has seen reports that no one is in the tower but she can see people at the top of the building. CRO Gotts reassured the caller that the Brigade is in attendance and dealing with the incident.

Incident Number 76257, Call Duration 27 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00695).

**03:04:25** CRO Howson takes a call from a member of the public who is communicating with his best friend on Facebook and that she is stuck on the 20th floor. CRO Howson asks the caller to ask the resident what is going on in her flat and while waiting for the answer CRO Howson asks the caller to pass on the advice to leave the flat, she explains that they need to cover themselves with wet

towels and leave. She also explains that it will be smoke in the stairwell not fire. The caller confirms he has passed on the information. There is no confirmation of what flat the resident is in.

Incident Number 143559, Call Duration two minutes 31 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01744).

**03:04:52** CRO Gotts takes a call from Flat 82 on the 11th Floor. The caller says they cannot get out because it is too hot. CRO Gotts recognises the caller, having given advice to get out previously. The caller says they cannot get out because it is too hot and asks if the Brigade can send the cherry picker up. CRO Gotts confirms attendance of aerial ladders. CRO Gotts confirms that there are three people and reiterates that she will let the crews know that they cannot get out.

Incident Number 76262, Call Duration two minutes 11 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00700).

**03:05:09** CRO Duddy takes a call from a BT Operator who has a caller on the line in flat 193 on the 22nd floor. A male caller then comes on the line and CRO Duddy passes the advice that they must cover themselves with wet towels or cloths and get to the stairwell. The caller says they cannot get there because they cannot see and it is full of smoke. CRO Duddy explains that it is the only option and they should feel their way along the corridor. The caller states that the stairs are full of smoke and CRO Duddy repeats that it is their only option and they must get to the staircase.

Incident Number 76261, Call Duration two minutes 14 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00699).

**03:05:38** Surrey FRS take a call from the daughter-in-law of the resident of flat 194 on the 22nd floor. She reports that the fire is in his flat and he is screaming that he is dying down the phone at her. The Surrey CRO states that the information has been passed and her colleague is on the phone to the Brigade at the moment passing this update about her father-in-law. The caller explains that her father-in-law cannot breathe and the Surrey CRO tells the caller to pass on the guidance to move to a room furthest away from the fire as well as keeping low and trying to block doors from smoke.

Incident Number 030538, Call Duration one minute 25 seconds (Source, FRS Incident Log and Audio file: GTIRT17-01612).

**03:06:00** SOM Smith takes a call from Surrey FRS who are passing on details of a call that they received at **03:05:38** from flat 194 on the 22<sup>nd</sup> floor. The Surrey CRO tells SOM Smith that the fire is now in the flat. SOM Smith explains that the advice to all callers has changed and is now that they need to leave the building, covering themselves with wet clothes or towels. SOM Smith asks the Surrey CRO to pass this guidance to Essex FRS and Kent FRS control rooms, who confirms that they will do this.

Call Duration one minute 31 seconds (Source, FRS Incident Log and Audio file: GTIRT17-01770).

**03:06:06** CRO Russell takes a call from a resident at flat 113 on the 14th floor but it takes some time to ascertain the flat number. The female caller shouts that someone is unconscious and CRO Russell asks where she is in the flat but the caller's response is not clear. CRO Russell asks if there are flames in the flat and the caller says yes. CRO Russell tells the caller to try and get away from the flames and asks if they are able to leave. The caller says they cannot leave and then the line cuts off.

Incident Number 76266, Call Duration two minutes 51 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00704).

**03:06:35** CRO Adams takes a call from an individual outside of the tower, reporting that their dad is on the top floor in flat 204. The caller says there is smoke coming in from the corridor and that their dad is locked in the living room. CRO Adams provides guidance that he needs to leave the building, covering himself in wet towels, being careful to open the flat door cautiously, but he needs to leave. CRO Adams asks if he is able bodied, the caller confirms that he is. CRO Adams asks the caller to pass this advice on to their dad and the caller agrees.

Incident Number 76264, Call Duration one minute 6 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00702).

**03:06:48** The Radio Operator at Brigade Control passes a message to Command Unit 7.

*"Charlie Uniform 7, er, the police helicopter has informed us they've got a thermal image camera on the south west corner. There's a heat source of people on the 17<sup>th</sup> floor and second from the top floor, er, also people on the 21<sup>st</sup> balcony".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03059).

**03:06:57** CRO Fox takes a call from a male caller in flat 73 on the 10th floor whom she recognises and reiterates her previous guidance about getting out of the building. The caller challenges this because he is concerned that there might be fires on floors between the 10th and the ground and CRO Fox explains that she doesn't know if that is the case. The caller says as soon as they open the door there is lots of smoke and asks if the best option is to go downstairs. The caller explains that there are two parents in the flat that are arguing with him and do not want to go outside and he then puts a female caller on the phone who explains that there is too much smoke outside in broken English. CRO Fox breaks off and comes back having spoken to her supervisor and communicates that they need to get out. CRO Fox asks to speak to the "son" again. Another female caller then comes on the phone and insists that they are not going to try and get out as there is fire outside and CRO Fox states that there is no one coming to get them so they need to get out. CRO Fox then asks to speak to the man again and repeats that there is no one coming for

them which takes the male caller by surprise. CRO Fox explains to the caller that someone will try but that they need to persuade the female in the flat to get out and that the male caller needs to lead the way. During this call CRO Fox is not aware that another female resident is on the phone to Kent FRS (referenced at **02:57:32**). The Kent CRO is advising that they stay put if they cannot leave the flat because of the smoke outside the flat.

Incident Number 76278, Call Duration eight minutes 41 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00716).

**03:07:13** CRO Howson takes a call from a caller on the 22nd floor stating that there are 12 people in the flat and that the smoke is really bad now. CRO Howson tells them that they need to leave the building, covering themselves with wet towels and sheets over their mouth and nose. The caller asks if the stairs are safe from fire and CRO Howson explains that it is smoke on the stairs not fire. The caller acknowledges that they need to go and says okay and says bye.

Incident Number 76265, Call Duration one minute 33 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00703).

**03:08:01** CRO Duddy takes a call from a caller who states "fire, fire" whilst coughing. The caller states that they are in flat 92 on the 12th floor and CRO Duddy advises the caller to get to the staircase as it is their only chance. There is one adult and two children. Shouting can be heard in the background and the caller tries to calm others, telling them not to panic. The caller explains that she has asthma and a heart problem and thinks that she is going to collapse but continues to reassure the children, telling them that they all have to go. The caller explains that she is trying to leave the flat but that she cannot do it and throughout the call, the caller sounds like she is trying to make attempts to get to the stairs. The caller states that the flat is full of smoke, she cannot leave the kids and she cannot get to the stairs. CRO Duddy repeats that this is the only option and they need to stay as low as they can and keep themselves covered with the wet towels. The caller is struggling to breathe and is panting heavily. The caller keeps encouraging others to get out. The caller then shouts out for her son, asking where he is. There is a lot of shouting in a language that does not seem to be English and it is unclear what is happening. The caller keeps repeating the phrase "my kids my kids" and is making her way down the staircase. At **03:20** a male voice can be heard saying "come on, we are taking you out". The caller comes on the phone saying they are with the police and the Brigade.

Incident Number 76263, Call Duration twelve minutes 52 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00701).

**03:08:13** This is a record of an outgoing call by a Surrey CRO, the number being called is believed to be the resident of flat 194 call goes to voicemail after ringing for approximately 45 seconds. (Source, FRS Incident Log, Audio File and Transcript: GTIRT17-01613).

**03:08:56** CRO Gotts takes a call from a caller in flat 193 on the 22nd floor reporting that they are burning. The caller asks if they can escape through a big window on a helicopter and CRO Gotts explains the Brigade is sending big ladders. The caller says they can get out if CRO Gotts sends a helicopter or the 20 people will die and CRO Gotts tells the caller that she will let the crews know. The caller keeps screaming and shouting. CRO Gotts repeatedly tries to get the caller to leave the building, covering themselves with wet towels.

Incident Number 76267, Call Duration three minutes 15 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00705).

**03:08:30** Command Unit 8 send an assistance message to the Radio Operator at Brigade Control.

*"FN Charlie Uniform 8. Make, er, make DAC additional one, require additional one DAC from this incident. Erm, further traffic, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03063).

**03:08:30** The Radio Operator at Brigade Control responds to message.

*"Make additional DAC, one additional DAC. Received. Stand by".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03064).

**03:08:57** Command Unit 8 sends further information to the Radio Operator at Brigade Control

*"FN Charlie Uniform 8. Er, request additional, er, support unit with drinking water. Charlie Uniform 8, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03065).

**03:09:03** Surrey FRS make a call to Kent FRS to pass on the information about the change in guidance that London has passed to them. The Surrey CRO explains that the advice is to try and leave the building and that people need to cover themselves with wet clothes or towels and make their way out of the building.

Incident Number 030903, Call Duration 59 seconds (Source, FRS Incident Log and Audio file: GTIRT17-01614).

**03:09:17** OM Norman takes a call from NWFC. They are passing on information about a caller in Flat 123 on the 15th floor. The caller tells the NWFC Operator that they cannot breathe and then the line "went dead" on the BT Operator. OM Norman passes on the current advice that is being given to callers. She states the fire is out of control and callers should cover themselves with wet towels and try and get out.

Call duration 54 seconds (Source, Audio File and Transcript: GTIRT17-01775).

**03:09:17** Surrey FRS make a call to a member of the public who has previously contacted them at **02:28:53** (GTIRT17-01714). The Surrey CRO explains that they have spoken to London and they pass the information about the change of advice to the caller. The caller is the son of the



resident on the 22nd floor and he says that his father is stuck and the fire is burning through his floor. He explains that there is thick black smoke in the flat and he is 70 years old. The Surrey CRO states that she will call the Brigade back and let them know he is stuck and should be a priority.

Call Duration one minute 30 seconds (Source, Audio file: GTIRT17-01615).

**03:09:18** CRO Adams takes a call from a resident in flat 143 on the 17th floor who state that their flat is on fire. The caller confirms that there are five of them and CRO Adams says they must leave the building by the stairs. The caller says that they cannot see anything because the smoke is too thick. The caller states that the fire is in the kitchen and hallway and CRO Adams repeats her advice that the caller must leave the building.

Incident Number 76269, Call Duration two minutes 25 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00707).

**03:09:52** CRO Howson takes a call from a male caller in flat 183 on the 21st floor. The caller says there is now smoke inside and that they cannot get out. CRO Howson asks if there is fire in the flat and the caller explains that there is not but there is a fire next door. She tells the caller that the advice being given is to leave the building and the caller says they cannot get out because there is too much smoke. CRO Howson tries to provide options including covering themselves with wet towels but the caller is insistent that they cannot get out. CRO Howson says she will pass on their location to crews but she repeats that the advice is to try and leave as it may be sometime before any one reaches them. The caller states that there are three children, three adults and a heavily pregnant wife.

Incident Number 76276, Call Duration four minutes 58 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00714).

**03:10:26** CRO Jones takes a call from Surrey FRS reporting that they have taken another call from the son of a resident in the Tower. It is believed that the resident is in Flat 194 on the 22nd floor based on previous calls at **02:28:53** and **03:05:38**. The Surrey CRO explains that they have passed on the advice to the resident via his son but he is saying his father cannot get out as there is so much smoke and flames. CRO Jones takes the mobile number for the resident and states that she will call him.

Incident Number 76268, Call Duration two minutes 14 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00706).

**03:10:34** CRO Russell takes a call from a male in flat 204 on the 23rd floor who states that he cannot see because there is too much smoke in the flat. CRO Russell explains that the firefighters are having trouble getting to everyone in the building and the best advice is to leave the building. The caller

says that he cannot walk properly, that he is disabled and needs help to walk and get out. CRO Russell provides FSG advice including blocking doors and covering his mouth and nose with a cloth, stay close to the floor. She says she will pass on the information to the crews at the scene.

Incident Number 76272, Call Duration two minutes 28 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00710).

**03:11:42** CRO Fox takes a call from a male caller who is outside the building reporting that there are people stuck on the top floor. CRO Fox assures the caller that the Brigade is doing as much as they can and that they are aware of the people at the top of the building. She explains that current advice is that they should leave.

Incident Number 76271, Call Duration 39 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00709).

**03:12:56** CRO Gotts takes a call from a male caller in flat 133 on the 16th floor. There is a smoke alarm audible in the background. CRO Gotts asks if he has tried to get out, the caller says he is nearly fainting. CRO Gotts repeats the advice to cover themselves with wet towels and get out. CRO Gotts keeps trying to encourage him to leave and asks who he is with. The caller replies that he is in the flat with his wife. The caller is struggling to breathe and says they have tried to leave twice and CRO Gotts asks if he has blocked everything up. CRO Gotts says she will tell the crews but repeats the advice to leave.

Incident Number 76283, Call Duration three minutes 8 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00721).

**03:13:06** CRO Jones takes a call from a female caller in flat 82 on the 11th floor and advises them that they need to get out. The caller says she can't get out of the flat because there is fire outside the front door and the caller gets hysterical and says that she should have been told earlier to leave. The caller pleads with CRO Jones to get someone to come and get them and CRO Jones tells her that she will pass on the callers location to the crews. The caller states that it is in her house now and CRO Jones tells her she needs to leave if the fire is in her house. The caller quickly says okay and says she will try and leave and she will call CRO Jones back.

Incident Number 76274, Call Duration two minutes 34 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00712).

**03:13:45** CRO Russell takes a call from a BT Operator trying to put a call through. The BT Operator says he can't get a response and CRO Russell tries to raise the caller but all that can be heard is voices in the background. It sounds like a phone line has been left open. A smoke alarm is audible in the background.

Incident Number 76275. Call Duration one minute 23 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00713).

**03:13:48** CRO Fox takes a call from a male caller who resides in the block of flats opposite and reports that he can see people trapped and urges the Brigade to get a crane from a construction site to reach them. CRO Gotts thanks him for his concern.

Incident Number 76273, Call Duration 43 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00711).

**03:13:53** The Radio Operator at Brigade Control sends message to Command Unit 7.

*"Charlie Uniform 7, priority. Over. Priority, priority, Charlie Uniform 7".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03078).

**03:14:09** The Radio Operator at Brigade Control sends message to Command Unit 7.

*Priority, priority, Charlie Uniform 7 from M2FN. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03079).

**03:14:18** Command Unit 7 acknowledge receipt.

*"FN from Charlie Uniform 7. Go ahead. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03080).

**03:14:22** The Radio Operator at Brigade Control sends informative message to Command Unit 7

*"Charlie Uniform 7. Erm, further information from the police helicopter, on the west aspect of the building, multiple occupants are three floors from the top. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03081).

**03:14:23** Surrey FRS make a call to Essex FRS passing on the latest information regarding the change in advice for callers in Grenfell Tower. The advice shared is to wrap something wet around themselves and leave as quickly as they can. There is some discussion regarding calls that each service have taken and the Surrey CRO then asks which services are close to Essex and the Essex CRO confirms that Hertfordshire are their neighbouring Control Room.

Incident Number 031423, Call Duration two minutes 3 seconds (Source, FRS Incident Log and Audio file: GTIRT17-01616).

**03:14:39** Command Unit 7 request repeat of message sent by the Radio Operator at Brigade Control  
**03:14:22.**

*FN from Charlie Uniform 7. Can you repeat location again. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03082).

**03:14:44** The Radio Operator at Brigade Control sends informative message to Command Unit 7

*"It's the west aspect, three floors from the top. Over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03083).

**03:14:52** Command Unit 7 acknowledge receipt.

*Charlie Uniform 7. Received".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03084).

**03:15:15** CRO Adams takes a call from a BT Operator at Nottingham trying to connect a call from male caller but the line clears after three and a half minutes. The BT Operator says that the caller is reporting a block of flats on fire and the BT Operator tells the caller that it has been reported.

Incident Number 76277, Call Duration 30 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00715).

**03:15:20** CRO Russell takes a call and a very quiet male voice can be heard saying that the whole building is burning down and that he thinks he is going to die. CRO Russell confirms the caller is on the 15th floor in flat 124. The caller states that he cannot breathe and that he is by himself. CRO Russell asks if it is fire or just smoke in the flat and the caller explains that it is just smoke but that he has tried to leave and he couldn't see anything. CRO Russell explains that his safest option is to leave and the caller states that he is going to die and CRO Russell says he is not. She goes on to explain about getting wet towels and how to get out but the caller is heard shouting for help and then says he has to leave and the call ends.

Incident Number 76282, Call Duration one minute 48 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00720).

**03:15:51** CRO Howson takes a call which starts with someone shouting instructions about covering up and preparing to leave the building, stating that they need to go on the staircase. The individual then shouts to get peoples' attention and repeats the instructions. CRO Howson says "Fire Brigade" but gets no response and after a short time the BT Operator from Portadown comes on the phone indicating that the line has dropped out.

Incident Number 76280, Call Duration 29 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00718).

**03:15:58** CRO Jones makes a call to the mobile number given to her by Surrey FRS at **03:10:26**. The phone rings but goes to voice mail and CRO Jones leaves a message saying to call 999 if they need more help. (Source, NICE, Admin Phone Line Audio file: GTIRT18-02336).

**03:16:12** CRO Adams takes a call from a female caller reporting that her dad is in Grenfell Tower in flat 204 on the top floor and there is fire on his floor. CRO Adams advises the caller to ring him back, and tell him to wrap himself in wet towels and leave. The caller explains that he cannot move, can hardly walk and is vulnerable. CRO Adams says she will pass the message on to crews but asks the caller to call her dad back and tell him to wrap himself in towels and try and get out if at all possible.

Incident Number 76286, Call Duration one minute 58 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00724).

**03:16:19** CRO Fox takes a call from a caller reporting a fire in a tall building tower opposite Westfield Shopping Centre, postcode W11. CRO Fox tells the caller that it has already been reported and the Brigade is in attendance.

Incident Number 76281, Call Duration 47 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00719).

**03:16:27** CRO Jones takes a call from the MPS reporting that the occupants of flat 171 are safe. The MPS caller confirms that the occupant, his daughter and partner are safe and have left the building.

Incident Number 76279, Call Duration 44 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00717).

**03:17:05** CRO Howson takes a call from a caller shouting 113 and reporting that the fire is in the flat. CRO Howson advises her to leave with wet towels over her face and use the stairwell which is full of smoke. The caller says she is with her baby and CRO Howson tells her to cover the baby with a wet towel. The caller appears to be talking to another person passing on the advice. The caller then says okay and CRO Howson ends the call.

Incident Number 76290, Call Duration one minute 57 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00728).

**03:17:13** CRO Jones takes a call from a caller outside the building on the Latimer Road side reporting that they can see people at the window of a flat which is the second floor from the top. CRO Jones reassures her that the Brigade is there and are trying to reach people.

Incident Number 76284, Call Duration 48 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00722).

**03:17:18** CRO Fox takes a call from a BT Operator in Portadown who tries to connect to a male caller but the line drops out. The BT Operator explains that the caller is outside the building and a resident in flat 173 on the 20th floor has been texting the caller and saying she can't get out. CRO Fox states that she will pass the information to the command unit on scene and that she will ring the caller back.

Incident Number 76285, Call Duration one minute 7 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00723).

**03:17:21** CRO Gotts makes a call to LBKC to request a Dangerous Structure Engineer and a Local Authority Liaison Officer. The LBKC Operator says that a Local Authority Liaison Officer has already been requested and she will process the request for the Dangerous Structure Engineer. CRO Gotts explains that the whole block looks like it's alright and the LBKC Operator says she will pass to an officer although their name is inaudible. She gives a reference as T154691 (Source, NICE, Admin Phone Line Audio file: GTIRT18-01166).

**03:18:45** CRO Fox takes a call from a caller in flat 142 on the 17th floor. CRO Fox tells them they need to leave but the caller sounds very desperate and pleads for someone to come and get them. CRO Fox asks how many people there are and the caller states that there are five adults and that they cannot get out. CRO Fox says she will pass on the information to the crews and finishes the call.

Incident Number 76293, Call Duration one minute 21 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00731).

**03:18:49** CRO Russell takes a call from a male caller who has been messaged by his friend who explains that she is trapped in flat 173 on the 20th floor. The caller says there are two of them, his friend and her mother. CRO Russell tells the caller that the Brigade know that they are there but that if she contacts him again, the caller should tell her to leave. She explains that he should tell them to cover themselves with a wet towel and feel their way out of the building.

Incident Number 76289, Call Duration one minute 32 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00727).

**03:18:59** CRO Jones takes a call from a male caller who is on the Westway, driving past and is asking if the Brigade are aware of the big fire in West London. Caller says the whole block is on fire.

Incident Number 76287, Call Duration 35 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00725).

**03:19:24** CRO Jones takes a call from a member of the public who is reporting a building on fire. The caller is very muffled but CRO Jones manages to ascertain that the caller is not in the Tower and confirms that the Brigade is in attendance.

Incident Number 76288, Call Duration one minute 25 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00726).

**03:20:31** CRO Adams takes a call from a male caller in flat 204 on the 23rd floor who says there is smoke coming into his flat and that he cannot see anything. CRO Adams advises him to leave the building but he says he cannot move properly and has problems with his feet, that he is disabled. The caller then states that the fire is in his flat and CRO Adams confirms that the caller definitely cannot leave. She states that the crews will try and get to him but asks if he can hear anyone else that could help him. He says the flat is full of black smoke now and CRO Adams advises him to get to the safest place and if he hears anyone outside then ask them to help.

Incident Number 76294, Call Duration two minute 38 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00732).

**03:20:48** CRO Jones takes a call from a male caller who lives in Acton who says he can see a fire in a tower block in the Shepherds Bush area. CRO Jones explains that there is an incident in W11 and the caller confirms he thinks that is the one he can see.

Incident Number 76291, Call Duration 37 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00729).

**03:21:12** CRO Russell takes a call from a caller reporting a fire in Barrington Walk. CRO Russell asks the caller if it could be Grenfell Tower and the caller says yes. CRO Russell confirms the Brigade is in attendance.

Incident Number 76292, Call Duration 31 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00730).

**03:22:35** CRO Russell takes a call from a male caller in flat 124 on the 15th floor who states that he is stuck and cannot get out as he cannot make it down the stairs. The caller reports that he has nearly fainted and that he cannot breathe and CRO Russell tells him to get on the floor, go to another room and block the smoke from coming in, covering his mouth and nose with material. CRO Russell asks where he is and he says he is by the front door. CRO Russell advises that he should go to another room and provides FSG advice. She then explains that he has two options, either he can stay in the flat in a room away from the smoke or try and leave. CRO Russell advises that she will tell the crews where he is but that she cannot say how long it will take.

Incident Number 76295, Call Duration three minute 3 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00733).

**03:22:51** Kent FRS takes a call via a BT Operator in Dundee connecting a female caller who explains that she is on holiday in Kent and her husband is trapped on the 22nd floor of Grenfell Tower. The

caller states that he is in flat 249 and explains that the Brigade told him to stay put but he has been trapped for over an hour and she pleads not to let him die. The caller passes on the mobile number and states that his name is Tony. She reports that he cannot breathe and has blocked the doors and covered his mouth. The Kent CRO says she will give him a call and that she will call the female caller back. She asks what the caller's name is and she replies Cordelia. Cordelia says that her husband's name is Tony Disson.

Incident Number 1281, Call Duration one minute 57 seconds (Source, FRS Incident Log and Audio File: GTIRT17-01620).

**03:22:59** CRO Jones takes a call from Paul Monaghan from the Health and Safety Executive who states that he is having difficulty finding an inspector and needs a contact number for the incident. CRO Jones gives the Control Room number and AOM Debbie Real as the contact. (Source, NICE, Admin Phone Line Audio file: GTIRT18-01169).

**03:24:02** CRO Duddy takes a call from a resident in flat 193 who states that they have tried to leave but that they cannot get out. There is a lot of shouting in the background and CRO Duddy explains that they must try and leave as that is the only way that they are going to survive. The caller reports that there are seven children and 12 adults in the flat and there is a lot of coughing and choking sounds, with several people speaking in the background. CRO Duddy repeatedly tells the caller that they have to leave and gives very explicit instructions that they must get to the staircase. The caller replies several times to say that they cannot get out and then the caller can be heard having a conversation with someone, stating that they should try. The caller then states that they cannot see or breathe. At **03:33:35** CRO Duddy says to the caller that they will die unless they make their way to the staircase and the caller can be heard to ask someone in the flat if they should try. It becomes difficult to hear what is being said between people in the flat. The caller explains that they cannot move and that they are dying. CRO Duddy checks the floor number and confirms that they are on the 22nd floor. The caller is heard to tell others in the flat that she loves them and they will die together and CRO Duddy tries to tell them to leave, repeating that it is their only chance. CRO Duddy explains he cannot stay on the line and that they must leave. He gives further advice to soak themselves with water, cover their faces with clothes or towels and to get to the staircase, reporting that he must clear the line. At **03:38:42** the line goes dead.

Incident Number 76305, Call Duration fourteen minutes 40 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00741).

**03:25:45** CRO Fox takes a call from flat 183 on the 21st floor where there are three adults and three children aged 10, 11 and 12. One of the adults, the caller's wife, is pregnant. The caller states that they have tried to get out three times and CRO Fox says she will contact the Command Unit and



make them a priority. The caller states that the fire is in the house and CRO Fox responds that the caller must get out if the fire is in the house. CRO Fox says she will stay on the line and the caller can be heard giving instructions to the other residents. CRO Fox tells AOM Real about the call and the circumstances and location of the caller. The caller is heard shouting instructions to the children and he keeps encouraging the girls to keep going. CRO Fox is giving a running commentary to others in the Control Room and encourages the caller to keep going. CRO Fox says that the crews are on their way up to them. CRO Fox tries to find out if they are on the stairs. There are a lot of coughing and choking noises. At **03:33:07** the caller confirms that he is on the stairwell and CRO Fox asks if they are all together but the caller says no. CRO Fox asks who is missing and the caller states that he cannot find his wife. The caller is constantly calling to the "girls" to come down and follow his voice and he tells them to hold onto the hand rail, explaining that the conditions are better where he is. They appear not to be following him. He has a conversation with someone in the background but it is not known who it is. He keeps calling for the girls to come down. The caller keeps repeating "my wife" and it appears that he is on his own at this stage. At **03:39:43** the caller can be heard talking to someone and the voice sounds like it could be a firefighter in breathing apparatus. The caller states that his daughter is upstairs and that his wife is pregnant. The caller gives the location as flat 183 on the 21st floor and explains that his wife is about half way down. The caller is crying for his daughters and his wife. CRO Fox tries to ask some questions to work out where the caller is and what the situation is and the caller appears to be waiting on the stairs but it is not clear where. CRO Fox asks if he has his girls yet and the caller becomes more and more distraught, saying that he needs to find them. At **03:48:13** CRO Fox says to the caller that he needs to be brave and do what he thinks is best. She says that he needs to go back upstairs and get his girls and that he needs to go and find them as a dad. She tells him to take a few deep breaths and make his way slowly up the stairs. She stays on the line and encourages him to go up the stairs. The caller becomes very distraught and upset and keeps saying please, please my girls. There is some shouting in the background but it is inaudible and the caller talks to someone and says that his wife is up there and she is pregnant but it is not clear who he is talking to. There are several voices heard and the caller is talking to more people but it is not known who as the volume goes very low. CRO Fox does not talk for several minutes and when she tries to raise the caller, he does not respond. She tries for several minutes but nothing is heard and the call ends at **03:59:38**.

Incident Number 76337, Call Duration thirty three minutes 53 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00763).

**03:26:04** CRO Jones takes a call from a male caller who says his wife and three daughters are stuck in flat 153 on the 18th floor. He states that he spoke to her three minutes before and the fire had come in to the flat and he wants to know if she has been evacuated but CRO Jones explains that they

have no information about who has been rescued or who has left the building. She advises him to try and speak to the police at the scene. He suddenly shouts 153, 153 and says he will call back.

Incident Number 76296, Call Duration one minute 24 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00734).

**03:28:11** CRO Adams takes a call from a caller reporting a fire that he can see in the near distance from Acton. CRO Adams determines that it is the Grenfell fire that he can see and she reassures the caller that the Brigade is in attendance.

Incident Number 76298, Call Duration one minute 2 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00735).

**03:28:39** CRO Howson takes a call from a caller who lives behind the Tower and she can see someone on the 16th floor at the back of the building who is shouting for help. The caller states that it is the 16th or 17th floor.

Incident Number 76299, Call Duration 50 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00736).

**03:29:14** CRO Jones takes a call from a male caller reporting that there are two people stuck in flat 74 on the 10<sup>th</sup> floor. It is not clear if the caller is inside or outside of the building. CRO Jones states that they need to cover themselves in wet towels and get out but the caller says they can't escape because there is too much smoke. The caller asks if the crews are not able to get to them and CRO Jones explains that the Brigade is trying but that people should try to leave. The caller states that the fire exit is the part that is on fire and CRO Jones reiterates that people need to leave.

Incident Number 76300, Call Duration one minute 28 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00737).

**03:29:40** CRO Adams takes a call from Kent FRS who provide an update from the people in flat 73 on 10th floor, stating that they have managed to open a window to try and make themselves known. CRO Adams explains that the Brigade are now telling people to leave and the Kent CRO explains that they are unable to leave because there are flames outside the flat. The Kent CRO states that the flat is facing the park and there are four adults in there and confirms that they have provided FSG advice. This call is linked to the call being handled by Kent FRS at **02:57:32**. The Kent CRO also reports that they have taken another call from an individual who was on the 22<sup>nd</sup> floor who has left his flat and is last reported in the stairwell (**03:31:23** GTIRT17-01621). This call time is showing as after the time of the start of this call. However the call time for the Kent call is given by Kent FRS on the Call Incident log 1281 GTIRT18-02691. They went on to say that he started in flat 249. This flat number is likely the refer to a call made to Kent FRS by Cordelia at **03:22:51** GTIRT17-01620).

Incident Number 76307, Call Duration one minute 50 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00742).

**03:29:44** CRO Howson takes a call from the wife of WM Glynn Williams, attached to Fulham Red Watch, to say she has gone in to labour and wanted to try and get hold of him to let him know. CRO Howson confirms that he is in attendance and that she will try and get a message to him. (Source, NICE, Admin Phone Line Audio file: GTIRT18-01172).

The table below summarises the additional calls that were received in Brigade Control at the times stated.

Time of call	Flat Number	Floor number	Number of people confirmed by caller	Remarks
03:01:20	194	22		Caller trapped by smoke. Told to try and get out.
03:01:27		16		Daughter of resident says her parents can't breathe. London CRO advises daughter to tell parents to leave building.
03:02:06	193	22	20 people	Told to leave the building
03:02:27	133	16	2 people	Told to leave the building
03:03:05	82	11		Caller told to leave the building and says she is going to leave.
03:03:45		15		Told they need to leave the building.
03:03:48	123	15		BT operator gave flat detail. Caller cuts off before the call could be put through
03:03:56	73	10	4 adults	This call is passed to Brigade by Kent Fire and Rescue Service. Linked to Fire Survival Guidance call <b>02:57:32</b> and <b>03:06:57</b> .
03:04:25		20		This call is from a friend of a resident who is communicating with resident via Facebook. Caller says his friend is with her mum. He is told to tell her to leave the building.
03:04:52	82	11	3 people	Tried to leave but too hot in the corridor

03:05:09	193	22		Told to leave the building
03:05:38	194	22		Daughter-in-law calling Surrey Fire and Rescue Service.
03:06:06	113	14	1 adult 1 baby	Told to leave the building
03:06:35	204		1 adult	Daughter is caller. Told to tell her Dad to leave the building.
03:06:57	73	10	4 adults	Told to leave the building.
03:07:13		22	12 people	Told to leave the building
03:08:01	92	12	1 adult 2 children	Caller stays on the line until they exit the building at <b>03:20</b>
03:08:56	193	22	20 people	Told to try and get out. Told ladders are being sent.
03:09:17	123	15		Call from NWFC passing information about a call taken by them to Brigade. Brigade pass information to NWFC that the advice now being given to callers is to get out
03:09:18	143	17	5 people	Told that they need to get out
03:09:52	183	21	3 Adults 3 Kids (Pregnant wife)	Told to leave the building
03:10:26	194		1 adult	Call from Surrey Fire and Rescue and Service to Brigade.
03:10:34	204	23		Disabled man cannot get out of his flat on his own
03:12:56	133	16	2 adults	Advice to get out. Told they need to try.
03:13:06	82	11		Told to leave the building
03:15:20	124	15	1 adult	Told to leave
03:16:12	204	Top	1 adult	Disabled man cannot get out of his flat on his own. Call from his daughter. Told to pass on advice to get out.
03:17:05	113		1 adult and 1 baby	Told to leave.

03:17:18	173	20		Information from BT. Call back offered by Brigade
03:18:45	142	17		Told to leave but caller says they cannot leave
03:18:49	173	20	2 adults	This information comes from the caller who is being messaged by friend in the tower
03:20:31	204	Top floor		Disabled man cannot get out unaided. Told to leave the building
03:22:35	124	15		Told to get low. 2 options given. Stay or get out.
03:22:51	249*	22		Caller is wife of resident. *There is no flat 249 in Grenfell Tower. Believed to be 194.
03:24:02	193	22	12 adults 7 children	Told explicitly to get out. Told that they will die if they don't get out.
03:25:45	183	21	3 adults 3 children including pregnant woman	Male caller exits with CRO on phone. Call ends at <b>03:59:38</b>
03:26:04	153	18	1 adult and 3 children	Caller is from the husband who is outside the tower.
03:29:14	74	10	2 people	This caller is possibly outside and reports 2 people are stuck flat 74
03:29:40	73	10	4 Adults	Call from Kent Fire and Rescue Service. Given the advise to leave. Kent Fire and Rescue Service say they cannot get out

**03:31:03** CRO Jones takes a call from a male caller who reports a building on fire and that he is on the A40 and can only see one hose. CRO Jones confirms that there are 40 fire engines in attendance.

Incident Number 76301, Call Duration 52 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00738).

**03:31:07** CRO Gotts takes a call from a male caller reporting that there is a man shouting for help from the 10th floor on the North East Side of the building. CRO Gotts thanks the man for his call.

Incident Number 76302, Call Duration 20 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00739).

**03:31:23** Kent FRS make a call to a resident believed to be Anthony Disson who explains that he say is on the stairs. The Kent CRO asks if he knows what floor he is on and the line goes dead.

Incident Number 1281b, Call Duration 59 seconds (Source, FRS Incident Log, Audio File and Transcript: GTIRT17-01621).

**03:31:47** CRO Jones takes a call from a resident in 124 on the 15<sup>th</sup> floor who states that they should have been told to leave, he says he has tried but is trapped. CRO Jones guides the caller through the process of covering himself and tells him to feel his way down the stairs but the caller says he cannot breathe when he goes outside. He asks if the building is going to come down. CRO Jones says she is not there and repeatedly tells him that he needs to try and get out. The caller appears to try and get out and then comes back, stating that it is too thick and it makes him feel sick. The caller states that the fire is above him and then goes back to the kitchen. CRO Jones then suggests that the caller tries to block the smoke from coming in but once it seems that this is not working, she reverts to the advice to get out. CRO Jones tells the caller to stop talking to her and cover his mouth and nose and save his breath, stating that she will stay on the phone.

The caller states that he is going to try and get out but then comes back on the phone, shouting that it is too thick and is making him feel sick. The caller keeps asking CRO Jones if he is going to die if he doesn't get out. CRO Jones asks the name of the caller and he replies Christos. CRO Jones tries to encourage Christos to get out but after a few minutes he comes back and says he barely got out of the front door of the flat. CRO Jones repeats that he needs to try and get out and that she cannot tell him if the building is going to come down. The caller can be heard shouting for help but it is not clear who he is shouting at. CRO Jones implores him to try and leave. Around **03:50**, the caller appears to be trying to get down the stairs. CRO Jones keeps talking and encouraging him but does not get a reply. There is no response from Christos for the rest of the call. At **03:52** voices can be heard in the background of the call but it is not known who they are. At **03:53:18** the BT Operator says the line has dropped out.

Incident number 76312, Call Duration twenty one minutes 34 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00746).

**03:32:03** CRO Gotts takes a call from a female caller who reports that there are people at the back of the building who are waving for help. CRO Gotts says she will let the crews know.

Incident Number 76303, Call Duration 34 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00740).

**03:32:57** CRO Howson takes a call from a BT Operator reporting a caller from the 7th floor trying to flag down the Brigade but the line has dropped out. The BT Operator asks CRO Howson if she wants the phone number and CRO Howson replies that she has all the details.

Incident Number 76308, Call Duration 28 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00743).

**03:33:41** CRO Russell takes a call from a male caller who explains that his friend is still stuck in flat 173 on the 20th floor. CRO Russell says they know about the flat and it is on the board and the crews are aware. CRO Russell then asks for an update from the caller about what is happening in the flat. The caller reports that the residents have told him on Facebook that the smoke is really thick and they feel like they are going to faint. CRO Russell explains that the caller should message them back and tell them the best advice is to leave using wet towels to cover themselves but that if they cannot, then they should get in a room, shut and block the doors, close any windows, keep low and cover their mouth and noses with a towel or cloth.

Incident Number 76309, Call Duration one minute 20 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00744).

**03:33:46** CRO Gotts takes a call from a caller in flat 133 on the 16th floor who cannot get out. CRO Gotts repeats the advice that they need to try and leave. She gives advice to use wet towels to cover themselves and get out and the caller explains that they have tried to leave three times and have had to come back to the flat. CRO Gotts says she will tell the fire crews where they are and that they need to try and block the smoke from coming in, telling him several more times to try and leave.

Incident Number 76310, Call Duration three minute 4 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00745).

**03:33:46** AOM Real takes a call from a female caller in flat 82 on the 11th floor who reports that the fire is in her bedroom and front room. AOM Real explains that the best advice is to leave but the caller states that they will not be able to do it. The caller says there are two adults and her daughter who is six years old. The caller says they have tried to get out but there is too much smoke and begs for help. AOM Real explains that she will tell crews again and if they definitely cannot get out then they should stay together, get on the floor and stay there for as long as possible. AOM Real asks the caller what her name is and she says "Natasha" and AOM Real gives her name, she then asks what her daughter's name is and encourages her to stay calm for her daughter. AOM Real repeats the FSG advice and tells Natasha that the Brigade are trying to get to all the floors and she will pass on the details to the crews.

Incident Number 76321, Call Duration six minutes 24 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00748).

**03:38:26** CRO Gotts takes a call from the daughter of the resident in flat 204 on the top floor who explains that he cannot move but has tried to get out. CRO Gotts states that the Brigade are advising people to leave and asks the caller if it is the man in his seventies that she has spoken to and the caller confirms that it is. The caller says she has already spoken to one of CRO Gotts's colleagues and explains that her father is trapped, elderly, disabled and cannot breathe. CRO Gotts states that she will let crews know.

Incident Number 76317, Call Duration one minute 7 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00747).

**03:40:43** CRO Gotts makes a call to the LBKC to ask for an estimated time of attendance of the Dangerous Structure Engineer. The LBKC Operator cannot give a time or contact number and CRO Gotts offers blue light assistance and stresses the urgency of the situation. The LBKC Operator apologises but does not have the information to give. (Source, NICE, Admin Phone Line Audio file: GTIRT18-01175).

**03:42:36** CRO Adams takes a call from a female caller who is reporting two people waving at the window of a flat around the 15th floor on the side of the building that is facing Waynslete Square, W11. CRO Adams takes the details and says she will pass the information on to crews.

Incident Number 76325, Call Duration three minutes 47 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00752).

**03:44:19** CRO Duddy takes a call from a caller reporting that they are watching the tower block burning and can see someone flashing a light to be saved. The person is quite high in the middle of tower block and the fire is almost through to their flat. The caller reports that they have been screaming for hours and they have been watching since around one o'clock. The caller does not know what floor they are on. CRO Duddy explains that the crews are trying to get to everyone as soon as they can and states that he needs to clear the line and thanks the caller.

Incident Number 76322, Call Duration one min 6 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00749).

**03:45:01** CRO Howson takes a call from a female caller who is not in the tower but is reporting that her relatives are on 16th floor and are still in their flat and need oxygen. CRO Howson advises that they need to get out, covering themselves with wet towels and leave the building by the stairwell, moving along the walls. She explains that they should open the front door slowly and move along the walls to find their way out. The caller confirms that she will call her family back.



Incident Number 76326, Call Duration two minutes 4 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00604).

**03:45:24** CRO Duddy takes a call from Essex FRS reporting that they have taken a call from a member of the public who is in the block opposite and can hear people calling out from floor 12 or 13. CRO Duddy says that there are people on lots of floors and the crews are trying to get to everyone but that the advice that is being given to residents is to cover themselves with cloths or towels and try and get out of the building. The Essex CRO confirms that they have this information already.

Incident Number 76324, Call Duration 56 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00751).

**03:45:32** CRO Gotts takes a call from a member of the public in another building who reports a massive fire near by. CRO Gotts asks if it Grenfell Tower and when this is confirmed by the caller, CRO Gotts reassures her that the Brigade is in attendance.

Incident Number 76323, Call Duration 29 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00750).

**03:46:42** Kent FRS take a call from the wife of Tony Disson who states that she has not heard back and cannot get hold of him. The Kent CRO recognises her and states that they have called the mobile phone number given to them by her but that the line cleared and there is now no answer. The Kent CRO explains that he had tried to exit the flat and Cordelia Disson suggests that this means that he has not got out, the Kent CRO tries to reassure her and explains that the MPS are going to set up a casualty bureau and Mrs Disson should look at the police website to get more information.

Incident Number 1283, Call Duration one minute 18 seconds (Source, FRS Incident Log, Audio File and Transcript: GTIRT17-01622).

**03:46:54** The Officer of the Watch makes a call to Sam Kindred who is the duty counselling and wellbeing contact. He passes the phone to SOM Smith who is requesting support at the Control Room for CROs before they go home on behalf of DAC Fenton. (Source, NICE, Admin Phone Line Audio file: GTIRT18-01179).

**03:48:32** CRO Howson takes a call from a member of the public who is reporting a huge fire in a building near White City and he wants to ensure that it has been reported and that a response is there. The caller explains that he can see the flames and that the whole building is on fire. CRO Howson states that there are forty fire engines in attendance.

Incident Number 76327, Call Duration 38 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00754).

**03:48:57** CRO Gotts makes a call to the LBKC to ask again for an estimated time of arrival for the Dangerous Structure Engineer. CRO Gotts advises again that the Brigade is willing to provide a blue light escort. CRO Gotts also tells the LBKC Operator that the Brigade is going to try and get the London Resilience Group to sort it out but asks the LBKC Operator to continue to try with their one. (Source, NICE, Admin Phone Line Audio file: GTIRT18-01181).

**03:51:19** CRO Duddy takes a call from a female caller who is shouting "73, 73 Grenfell Tower" and CRO Duddy asks if that is on the 10th floor. CRO Duddy advises the caller that they need to get out. The phone is then passed to a male caller who reports that every time they try and go outside it is very hot and smoky and CRO Duddy explains that they need to cover their mouths and get to the stairwell as there are firefighters on the stairwells. The caller asks if he can pass the phone back to his mother because she will not listen to him and CRO Duddy then speaks to a female caller who states that she tried to get out and complains that no one is listening to her. The female caller explains that they were told to stay in the flat an hour ago and now they are being told to get out and they can't.

A different female then comes on the phone and explains that the previous lady on the phone is disabled and elderly which is why she is worried about trying to get out and CRO Duddy asks to speak to the original male caller again. CRO Duddy explains that they need to go to the staircase as it is their only choice. He repeats this over and over again and explains that he cannot stay on the line because there are lots of other people in the tower. At **03:59:41** the voice of a Kent FRS CRO is heard on another phone stating "wet towels". Another female caller comes on the line to CRO Duddy and is heard asking the Kent FRS CRO to hang on. CRO Duddy asks if they have gone to the stairs and the caller states that they have not yet and CRO Duddy asks her why, and that they must go straight away. The caller asks if there is fire on the staircase and CRO Duddy repeats that they need to get to the staircase. The caller says "okay, okay". There is a short period of silence and the line drops out. The call ends at **04:00:36**.

Incident Number 76328, Call Duration nine minutes 17 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00755).

It is clear that the residents in this flat are talking to both the London Fire Brigade and the Kent FRS control rooms at the same time. They speak to CRO Jones at **02:57:18** (GTIRT17-00677) who tells the caller that they need to make a run for it and get out. At **02:57:32** (GTIRT17-01838), they speak to the Kent FRS Control Room. A female resident caller named Ann and a Kent CRO are involved. Another male caller in the flat speaks to CRO Fox at **03:06:57** (GTIRT17-00716). CRO Fox tells him they need to leave the building straight away. The call to the Kent FRS CRO continues. A male caller then speaks to CRO Duddy at **03:51:19** (GTIRT17-00755) as detailed above. During the Kent FRS call Ann asks the Kent CRO to hold the line and she speaks to CRO Duddy. After the conversation with CRO Duddy she tells the Kent CRO that

the Brigade have told her they need to leave. The Kent CRO asks which fire brigade and Ann says she doesn't know but they have been told to leave. The Kent CRO supports this and stays on the line. They try and leave but after a few minutes they come back to the flat and Ann says they cannot get out. At around **04:15** Ann tells the Kent CRO that someone has come to get them. It appears that fire crews have reached the flat and rescue them at **04:34:13**. The full details of the call with Kent FRS is referenced at **02:57:32**.

**03:51:55** AOM Real makes a call to the London Underground to advise them of the fire and the London Underground Operator says they are monitoring the incident on CCTV and helicopter video provided by the MPS. The London Underground Operator explains that they are not planning on running a train service on the adjacent Hammersmith and City line in the morning between Edgware Road and Hammersmith and provides their reference number as 3. (Source, NICE, Admin Phone Line Audio file: GTIRT18-01182).

**03:53:10** CRO Adams takes a call from a female caller outside the tower who is reporting that her sister is in flat 74 on the 10th floor and has a medical condition. CRO Adams asks if the resident can walk and if she can they need to leave the flat but the caller says that they cannot open the door to get out. The caller reports that there are two adults and CRO Adams tries to find out what is the matter with the door. The caller is with someone else who gets in touch with the residents and a conversation can be heard in the background. CRO Adams advises the caller to tell her sister to cover themselves with wet towels and try to get out of the building but the caller states that she has spoken to the police who had told them that residents should stay put. CRO Adams explains that things have changed and the advice now is to leave. During the call the third party finds out that the residents cannot open the front door and CRO Adams advises that they need to try and stop the smoke from coming in by blocking the doors and windows, moving to another room if there is somewhere less smoky. CRO Adams says that she will pass on the information to crews.

Incident Number 76331, Call Duration six minutes 29 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00758).

**03:53:13** CRO Gotts takes a call from a caller who has a cousin living in the building and is enquiring if there is any news about the residents. CRO Gotts explains that there isn't any information at the moment but that the Brigade is in attendance and the caller thanks her and CRO Gotts ends the call.

Incident Number 76329, Call Duration 33 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00756).

**03:54:32** CRO Howson takes a call from a female caller who is reporting that she can still see people in the tower. CRO Howson asks the caller if she is able to tell what floor they are on and the caller

replies its about the 12th floor and she can see them waving from the windows. CRO Howson says that she will pass on the information to the crews on scene.

Incident Number 76330, Call Duration 39 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00757).

**03:54:40** CRO Gotts takes a call from a male caller from the dangerous structure department at Kensington and Chelsea Council asking for a phone number for someone on the Command Unit. CRO Gotts asks him to wait on the line while she tries to find a number. The line then goes dead. (Source, BOSS Viewer, 999 Audio file: GTIRT18- 03378).

**03:57:28** CRO Russell takes a call from a caller stating that her father-in-law is trapped in flat 83 on the 11th floor and that she has told him all the advice that Control gave her previously but she is worried because he is old, registered disabled, blind and partially deaf. The caller advises that her father-in-law has said that the door is red hot and that she has told him to block everything up with wet blankets and to get down low. CRO Russell advises that the crews are trying their absolute best and she will pass this update to them and the caller says that he is still alive and desperate.

Incident Number 76333, Call Duration two minutes 47 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00759).

**03:57:44** SOM Smith takes a call from Matthew Hogan from London Resilience and explains that a Dangerous Structure Engineer is urgently required at the scene but the Brigade are struggling to get an estimated time of arrival from the Local Council. She expresses that there is a concern that the building might collapse any moment and Matthew says he will try calling them. (Source, NICE, Admin Phone Line Audio file: GTIRT18-01188).

**03:57:47** CRO Howson takes a call from a male caller who is reporting that he can see people waving for help in Grenfell Tower on the West side of the building. The caller is unable to give an exact floor or flat but says it is about a third of the way up and that he thinks it is a woman. CRO Howson confirms that she will pass it on to the crews.

Incident Number 76334, Call Duration one minute 48 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00760).

At this time further calls taken by Brigade Control from residents or callers from outside the building with specific details of those who are still inside and have had direct contact with are listed in the table below.

Time of call	Flat Number	Floor number	Number of people confirmed by caller	Remarks
03:31:47	124	15	1 adult	This is a call from "Christos". He is told to leave the building and the

				CRO stays on the line while he makes his way out but the line drops out
03:33:41	173	20		Caller is from a friend outside the building in contact with a resident via Facebook. They are told to tell them to leave the building.
03:33:46	82	11	2 adults and 1 child	Caller gives her name as Natasha and her daughter is Shyla. They have tried to get out but cannot. Husband is also with them
03:33:46	133	16		Told to leave. Caller says they cannot get out.
03:38:26	204	"Top floor"		Daughter calls from outside the building reporting male resident who is disabled and unable to move without help.
03:45:01		16		Caller is a relative outside the building. Told to pass on advice to leave the building
03:51:19	73	10		Told to leave the building.
03:53:10	74	10	2 adults	This caller is outside calling on behalf of her sister who is with another friend. Given advise to pass onto the residents of leaving the building
03:57:28	83	11	1 adult	Caller is daughter-in-law. Resident is elderly blind and disabled.

**04:00:56** CRO Howson takes a call from a male caller who states that he can see people waving towels from the seventh or eighth floor on the side of the building that is facing Latimer Road station. CRO Howson confirms she will pass on the information to crews.

Incident Number 76335, Call Duration 33 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00761).

**04:01:02** CRO Russell takes a call passed by a BT Operator in Portadown. The caller is the daughter of a resident who is in flat 204 who explains that she was speaking to him but he has now stopped responding and the last time she spoke to him, he was struggling to breathe. CRO Russell

explains that the crews are aware of her father being in there but does not know if crews have got to the flat or who has got out or been rescued.

Incident Number 76336, Call Duration one minute 38 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00762).

**04:04:19** CRO Howson takes a call from a female caller reporting that she can see someone on the seventh or eighth floor. CRO Howson explains that the Brigade is aware that there are still people inside and that they are telling people to leave.

Incident Number 76338, Call Duration 31 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00764).

**04:06:44** CRO Duddy takes a call from someone outside who is calling to inform the Brigade that there is a woman, man and child on the 11th floor of the Grenfell Tower. He is not in the building but can see them from his location.

Incident Number 76339, Call Duration 32 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00765).

**04:07:28** CRO Gotts take a call from Kent FRS who explain that they are on the phone to a caller in flat 73 on the 10th floor and have been for one hour and 10 minutes (GTIRT17-01838, GTIRT17-01839). The Kent CRO explains that the caller has tried to leave three times but that they are unable to get out and asks how long they should stay on the phone for. CRO Gotts explains that London are unable to stay on the phone that long because they have had so many calls coming through. The two CROs exchange some detail about other calls they have taken and then CRO Gotts says she cannot offer any further advice to Kent FRS other than they should try and get people to leave if they can. CRO Gotts states that she will pass the details to crews.

Incident Number 76340, Call Duration two minutes 18 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00766).

**04:07:35** CRO Russell takes a call from a male caller who reports that there is a person trapped on the sixth floor on the side of the building facing Latimer Road station. CRO Russell confirms as being on the left hand side looking at the front door of the building. The person has been waving out of the window for about half an hour. CRO Russell confirms that she will pass this information to the crews.

Incident Number 76341, Call Duration 54 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00767).

**04:10:57** CRO Russell takes a call from a female caller reporting that her sister who is in flat 74 on the 10<sup>th</sup> floor (**03:53:10** GTIRT17-00758) has managed to get the front door open and is making her way

down the stairs. The caller has not heard from her to say they are outside but she thinks they are on their way. CRO Russell says she will pass on the information to crews.

Incident Number 76343, Call Duration 58 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00768).

**04:12:27** CRO Duddy takes a call from a male caller who has already called to let the Brigade know about someone waving a towel from the eighth floor and is wondering if anything will be done. CRO Duddy thanks the caller and says he will pass it on to crews.

Incident Number 76344, Call Duration 25 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00769).

**04:13:56** CRO Gotts takes a call from the BT Operator at Dundee trying to connect a caller who has cleared the line and passes the number to CRO Gotts. She says she will call back.

Incident Number 76345, Call Duration 29 Seconds (Source, BOSS Viewer, 999 Audio file: GTIRT18-03380). This is grouped with the call back below.

**04:16:21** CRO Gotts makes a call to a member of public who is reporting that cladding is falling in the surrounding area and he is concerned that the area is not secured and the debris might catch other things alight. The caller then says he is going to speak with "an officer" and ends the call.

Incident Number 76345, Call Duration one minute 54 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-01752).

**04:16:54** CRO Howson takes a call from a male caller who is with vulnerable adults with learning difficulties and wants to know if they need to evacuate. CRO Howson advises him that if they need to move someone will come and get them out.

Incident number 76347, Call Duration one minute 23 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00771).

**04:24:52** CRO Jones takes a call which is very difficult to hear. The caller states that the place is about to fall and that it does not seem that the Brigade are doing anything. CRO Jones reassures him that the Brigade are there and are dealing with the incident.

Incident Number 76349, Call Duration one minute 7 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00608).

**04:28** London Fire Brigade implement "RESTRICTED ATTENDANCE" procedure. Restricted attendance is used when there is extreme demand, either in a localised area or across the Brigade, where the normal attendance is temporarily reduced or suspended to manage demand. There are three types of restricted attendance: (Source, Vision).

- **Restricted Attendance** – During periods of extreme peak demand or due to other factors such as a flu pandemic, the Brigade, due to having a limited amount of available resources across its whole area, may instigate an attendance below the normally recognised level of mobilising to ensure the Brigade can still provide an appropriate level of London wide service. This is known as 'restricted attendance' and is implemented following authorisation from the duty Assistant Commissioner. Brigade Control may reduce attendances by 1 x Pumping appliance. In extreme circumstances Brigade Control may reduce all attendances to 1 x Pumping appliance.
- **Regulated attendance** - At times of high call volume that generate appliance standby moves, Brigade Control may instigate a short term measure that reduces normal attendances by 1 x Pumping appliance in specific localised areas to enable appliance standby moves to take place ensuring normal mobilising levels are maintained across the Brigade. This is known as 'regulated attendance' and is carried out following authorisation from the OM in Brigade Control.
- **Batch Mobilising** - Due to situations that occur when severe weather conditions are being experienced, the Brigade may receive a high volume of calls relating to special services. Brigade Control will prioritise these calls and priority attendance will be given to incidents that involve a risk of fire, explosion or injury and to calls received from hospitals, care homes, public utility services and food storage depots. All incidents of a lesser priority will be grouped in accordance with the locality and Control will pass calls to the station, and specify which appliance is to attend to deal with them. Where a large number of incidents occur on one or more station's ground a number of pumps may be ordered to stand by at those stations.

(Source, GTIRT17-00953: London Fire Brigade policy 412 – Mobilising policy Reviewed as current 13 July 2017. Policy extant at the time of the Grenfell Tower Fire was 01 November 2016).

**04:28:05** CRO Gotts takes a call from a BT Operator with a female caller on the line who asks for advice about her building and whether or not she should leave. CRO Gotts advises that she should stay put unless advised otherwise. She confirms that there is no fire in the caller's building at the time of the call.

Incident Number 76351, Call Duration one minute 18 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00773).

**04:23:31** CRO Duddy takes a call from Surrey FRS Control who have been asked by the Surrey FRS National Inter Agency Liaison Officer (NILO) to contact the Brigade and ask the Brigade's NILO to make contact. The CRO from Surrey says they have a 42 metre Aerial Ladder Platform. CRO Duddy goes away and speaks to someone but he cannot be heard. He comes back on the line and says the officer in charge says they do not need assistance at the moment but if they do they will ring back. (Source, NICE, Admin Phone Line Audio file:GTIRT18-01200) .



**04:33:41** CRO Duddy takes a call from flat 82 on the 11th floor who is with her daughter who is six and reports that they are still trapped in the flat. The caller explains that they have tried to get out but it is too hot. CRO Duddy states she needs to get out and tries to advise her to use wet towels but the caller gets very angry and says she has been on the phone for two hours and everyone is telling her the same thing. The caller starts screaming hysterically, stating that she cannot get out and she pleads with CRO Duddy to find out what is going on. She states that she is safe in her house at that moment but just wants to know if someone is going to come for them and CRO Duddy repeats that her only option is to get out. The caller then questions whether that means that no one is coming into the block and CRO Duddy tells the caller that they have to leave and it is their only choice. The caller ends the call.

Incident Number 76353, Call Duration two minutes 12 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00774).

**04:39:33** CRO Jones takes a call from the grandson of the resident in flat 81 who is seeking information about his Grandfather and what hospital casualties are being sent to. The caller explains that he has spoken to his grandfather and he is choking. CRO Jones explains that the Brigade doesn't have any information about casualties at the moment but that flat 83 is on the board as a flat that the Brigade has spoken to. The caller reminds her that it is flat 81 and CRO Jones states that is up there as well which leads the caller to ask about the outcome. CRO Jones says she doesn't have the information about casualties and the caller says he will not waste any more of her time and ends the call.

Incident Number 76355, Call Duration two minutes 20 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00775).

**04:41:00** CRO Duddy takes a call from a female caller who is calling about her father-in-law in flat 83 on the 11th floor who is disabled, blind and elderly who wouldn't be able get out on his own. She explains that she has been speaking to him only two minutes before on the landline which has now gone dead. She explains that he says it has got very hot and that his front door is very hot. She has given him the guidance passed to her by the Brigade but is after any update. CRO Duddy explains that the Brigade are working their way through the building.

Incident Number 76357, Call Duration two minute 22 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00776).

**04:42:15** CRO Jones takes a call from a female caller who reports that she has just woken up and opened her curtains and can see thick black smoke in the distance. She is calling from W5. CRO Jones explains about the fire in Grenfell Tower and that the Brigade is in attendance.

Incident Number 76358, Call Duration 44 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00777).

**04:43:02** CRO Gotts takes a call from Sam Kindred, from the Brigade counselling and wellbeing service following a paging request. CRO Gotts transfers to SOM Smith and he advises her that he has spoken to Anne Scoging (Head of Counselling and Wellbeing service) and that they are formulating a plan and will be back in touch shortly. (Source, NICE, Admin Phone Line Audio file: GTIRT18-01212).

**04:44:57** CRO Gotts takes a call from a caller stating that they have family members still stuck in flat 182 on the 21st floor. The caller gives the family name El-Wahabi. CRO Gotts says I have passed that to the firefighters, and they do know about them.

Incident Number 76359, Call Duration 32 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00778).

**04:46:42** CRO Jones takes a call from a caller reporting that her brother-in-law is trapped inside the tower in flat 72 on the 10th floor and cannot come out because it is too smoky and he thinks he will die if he comes out. CRO Jones takes the call and asks when the caller last spoke to her brother-in-law and she says about one second ago and CRO Jones tells her to stay on the phone while she updates officers. The line then goes silent.

Incident Number 07363, Call Duration 46 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00779).

**04:48:27** This is a continuation of the call at **04:46:42**. CRO Jones comes back on the line and explains that she has let the senior officers know and they will pass it to the fire engines that are there. The caller passes the mobile number of the resident to CRO Jones. The caller says that her brother-in-law is very scared and won't come out until someone comes to get him.

Incident Number 07363, Call Duration one minute 28 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT18-03382).

**04:49:59** CRO Jones makes a call to the mobile number given to her by the caller at **04:48:27**. She speaks to the resident and explains that she has spoken to his sister-in-law. CRO Jones explains that she has told the firefighters that he is there and the caller says he has tried to get out but the smoke is too thick. He says he is safe in his flat and that the smoke alarm has stopped actuating. He explains that he has some fresh air from the windows and there is no fire on his floor and he is staying put as he feels this is safer than trying to get out. CRO Jones says he should call 999 if conditions change. He reiterates that the stairs are too dark and smoky and he doesn't think

anyone should take any risks to come and get him. (Source, NICE, Admin Phone Line Audio file: GTIRT18-03379).

**04:51:23** CRO Duddy takes a call from the sister-in-law of the resident of flat 72. She refers to a call she just had with the Brigade which is very likely to be the call received at **04:49:59**. The caller repeats the details to CRO Duddy who states that if she is in contact with him, she should tell him to leave the building. She tells him that her brother-in-law thinks he will die if he tries to leave the flat because of the smoke and CRO Duddy confirms that the only option is for him to make his way down the staircase.

Incident Number 76365, Call Duration one minute 11 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00780).

**04:52:18** AOM Norman takes a call from Matthew Hogan from London Resilience Group who has called back to speak to SOM Smith to confirm that an engineer is on site now and has been given AC Richard Mills's details. SOM Smith says she will pass on the information on. (Source, NICE, Admin Phone Line Audio file: GTIRT18-01218).

**04:55:27** CRO Duddy takes a call from a female caller to say she has just woken up and she can see a big bellowing fire coming from Grenfell Tower. CRO Duddy reassures her that the Brigade is in attendance.

Incident Number 76367, Call Duration 24 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00781).

**05:00:43** CRO Adams takes a call from Anne Scoging who calls to speak to SOM Smith and informs her that she will attend Stratford to give support to Control staff. (Source, NICE, Admin Phone Line Audio file: GTIRT18-01224).

**05:05:45** CRO Gotts takes a call from a male caller who gives his name as Antonio and states that he is in flat 72 on the 10th floor. The caller explains that he is in no danger at the moment and has a window open that is providing fresh air but goes on to explain that he cannot leave the flat because it is too smoky outside his door and he is likely to become unconscious. CRO Gotts asks if he could leave if he covers himself in wet towels and the caller states that he cannot. The caller explains that he just wants to make sure the Brigade is aware of his location and CRO Gotts says she will pass on the details to the crews.

Incident Number 76372, Call Duration two minutes and 25 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00783).

**05:05:57** CRO Fox takes a call from a male caller outside the tower who says his family members are in flat 113 on the 14th floor with three children. He explains that the fire service were spraying water on the flat but this has stopped. CRO Fox tries to confirm the number of people and the caller says there are a lot of people including neighbours in his flat. CRO Fox explains that the fire service are still dealing with the situation and she will pass on the information to crews.

Incident Number 76371, Call Duration one minute 6 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00782).

**05:11:34** CRO Duddy takes a call from the sister-in-law of Antonio in flat 72 and she reports that she has spoken with him and he is too afraid to come out. She pleads for someone to check the flat. CRO Duddy advises that the crews are working their way through the block.

Incident Number 76375, Call Duration one minute 15 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00784).

**05:17:22** CRO Fox takes a call from the sister-in-law of Antonio in flat 72 on the 10<sup>th</sup> floor reporting again that her brother-in-law is too scared to leave and asks for someone to check on him. CRO Fox says she will pass on the information to the crews at the incident.

Incident Number 76376, Call Duration one minute 1 second (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00785).

**05:22:22** CRO Howson speaks to the sister-in-law of Antonio in flat 72 and she explains again that her brother-in-law is trapped and wants to know if anyone has checked on his flat. CRO Howson asks her to hold the line and when she comes back, CRO Howson explains that she will speak to the crews at the scene. CRO Howson also tells her that if she speaks to him again tell him to call the Brigade on 999.

Incident Number 76378, Call Duration two minutes 42 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00787).

**05:25:49** CRO Fox takes a call from Antonio's sister-in-law again. CRO Fox explains that he should try and get out and the caller explains that he is too scared to leave and pleads with CRO Fox to get someone to go and guide him out as the smoke is too thick to get through. CRO Fox tries to reassure her that someone will get there but there are lot of people who are trapped throughout the building. The caller repeats her plea for someone to go and help guide him out. CRO Fox states that crews are aware of his location but states that Antonio needs to try and get out.

Incident Number 76377, Call Duration four minutes 20 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00786).

**05:31:00** CRO Gotts takes a call from the daughter-in-law of a resident in flat 83 on the 11th floor. She explains that she last spoke to her father-in-law about 40 minutes ago until the line went dead and is calling in case there is an update. The caller reminds CRO Gotts that he is blind and disabled. CRO Gotts confirms that the details have been passed to the incident ground and also informs the caller that she thinks she spoke to the resident earlier on.

Incident Number 76380, Call Duration three minutes 8 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00788).

**05:31:49** CRO Howson takes a call from the sister-in-law of Antonio in flat 72 on the 10th floor. The caller repeats her plea for the Brigade to go and get him. The caller starts begging CRO Howson to go and help. CRO Howson tries to reassure her that the Brigade is doing everything they can to get to him and as soon as they can get to him safely, they will do.

Incident Number 76383, Call Duration two minutes 47 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00791).

**05:32:38** CRO Duddy takes a call from a female caller who states that there is a man on the roof of Grenfell Tower live on Facebook. She explains that the footage is being played out on Facebook live and says he is waving his arms. CRO Duddy says he will pass on the information to the crews.

Incident Number 76381, Call Duration one minute 2 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00789).

**05:34:02** CRO Jones takes a call from a female caller who says she is watching the Grenfell fire on the news and one of her friends is near there and has seen a "guy on the roof". They explain he is right in the middle of the smoke. CRO Jones asks how long ago did the caller see the person and the caller says a couple of minutes ago. The caller says it is live and seen by the caller on camera. CRO Jones confirms the details that the man is on top of the building and says she will pass the information on.

Incident Number 76382, Call Duration 58 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00790).

**05:36:43** CRO Howson takes a call from a caller who explains that she is watching a live video on Facebook of a man on the roof at Grenfell Tower waving for help. CRO Howson explains that the Brigade are aware.

Incident Number 76385, Call Duration 34 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00793).

**05:38:14** CRO Jones takes a call from the same caller who rang at **05:34:02** who has called back to say that her friend who had originally made the claim about the man on the roof has now zoomed in with a high definition camera and it is a piece of cladding not a person. CRO Jones says she will pass on the information to the crews.

Incident Number 76384, Call Duration one minute 21 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00792).

**05:38:40** CRO Duddy takes a call from the sister-in-law of Antonio in flat 72 to ask if anyone has checked on the flat yet. CRO Duddy asks what the conditions are like in the flat and the caller explains that the conditions are not too bad inside his flat but they are outside. CRO Duddy reassures her that they will get there as soon as possible but also states that he should try and leave. The caller repeats that he will not leave because he is too scared.

Incident Number 76386, Call Duration one minute 50 seconds (Source, BOSS Viewer, 999 Audio file and Transcript:: GTIRT17-00794).

**05:42:47** CRO Gotts takes a call from the sister-in-law of Antonio in flat 72 who reports that her brother-in-law is not answering his phone anymore. The caller asks if CRO Gotts is able to check if anyone has been to the flat and CRO Gotts explains that there is no feedback from the incident ground. CRO Gotts states that she has spoken to his neighbour as well who is currently alright in their flat.

Incident Number 76387, Call Duration two minutes 41 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00795).

**05:46:15** Control take a call from WM Meyrick on the Command Unit asking to speak to SM Oliff. The Command Unit are requesting more information about the person on the roof and SM Oliff is able to confirm that it is not a man but a piece of cladding. SM Oliff also passes on the message about Antonio in flat 72. (Source, NICE, Admin Phone Line Audio file: GTIRT18-00515).

**05:55:11** AOM Ranson takes a call from Command Unit 7 who asks for confirmation that there is only one current FSG call and that it is in flat 72. AOM Kate Ranson, who has arrived at Brigade Control early for her day shift and takes up the role of supervisor to assist the night watch, states that there are no FSG calls at the moment. (Source, NICE, Admin Phone Line Audio file: GTIRT18-00505).

**05:56:36** CRO Gotts takes a call from a caller who is reporting a block of flats on fire. CRO Gotts confirms where the caller is and asks her if she thinks it is Grenfell Tower and the caller confirms that this is correct. CRO Gotts confirms that the Brigade is in attendance.

Incident Number 76390, Call Duration 47 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00796).

**05:58:09** CRO Gotts takes a call from a caller that gives her name as Maria who explains that her ex-husband is stuck in his flat in Grenfell Tower. She states that he will not leave and is now not answering his phone. CRO Gotts confirms his location as flat 72 on the 10th floor and states that she will pass the information to the firefighters and ask them to check and explains that the Brigade have made progress in the last hour and crews will check on him.

Incident Number 76391, Call Duration one minute 53 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17- 00797).

**06:01:02** CRO Gotts takes another call from the sister-in-law of Antonio in flat 72 who explains that her brother-in-law may have fainted and asks what will happen if someone knocks at the door. CRO Gotts explains that the crews will force entry to the flat if necessary.

Incident Number 76392, Call Duration 40 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00798).

**06:14:47** CRO Gotts takes a call from a male caller is in St Quintin Avenue W10, which is approximately 600 metres due North of Grenfell Tower. He says he can see a huge pile (sic) of smoke. He says he is in the Ladbroke Grove area. CRO Gotts says that there is a fire in Grenfell Tower that is near Latimer Road station. The caller seems satisfied that this is the right place. CRO Gotts tells him the Brigade is there and dealing with the incident.

Incident Number 76398, Call Duration 55 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00800).

**06:32:29** CRO Howson takes a call from the sister-in-law of Antonio in flat 72 on the 10th floor who is asking for an update. CRO Howson asks the caller for a name and contact number for the caller which is provided. CRO Howson states that a Brigade officer is making some phone calls and says she will try and find some information for her and call back.

Incident Number 76402, Call Duration two minutes (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00801).

At this point the calls that have been taken and the details recorded by Control since **04:00** hours are summarised in the table below.

Time of Call	Flat Number	Floor number	Number of people confirmed by caller	Remarks
04:01:02	204		1 adult	Daughter calling on behalf of her father
04:33:41	82	11	2 adults 1 child	Caller says there is a fire on the stairs
04:41:00	83	11	1 adult	Female caller who is calling about her father-in-law. This man is disabled and blind. He cannot get out without assistance
04:44:57	182	21		Caller is outside and says members of his family are trapped. He gives the family name as El-Wahabi
04:46:42	72		1 adult	A female caller reports that her brother-in-law is trapped inside the tower.
04:51:23	72		1 adult	The sister-in-law of the resident of flat 72 calls again to say her brother-in-law will not leave the building.
05:05:45	72	10	1 adult	Name of resident given by caller as Antonio. Caller is his sister-in-law. He cannot leave the flat because it is too smoky outside his door.
05:05:57	113	14		Caller is outside the building and says family member trapped with 3 children and "lots" of people
05:11:34	72	10	1 Adult	Sister-in-law of Antonio calling back to ask if he has been rescued
05:17:22	72	10	1 Adult	Sister-in-law of Antonio calling back to ask if he has been rescued
05:22:22	72	10	1 Adult	Caller is sister-in-law. CRO says she will pass on again



05:25:49	72	10	1 Adult	Sister-in-law of Antonio calling back to ask if he has been rescued
05:31:00	83	11	1 adult	This man is disabled and blind. He cannot get out without assistance. The caller is his daughter-in-law.
05:31:49	72	10	1 adult	Sister-in-law of Antonio calling back to ask if he has been rescued
05:38:40	72	10	1 adult	Sister-in-law of Antonio calling back to ask if he has been rescued
05:42:47	72	10	1 adult	Sister-in-law of Antonio calling back. She says he has stopped answering his phone
05:58:09	72	10	1 adult	This caller says she is the ex-wife of Antonio and says he will not leave and is now not answering his phone.
06:01:02	72	10	1 adult	Sister-in-law of Antonio calling back for an update
06:32:29	72	10	1 adult	Sister-in-law of Antonio calling back for an update. Gives her name as Maria to Control Room Operator.

**06:34:36** CRO Fox takes a call from a male caller who states that he can see someone on the eighth floor. He explains that it is a man and he thinks he is on the right hand side of the building when looking at the entrance and that he is three balconies along. The caller states that the man has been there for hours. CRO Fox says she will pass the information to the scene.

Incident Number 76403, Call Duration two minutes 49 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00802).

**06:37:17** CRO Howson makes a call to Maria, the sister-in-law of Antonio who is a resident in flat 72. She gives the information that crews are doing a sweep of floors eight, nine,10 and 11. CRO Howson clarifies that the crews are going door to door on those floors. Maria states that someone that they know has spoken to Antonio and he is now out of the building. (Source, NICE, Admin Phone Line Audio file: GTIRT18-01324).

**06:46:56** CRO Fox takes a call from a member of the public who states that she has a family member who is in the building and the caller asks if there is a number that she can call to get information. CRO Fox says that she doesn't have any numbers and explains that would be down to the MPS.

Incident Number 76405, Call Duration one minute 4 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00803).

**06:50:09** SOM Smith makes a call to Surrey FRS to take up the offer of the 42 metre aerial appliance. This offer is made during the call taken at **04:23:31** and she gives the rendezvous point location as Ladbrooke Grove, junction of Elgin Crescent in Kensington. She gives them airwave radio channel of FLON Ops 4 to use. The Surrey CRO gives the call sign of the appliance as S13A1. Surrey provide their reference as 12122 and state that they will call back with an estimated time of arrival. (Source, NICE, Admin Phone Line Audio file: GTIRT18-01330).

**06:57:19** CRO Adams takes a call from a male reporting that there is someone stuck in Grenfell Tower. The caller explains that he has called before but about someone else. This person is at the window looking down at the caller, indicating that it is the eighth floor. He then explains that this is a female and she is at the window, on the right hand side of the building and is four columns across near the corner of the building and he cannot see the Brigade. CRO Adams says she will tell them at the incident but also asks if the caller could tell the crews at the scene as well.

Incident Number 76410, Call Duration three minutes 16 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00805).

**06:58:47** CRO Jones takes a call from a female caller who reports a fire in a tower block. CRO Jones explains there is a fire in Grenfell Tower in the Ladbrooke Grove area and the caller confirms that is where she is calling from. CRO Jones confirms that the Brigade is in attendance.

Incident Number 76407, Call Duration 41 seconds (Source, BOSS Viewer, 999 Audio file and Transcript: GTIRT17-00804).

**07:04:15** CRO Tom Stibbards takes a call from Surrey FRS informing them that the aerial appliance has been mobilised and they predict that they will be at the scene in approximately 40 minutes. (Source, NICE, Admin Phone Line Audio file: GTIRT18-01337).

**07:42:59** The Radio Operator at Brigade Control sends message to Command Unit 8.

*"Charlie Uniform 8, Charlie Uniform 8 from M2FN, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03335).

**07:43:07** Command Unit 8 respond to the Radio Operator at Brigade Control.

*"FN, Charlie Uniform 8, go ahead".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03336).

**07:43:10** Radio Operator at Brigade Control sends informative message to Command Unit 8

*"Charlie Uniform 8, where the hose is currently hitting the window, the male that's still in the building is one floor below, over – one win-, one window below"*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03337).

**07:43:22** Command Unit 8 repeat the informative message from Radio Operator at Brigade Control.

*"FN, Charlie Uniform 8, just to confirm, there is hose coming from a window and the gentleman is on the floor below".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03338).

**07:43:43** The Radio Operator at Brigade Control sends informative message to Command Unit 8.

*"Charlie Uniform 8, the hose that's being put on the south side of the building, the male is at a window one floor below, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03339).

**07:43:53** Command Unit 8 acknowledges receipt.

*"Charlie Uniform 8, all received. Will pass, er, to the fire survival command unit".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03340).

**07:50:41** The Radio Operator at Brigade Control sends message to Command Unit 8.

*"Charlie Uniform 8, Charlie Uniform 8 from M2FN, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03345).

**07:50:48** Command Unit 8 respond to the Radio Operator at Brigade Control.

*"FN, Charlie Uniform 8, go ahead".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03346).

**07:50:51** The Radio Operator at Brigade Control sends informative message to Command Unit 8

*"Charlie Uniform 8, the police have now stated that the male is back at the window. They're asking to confirm what we're doing to try and rescue this male, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03347).

**07:51:02** Command Unit 8 respond to the Radio Operator at Brigade Control.

*"FN, Charlie Uniform 8, er, all received. Er, I will, er, get in contact with CU7 and, er, update them on this information".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03348).

**07:51:24** The Radio Operator at Brigade Control sends message to Command Unit 7.

*Charlie Uniform 7, Charlie Uniform 7 from M2FN, over.*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03349).

**07:51:32** Command Unit 7 acknowledges receipt.

*"Charlie Uniform 7, go ahead, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03350).

**07:51:36** The Radio Operator at Brigade Control request further information from Command Unit 7.

*"Charlie Uniform 7, do you have any information as to what you're doing to rescue the male from the window, over"*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03351).

**07:51:42** Command Unit 7 request repeat of message from Radio Operator at Brigade Control.

*"FN, from Charlie Uniform 7, say again, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03352).

**07:51:46** The Radio Operator at Brigade Control repeat message.

*"Charlie Uniform 7, can you confirm to us what is in place for rescuing this male at the window, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03353).

**07:51:58** Command Unit 7 send informative message to the Radio Operator at Brigade Control.

*"FN, from Charlie Uniform 7, we are committing crews to the 11<sup>th</sup> floor, but access is difficult at the moment, over".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03354).

**07:52:09** The Radio Operator at Brigade Control acknowledges receipt.

*"Charlie Uniform 7, that's all received, M2FN out".*

(Source, NICE, Radio Message Audio file and Transcript: GTIRT17-03355).

Pages 158 to 171 contains a summary table of all of the calls taken by the Control Room from people involved in the Grenfell fire. The table includes the flat numbers and floors of where callers themselves, friends, relatives and other fire and rescue services have reported being during the fire.

## Call Summary Table

Time of Call	Flat Number	Floor number	Number of people confirmed by caller	Remarks
01:21:24	195	22		Smell of smoke
01:24:57				The fire is in the kitchen.
01:25:16	111	14		Trapped by smoke
01:25:36	91	12		
01:26:58	95	12		Caller says "we" but numbers not recorded by Control
01:28:26	82	11		
01:30:00		23		Moved from 22nd floor to 23rd floor.
01:30:02	175	20	5	Smoke coming into the flat
01:30:08	201	23	11	Caller gives her name as Jessica
01:30:08		22	1	Male caller
01:30:38		22		Female caller who says she is in someone else's flat. No total number of people asked for
01:32:10		Top flat		Caller is a young person and says there are about 8 kids and a lot of adults
01:33:01	82	11	1 adult and 1 child	
01:33:12		11		Caller says the fire is in his flat and told the BT operator he was on the 11 <sup>th</sup> floor
01:33:55		18	4	Caller says she is pregnant
01:34:50	192	22		
01:36:23	9		5	Includes 1x Wheelchair user
01:37:58	113	14	1 Adult and 1 Baby	

01:38:02	142	17	5 people	Smoke coming in the flat
01:38:16	205	23	7 people	
01:38:18	115	14	1 adult 1 child	
01:38:37	95	12		Caller states there are children in the flat
01:38:38	182	21	2 adults 3 children	Caller ends up in bedroom , told to leave after around 57 mins on the line
01:39:15	204	23	1 adult	Cannot see to get out
01:40:17	111	14	1 adult	
01:41:18	201	23	"About 10"	This is a call taken by NWFC and the caller is identified by herself as Debbie and says there are about 10 of us.
01:41:21	73	10		Caller told to stay where they are and wait for someone to come and get them
01:43:14	175	20	2 adults 3 children including a baby	Caller says there is black smoke in the hallway
01:43:19	82	11		Caller states she has a daughter but it is not clear if she is in the flat.
01:44:33	95	12		Caller says that embers have come up and in the window and have started a fire in the kitchen of flat 96 next door
01:46:18	133	16		Caller states there is smoke coming from the front door
01:47:49		10		A young child states there is smoke in the corridor but other residents are leaving
01:48:00	193	22		Call taken by Essex Fire and Rescue Service. It is not clear at this point if this is passed to the Brigade
01:48:23	111	14		This is a second call. the

				<p>name of the person trapped is given as Dennis Murphy.</p> <p>This first call is passed at <b>01:43:13</b> but just as floor 14. There is no firm evidence that this is the same person. It does sound very similar but no names are collected to be able to verify. This flat detail is also passed at <b>01:53:05</b> as 1 male who is trapped in his bathroom and is having difficulty breathing</p>
01:48:23	115	14	1 adult and 1 baby	Caller explains that there is smoke is coming into her flat via the door and windows
01:50:03	194	22		Caller states that smoke is coming through the windows and that he can't see anything
01:54:14	95	12	1 adult and 2 Children	Caller says he can hear the fire next door.
01:54:23	205	23	7 people	Caller says that the fire is going to come through the window
01:56:20	165	19	2 adults and a dog	Caller explains that smoke is visible outside the flat in the corridor
01:57:16	203	23		Caller from outside says aunt and her 2 daughters are trapped in the flat
01:57:45	92	12		Caller reports that they tried to get out but it is full of smoke and they cannot breathe
02:00:11	74	10	2	Caller states there is smoke in the flat
02:00:33	194	22		Caller explains that it is black in the flat and that he cannot see anything
02:02:47	82	11	2 adults 1 child	Passed to Command Unit 8 @

				02:09:25
02:03:47	192	22		Passed to Command Unit 8 @ 02:09:25
02:05:25	203	23	5 adults 2 children	
02:08:48	175	20	2 adults 2 children and 1 baby	
02:10:31	192	22	2 adults 3 children	
02:10:33	133	16	2 adults named as Sener and Hanife	Call taken by North West Fire Control
02:12:50		14		Call taken by NWFC. Call cuts off during before all details are captured
02:13:03	165	19	2 adults and 1 dog	Callers gives his name as Nick Burton
02:13:12	82	11		Caller gives her name as Natasha Elcock
02:15:07		12	3 people	
02:17:24	115	14		Caller is from outside the tower and the is brother of the resident. He says his sister and her son are trapped.
02:18:06	192	22	2 adults 3 children	
02:18:55	82	11	1 Adult	Name given to Essex Fire and Rescue Service as Natasha Elcock
02:21:04	183	21	3 adults 3 children. One adult is pregnant	Neighbour is in the flat.
02:21:32	*192	22		*The caller gives their flat number as 203 on the 23 <sup>rd</sup> floor. However when the CRO summarises the call and says she will pass on the details she says 192 on the 22 floor
02:24:19	94	12	2 Adults	
02:24:25	194			



02:25:38	205	23	7 adults	Told to leave by Control Room Operator
02:26:48	173	20	2	Caller explains that she has opened the front door and it is very smoky outside
02:27:12	142	17	5 Adults including 2 elderly people	Caller states that the fire is right next to the window
02:28:09	73	10		Caller explains that they have blocked the doors but that it is getting very hot
02:28:53	194	22	1 elderly male	Call is from daughter-in-law. Call is taken by Surrey Fire and Rescue Service. Resident is trapped.
02:29:34		13 or 14	1 adult and 1 baby	There is some confusion between the BT operator and the Brigade Control which floor he is on.
02:30:45	194	22		Daughter-in-Law reports Father-in-Law is trapped
02:30:51	192	22		This is a call from the MPS to the Brigade to pass on information. The MPS CRO states that a lady rang to report that her friend, her friends husband and three children were trapped.
02:31:49		14		
02:32:30	153	18	4 adult	
02:32:41	82	11		
02:34:16	192	22		Told to leave by Control Room Operator
02:34:42	153	18	4 adults including a pregnant lady and 5 children	
02:35:31	152	18		Shouts for help and gives flat number. Not totally clear if they are in the tower

02:36:07	204	23		Man is disabled and has difficulty moving on his own
02:36:12	204	"Top"		
02:36:47	73	10	4 people	
02:37:00	193	22	6 adults and 2 children	
02:37:56	82	11	2 adults 1 child	Caller says they are spraying her windows
02:38:54	92			
02:40:47	194			Call taken by BT and passed to NWFC
02:41:31	133	16	2 adults	Tried to leave but had to turn back because of the smoke
02:41:46	192		2 adults and 3 children	
02:42:06	203	23	5 adults 2 children	
02:42:08	94	12	2 people, Caller and her sister	Smoke filling the flat. Told to leave
02:42:14	153	18		Caller states there are about 9 people.
02:43:08	73	10	4 people	
02:43:54	182	21	3 adults 2 children	
02:43:55	193	22	8 people	
02:44:41	82	11	2 adults 1 child	
02:45:22	192	22	2 adults and 3 children	Caller told to leave the building
02:45:35	152	18	1 pregnant adult and 3 children	This is a call from the MPS to the Brigade to pass on information.
02:45:45		22		Surrey Fire and Rescue Service call from daughter-in-law. CRO says she will pass mobile number to the Brigade and also ask them to ring resident

02:46:42	182	21	5 People	Caller told to leave the building
02:46:58	183			Caller told to leave the building
02:47:37	81	11 or 14		Merseyside Control call about a father stuck in the flat. They say 11th or 14th floor.
02:48:22	153	18		Caller is a child who passes phone to their mum during the call. Caller told to leave the building
02:48:49		22		Information about a 70 year old male passed by Surrey FRS to Brigade
02:49:05	133	16	2 adults	Caller says he is with his wife. Caller told to leave the building
02:49:20		22		
02:50:48		12	1 adult 2 children	Caller says he has a brother and mum with him. He is told to leave the building
02:51:00	153	18	4 adults 5 children	Told to leave the building
02:51:06		21		Told to leave the building
02:51:09	193	22	10 people	Told to leave the building
02:52:20	73			Told to leave the building. Caller is friend outside. The caller is also told that they should tell their friend to dial 999 if they want more advice.
02:52:51	153	18		Told to leave the building. The call is taken by Essex Fire and Rescue Service
02:53:17	192			Told to leave
02:53:57	182	21		Told to leave the building

02:54:21	194	22		This is a friend of a resident calling from outside the building. She says she can see him at the window.
02:54:31	153	18	1 adult and 3 children	This call is from a male outside the premises
02:55:38	183	21	3 adults including 1 pregnant wife and 3 children	Told to leave. Caller says they cannot. Told to get fresh air from a window
02:55:59		22		Fire is in the flat. Told to leave the building
02:56:04	73	10	4 adults	Told to leave the building
02:56:51		20		Caller is from outside the Tower and is calling about her friend who is stuck.
02:57:18	73	10		This is a call from a friend outside the building and caller says 4 people in the flat. The CRO tells the caller to pass on advice to get out
02:57:32	73	10		This is Fire Survival Guidance where Kent Fire Control are on call until 04:30
02:57:59	92	12		Told to get out and that it cannot be guaranteed that the fire service will get to you.
02:58:42	203			Brother calling from outside the building and he says his sister, 2 children and neighbour are in the flat. Told to pass on advice to leave the building.
02:58:44	94			Told to leave the building
02:58:52	83			This is a call from the daughter of the resident. She says he is blind and disabled.

02:59:04	73	4*	4 people	This call is taken by Kent Fire and Rescue Service. They speak to a resident from flat 73. *The Kent operator says the 4 <sup>th</sup> floor but flat 73 is on the 10 <sup>th</sup> floor.
02:59:10	72	10		Caller is son and says the resident is not affected by the fire or smoke yet. Told that he needs to try and get out
03:00:10	153	18	4 adults and 5 children	This is a call taken by Essex Fire and Rescue Service. The caller is adamant that he cannot leave because it is too smoky
03:00:50	82	11		Told to leave the building and make a run for it
03:01:20	194	22		Caller trapped by smoke. Told to try and get out.
03:01:27		16		Daughter of resident says her parents can't breathe. London CRO advises daughter to tell parents to leave building.
03:02:06	193	22	20 people	Told to leave the building
03:02:27	133	16	2 people	Told to leave the building
03:03:05	82	11		Caller told to leave the building, says she is going to leave.
03:03:45		15		Caller told they need to leave the building.
03:03:48	123	15		BT operator gives flat detail. Caller cuts off before the call can be put through
03:03:56	73	10	4 adults	This call is passed by Kent Fire and Rescue Service. Linked to Fire Survival Guidance call <b>02:57:32 and</b>

				<b>03:06:57.</b>
03:04:25		20		Call is from a friend of a resident who is communicating with them via Facebook. Caller says his friend is with her mum. He is told to tell her to leave the building.
03:04:52	82	11	3 people	Tried to leave but too hot in the corridor
03:05:09	193	22		Told to leave the building
03:05:38	194	22		Daughter-in-law calling Surrey Fire and Rescue Service.
03:06:06	113	14	1 adult 1 baby	Told to leave the building
03:06:35	204		1 adult	Daughter is caller. Told to tell her Dad to leave the building.
03:06:57	73	10	4 adults	Told to leave the building.
03:07:13		22	12 people	Told to leave the building
03:08:01	92	12	1 adult 2 children	Caller stays on the line until they exit the building at <b>03:20</b>
03:08:56	193	22	20 people	Told to try and get out. Told ladders are being sent.
03:09:17	123	15		Call from NWFC passing information about a call taken by them to Brigade. Brigade pass information to NWFC that the advice now being given to callers is to get out
03:09:18	143	17	5 people	Told that they need to get out
03:09:52	183	21	3 adults 3 Kids (Pregnant wife)	Told to leave the building
03:10:26	194		1 adult	Call from Surrey Fire and Rescue and Service, call from son in Surrey. Mobile of resident given to CRO Jones

03:10:34	204	23		Disabled man cannot get out of his flat on his own
03:12:56	133	16	2 adults	Advice to get out. Told they need to try.
03:13:06	82	11		Told to leave the building
03:15:20	124	15	1 adult	Told to leave
03:16:12	204	Top	1 adult	Disabled man cannot get out of his flat on his own. Call from his daughter. Told to pass on advice to get out.
03:17:05	113		1 adult and 1 baby	Told to leave.
03:17:18	173	20		Information from BT. Call back offered by Brigade
03:18:45	142	17		Told to leave but caller says they cannot leave
03:18:49	173	20	2 adults	This information comes from the caller who is being messaged by friend in the tower
03:20:31	204	Top floor		Disabled man cannot get out unaided. Told to leave the building
03:22:35	124	15		Told to get low. 2 options given. Stay or get out.
03:22:51	249*	22		Caller is wife of resident. *There is no flat 249 in Grenfell Tower. Believed to be 194.
03:24:02	193	22	12 adults 7 children	Told explicitly to get out. Told that they will die if they don't get out.
03:25:45	183	21	3 adults 3 children including pregnant woman	Male caller exits with CRO on phone. Call ends at <b>03:59:38</b>
03:26:04	153	18	1 adult and 3 children	Caller is from the husband who is outside the tower.

03:29:14	74	10	2 people	Caller is possibly outside and reports 2 people are stuck in flat 74
03:29:40	73	10	4 Adults	Call from Kent Fire and Rescue Service. Given the advice to leave. Kent Fire and Rescue Service says they cannot get out
03:31:47	124	15	1 adult	This is a call from "Christos". He is told to leave the building and the CRO stays on the line while he makes his way out but the line drops out
03:33:41	173	20		Caller is from a friend outside the building in contact with a resident via Facebook. They are told to tell them to leave the building.
03:33:46	82	11	2 adults and 1 child	Caller gives her name as Natasha and her daughter is Shyla. They have tried to get out but cannot. Husband is also with them
03:33:46	133	16		Told to leave. Caller says they cannot get out.
03:38:26	204	"Top floor"		Daughter calls from outside the building reporting male resident who is disabled and unable to move without help.
03:45:01		16		Caller is a relative outside the building. Told to pass on advice to leave the building
03:51:19	73	10		Told to leave the building.
03:53:10	74	10	2 adults	This caller is outside calling on behalf of her sister who is with another friend. Given advise to pass onto the residents of leaving the building
03:57:28	83	11	1 adult	Caller is daughter-in-law.



				Resident is elderly blind and disabled.
04:01:02	204		1 adult	Daughter calling on behalf of her father
04:33:41	82	11	2 adults 1 child	Caller says there is a fire on the stairs
04:41:00	83	11	1 adult	Female caller who is calling about her father-in-law. This man is disabled and blind. He cannot get out without assistance
04:44:57	182	21		Caller is outside and says members of his family are trapped. He gives the family name as El-Wahabi
04:46:42	72		1 adult	A female caller reports that her brother-in-law is trapped inside the tower
04:51:23	72		1 adult	The sister-in-law of the resident of flat 72 calls again to say her brother-in-law will not leave the building.
05:05:45	72	10	1 adult	Name of resident given by caller as Antonio. Caller is his sister-in-law. Name of resident given by caller as Antonio. He cannot leave the flat because it is too smoky outside his door.
05:05:57	113	14		Caller is outside the building and says family member trapped with 3 children and "lots" of people
05:11:34	72	10	1 Adult	Sister-in-law of Antonio calling back to ask if he has been rescued
05:17:22	72	10	1 Adult	Sister-in-law of Antonio calling back to ask if he has been rescued
05:22:22	72	10	1 Adult	Caller is sister-in-law. CRO

				says she will pass on again
05:25:49	72	10	1 Adult	Sister-in-law of Antonio calling back to ask if he has been rescued
05:31:00	83	11	1 adult	This man is disabled and blind. He cannot get out without assistance. The caller is his daughter-in-law.
05:31:49	72	10	1 adult	Sister-in-law of Antonio calling back to ask if he has been rescued
05:38:40	72	10	1 adult	Sister-in-law of Antonio calling back to ask if he has been rescued
05:42:47	72	10	1 adult	Sister-in-law of Antonio calling back. She says he has stopped answering his phone
05:58:09	72	10	1 adult	This caller says she is the ex-wife of Antonio and says he will not leave and is now not answering his phone.
06:01:02	72	10	1 adult	Sister-in-law of Antonio calling back for an update
06:32:29	72	10	1 adult	Sister-in-law of Antonio calling back for an update. Gives her name as Maria to Control Room Operator.

### **Calls managed by other control rooms**

Control Room	Number of Calls
Surrey Fire and Rescue Service	9
Kent Fire and Rescue Service	11
Essex Fire and Rescue Service	7
North West Fire Control	30
Merseyside Fire and Rescue Service	1
London Ambulance Service	26

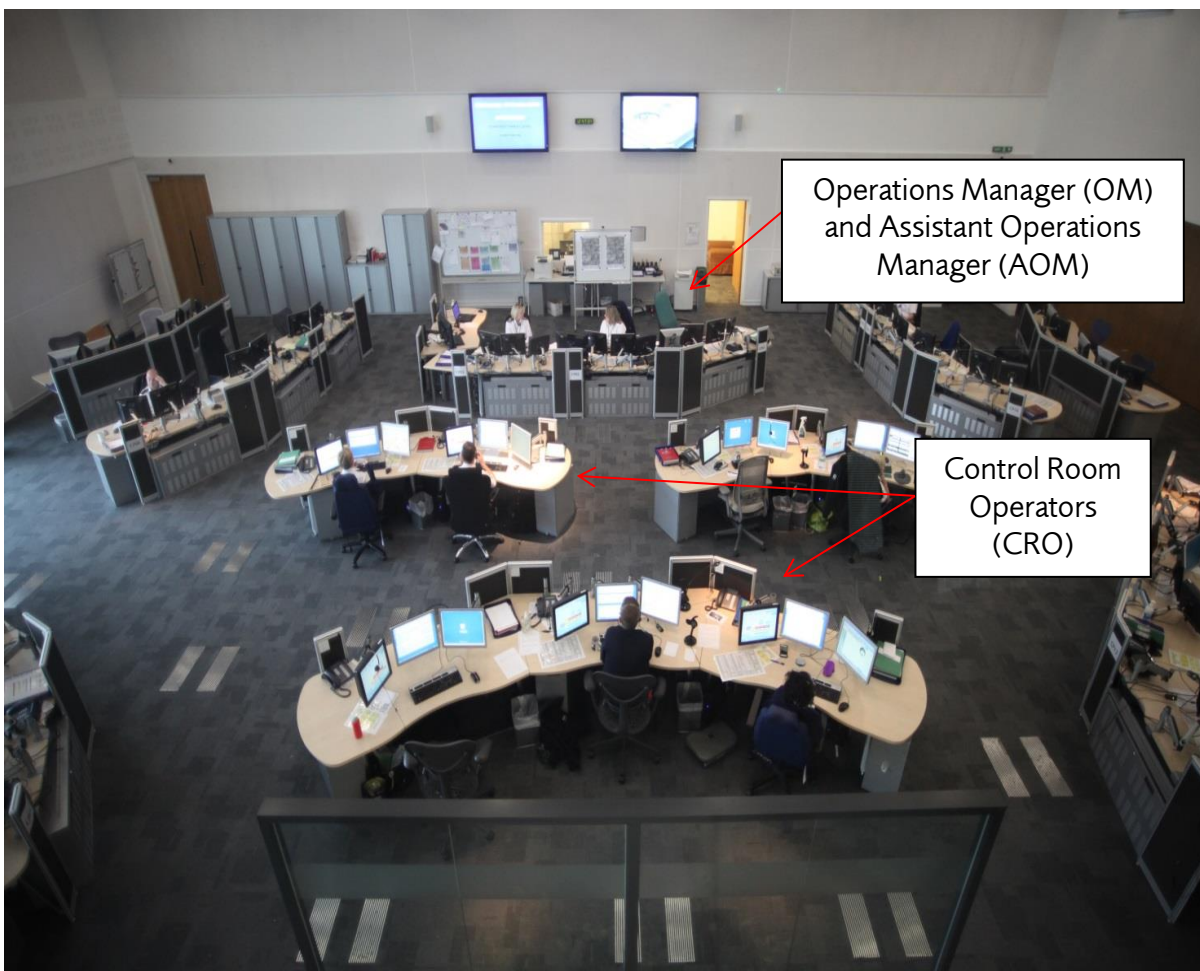
The London Ambulance Service calls are not summarised in this report.

## 7 Appendix 1: Overview of Brigade Control

### Facilities

The London Fire Brigade primary control room is based at the London Operations Centre, 6 Jubilee Way, London SW19 and is commonly known as Brigade Control. It is a purpose built facility that also hosts the Brigade's Resource Management Centre (RMC) and the London Resilience Group (LRG). The RMC is staffed by a combination of control room staff and Fire and Rescue staff. Fire and Rescue Staff is the generic term used to refer to employees of the Brigade who are non operational. The function of RMC functions were not relevant and/or in operation for the time period covered by this report. The LRG is a tenant in the building and are entirely independent of the control function.

The primary control room is laid out as shown in the picture below and provides identical work stations in groups of two or three. The Control Room Operators (CROs) are positioned in such a way that they all face the group of desks occupied by the Operations Manager (OM) and Assistant Operations Manager (AOM).



The 'fallback' facility is provided at the fire station site at Stratford in, Ferns Road, London E15. The layout of the Brigade Control at Stratford is shown in the picture below:



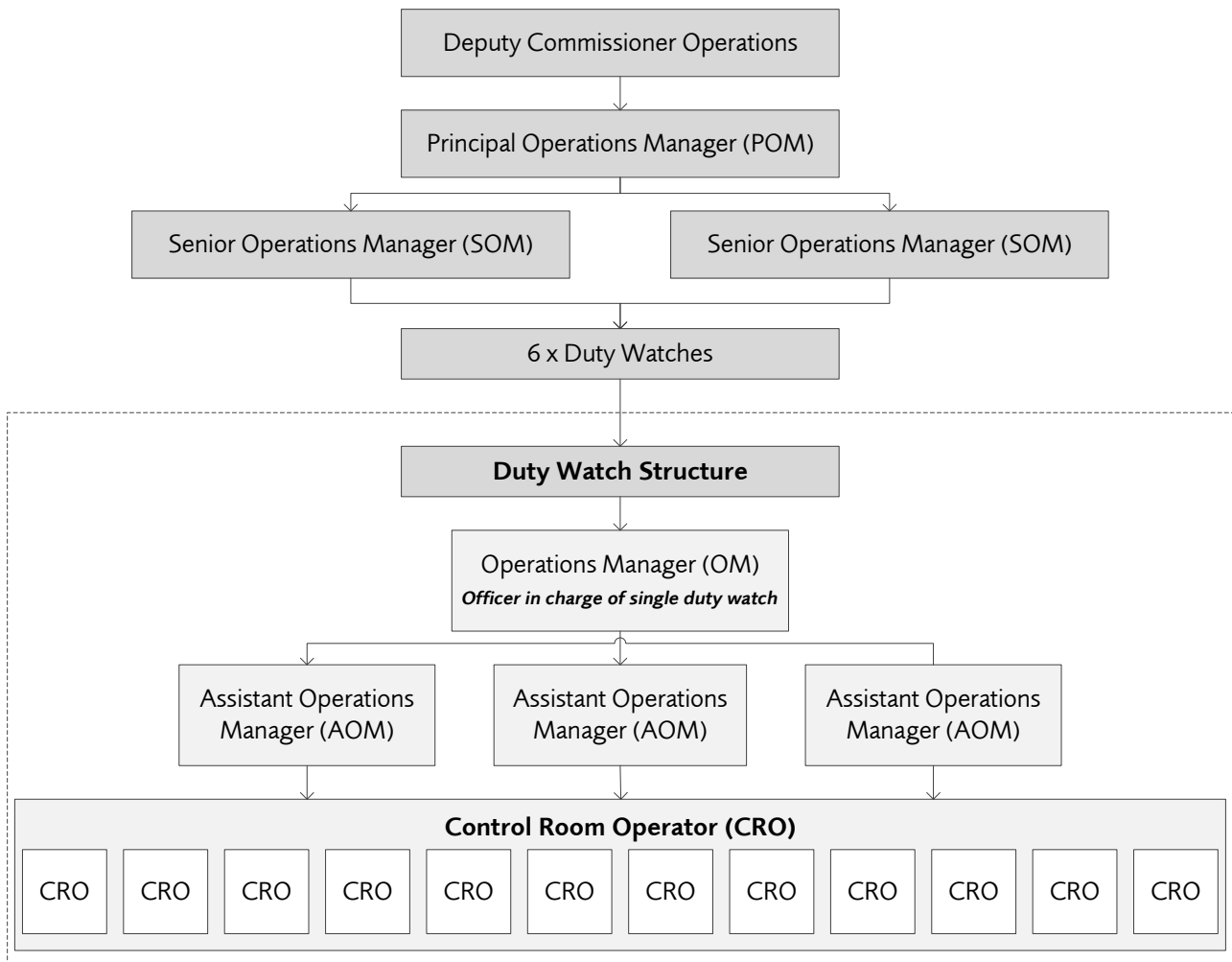
The facilities and mobilising/computer systems are similar at both locations in order to provide consistency for staff. The main differences are that the 'fallback' control site does not have the facility to view the National Police Air Service downlink imagery or access the Brigade's Dynamic Cover Tool (DCT). The Air Support downlink is a facility that enables certain images being filmed by the MPS helicopter to be transmitted to and displayed in Brigade Control. The DCT is a computer software application designed to assist control officers in moving appliances between locations during large incidents or periods of peak demand. It is used to manage and maintain operational cover across the geographical area covered by the Brigade. This function is undertaken at the 'fallback' facility using a manual system and is the responsibility of one of the Control Supervisors.

#### Brigade Control Systems

At both locations the Control staff are provided with the same computer and communication systems. This consists of a 'Vision' terminal and an Integrated Control and Communications System (ICCS) client on each desk position. The 'Vision' system is the Brigade's mobilising system and the Integrated Control and Communications System provides touchscreen control to telephony and radio communications. These two systems are integrated and support Control staff to manage 999 Emergency calls and mobilise the Brigade's operational resources and officers. Each position in the room also has a desktop computer connected to the Brigade's intranet.

## Staffing structure, roles and responsibilities

The staffing structure and management arrangements for Brigade Control is shown in the chart below:



On any given shift the minimum number of staff on duty is 11. This is made up of a minimum of two supervisors and nine CROs. The OM and AOM are colloquially referred to as 'supervisors'.

Each 24 hour period is divided into four shifts as detailed in the table below:

Shift name	Start time	Finish time
Days	08:00 hrs	20:00 hrs
Early short	08:00 hrs	16:00 hrs
Late short	14:00 hrs	22:00 hrs
Nights	20:00 hrs	08:00 hrs

The two short shifts are split as 'early' and 'late'. When the minimum number of staff are on duty (11), 6 will be allocated the early short shift and 5 to the late short shift. The shifts start at 08:00hrs and 14:00 hrs respectively. The duty day shift (08:00hrs – 20:00hrs) take the core Brigade Control positions of Radio Operators, call takers, paging operator, supervisors and the OM. The OM is referred to in the Brigade as the Officer of the Watch (OOW).

The early short shift (08:00hrs – 16:00hrs) are assigned to the RMC function dealing with the stand by module and the Resource Management Logistics cell. The stand by module is the computer aided resource management system that is used to manage staffing levels at fire stations. The Resource Management Logistics cell is responsible for a range of activities, which include planned notifications in response to different incidents and arranging for delivery and movement of large items of equipment such as firefighting foam and contracted equipment provision, e.g. cranes, specialist lighting units, etc. Staff allocated to the Resource Management Logistics desk will answer Emergency 999 calls if Brigade Control is experiencing high levels of demand.

The 'late' short shift, when not training, support the day shift staff by taking calls and carrying out control room related functions. This will occur until 15:45hrs when three of the 'late' short shift prepare to take over from 3 of the early short shift on the Resource Management Logistics desk. The remaining staff from the late short shift then move over to the RMC desk at approximately 19:30hrs to assist with the stand by module for the night shift at fire stations. The fire station night shift begins at 20:00hrs. The Brigade Control night shift also take over from the day shift at 20:00hrs and carry out the core Brigade Control functions as per the day shift duties.

## **Role Definitions**

### The Principal Operations Manager (POM)

The POM is responsible for ensuring that Brigade Control, emergency calls and the mobilising of resources are managed efficiently and effectively. The POM also ensures that the RMC operates effectively.

### The Senior Operations Manager (SOM)

The two SOMs directly support the POM to manage Brigade Control effectively and efficiently.

Both the POM and SOMs also provide 24/7 cover on a rotational basis as the nominated duty Brigade Control Senior Manager. The duty Brigade Control Senior Manager provides a monitoring and supporting role to the on duty OM and undertakes the liaison role between Brigade Control and the Brigade's principal management team. The role supports Brigade Control when there are Control personnel resourcing issues, the Brigade is dealing with incidents attracting eight or more fire engines and when major pre-planned events, such as the London Marathon, New Years Eve or Notting Hill Carnival, are in progress.

In addition to the above the Duty Brigade Control Senior Manager will be mobilised in to Brigade Control when the following incident types or events occur:

- incidents attracting 9-12 fire engines
- a major incident is declared by the Brigade
- there is a major loss or degradation of the Brigade Control communications/computer systems
- the primary Control centre requires evacuation to the 'fallback' site
- multiple and extended duration FSG calls are in progress
- when specialist mobilising arrangements, such as batch mobilising, civil disturbance or forward mobilising procedures have been implemented

### Operations Manager (OM)

The OM is person responsible for the on duty watch in Brigade Control and manages all the Control Room functions and the staff under their control. They have responsibility for the assessment of Control Room performance against agreed service level and quality standards.

### Assistant Operations Manager (AOM)

The AOMs oversee emergency call handling and incident management activities of the Control Room teams and provide guidance to Control Room Operators to ensure the service level standards are achieved at all

times. They will maintain the reliability and readiness of relevant control and operations equipment. They will also work closely with the supervisory structure to ensure effective co-ordination of work activities.

During any given shift the AOM's and OM are referred to as supervisors and known as the Officer of the Watch.

In addition to the management positions outlined above the following 'core' roles are assigned for each duty shift:

Call Takers - Six Call takers undertake call handling duties, dealing with Emergency 999 calls, operationally urgent calls from other parts of the Brigade as well as partner agencies. They will mobilise the appropriate Brigade resources based on the incident type and respond to resource requests from the incident ground. The call takers are responsible for updating the mobilising system information, which includes changing the availability and location of fire engines and officers. They also process a range of other information requests and actions arising from operational incidents. .

Paging Operator – this is the person responsible for notifying staff of a range of events using the Brigade's paging system. The vast majority of these paging alerts will require staff to acknowledge the alert, which is done by a phone call in to Brigade Control. The paging operator is the person who also provides details of the incident to the responding officer and will update the mobilising system as appropriate. They routinely provide an administration service to officers, updating their availability and location and will undertake Emergency 999 call taking duties during busy periods.

Radio Operators - there are normally two Radio Operators assigned to monitor the Brigade's 'main scheme' radio communications system used by all Brigade resources. Each operator is assigned to one of the two 'main scheme' radio channels (channels 2 and 4). Channel 4 is for all events that are located North of the river Thames and Channel 2 covers all event to the South. The radio system used by the Brigade automatically makes a voice record of any messages received or transmitted, including those relating to the mobilising of resources ,i.e. ordering of fire engines to operational incidents via radio. The Radio Operator will also send messages over the radio in response to requests from other Brigade Control Room staff. These notifications are sent by a call taker to the Radio Operator by way of a Service Request on a messaging service built in to the 'Vision' mobilising system. The Service Requests are entered at the CRO's position and appear on all Operators and Supervisors screens to be actioned. The Radio Operator will look for any service request that has been prefixed with the radio position that they are occupying at the time. The Service Request will describe what message the Radio Operator should send and to whom. When the Service Request has been actioned by the Radio Operator they will click the complete button and this will mark the Service Request as Completed. Both the initial Service Request and the completion of the Service Request are timed stamped on the Short Incident Log. It should be noted that the marking of the Completion of a Service Request is a manual action by the Radio Operator and is not triggered by the system.

Radio Operators also update appliances/senior officer availability and status and in periods of high demand, in terms of Emergency 999 or FSG calls, it is possible for one CRO to operate both radio channels.

### **Emergency call management process**

A 999 Emergency call is initially answered by a BT exchange operator at one of their 999 call handling centres. Once the BT operator has established which one of the emergency services is required they will attempt to pass the call to the fire control room in the geographical area where the incident is located. If the fire service control room is busy they will divert the call to an alternative fire service control room. The Brigade has a formal arrangement with the North West (NW) Fire Control in Warrington, to take the Brigade's 'overflow' calls during busy periods and spate conditions.

The Brigade Control room uses the 'Vision' mobilising system to record the location of the incident and as soon as an address has been selected the nearest fire service resource for the incident type and location is recommended by the system and despatched by the CRO. The 'Vision' system also displays a number of



actions associated with the incident type that the control room staff need to undertake and records these actions when they have been completed.

When an emergency call arrives in Brigade Control it is indicated by an audio alert and visual indicator on the ICCS screen.

When the call taker answers an emergency call the mobilising system automatically opens a 'call collection' form. On opening the 'call collection' form the time is logged and shown as the call time, which is different to the 'Time of Call' (ToC) that is shown on the incident log. The ToC is the time at which the call is created on the 'Vision' system. The difference in these two times is taken up by the CRO establishing:

1. Whether the call is actually an emergency and the fire service is the appropriate service to respond, and;
2. The exact address from the caller and the CRO finding this address in the address database held in the mobilising system.

It is often the case that the call taker will need to refine the exact location by asking the caller further questions. Once an address match is established the CRO can create the incident and mobilise the appropriate resources based on the pre-determined attendance (PDA). The number of fire engines sent in response to an initial Emergency 999 call will depend on the nature of the incident and the type of premises involved. This response is known as the PDA.

The PDA is informed by the CRO selecting the appropriate incident type code, which is an alpha numeric reference that is used to identify the type of incident. 'Vision' has a built in Global Positioning System to facilitate sending the nearest relevant appliance to the incident.

To assist control call takers a suite of specific control guidance documents called Reference Information Files (RIF) are provided. These provide detailed instructions and guidance for both supervisors and the CROs in how to deal with specific incident types and scenarios. The CROs have access to at least two supervisors in the control room who will provide additional support and guidance if required. The 'Vision' system also produces automatic action prompts for the call takers on what actions are required when each incident type code is selected. This includes notifications to number of Brigade resources and/or other agencies. A summary of the call handling process is shown in diagram on the next page.

Summary of call handling process

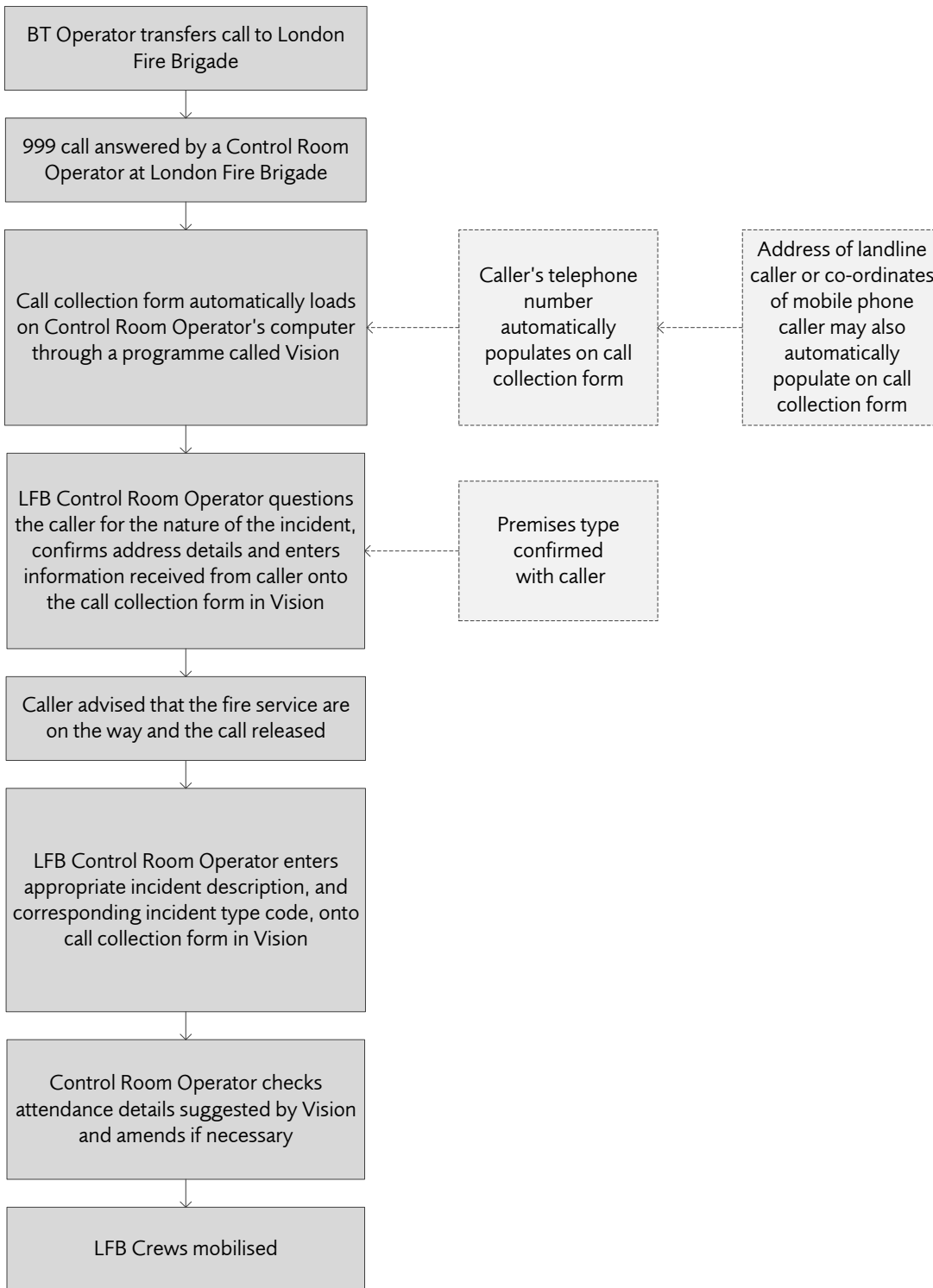


Diagram One

## Fire Survival Guidance

During some emergency calls it may become apparent that the caller is inside a premises affected by fire and possibly trapped by smoke, heat and or the fire. In these instances the CRO will implement the Fire Survival Guidance (FSG) call protocols. The definition of a FSG call is detailed below:

*A FSG call is a call received into Brigade Control where the caller believes that they are unable to leave their premises due to the effects of fire, and where the control room officer remains on the line providing appropriate advice. The call continues until either the caller is able to leave the premises by their own means, is rescued by the Fire Brigade, or the telephone line is cleared.*

This protocol follows the national standard for fire survival call handling. This guidance focuses on the four core principles of escape, assess, protect and rescue. The principle of escape is defined largely as the 'get out stay out' principle, effectively encouraging the caller to leave the area of danger, taking others with them and not returning. However, in circumstances where the caller is in a purpose built high rise residential premise and are not directly affected by heat smoke or fire, then they are generally safer to 'stay put'. The 'stay put' principle is supported by Reference Information Files (RIFs) that are used by Control Room staff. The policy also identifies an Incident Type Code for FSG calls which results in the mobilisation of the additional resources including a Command Unit, Station Manager and an additional fire engine with a Watch Manager in charge.

When the caller informs the CRO that they cannot escape an assessment is undertaken by the CRO. This helps them obtain essential information to keep the caller safe. Following this assessment guidance may be provided by the CRO to protect the caller which may include exploring the possibility of the caller moving to a "safer" room, closing doors and windows, blocking gaps in doors and windows, covering their mouth and nose and keeping low. The details of the callers location and circumstances will be passed to the incident ground to help the operational crews expedite their rescue.

## 8 Appendix 2: Glossary

Term	Explanation
Aerial Ladder Platform (ALP)	A vehicle-mounted ladder which can reach up to 32 metres (approximately 10 floors). It has a cage at the top which can hold 4 people. It can be operated either from the ground level or from within the cage.
'Airwave' Radio, handheld and Main Scheme	The LFB use a digital radio system to communicate with fire engines and senior officers. The radios operate by accessing a communications network managed by Airwave Solutions Limited. The Motorola MTH800 hand-held radio is issued to senior officers and other selected key personnel. Fire engines have the same radio which is not portable and is permanently fixed on the dashboard.
Authority Members	Members of the London Fire and Emergency Planning Authority (LFEPA). This is no longer in existence. These members were notified of range of events as part of their responsibilities for the governance of the London Fire Brigade
Batch Mobilising	Where a large number of incidents occur in a specific area or more than one stations' ground the duty OM will instruct Control Staff to batch calls (normally flooding incidents). A number of calls will be allocated to individual pumping appliances in accordance with its' locality.
Bulk Media Advisor (BMA)	This officer is advises on tactics and provides support and technical expertise in the use of bulk firefighting media. Firefighting media is the term used to describe material used to extinguishing fires, which are predominantly water and foam. At fires where large volumes of water or foam would be required, a Bulk Media Advisor would attend. Their attendance would be triggered by the attendance of a lorry carrying many miles of fire hose or a pump capable of supplying a large volume of water.
Brigade Control	The location where all emergency calls to the Fire Brigade are received and from where all appliances and personnel are remotely dispatched. All radio communications are sent and received via Brigade Control.
Brigade Coordination Centre (BCC)	Provides support to and implements the actions and decisions of the duty AC and / or Gold Commander (Fire) during incidents which require a more senior level of wider control or operational management than day-to-day incidents.
Brigade Coordinating Manager (BCM)	Role undertaken by a Deputy Assistant Commissioner (DAC). Sets up and manages the BCC and its functional cells, in liaison with AC1 / Gold Commander (Fire)

BOSS	BOSS is a desk top viewing application that allows LFB staff to look at the Vision mobilising system data without interfering with the live system
Call Collection Form	When a CRO answers an emergency call the mobilising system automatically opens a 'call collection' form. On opening the 'call collection' form the time is logged and shown as the call time.
Canteen Van	This is a canteen van operated by the Salvation Army that is mobilised automatically by Brigade Control to 8 pump fires (and above) to provide refreshments to firefighters attending an incident.
Civil Disturbance procedure	The Fire Service nationally uses the term 'civil disturbance' as a recognised term for enacting policies and procedures to implement additional control measures in situations where there is an actual or anticipated higher level of risk exposure to fire service operations
Command unit (CU)	Command and control vehicle that can be used by the incident commander to plan their response to the incident. Can also be used to hold meetings or co-ordinate other fire ground functions.
Dangerous Structure Engineer (DSE)	A DSE is a chartered engineer who can inspect the building to assess whether there is a danger and, if so, whether it is potentially or imminently dangerous.
Duty non uniformed Press Officer	To support the Brigade duty press officer, a non uniformed press officer from the Brigade may also attend large, significant incidents where a lot of media management is required.
Duty Radio Officer (DRO)	The Duty Radio Officer is notified of a range of occasions. These include: <ul style="list-style-type: none"> <li>• Eight pump incidents and above.</li> <li>• Major special service incidents involving inter agency attendances.</li> <li>• Incidents where two or more command units are in attendance.</li> <li>• Incidents where a communications problem is perceived or may potentially exist.</li> <li>• Incidents where the attendance of the DRO is requested.</li> </ul> They provide advice to control in the event of faults/problems and attend major operational incidents to provide assistance and support. They carry selective spares of operational radio equipment.
Dynamic Cover Tool (DCT)	The DCT is a computer software application designed to assist control officers in moving appliances between locations during large incidents or periods of peak demand. It is used to manage and maintain operational cover across the geographical area covered by the Brigade.
Fire Rescue Unit (FRU)	An emergency vehicle that carries specialist rescue equipment and is the only emergency vehicle to carry EDDBA. It does not

	carry ladders or water.
Fire Survival Guidance (FSG)	An FSG call is one received by Brigade Control where the caller believes they are unable to leave the premises due to the effects of fire and where the control officer remains on the line providing appropriate advice. The call continues until either the caller is able to leave by their own means, is rescued by the LFB or the telephone line is cleared. It should be noted that a caller may clear the line after the FSG process has commenced but that will not necessarily mean a cancellation of the response by the LFB.
Forward Mobilising	Forward mobilising (FM) is the temporary control of mobilising to a specific area to allow a greater degree of control.
Hydraulic Platform (HP)	An aerial appliance that has a maximum working height of 23.5 metres. These are currently used as spare appliances within the LFB fleet.
Incident Type Code (ITC)	An incident type code is an alpha numeric reference that is used to identify the type of incident that has been determined by the Operator and match that to the relevant resources that have been pre determined to deal with that incident type.
Integrated Control and Communications System (ICCS)	Emergency calls for the assistance of the Brigade are received through its integrated control and communications system (ICCS) or fallback phones. The ICCS controls all incoming and outgoing telecommunications and radio traffic.
London Operations Centre (LOC) known as Brigade Control	The London Operations Centre is at 6 Jubilee Way, London SW19 3XD. It is a purpose-built facility that hosts the LFB control room, the Resource Management Centre and the London Resilience Group.
Main Scheme Radio	This is a term used by LFB staff to describe the "Airwave" radio that is on a fire engine or in the control room.
Major Incident	This is any emergency that requires special arrangements to be implemented by one or all of the Emergency Services and will generally include the involvement, either directly or indirectly, of large numbers of people.
Messages – Assistance/Priority	<ul style="list-style-type: none"> <li>Assistance message - is sent on behalf of the IC (normally by radio) to Brigade Control to request more fire engines and/or other specialist vehicles which the Incident Commander considers are required to deal with the incident. If a message is urgent, it is prefixed by the word "Priority".</li> </ul>
Informative	<ul style="list-style-type: none"> <li>Informative messages - used to provide Brigade Control or officers not in attendance at the incident with an accurate description of the incident and the progress being made.</li> </ul>
Stop	<ul style="list-style-type: none"> <li>Stop message - is the final message sent on the main scheme radio to indicate the incident has ended and to provide a</li> </ul>

	summary.
Messages - Assistance	This type of message is one where the Incident Commander has made an assessment of the resources in attendance and has decide that more are needed.
Metropolitan Police Service Witness Statements	<p>Information provided by LFB personnel and recorded and written up by the Metropolitan Police Service (MPS) as part of their criminal investigation as formal witness statements (named Operation Northleigh).</p> <p>To be allowed in court, section 9 of the Criminal Justice Act (CJA) 1967 states that a witness statement must:</p> <ul style="list-style-type: none"> <li>• be a formal written document of a person</li> <li>• be a set of facts relating to a certain event, or events</li> <li>• be signed by the person who makes it, to confirm that the contents of the document are true, (known as a statement of truth)</li> <li>• have a copy made available to other parties beforehand</li> </ul>
NICE (Neptune Intelligence Computer Engineering)	Where this is annotated as a source it denotes the NICE "Inform" software solution. This reconstruction application is the playback tool which enables the user to search for recordings stored on various underlying data sources and then replay them as required.
North West Fire Control Centre	North West Fire Control is a public sector company set up exclusively by the Fire Services in the North West to jointly handle all 999 emergency calls and be responsible for mobilising firefighters and fire engines to incidents in Cumbria, Lancashire, Greater Manchester and Cheshire.
Mobile Data Terminal (MDT)	The Mobile Data Terminal MDT is a vehicle-mounted fixed tablet computer, fitted with a 12" touch screen. MDTs are fitted to most operational vehicles, enabling crews to access incident details, messages and operational data.
National Police Air Service (MPAS) downlink	The National Police Air Support downlink is a facility that enables certain images being filmed by the MPS helicopter to be transmitted to and displayed in Brigade Control.
NICE (Neptune Intelligence Computer Engineering)	Where this is annotated as a source it indicates the NICE Inform reconstruction application. This is a play back tool that allows the user to search for recordings stored on various underlying data sources and then replay as required. The application time stamps the start of all recordings of telephone calls and radio messages in and out of the Control Room.

Notification Action	Sent out by Brigade Control staff , notification actions comprise information regarding pre-determined attendances to incidents and are received by senior and principal LFB managers and other agencies. They are also sent to specialist tactical advisors and supporting resources.
Officer of the Day (OOD)	The Brigade have an on duty officer called the Officer of the Day. The Officer of the Day works closely with the Resource Management Centre and the London Operations Centre to resolve these issues and provide a link to operational staff at fire stations and senior on call duty officers.
Operational Review Team	A team of Brigade senior officers tasked with reviewing all aspects of performance at incidents throughout the LFB.
Persons reported (PR)	This is a priority message sent by the Incident Commander to inform Brigade Control that it is believed people may be involved in the fire. This will automatically prompt Brigade Control to dispatch an ambulance and a Fire Investigation Unit if this has not already been done.
Pre Determined Attendance (PDA)	The pre-determined attendance is the number and type of fire engines and equipment pre-planned to be sent to deal with a particular type of incident. The Brigade Control Room Operator selects the appropriate incident type code which then matches the relevant resources that have been pre-determined to deal with that incident type.
Reference Information File (RIF)	RIFs are a suite of specific Control guidance documents that provide detailed instructions and guidance for both control room supervisors and CROs in how to deal with specific incident types and scenarios
Resource Management Logistic Cell	The Resource Management Logistics cell is responsible for a range of activities, which include planned notifications in response to different incidents and arranging for delivery and movement of large items of equipment such as firefighting foam and contracted equipment provision, e.g. cranes, specialist lighting units, etc. Staff allocated to the Resource Management Logistics desk will answer Emergency 999 calls if Brigade Control is experiencing high levels of demand.
Service Request	This is a messaging service within the Vision system. It allows all Control Room staff to time stamp a request for an action to be completed by other staff in the Control Room. A common Service Request is for a radio message to be sent to the incident ground. Both the request and the completion of the request are time stamped in the Incident log
Short Incident Log	This is a log of information that has been entered on the Vision mobilising system. The Short Incident Log also provides a time stamped record of the individual actions of Control Room Operators (CRO)



Tactical Advisor Bulk Media	This officer is advises on tactics and provides support and technical expertise in the use of bulk firefighting media. Firefighting media is the term used to describe material used to extinguishing fires, which are predominantly water and foam. At fires where large volumes of water or foam would be required, a Bulk Media Advisor would attend. Their attendance would be triggered by the attendance of a lorry carrying many miles of fire hose or a pump capable of supplying a large volume of water.
Tactical mode Delta (TMD)	Tactical mode 'Defensive' is relayed over the radio by phonetic alphabet as D=Delta. Delta "Defensive" tells Brigade Control that firefighters are holding the fire by surrounding it but without advancing on the fire.
Tactical mode Oscar (TMO)	Tactical mode 'Offensive' is relayed over the radio by phonetic alphabet, O=Oscar. Oscar "Offensive" tells Brigade Control that firefighters are attacking and advancing on the fire.
Time of Call	The Time of Call is the time at which a 999 call is created on the 'Vision' system. (Please note, the time of call may be different from the 'Call Time', which is the time that the Vision mobilising system automatically opens a 'call collection' form)
Turntable Ladder (TL)	A vehicle with a ladder with the capability of reaching 32 metres (approximately 10 floors). It has a detachable cage which holds 3 people. Can be operated at ground level or from the cage.
Vision	The LFB Control room use the Capita Fortek 'Vision' mobilising system to record the location of the incident, and then despatch the nearest appropriate resources in response to emergency calls. The 'Vision' system displays a number of actions that control room staff need to undertake and 'Vision' records all these actions when taken, as well as a number of automated system actions. The system also supports a telephone and radio recording facility. This allows for the recording of incident updates and situational reports. This mobilising system incorporates a Global Positioning System (GPS) to ensure the nearest available appliances are sent to incidents.
Water Service Technician	This is an on call emergency response provided by the water authority who have responsible for the water supplies in the area. They provide advice on supplies and can also increase the flow of water to an area under certain circumstances.

## 9 Appendix 3: References

GTIRT Reference	Description of GTIRT Reference
GTIRT17-00241	Radio Message
GTIRT17-00470	Incoming 999 Call
GTIRT17-00471	Incoming 999 Call
GTIRT17-00472	Incoming 999 Call
GTIRT17-00473	Incoming 999 Call
GTIRT17-00474	Incoming 999 Call
GTIRT17-00475	Radio Message
GTIRT17-00476	Incoming 999 Call
GTIRT17-00477	Incoming 999 Call
GTIRT17-00478	Incoming 999 Call
GTIRT17-00479	Incoming 999 Call
GTIRT17-00480	Incoming 999 Call
GTIRT17-00481	Incoming 999 Call
GTIRT17-00482	Incoming 999 Call
GTIRT17-00483	Incoming 999 Call
GTIRT17-00484	Incoming 999 Call
GTIRT17-00485	Incoming 999 Call
GTIRT17-00486	Incoming 999 Call
GTIRT17-00487	Incoming 999 Call
GTIRT17-00488	Incoming 999 Call
GTIRT17-00489	Incoming 999 Call
GTIRT17-00490	Incoming 999 Call
GTIRT17-00491	Incoming 999 Call
GTIRT17-00492	Incoming 999 Call
GTIRT17-00493	Incoming 999 Call - Call from BT operator
GTIRT17-00494	Incoming 999 Call
GTIRT17-00495	Incoming 999 Call
GTIRT17-00496	Incoming 999 Call
GTIRT17-00497	Incoming 999 Call
GTIRT17-00498	Incoming 999 Call
GTIRT17-00499	Incoming 999 Call
GTIRT17-00500	Incoming 999 Call
GTIRT17-00501	Incoming 999 Call
GTIRT17-00502	Incoming 999 Call
GTIRT17-00503	Incoming 999 Call
GTIRT17-00504	Incoming 999 Call
GTIRT17-00505	Incoming 999 Call
GTIRT17-00506	Incoming 999 Call
GTIRT17-00507	Incoming 999 Call - Call from BT operator
GTIRT17-00508	Incoming 999 Call
GTIRT17-00509	Incoming 999 Call
GTIRT17-00510	Incoming 999 Call
GTIRT17-00511	Incoming 999 Call
GTIRT17-00512	Incoming 999 Call
GTIRT17-00513	Incoming 999 Call

GTIRT17-00514	Incoming 999 Call
GTIRT17-00515	Incoming 999 Call - Call from Tunstall Response
GTIRT17-00516	Incoming 999 Call
GTIRT17-00517	Incoming 999 Call
GTIRT17-00518	Incoming 999 Call - Call from BT operator
GTIRT17-00519	Incoming 999 Call
GTIRT17-00520	Incoming 999 Call
GTIRT17-00521	Incoming 999 Call
GTIRT17-00522	Incoming 999 Call
GTIRT17-00523	Incoming 999 Call
GTIRT17-00524	Incoming 999 Call
GTIRT17-00525	Incoming Call from LAS
GTIRT17-00526	Incoming 999 Call
GTIRT17-00527	Incoming 999 Call - Call from BT operator
GTIRT17-00528	Incoming 999 Call
GTIRT17-00529	Incoming 999 Call
GTIRT17-00530	Incoming 999 Call
GTIRT17-00531	Incoming 999 Call
GTIRT17-00532	Incoming 999 Call
GTIRT17-00533	Incoming 999 Call
GTIRT17-00534	Incoming 999 Call
GTIRT17-00535	Incoming 999 Call
GTIRT17-00536	Incoming 999 Call
GTIRT17-00537	Incoming 999 Call
GTIRT17-00538	Call back to MOP
GTIRT17-00539	Incoming 999 Call
GTIRT17-00540	Incoming 999 Call - Call from BT operator
GTIRT17-00541	Incoming 999 Call
GTIRT17-00542	Incoming 999 Call
GTIRT17-00543	Incoming 999 Call
GTIRT17-00544	Call back to MOP
GTIRT17-00545	Incoming 999 Call
GTIRT17-00546	Incoming 999 Call
GTIRT17-00547	Incoming 999 Call
GTIRT17-00548	Incoming 999 Call
GTIRT17-00549	Incoming Call from MPS
GTIRT17-00550	Incoming 999 Call
GTIRT17-00551	Incoming 999 Call
GTIRT17-00552	Incoming 999 Call
GTIRT17-00553	Incoming 999 Call
GTIRT17-00554	Incoming 999 Call
GTIRT17-00555	Call back to MOP
GTIRT17-00556	Incoming 999 Call
GTIRT17-00557	Incoming 999 Call
GTIRT17-00558	Incoming 999 Call
GTIRT17-00559	Incoming 999 Call
GTIRT17-00560	Incoming 999 Call
GTIRT17-00561	Incoming Call from Surrey Police

GTIRT17-00562	Incoming 999 Call
GTIRT17-00563	Incoming 999 Call
GTIRT17-00564	Incoming 999 Call
GTIRT17-00565	Incoming 999 Call
GTIRT17-00566	Incoming 999 Call
GTIRT17-00567	Incoming 999 Call
GTIRT17-00568	Incoming 999 Call
GTIRT17-00569	Incoming 999 Call
GTIRT17-00570	Call back to person inside Grenfell Tower
GTIRT17-00571	Incoming 999 Call
GTIRT17-00572	Incoming 999 Call
GTIRT17-00573	Incoming 999 Call
GTIRT17-00574	Incoming 999 Call
GTIRT17-00575	Incoming 999 Call
GTIRT17-00576	Incoming 999 Call
GTIRT17-00577	Incoming 999 Call
GTIRT17-00578	Incoming 999 Call
GTIRT17-00579	Incoming 999 Call
GTIRT17-00580	Incoming 999 Call
GTIRT17-00581	Incoming 999 Call
GTIRT17-00582	Incoming 999 Call
GTIRT17-00583	Incoming 999 Call
GTIRT17-00584	Incoming 999 Call
GTIRT17-00585	Incoming 999 Call
GTIRT17-00586	Incoming 999 Call
GTIRT17-00587	Call back to MOP
GTIRT17-00588	Incoming 999 Call
GTIRT17-00589	Incoming 999 Call
GTIRT17-00590	Incoming 999 Call
GTIRT17-00591	Incoming 999 Call
GTIRT17-00592	Incoming 999 Call
GTIRT17-00593	Incoming 999 Call
GTIRT17-00594	Incoming 999 Call
GTIRT17-00595	Incoming 999 Call
GTIRT17-00596	Incoming 999 Call
GTIRT17-00597	Incoming 999 Call
GTIRT17-00598	Incoming 999 Call
GTIRT17-00599	Incoming 999 Call
GTIRT17-00600	Incoming 999 Call
GTIRT17-00601	Incoming 999 Call
GTIRT17-00602	Incoming 999 Call
GTIRT17-00603	Incoming 999 Call
GTIRT17-00604	Incoming 999 Call
GTIRT17-00606	Incoming 999 Call
GTIRT17-00607	Incoming 999 Call
GTIRT17-00608	Incoming 999 Call
GTIRT17-00609	Incoming 999 Call
GTIRT17-00610	Incoming Call from Kent Fire and Rescue Service

GTIRT17-00611	Incoming 999 Call
GTIRT17-00612	Incoming Call from Essex Fire and Rescue Service
GTIRT17-00613	Incoming 999 Call
GTIRT17-00614	Incoming 999 Call
GTIRT17-00615	Incoming Call from LAS
GTIRT17-00616	Incoming Call from MPS
GTIRT17-00618	Incoming 999 Call
GTIRT17-00619	Incoming 999 Call
GTIRT17-00620	Incoming 999 Call
GTIRT17-00621	Incoming 999 Call
GTIRT17-00622	Incoming 999 Call
GTIRT17-00623	Incoming 999 Call
GTIRT17-00624	Incoming 999 Call
GTIRT17-00625	Incoming 999 Call
GTIRT17-00626	Incoming Call from Surrey Fire and Rescue Service
GTIRT17-00627	Incoming Call from BT Operator
GTIRT17-00628	Incoming 999 Call
GTIRT17-00629	Incoming 999 Call
GTIRT17-00630	Incoming 999 Call
GTIRT17-00631	Incoming 999 Call
GTIRT17-00632	Incoming 999 Call
GTIRT17-00633	Incoming 999 Call
GTIRT17-00634	Incoming 999 Call
GTIRT17-00635	Incoming 999 Call
GTIRT17-00636	Incoming 999 Call
GTIRT17-00637	Incoming 999 Call
GTIRT17-00638	Incoming 999 Call
GTIRT17-00639	Incoming 999 Call
GTIRT17-00641	Incoming 999 Call
GTIRT17-00642	Incoming 999 Call
GTIRT17-00645	Incoming 999 Call
GTIRT17-00646	Incoming 999 Call
GTIRT17-00647	Incoming 999 Call
GTIRT17-00648	Incoming 999 Call
GTIRT17-00649	Incoming Call from MPS
GTIRT17-00650	Incoming 999 Call
GTIRT17-00651	Incoming 999 Call
GTIRT17-00652	Incoming 999 Call
GTIRT17-00653	Incoming 999 Call
GTIRT17-00654	Incoming 999 Call
GTIRT17-00655	Incoming 999 Call
GTIRT17-00656	Incoming 999 Call
GTIRT17-00657	Incoming 999 Call
GTIRT17-00658	Call to resident inside Grenfell Tower from Essex Fire and Rescue Service
GTIRT17-00660	Incoming Call from Merseyside Fire and Rescue Service
GTIRT17-00661	Incoming 999 Call
GTIRT17-00662	Incoming 999 Call
GTIRT17-00663	Incoming 999 Call

GTIRT17-00664	Incoming Call from Surrey Fire and Rescue Service
GTIRT17-00665	Incoming 999 Call
GTIRT17-00666	Incoming 999 Call
GTIRT17-00667	Incoming 999 Call
GTIRT17-00668	Incoming Call from Essex Fire and Rescue Service
GTIRT17-00669	Incoming 999 Call
GTIRT17-00670	Incoming 999 Call
GTIRT17-00671	Incoming 999 Call
GTIRT17-00672	Incoming 999 Call
GTIRT17-00673	Incoming 999 Call
GTIRT17-00674	Incoming 999 Call
GTIRT17-00675	Incoming 999 Call
GTIRT17-00676	Incoming 999 Call
GTIRT17-00677	Incoming 999 Call
GTIRT17-00678	Incoming 999 Call
GTIRT17-00679	Incoming 999 Call
GTIRT17-00680	Incoming 999 Call
GTIRT17-00681	Incoming 999 Call
GTIRT17-00682	Incoming 999 Call
GTIRT17-00683	Incoming 999 Call
GTIRT17-00685	Incoming 999 Call
GTIRT17-00686	Incoming 999 Call
GTIRT17-00687	Incoming 999 Call
GTIRT17-00688	Incoming 999 Call
GTIRT17-00689	Incoming 999 Call
GTIRT17-00690	Incoming 999 Call
GTIRT17-00691	Incoming 999 Call
GTIRT17-00692	Incoming 999 Call
GTIRT17-00693	Incoming 999 Call
GTIRT17-00694	Incoming 999 Call
GTIRT17-00695	Incoming 999 Call
GTIRT17-00696	Incoming 999 Call
GTIRT17-00697	Incoming 999 Call
GTIRT17-00698	Incoming Call from Kent Fire and Rescue Service
GTIRT17-00699	Incoming 999 Call
GTIRT17-00700	Incoming 999 Call
GTIRT17-00701	Incoming 999 Call
GTIRT17-00702	Incoming 999 Call
GTIRT17-00703	Incoming 999 Call
GTIRT17-00704	Incoming 999 Call
GTIRT17-00705	Incoming 999 Call
GTIRT17-00706	Incoming Call from Surrey Fire and Rescue Service
GTIRT17-00707	Incoming 999 Call
GTIRT17-00709	Incoming 999 Call
GTIRT17-00710	Incoming 999 Call
GTIRT17-00711	Incoming 999 Call
GTIRT17-00712	Incoming 999 Call
GTIRT17-00713	Incoming 999 Call

GTIRT17-00714	Incoming 999 Call
GTIRT17-00715	Incoming 999 Call - Call from BT operator
GTIRT17-00716	Incoming 999 Call
GTIRT17-00717	Incoming Call from MPS
GTIRT17-00718	Incoming 999 Call
GTIRT17-00719	Incoming 999 Call
GTIRT17-00720	Incoming 999 Call
GTIRT17-00721	Incoming 999 Call
GTIRT17-00722	Incoming 999 Call
GTIRT17-00723	Incoming 999 Call
GTIRT17-00724	Incoming 999 Call
GTIRT17-00725	Incoming 999 Call
GTIRT17-00726	Incoming 999 Call
GTIRT17-00727	Incoming 999 Call
GTIRT17-00728	Incoming 999 Call
GTIRT17-00729	Incoming 999 Call
GTIRT17-00730	Incoming 999 Call
GTIRT17-00731	Incoming 999 Call
GTIRT17-00732	Incoming 999 Call
GTIRT17-00733	Incoming 999 Call
GTIRT17-00734	Incoming 999 Call
GTIRT17-00735	Incoming 999 Call
GTIRT17-00736	Incoming 999 Call
GTIRT17-00737	Incoming 999 Call
GTIRT17-00738	Incoming 999 Call
GTIRT17-00739	Incoming 999 Call
GTIRT17-00740	Incoming 999 Call
GTIRT17-00741	Incoming 999 Call
GTIRT17-00742	Incoming Call from Kent Fire and Rescue Service
GTIRT17-00743	Incoming 999 Call
GTIRT17-00744	Incoming 999 Call
GTIRT17-00745	Incoming 999 Call
GTIRT17-00746	Incoming 999 Call
GTIRT17-00747	Incoming 999 Call
GTIRT17-00748	Incoming 999 Call
GTIRT17-00749	Incoming 999 Call
GTIRT17-00750	Incoming 999 Call
GTIRT17-00751	Incoming Call from Essex Fire and Rescue Service
GTIRT17-00752	Incoming 999 Call
GTIRT17-00754	Incoming 999 Call
GTIRT17-00755	Incoming 999 Call
GTIRT17-00756	Incoming 999 Call
GTIRT17-00757	Incoming 999 Call
GTIRT17-00758	Incoming 999 Call
GTIRT17-00759	Incoming 999 Call
GTIRT17-00760	Incoming 999 Call
GTIRT17-00761	Incoming 999 Call
GTIRT17-00762	Incoming 999 Call

GTIRT17-00763	Incoming 999 Call
GTIRT17-00764	Incoming 999 Call
GTIRT17-00765	Incoming 999 Call
GTIRT17-00766	Incoming Call from Kent Fire and Rescue Service
GTIRT17-00767	Incoming 999 Call
GTIRT17-00768	Incoming 999 Call
GTIRT17-00769	Incoming 999 Call
GTIRT17-00771	Incoming 999 Call
GTIRT17-00773	Incoming 999 Call
GTIRT17-00774	Incoming 999 Call
GTIRT17-00775	Incoming 999 Call
GTIRT17-00776	Incoming 999 Call
GTIRT17-00777	Incoming 999 Call
GTIRT17-00778	Incoming 999 Call
GTIRT17-00779	Incoming 999 Call
GTIRT17-00780	Incoming 999 Call
GTIRT17-00781	Incoming 999 Call
GTIRT17-00782	Incoming 999 Call
GTIRT17-00783	Incoming 999 Call
GTIRT17-00784	Incoming 999 Call
GTIRT17-00785	Incoming 999 Call
GTIRT17-00786	Incoming 999 Call
GTIRT17-00787	Incoming 999 Call
GTIRT17-00788	Incoming 999 Call
GTIRT17-00789	Incoming 999 Call
GTIRT17-00790	Incoming 999 Call
GTIRT17-00791	Incoming 999 Call
GTIRT17-00792	Incoming 999 Call
GTIRT17-00793	Incoming 999 Call
GTIRT17-00794	Incoming 999 Call
GTIRT17-00795	Incoming 999 Call
GTIRT17-00796	Incoming 999 Call
GTIRT17-00797	Incoming 999 Call
GTIRT17-00798	Incoming 999 Call
GTIRT17-00800	Incoming 999 Call
GTIRT17-00801	Incoming 999 Call
GTIRT17-00802	Incoming 999 Call
GTIRT17-00803	Incoming 999 Call
GTIRT17-00804	Incoming 999 Call
GTIRT17-00805	Incoming 999 Call
GTIRT17-00953	Policy Note 412 - Mobilising Policy
GTIRT17-00959	Policy Note 518 - Messages from incidents
GTIRT17-00974	Policy Note 790 - Fire Survival Guidance Calls
GTIRT17-01028	Policy Note 541 - Command Support at Incidents
GTIRT17-01255	MPS Witness Statements for Sarah Russell
GTIRT17-01259	MPS Witness Statements for Yvonne Adams
GTIRT17-01533	Incoming 999 Call (Transcript of GTIRT17-00662)
GTIRT17-01534	Incoming 999 Call (Transcript of GTIRT17-00610)



GTIRT17-01607	Incoming 999 Call
GTIRT17-01608	Incoming 999 Call
GTIRT17-01609	Call from BT Operator to NWFC
GTIRT17-01610	Incoming 999 Call
GTIRT17-01611	Incoming 999 Call
GTIRT17-01612	Incoming 999 Call
GTIRT17-01613	Call back from Surrey Fire and Rescue Service
GTIRT17-01614	Call between Kent FRS and Surrey FRS
GTIRT17-01615	Outgoing call from Surrey FRS to son of resident
GTIRT17-01616	Call between Surrey FRS and Essex FRS
GTIRT17-01618	Incoming 999 Call
GTIRT17-01619	Incoming 999 Call
GTIRT17-01620	Incoming 999 Call
GTIRT17-01621	Outgoing 999 Call
GTIRT17-01622	Incoming 999 Call
GTIRT17-01714	Call back to MOP (Surrey FRS)
GTIRT17-01730	Incoming 999 Call
GTIRT17-01731	Incoming 999 Call
GTIRT17-01732	Incoming Call from Kent Fire and Rescue Service
GTIRT17-01734	Incoming 999 Call
GTIRT17-01735	Incoming 999 Call
GTIRT17-01736	Incoming Call from MPS
GTIRT17-01737	Incoming Call from Kent Fire and Rescue Service
GTIRT17-01738	Incoming 999 Call
GTIRT17-01739	Incoming Call from MPS
GTIRT17-01740	Incoming 999 Call
GTIRT17-01741	Incoming 999 Call
GTIRT17-01743	Incoming 999 Call
GTIRT17-01744	Incoming 999 Call
GTIRT17-01745	Incoming 999 Call
GTIRT17-01746	Incoming 999 Call
GTIRT17-01747	Incoming 999 Call
GTIRT17-01748	Incoming 999 Call
GTIRT17-01749	Incoming 999 Call
GTIRT17-01751	Incoming 999 Call
GTIRT17-01752	Incoming 999 Call
GTIRT17-01770	Incoming Call from Surrey Fire and Rescue Service
GTIRT17-01772	Incoming 999 Call - Scarborough BT Operator connecting to NWFC
GTIRT17-01773	Incoming Call from NWFC
GTIRT17-01774	Incoming Call from NWFC
GTIRT17-01775	Incoming Call from NWFC
GTIRT17-01828	Incoming 999 Call
GTIRT17-01830	Incoming Call from NWFC
GTIRT17-01831	Incoming 999 Call
GTIRT17-01832	Call between BT Operator and NWFC
GTIRT17-01838	Incoming 999 Call
GTIRT17-01839	Incoming 999 Call
GTIRT17-01948	MPS Witness Statement for Daniel Meyrick

GTIRT17-01956	MPS Witness Statement for Joanne Smith
GTIRT17-02473	Radio Message
GTIRT17-02474	Radio Message
GTIRT17-02475	Radio Message
GTIRT17-02477	Radio Message
GTIRT17-02483	Radio Message
GTIRT17-02484	Radio Message
GTIRT17-02485	Radio Message
GTIRT17-02487	Outgoing 999 Call
GTIRT17-02489	Radio Message
GTIRT17-02491	Radio Message
GTIRT17-02492	Radio Message
GTIRT17-02493	Radio Message
GTIRT17-02494	Radio Message
GTIRT17-02495	Radio Message
GTIRT17-02496	Radio Message
GTIRT17-02499	Radio Message
GTIRT17-02500	Radio Message
GTIRT17-02501	Radio Message
GTIRT17-02502	Radio Message
GTIRT17-02504	Radio Message
GTIRT17-02507	Radio Message
GTIRT17-02513	Radio Message
GTIRT17-02514	Radio Message
GTIRT17-02515	Radio Message
GTIRT17-02516	Radio Message
GTIRT17-02517	Radio Message
GTIRT17-02518	Radio Message
GTIRT17-02519	Radio Message
GTIRT17-02520	Radio Message
GTIRT17-02523	Radio Message
GTIRT17-02524	Radio Message
GTIRT17-02525	Radio Message
GTIRT17-02526	Radio Message
GTIRT17-02527	Radio Message
GTIRT17-02528	Radio Message
GTIRT17-02529	Radio Message
GTIRT17-02530	Radio Message
GTIRT17-02531	Radio Message
GTIRT17-02532	Radio Message
GTIRT17-02537	Radio Message
GTIRT17-02538	Radio Message
GTIRT17-02539	Radio Message
GTIRT17-02540	Radio Message
GTIRT17-02541	Radio Message
GTIRT17-02542	Radio Message
GTIRT17-02543	Radio Message
GTIRT17-02544	Radio Message

GTIRT17-02545	Radio Message
GTIRT17-02546	Radio Message
GTIRT17-02547	Radio Message
GTIRT17-02548	Radio Message
GTIRT17-02549	Radio Message
GTIRT17-02550	Radio Message
GTIRT17-02551	Radio Message
GTIRT17-02552	Radio Message
GTIRT17-02553	Radio Message
GTIRT17-02554	Radio Message
GTIRT17-02558	Radio Message
GTIRT17-02609	Radio Message
GTIRT17-02612	Radio Message
GTIRT17-02613	Radio Message
GTIRT17-02614	Radio Message
GTIRT17-02615	Radio Message
GTIRT17-02616	Radio Message
GTIRT17-02619	Radio Message
GTIRT17-02621	Radio Message
GTIRT17-02624	Radio Message
GTIRT17-02626	Radio Message
GTIRT17-02627	Radio Message
GTIRT17-02628	Radio Message
GTIRT17-02629	Radio Message
GTIRT17-02630	Radio Message
GTIRT17-02631	Radio Message
GTIRT17-02632	Radio Message
GTIRT17-02633	Radio Message
GTIRT17-02638	Radio Message
GTIRT17-02639	Radio Message
GTIRT17-02640	Radio Message
GTIRT17-02641	Radio Message
GTIRT17-02642	Radio Message
GTIRT17-02643	Radio Message
GTIRT17-02648	Radio Message
GTIRT17-02649	Radio Message
GTIRT17-02662	Radio Message
GTIRT17-02663	Radio Message
GTIRT17-02664	Radio Message
GTIRT17-02665	Radio Message
GTIRT17-02667	Radio Message
GTIRT17-02668	Radio Message
GTIRT17-02669	Radio Message
GTIRT17-02670	Radio Message
GTIRT17-02696	Radio Message
GTIRT17-02700	Radio Message
GTIRT17-02701	Radio Message
GTIRT17-02705	Radio Message

GTIRT17-02706	Radio Message
GTIRT17-02707	Radio Message
GTIRT17-02708	Radio Message
GTIRT17-02709	Radio Message
GTIRT17-02710	Radio Message
GTIRT17-02711	Radio Message
GTIRT17-02712	Radio Message
GTIRT17-02713	Radio Message
GTIRT17-02714	Radio Message
GTIRT17-02715	Radio Message
GTIRT17-02716	Radio Message
GTIRT17-02791	Vision Incident Log
GTIRT17-02934	MPS Witness Statement for Peter May
GTIRT17-02978	Radio Message
GTIRT17-02979	Radio Message
GTIRT17-02980	Radio Message
GTIRT17-02981	Radio Message
GTIRT17-02982	Radio Message
GTIRT17-02983	Radio Message
GTIRT17-02984	Radio Message
GTIRT17-02990	Radio Message
GTIRT17-02991	Radio Message
GTIRT17-02992	Radio Message
GTIRT17-02993	Radio Message
GTIRT17-02994	Radio Message
GTIRT17-02995	Radio Message
GTIRT17-02996	Radio Message
GTIRT17-02997	Radio Message
GTIRT17-02998	Radio Message
GTIRT17-02999	Radio Message
GTIRT17-03000	Radio Message
GTIRT17-03001	Radio Message
GTIRT17-03002	Radio Message
GTIRT17-03003	Radio Message
GTIRT17-03004	Radio Message
GTIRT17-03005	Radio Message
GTIRT17-03006	Radio Message
GTIRT17-03007	Radio Message
GTIRT17-03012	Radio Message
GTIRT17-03013	Radio Message
GTIRT17-03014	Radio Message
GTIRT17-03015	Radio Message
GTIRT17-03016	Radio Message
GTIRT17-03017	Radio Message
GTIRT17-03018	Radio Message
GTIRT17-03019	Radio Message
GTIRT17-03023	Radio Message
GTIRT17-03024	Radio Message

GTIRT17-03025	Radio Message
GTIRT17-03026	Radio Message
GTIRT17-03029	Radio Message
GTIRT17-03030	Radio Message
GTIRT17-03031	Radio Message
GTIRT17-03032	Radio Message
GTIRT17-03033	Radio Message
GTIRT17-03034	Radio Message
GTIRT17-03035	Radio Message
GTIRT17-03036	Radio Message
GTIRT17-03038	Radio Message
GTIRT17-03045	Radio Message
GTIRT17-03046	Radio Message
GTIRT17-03047	Radio Message
GTIRT17-03048	Radio Message
GTIRT17-03049	Radio Message
GTIRT17-03059	Radio Message
GTIRT17-03063	Radio Message
GTIRT17-03064	Radio Message
GTIRT17-03065	Radio Message
GTIRT17-03078	Radio Message
GTIRT17-03079	Radio Message
GTIRT17-03080	Radio Message
GTIRT17-03081	Radio Message
GTIRT17-03082	Radio Message
GTIRT17-03083	Radio Message
GTIRT17-03084	Radio Message
GTIRT17-03335	Radio Message
GTIRT17-03336	Radio Message
GTIRT17-03337	Radio Message
GTIRT17-03339	Radio Message
GTIRT17-03340	Radio Message
GTIRT17-03345	Radio Message
GTIRT17-03346	Radio Message
GTIRT17-03347	Radio Message
GTIRT17-03348	Radio Message
GTIRT17-03349	Radio Message
GTIRT17-03350	Radio Message
GTIRT17-03351	Radio Message
GTIRT17-03352	Radio Message
GTIRT17-03353	Radio Message
GTIRT17-03354	Radio Message
GTIRT17-03355	Radio Message
GTIRT18-00240	Radio Message
GTIRT18-00242	Radio Message
GTIRT18-00243	Radio Message
GTIRT18-00244	Radio Message
GTIRT18-00252	Admin Line Call - LFB Officers responding to paging alert

GTIRT18-00253	Admin Line Call - LFB Officers responding to paging alert
GTIRT18-00254	Admin Line Call - LFB Officers responding to paging alert
GTIRT18-00255	Admin Line Call - LFB Officers responding to paging alert
GTIRT18-00256	Admin Line Call - LFB Officers responding to paging alert
GTIRT18-00257	Admin Line Call - LFB Officers responding to paging alert
GTIRT18-00258	Admin Line Call - LFB Officers responding to paging alert
GTIRT18-00259	Admin Line Call - LFB Officers responding to paging alert
GTIRT18-00396	MPS Witness Statement for Adrian Fenton
GTIRT18-00505	Admin Line Call between Command Unit and Control Room
GTIRT18-00506	Admin Line Call between Command Unit and Control Room
GTIRT18-00507	Admin Line Call between Command Unit and Control Room
GTIRT18-00508	Admin Line Call between Command Unit and Control Room
GTIRT18-00509	Admin Line Call between Command Unit and Control Room
GTIRT18-00512	Admin Line Call between Command Unit and Control Room
GTIRT18-00515	Admin Line Call between Command Unit and Control Room
GTIRT18-00860	Outgoing Call to MPS
GTIRT18-00865	Outgoing Call to TWA
GTIRT18-00869	Outgoing Call to LAS
GTIRT18-00878	Admin Phone Line - Incoming call from SOM Smith
GTIRT18-00880	Incoming Admin Call from Radio Workshops duty engineer
GTIRT18-00882	Incoming Admin Call from TWA
GTIRT18-00885	Admin Phone Line - Incoming call from SOM Crinion
GTIRT18-00886	Incoming Admin Call from LAS
GTIRT18-00889	Incoming Admin Line Call from Senior Operations Manager Joanne Smith
GTIRT18-00895	Incoming Admin Line Call from Senior Operations Manager Joanne Smith
GTIRT18-00903	Outgoing Admin Call to LAS
GTIRT18-00904	Outgoing Admin Call to MPS
GTIRT18-00905	Outgoing Admin Call to LBKC
GTIRT18-00910	Outgoing Admin Call to Health and Safety Executive
GTIRT18-01166	Outgoing Admin Call to LBKC
GTIRT18-01169	Incoming Admin Call from Health and Safety Executive
GTIRT18-01172	Incoming Admin Line Call from LFB employee family member
GTIRT18-01175	Outgoing Admin Call to LBKC
GTIRT18-01179	Outgoing Admin Call to duty staff counsellor
GTIRT18-01181	Outgoing Admin Call to LBKC
GTIRT18-01182	Outgoing Admin Call to London Underground
GTIRT18-01188	Incoming Admin Call from London Resilience
GTIRT18-01200	Incoming Admin Call from Surrey FRS
GTIRT18-01212	Incoming Admin Call from duty staff counsellor
GTIRT18-01218	Incoming Admin Call from London Resilience
GTIRT18-01224	Incoming Admin Call from Head of Counselling services
GTIRT18-01324	Outgoing Admin Call to 02030550176 re Flat 72
GTIRT18-01330	Outgoing Admin Call to Surrey FRS
GTIRT18-01337	Incoming Admin Call from Surrey FRS
GTIRT18-01532	MPS Witness Statement of Jason Oliff
GTIRT18-01597	Outgoing Admin Call to 07940794549 re Flat 153
GTIRT18-01598	Call back to MOP
GTIRT18-01599	Incoming Call from BT Operator

GTIRT18-02098	Pager Logs
GTIRT18-02335	Call back to MOP
GTIRT18-02336	Call back to MOP
GTIRT18-02370	Call back to MOP
GTIRT18-02374	Call back to MOP
GTIRT18-02452	Call between NWFC and BT Operator
GTIRT18-02453	Call back from North West Fire Control
GTIRT18-02454	Incoming 999 Call
GTIRT18-02463	Call back from North West Fire Control
GTIRT18-02464	Call back from North West Fire Control
GTIRT18-02503	Radio Message
GTIRT18-02512	AM Exhibit times (Relativity reference LFB00004695)
GTIRT18-02577	Call back to MOP
GTIRT18-02666	Radio Message
GTIRT18-02691	Kent FRS Call Incident Log
GTIRT18-02860	Incoming 999 Call
GTIRT18-02885	Incoming 999 Call
GTIRT18-02907	Short Incident Log
GTIRT18-03132	Incoming 999 Call
GTIRT18-03148	Incoming 999 Call
GTIRT18-03149	Incoming 999 Call
GTIRT18-03150	Outgoing Admin Call to MPS
GTIRT18-03151	Incoming Admin Call from MPS
GTIRT18-03378	Incoming 999 Call
GTIRT18-03379	Call back to MOP
GTIRT18-03380	Incoming 999 Call
GTIRT18-03382	Incoming 999 Call
GTIRT18-03474	London Ambulance service Deputy Director of Operations

## 10 Appendix 4: Exhibit Variances against Control Report

Report Time	GTIRT18-02512_AM_Exhibit times (Relativity reference LFB00004695)		Explanation of difference
	Transcript Time	BOSS Call Time	
<b>01:28:19</b>	01:28:19	01:28:14	This call was originally referenced using the Vison number 076059. The initial call was referenced using the BOSS Call Time, however when the call was separated to include details of the call back the time of 01:28:19 was used to reference both the incoming and out going calls.
<b>01:33:12</b>	01:33:12	01:33:32	This time of call is the BOSS Call Time, but during the referencing a typing error was made and the Transcript time is shown as 01:33:12 instead of 01:33:32
<b>01:44:43</b>	01:44:33	01:44:43	The call was taken and referenced at the BOSS Call Time but when the referencing was completed an input error was made and a 3 was entered instead of the 4
<b>01:45:00</b>	01:45:00	None	This is a call taken by the NWFC. The call is not on the Vision system so no BOSS Call Time is entered. There are two entries on the exhibit spreadsheet and the second entry is the call back part following the first entry which is the initial call. The second entry has a transcript time identical to the first.
<b>02:57:39</b>	02:50:39	None	This is a call that was identified during the LFB review and uploaded to Vision several months after the fire. The audio file and Vision record was annotated with incorrect time, which was identified from the NICE recording system.



<b>03:06:00</b>	03:06:08	None	This is a call from Surrey FRS to LFB. The Call Time was that which was annotated to the audio file when it was sent from Surrey FRS. When the referencing was completed by the LFB :08 was added to create the Transcript Time.
None	04:09:25	None	This is a record of an internal call in the Surrey FRS. The conversation is between a female and a male referred to as Roger. The female is reporting to him about the work that the Surrey FRS Control Room have been doing in response to the Grenfell fire.
<b>04:16:21</b>	04:16:21	None	The time on the audio file and transcription reference reads 41621. This is an input error and should have read 041621, which would correlate with the time of the call. There is no BOSS Call Time and the BOSS Created Time has been used.



# Organisational Overview

London Fire Brigade

9 April 2018

# London Fire Brigade – 'Organisational Overview' Document

## 1. Content

2. Introduction.....	Page 3
3. London Fire Brigade.....	Page 3
4. What influences the Brigade.....	Page 3
5. The Brigade's Main Aims and Objectives.....	Page 4
6. London Resilience.....	Page 7
7. Brigade Control.....	Page 7
8. Stay Put and Fire Survival Guidance.....	Page 8
9. Pre-Determined Attendance.....	Page 9
10. Pre-Planning and Risk Information.....	Page 10
11. High-Rise Firefighting.....	Page 11
12. Incident Command.....	Page 12
13. Operational and Training Assurance.....	Page 13
14. Operational Discretion.....	Page 14
15. Incident Communications.....	Page 15
16. Respiratory Protective Equipment (RPE).....	Page 16
17. Breathing Apparatus (BA) Sets.....	Page 16
18. Breathing Apparatus Procedures.....	Page 17
19. Breathing Apparatus Entry Control.....	Page 17
20. Breathing Apparatus Tactics.....	Page 18
21. Aerial Appliances.....	Page 18
22. Command Support.....	Page 19
23. Fire Investigation.....	Page 20
24. Underpinning Systems.....	Page 20

25. National Operational Guidance (NOG).....Page 20

26. Brigade Operational Policy.....Page 21

27. Brigade Training Facilities.....Page 21

28. Staff Development and Training Delivery.....Page 22

29. Development and Maintenance of Operational Professionalism (DaMOP).....Page 24

30. Staff Promotion.....Page 24

31. Health and Safety.....Page 24

32. Provision and Maintenance of Appliances and Equipment.....Page 26

33. Cross Border Deployments and Mutual Aid.....Page 27

34. Major incident Investigation.....Page 27

## **2. Introduction**

- 2.1 This document details the key information relating to the way the London Fire Brigade (LFB) delivers its core Prevention, Protection and Response functions. It also details some of the underpinning systems that are used to support these key functions. It is hoped that by detailing all this information in a single document will assist the Grenfell Tower Inquiry (GTI) and Operation Northleigh (Op Northleigh) investigation teams to gain a more comprehensive understanding of how the LFB operates in respect to the themes that are most relevant to the Grenfell Tower fire.
- 2.2 The document does not restate all of the information detailed in policy and procedural notes that have already been disclosed, but aims to provide an easy reference overview of the LFB's key activities and systems.

## **3. London Fire Brigade (the 'Brigade')**

- 3.1 There are approximately 5,500 staff working at the Brigade, which includes 4,600 uniformed operational firefighters and officers who make up a significant proportion of the total number of whole-time firefighters in England and Wales. London and the West Midlands are the only other UK Fire and Rescue Services (FRSs) where all operational staff are whole-time. Other FRSs use a combination of whole-time and retained firefighters (the latter carry out firefighting duties in addition to their main employment).
- 3.2 To provide a 24-hour service the Brigade operates a two shift, four-watch system at fire stations. Red watch, blue watch, green watch and white watch, each work two day shifts followed by two night shifts, followed by four days off. This is often referred to as 2/2/4 shift system. The change between the day and night shifts occurs at 9.30am and 8pm each day.
- 3.3 There are currently 103 operational fire stations in London, including one river station. Each operates 24 hours, 365 days per year. The Brigade has a variety of special appliances (of which there are 15 different types) including Fire Rescue Units, Aerials (high-reach vehicles) and Command Units. Nearly half of the fire stations have at least one of these special appliances in addition to a fire engine often referred to as a pumping appliance.
- 3.4 There are around 110 Control staff working in the Brigade's Control Centre (Brigade Control) who handle emergency '999' calls directed to the Brigade by British Telecom (BT) Operators. During a call control operators perform a number of tasks including finding out details of incidents, mobilising fire engines and deploying the Brigade's resources to emergencies. Alongside the operational and control staff there are around 800 non-operational staff, known as Fire and Rescue Staff (FRS), actively working to help prevent fires and manage all other aspects of the service including fire safety inspection, fire safety engineering specialists and other support functions.
- 3.5 As well as responding to fires and other emergencies the Brigade's major priority is to prevent fires from causing harm or damage to people, property and the environment. Educating the public and positively influencing the behaviours that cause fires is also vital to the work of the Brigade.

## **4. What Influences the Brigade**

- 4.1 There are a number of pieces of legislation that govern and shape the way the Brigade operates and delivers its services. Primarily these are:
  - Fire and Rescue Services Act 2004
  - Regulatory Reform (Fire safety) Order 2005

- Civil Contingencies Act (CCA) 2005, and
- Health and Safety at Work Act (HASAW) 1974

4.2 In delivering its services the Brigade also has to have due regard to the following:

- The Fire and Rescue National Framework for England - The government's expectations for fire and rescue authorities (FRAs) are set out in the Fire and Rescue National Framework, which is a component of the Fire and Rescue Services Act 2004. This Framework was published in 2012 and requires FRAs to identify and assess the full range of foreseeable fire and rescue related risks in their areas and make provision for prevention and protection activities and respond to incidents appropriately. The Framework also requires FRAs to produce an integrated risk management plan (IRMP). The purpose of an integrated risk management plan is to adopt a holistic approach to reducing the likelihood of fire and casualties from fire. The LFB's IRMP is entitled the London Safety Plan (LSP) and the latest iteration of this plan was published in March 2017. The current plan runs until 2021.
- The Mayor of London - The Brigade is one of the organisations within the Greater London Authority under the Mayor and plays a key role in supporting his aims, objectives and vision for London. The Mayor sets the proportion of council tax the Brigade receives, after allowing for grants from Central Government and business rates. This is subject to the London Assembly's approval. The Brigade can vary its final spending plans provided they remain within the component budget set by the Mayor.
- London's challenges - London is a very complex city in terms of challenges, risks, population, building type and density. There are persistent problems with poverty. Research has shown that vulnerable people living in deprived areas means are more likely to have a fire. Much of the Brigade's community safety work is concentrated in these areas.
- The People of London - The Brigade is influenced by the people of London through the partnership work it does at a local level, interaction as part of its community safety work and communication with the public via the Brigade's website and through social media. The Brigade is also influenced by the responses it receives to formal consultation and engagement work.

## 5. The Brigade's Main Aims and Objectives

5.1 The Brigade's work is broadly delivered under three aims, which are set out in the Brigade's Integrated Risk Management Plan called the London Safety Plan (LSP). These are

- Prevention and protection
- Response and resilience
- People and resources

5.2 **Prevention and Protection** - The Brigade's aim is to stop fires happening. The approach to preventing fire focuses on the places and causes where the Brigade think it can change behaviour to avoid unnecessary fires. The Fire and Rescue Services Act 2004 places an obligation on fire and rescue services (FRS) to promote community safety, but it does not specify how this should be done.

5.3 In carrying out community safety work the Brigade uses a risk based approach to target geographic areas and people who are most at risk from fire, e.g. areas of high social

deprivation, elderly people and those with mobility issues. Community safety work is undertaken both by specialist centralised teams and by staff at fire stations.

- 5.4 The principal means by which the Brigade improves domestic fire safety is through home fire safety visits (HFSV). This involves firefighters or partner agencies visiting domestic premises and providing bespoke fire safety advice and fitting smoke alarms free of charge to the occupant. The Brigade aims to visit over 85,000 homes each year and 80 per cent of these visits are targeted at persons at greatest risk from fire, such as those suffering from mental health and substance abuse.
- 5.5 The Brigade's 'protection' function is informed, in part, from the Regulatory Reform (Fire Safety) Order 2005 (RRO). The RRO applies to all buildings that are not a single private dwelling or family homes, which currently stands at over 700,000 premises in London. The RRO gives the Brigade responsibilities and powers in respect to the common areas of a building such as the corridors, staircases, lifts and cupboards. It also places the obligation for fire safety in the hands of a 'responsible person' (such as building owners and employers) who are required to undertake a number of fire safety related duties including conducting a fire risk assessment, acting on its findings and regularly reviewing the assessment to ensure it is current and accurate. The 'responsible person' is also responsible for ensuring that the mitigations (control measures) outlined in the fire risk assessment are maintained.
- 5.6 The LFB discharges its RRO protection function by ensuring that building owners and occupiers comply with the RRO and any other fire safety legislation. A risk based approach is adopted for selecting buildings to be audited or inspected for compliance. The Brigade enforces fire safety legislation through:
- The proportionate use of enforcement powers, ranging from the giving of advice and issuing enforcement notices to prosecution, when appropriate
  - A proactive programme of building audits across London that focus on premises with the highest risk - as defined by the Chief Fire Officer Association (CFOA) IRMP risk groups
  - Seeking to influence those responsible for designing buildings so that, as far as possible, fire safety measures such as sprinklers are installed
  - Providing advice and guidance to the business community and others on how they can comply with the law whilst not hindering business growth
  - Providing fire safety advice to other agencies through consultation processes
- 5.7 The Brigade also underpins its key prevention and protection activities through media and public affairs campaigns and communications. In all Brigade communications emphasis is placed on:
- influencing the individual choices to keep people safe from fire, such as installing smoke alarms and having an escape plan for your home, not leaving cooking unattended, etc, and
  - working with other agencies that have fire safety responsibilities (such as local authorities) to improve safety and reduce risk, target high risk and vulnerable people, lobby for fire safety measures (e.g. sprinklers) in buildings. It also involves working with developers and the building industry to optimise safety in new buildings and improve access to fire safety information.
- 5.8 Recent Brigade campaigns have included:
- Reducing kitchen fires caused by people drinking alcohol and cooking at the same time



- Supporting new regulations requiring landlords to install working smoke and carbon monoxide alarms in their properties and distributing free smoke alarms to those most at risk
- Reducing the number and impact of fires in waste and recycling facilities
- Campaigning to make white goods safer and improve the product recall system
- Reducing non emergency calls to people shut in lifts
- Reducing calls to incidents that other agencies should attend such as the RSPCA in the case of non-emergency animal rescues

- 5.9 In relation to high rise buildings the Brigade ran a specific campaign in March 2014 directed at those living in these types of premises. This was in part a response to the outcomes from the Coroner's Inquest for the Lakanal House high rise fire, which occurred in 2009 where six people lost their lives. The campaign was called 'Know the Plan' and aimed at increasing awareness of what to do if there is a fire where you live. The campaign also sought to increase awareness amongst landlords and building owners of their fire safety responsibilities.
- 5.10 **Response & Resilience** - The Brigade operates a large and varied fleet of vehicles that carry a variety of specialised equipment and apparatus for use in firefighting and rescue operations. The majority of our front-line fleet is made up of traditional 'fire engines' called pumps or pumping appliances. All fire engines carry standard firefighting equipment, but some carry a longer 13.5m extension ladders and have additional rescue equipment and these vehicles are called pump ladders (PLs). Every fire station in London houses at least one PL, whilst other stations will have two fire engines (1 x Pump Ladder and 1 x Pump). The Brigade's wide range of specialist vehicles have different capabilities and are collectively referred to as special appliances or just simply, 'specials'. These are located at different fire stations across London.
- 5.11 The Brigade locates its fleet of emergency response vehicles in fire stations that offer the best protection to London as a whole. Resources can be drawn from anywhere in London if an incident requires additional fire engines and/or specialist appliances. For the larger more complex incidents, responding fire engines will come from multiple fire stations across London. When this happens Brigade Control will move available fire engines from their base fire station to another location to maintain a level of strategic operational cover across London.
- 5.12 The Brigade always aims to get fire engines and other resources to incidents as quickly as possible. There are performance targets for measuring response times of the first and second fire engines at an incident. The target for the first fire engine is within six minutes and the second fire engine, when needed, within eight minutes. In 2016/17, the average arrival for a first fire engine was 5 minutes 25 seconds and average arrival time for a second fire engine was 6 minutes 48 seconds.
- 5.13 **People and resources** - An operationally competent workforce is essential to the Brigade. As a responsible employer the Brigade aims to ensure that all its staff continually develop and maintain the skills and abilities necessary to safely perform their duties. Accordingly, the Brigade provides continual training, assessment and development of its firefighters and officers to ensure they are equipped to deal with incidents safely and effectively.
- 5.14 Operational competence is maintained through the Brigade's dynamic and intelligent operational training (DIOT) process. This enables the Brigade to identify and respond to risk-critical issues that impact the operational effectiveness of the Brigade. The process also monitors operational and training performance, identifying both positive and developmental trends. It also provides mechanisms to support the maintenance of competence for all operational staff, including the implementation of training interventions. Further detail of staff training, development and the DIOT process is set out later in this document.

## 6. **London Resilience**

- 6.1 In terms of resilience within London the Civil Contingencies Act 2004 sets out the Brigade's emergency planning responsibilities, which include:
- Maintaining emergency plans in relation to pan-London emergencies on behalf of all London's boroughs and the City of London
  - Conducting exercises in relation to pan-London plans for the boroughs and City of London
  - Provision of training in relation to the plans for the boroughs and City of London
- 6.2 In November 2014, the operational responsibility for London-wide resilience (including the transfer of the London Resilience Team at City Hall) passed to the Brigade with the Greater London Authority retaining strategic oversight for resilience in the Capital. The Brigade already had an Emergency Planning team, and since November 2014, both the London Resilience and Emergency Planning teams have been working together as a single group to align their working processes. The London Resilience Group (LRG) is the result of this merger and the single team now has the responsibility for managing resilience in London.
- 6.3 To ensure collaboration between the LRG and the wider partnership is effective two service level agreements have been negotiated. One is with the Greater London Authority and the other with the London boroughs. Both of these agreements help to ensure the LRG can properly support the London Resilience Forum in planning for and co-ordinating the response to any emergency.
- 6.4 The LRG fulfils the following tasks:
- Promote awareness and awareness of risks
  - Coordinate development of multi-agency capabilities, ensuring consistency in the development and maintenance of London's plans
  - Provide the secretariat for the London Resilience Forum, London Resilience Programme Board and Sub-Regional Resilience Forums
  - Provide a liaison point between London responders, the Mayor of London and Central Government, other LRF areas and internationally
  - Provide 24/7 point of contact for the Partnership, coordinating the development of situational awareness, and providing the secretariat for the Strategic Coordination Group when responding to disruptive events
  - Provide a dedicated programme and coordination function for London's Local Authorities.
- 6.5 The LRG also supports London's sub-regional resilience forums, the borough resilience forums responsible for emergency planning at the local level and the strategic response arrangements of London's boroughs by providing the London Local Authority Co-ordination Centre (LLACC). This LLACC is based at the Brigade's London Operations Centre (Brigade Control) in Merton, South London and performs two key functions; i) providing up-to date and accurate information for boroughs and the City of London to make strategic decisions, and ii) coordinating the activities of all boroughs in line with the strategy aims established for any given event or incident.

## 7. **Brigade Control**

- 7.1 The emergency 999 call handling function is undertaken by Brigade Control staff who are located in the London Operations Centre (LOC) in Merton, SW19. Brigade Control has overall responsibility for the handling of the 999 emergency calls passed by BT Operators and mobilising resources in line with the Brigade's 'pre-determined attendance' and operational

policies. The Brigade Control staff are also the people who provide fire survival advice to callers when this is required.

- 7.2 In addition to the above, Brigade Control manages the strategic operational cover when the Brigade's front line resources are depleted either because they are committed to a protracted incident and/or when a specific geographical area of London is experiencing high levels of demand.
- 7.3 The Brigade also has a fallback Control centre in Stratford, East London that mirrors the majority of the functionality and systems used at the primary Control facility. The fallback Brigade Control is not permanently staffed and is primarily utilised when planned routine maintenance and software upgrades need to be undertaken on the mobilising and communications systems at Merton. The fallback Control can also be brought in to operation for a spontaneous and/or unplanned event that significantly impacts on the effective operation of the primary Control facility and/or renders the building unusable.

## 8. Stay Put and Fire Survival Guidance

- 8.1 The 'stay put' and 'fire survival guidance' (FSG) advice is normally provided by Brigade Control staff when a caller indicates that they are trapped by a fire and/or unwilling to leave the property without assistance. The advice given in these circumstances is based upon the established national 'stay put' principles, which are predicated on the expectation that a residential high rise premises are constructed and maintained in accordance with statutory fire safety and building control requirements.
- 8.2 In addition to the national 'stay put' policy the Local Government Group Guidance 'Fire safety in purpose-built blocks of flats' reaffirms the stay put strategy. It states (para. 12.1, page 20) that:

*'When a fire occurs within one dwelling (or less likely, in the common parts), it is normally safe for other residents to remain within their own flat. This principle is undoubtedly successful in an overwhelming number of fires in blocks of flats.'*

- 8.3 There is no other safe basis upon which to fight fires and carry out rescues in high rise residential premises because the majority of these buildings are not designed or managed in a way that permits mass evacuation. A sufficiently wide single staircase and/or multiple escape routes, appropriate fire alarms, an evacuation policy (including an up to date record of people within the building) and awareness by residents of this policy would all be necessary to allow for an effective and reliable mass evacuation approach. This equally applies to a partial evacuation.
- 8.4 In most residential high rise premises there will not be a communal alarm system and the single staircase is not wide enough for all residents to leave simultaneously and safely, without significantly impeding the firefighting and rescue operations.
- 8.5 Where a person is in an area where smoke (but not fire) is present the Control Room Officers (CRO) who are located in a remote location at the Brigade Control have to be careful to avoid a situation in which they advise the occupant(s) to leave the relative safety of their flat and enter an area presenting a much more significant risk to their life.
- 8.6 Brigade Control staff will also provide callers with practical fire survival information, which is aimed to give reassurance and keep the caller relatively safe until the operational crews can reach them.

8.7 As soon as control has confirmed that a FSG call is in progress they will contact the incident ground and start to pass over the initial details. At this stage it is likely to be basic information relating to the number of persons involved and their location within the property. Control will attempt to gather all the available information on a 'Control Information Form' (a form used by Control staff to capture FSG information) and relay this information to the incident. The types of information Control will aim to gather include:

- flat/house door number
- number of persons involved
- location of caller within premises and access point
- condition of their location e.g. heavy smoke, slight smoke, etc.
- the caller's proximity to fire (if known)
- latest advice given by control
- time of FSG call
- time updated

8.8 FSG call information should be passed to the incident by Brigade Control where it will be used to determine what action(s) need to be taken. The expectation is that Incident Commanders (ICs) will treat FSG calls as a priority and develop their tactical plan accordingly. The IC will also consider requesting additional resources to support the specific search and rescue operation associated with the FSG calls.

## 9. **Pre-Determined Attendance (PDA)**

9.1 The number of appliances sent in response to an initial emergency ('999') call will depend on the nature of the incident and the type of premises involved. This response is known as the pre-determined attendance (PDA). For example, the PDA for a private house fire is always two fire engines. For more complex buildings, or where there are complicated firefighter logistics to take into account, the PDA might be larger.

9.2 PDAs are currently divided into four broad categories:

- fires
- special attendances
- reduced attendances
- special service attendances

9.3 Within each broad category there is a range of individual incident types listed that determine what fire engines, equipment, specialist equipment and number of senior/principal officers need to be despatched. The full breakdown of all the attendances relating to each incident type is defined in the Brigade's mobilising policy (Policy Note 412 refers). In addition to defining the specific vehicle, asset or piece of equipment to be mobilised the mobilising policy also details all of the notification requirements for informing senior/principal managers and other agencies when an incident is in progress.

9.4 The mobilising of fire engines, officers and specialist equipment and the maintenance of operational cover within the Brigade area is the responsibility of the Brigade's Control centre. As such, the Operations Manager in Brigade Control has discretionary power to order any additional resources or amend an attendance recommended for an incident. The need to order additional resources or amend the PDA is based upon a number of factors, which may include:

- the type of incident involved
- the number of calls received

- the nature and quality of information supplied by callers
- reports of persons believed to be involved
- whether mobilising restrictions were in force at the time of handling the emergency call
- information known that could affect fire fighting operations, such as known water shortages

- 9.5 Once Brigade Control has mobilised the appropriate PDA it is the responsibility of the designated IC to request any additional resources (Brigade or other agency) that are required to resolve the incident. With the exception of the first Command Unit (CU) to be mobilised ICs may return any vehicles, forming part of the PDA, if they are not required to resolve the incident.
- 9.6 In June 2017 the PDA for a typical high rise fire comprised of the nearest four fire engines. This was based on analysis of the national policy and the number of operational staff and resources required for dealing with a compartment fire in this type of building.
- 9.7 However, as a result of the Grenfell Tower fire, and while waiting for the outcome of the Ministry of Housing, Communities and Local Government (MHCLG) work into cladding on high rise buildings, the Brigade implemented an interim change to the pre-determined (PDA) to all high rise buildings. This resulted, from 22 June 2017, in five fire engines, one aerial appliance and the standard officer compliment for a five pump fire being mobilised to any high rise fire related incident.
- 9.8 In addition to the above, and as a result of the findings from the Government's series of fire safety tests of cladding and insulation combinations undertaken by the Building Research Establishment (BRE), the Brigade made further interim revisions to the PDA to calls to fire in high rise premises. Since the 10 August 2017 when Brigade Control receives multiple calls (four calls or more) to a residential high rise premise the PDA now includes eight fire engines and one aerial appliance. Where the fire is reported to Brigade Control as being on the outside of a cladded building the PDA is increased to ten fire engines and one aerial appliance (if the aerial appliance hasn't already been despatched). When this increase in resources is made the standard officer compliment for an eight and ten pump fire is also mobilised.

## 10. Pre-planning and Risk Information

- 10.1 Under the Fire and Rescue Service Act 2004 the Fire Authority has a duty to obtain the information it requires to make provision for firefighting, road traffic accidents and other emergencies. The process for gathering operational risk information is set out in section 7(2)(d) of the Act. Across the Brigade the process is referred to as a '7(2)(d) visit' and includes:
- Stage 1 - Identification of premises that might potentially give rise to hazards and risks
  - Stage 2 - Initial site analysis (i.e., does the site require a regular visit?)
  - Stage 3 - Information gathering. (Examination of the site where risks can be identified)
  - Stage 4 - Risk assessment. (Deciding whether the site requires a scheduled station visit; the frequency of the visits; the level of information recorded; whether site specific training is required and the level of information required on the tactical plan)
  - Stage 5 - Completing the Operational Risk Database (ORD<sup>1</sup>)/recording the information.

<sup>1</sup> The ORD stores electronic premise information and is linked to the Brigade's station diary application which records all fire station visits.

- 10.2 The primary purpose of the ORD is to record significant hazards/risks. This includes less obvious hazards and any unique control measures in place, as well as any particular tactical

plans or command and control procedures that may be required. Risk information is fed from the ORD to the Brigade's mobile data terminals (MDTs), which are located on all of the Brigade's fire engines. This ensures that risk information is accessible by any appliance commander and crew en-route to an incident (not just the local fire station crews who may have visited the premises as part of the 7(2)(d) visit). Access to this information aims to support the safe management and enhance the successful resolution of the incident.

- 10.3 Any pre-planning where significant risks/hazards have been identified is considered in conjunction with the Brigade's standard operating procedures (SOPs), operational tactics (especially those highlighted for the premises) and existing knowledge of the premises and local area. The frequency of 7(2)(d) visits also depends on the level of risk associated with the premises.
- 10.4 Some buildings keep local plans and information in a premises information box, which is accessible by the Brigade. Some premises also have external 'premise information plates' (PIPs) installed, which provide relevant information about the building, such as number of floors, location of stairs and lifts and the layout of flats. This information can be useful to all the emergency services during an incident. Currently the Brigade has no legislative powers to require premises to keep such information.
- 10.5 The Brigade also has the facility within the ORD system to create electronic premise information plate (e-PIP) information, which replicates the format of the information available on the physical plates that are attached certain premises.
- 10.6 Given the large number of high rise premises in the geographical area covered by an individual fire station it is not practicable for crews to have a detailed understanding of every premise. As with all aspects of the Brigade's pre planning activities a risk based approach is taken to familiarisation with high rise premises.

## 11. High-Rise Firefighting

- 11.1 The Brigade's policy for high rise firefighting is based on the February 2014 publication '*Generic risk assessment 3.2: fighting fires in high rise buildings*'. GRAs are a series of documents, which were originally published by the Department for Communities and Local Government (DCLG) that establish the tasks that are necessary to be undertaken prior to an incident and when called to attend a fire.

- 11.2 GRA 3.2 describes high rise buildings as follows:

*"For firefighting purposes, a high rise building is considered to be one containing floors at such a height or position, or design that external firefighting and rescue operations may not be feasible or practicable. It should be borne in mind that a similar approach to firefighting and search and rescue may also be required in other buildings which although not viewed as high rise by the very nature of their design may be reliant upon the use of internal access and facilities provided for the FRS.*

*In England and Wales Building Regulations require all buildings over 18m in height to have provisions for firefighting and search and rescue. Basic facilities to be provided within these buildings will include a Firefighting Shaft, a Fire Main (wet system for all buildings above 60m height (50m as of 2007) and a Firefighting Lift. Firefighting Shafts including fire mains (but not firefighting lifts) may also be found in certain building types with floor heights exceeding 7.5m. In addition to those within Firefighting Shafts fire mains may also be located in other staircases within a high rise building."*

- 11.3 The Brigade used the guidance within the GRA 3.2 document to develop its standard operating procedures for high rise incidents. Operational personnel within the Brigade are not necessarily

familiar with GRA 3.2 as the Brigade's approach is set out within its own relevant policies, which mirrors the guidance detailed in the GRA.

- 11.4 The aim of the Brigade's high rise and related policies is to provide sufficient information regarding the hazards most likely to be present at this type of incident and the means of mitigating their potential effect. This enables firefighters to carry out their tasks with a reasonable degree of safety.
- 11.5 The tasks to be undertaken on arrival at a high rise incident will be known to all firefighters through the training that they undergo. It is this training and preparation that informs the tasks that the initial crew will undertake on arrival at a high rise incident. These are called 'on arrival tactics' and for high rise incidents include:
- Securing a water supply
  - Setting in the dry rising main (DRM)<sup>2</sup>
  - Identifying and securing the firefighters lift (if available)
  - Establishing a bridgehead<sup>3</sup>

<sup>2</sup> A DRM is a vertical pipe installed in a building that can have a water supply attached to assist the fire service to distribute firefighting water to multiple levels within the premises.

<sup>3</sup> A bridgehead is a safe position inside a building from which to carry out fire fighting and search/rescue operations.

## 12. Incident Command

- 12.1 At any operational emergency the Brigade's Incident Commander (IC) is the person responsible for the safety of the operational crews under their control. Each IC must ensure that safe systems of work are used by identifying the risks that are present and adopting the most appropriate control measures. This permits operational firefighters to carry out their duties and resolve the incident whilst remaining relatively safe.
- 12.2 In developing the tactical plan and overall strategy to resolve an incident an IC will consider:
- whether there is a need to take any action at all considering the benefit to be gained
  - the speed and weight of the fire fighting attack
  - the hazards and risks that can be reasonably foreseen and assessed
  - the capabilities and limitations of the personnel and equipment available
  - whether all of the above fits a planned scenario or could be reasonably adapted to the circumstances
  - Implementing and maintaining a 'safe system of work' (SSoW)
- 12.3 There are currently four levels of incident command in the Brigade. These levels of command are referenced within National Operational Guidance (NOG) and are separated into four categories; Operational - Levels 1 and 2, Tactical - Level 3 and Strategic - Level 4. The Brigade's IC will always be in attendance at the incident, which differs from other agencies where the Level 2 or 3 IC may be operating remotely from the scene. The Brigade's Level 4 designated officer will normally always be remote from the incident.
- 12.4 Within the Brigade Level 1 ICs are drawn from the roles of Crew and Watch Managers and Level 2 ICs are Station and Group Managers. Deputy Assistant Commissioners (DACs) and Assistant Commissioners (ACs) undertake the Level 3 IC role. Assistant Commissioners can also perform the strategic Level 4 role (often referred to as 'Gold' Command) and is the officer who represent the Brigade at the multi-agency Strategic Co-ordination Group (SCG) meetings.

The Brigade's operational Commissioner and Directors will undertake the role of Monitoring Officer (MO) at the largest and most complex incidents attracting 15-fire engines or more. This level of officer may also be required to attend and/or phone in to the Government's Emergency Response Committee meeting (COBRA) or attend the Mayor's Advisory Group (MAG) meeting.

12.5 As an incident escalates a higher level of supervision is needed to ensure that the command function is maintained at the appropriate level to the size and complexity of the incident. This allows officers in command roles to have manageable spans of control to formulate and implement an appropriate tactical plan. At the larger incidents (typically 4-pumps and above) the IC will have dedicated command support, including a Command Unit crew and a Monitoring Officer.

12.6 When an incident escalates in size in respect to the number of fire engines required and at the point it is decided to change the IC there will be an appropriate handover of the critical information between the two officers. Where possible, previous ICs are kept within the chain of command. The Brigade's Command policy (Policy Note 238) details all of the specific thresholds (size and type of incident) where a higher ranking officer should take over the IC role.

### 13. **Operational and Training Assurance**

13.1 Assurance of the Brigade's operational response to incidents and certain training events is carried out by a discrete group of officers drawn from the Station and Group Manager cadre. This group of officers are known as the Operational Review Team (ORT) and attend the larger incidents and training events attracting 6 or more fire engines. The ORT officers review the incident against the Brigade's standard operational policies, provide operational advice to the IC/MO and, in exceptional circumstances, can be instructed to undertake an alternative command or command support role.

13.2 Closely aligned to the principles of Health and Safety Executive's HSG 65 - 'Successful health and safety management' guidance, the Brigade formally reviews the performance of its ICs and firefighters at post incident debriefs. These formal post incident debriefs are called the performance review of operations (PRO) and performance review of command (PRC).

13.3 The PRC is an analytical process that allows ICs and MOs to discuss, review, analyse and evaluate all aspects of their period in command. The evaluation of the performance of the command function is a mandatory requirement following all incidents and training events of 6 fire engines and above. In addition, a PRC must be held for any incident that has been the subject to a senior accident investigation (SAI), irrespective of the size or type of the incident.

13.4 The PRO is a formal review process for fire station personnel, which is similar to a PRC. PRO's usually involve the fire station crews from the first 6 fire engines to arrive at the incident and are undertaken following:

- All 'make-up' incidents (incidents where additional fire engines, over those despatched as part of the initial PDA are requested by the IC)
- Incidents that involve persons reported or persons trapped.

13.5 A PRO will also be undertaken when the IC or MO believe that it would be beneficial to the attending crews to have a formal debrief.

13.6 All outcomes from both formal debrief events are recorded as part of the Brigade's Incident Monitoring Process (IMP). This includes an electronic database that provides a means to record both positive and developmental trends arising from operational and training events. The IMP



forms an integral part of the Brigade's Dynamic and Intelligent Operational Training (DIOT) process, which drives on-going organisational improvements. More information detailing the DIOT process is provided later in this document.

#### 14. Operational Discretion

14.1 Fire service operations and the emergency situations encountered are not always predictable. It is therefore impossible for the Brigade to provide explicit guidance for resolving every situation firefighters may encounter. To cover situations where an extant policy needs to be adapted to respond to exceptional circumstances the Brigade allows for 'operational discretion'.

14.2 In applying operational discretion ICs need to be sufficiently aware of the Brigade's operational procedures, the skills and qualities of crew members and the capability of the resources available to them. The situations that would normally justify the application of operational discretion include:

- rescue a saveable life in the circumstances where implementation of the full policy would lead to an unjustifiable delay, resulting in the potential for greater injury or lives being lost
- tackle a known small fire through a pre-emptive strike, where the adherence to policy would lead to delay and thereby create higher levels of risk for firefighters to extinguish a fully developed fire
- where no action by the Brigade may cause the public to place themselves at risk and therefore escalate the incident (e.g., child in a lake)

14.3 Any decision to apply operational discretion and any resulting deviation from Brigade policy should be the minimum necessary and only continue until the objective is achieved. Where an increase in risk to personnel, equipment and/or the environment is being considered the IC must always balance this against the perceived benefit(s) to be gained. An IC should only exercise operational discretion after assessing their intended actions and the likely impact. Under these circumstances and in order to minimise exposure to increased levels of risk an IC should consider the following:

- any move away from operational policy must be justified in relation to risk versus benefit, for example rescuing saveable life or, on occasions where the nature of any property under threat justifies some increased level of risk being taken, such as irreplaceable national heritage sites or their contents
- firefighters must not be put at unnecessary risk and the same priority for human life should not be given to animals or property
- in order to minimise exposure to the increased levels of risk, any move away from policy should be the minimum necessary to achieve the objective(s)
- extant operational policy must be returned to as soon as possible after operational discretion has been exercised
- the reasons for adapting operational policy will need to be proportional to the degree of adaptation undertaken i.e., a significant move away from an established policy will require correspondingly high levels of benefit
- if the IC considers that a course of action is required outside of operational policy (i.e., that operational discretion is to be applied), they must ensure that sufficient control measures are implemented to reduce the risk of injury to firefighters and others who might be affected by fire service operations, to as low as reasonably practicable
- the use of operational discretion must be recorded as soon as practicable

14.4 Operational discretion does not permit the wilful disregard of policy without the necessary justification for doing so.

## 15. Incident Communications

15.1 Effective communications are a key element to managing any operational incident. It is also essential for safe operation at incidents and fundamental for securing the level of command and control required to manage operational resources effectively.

15.2 The Brigade employs two main forms of communication equipment. A digital national radio system for wide area communications (between Brigade Control and fire engines) and a system of personal issue ultra high frequency (UHF) analogue radios for local 'at incident' use (incident ground personnel communications). The wide area communications radio traffic is recorded by the computer system used in Brigade Control whilst the UHF analogue 'at incident' radio traffic is not recorded.

15.3 At every incident Brigade Control will communicate with fire engines, command units and officers en-route using the digital national emergency services radio network known as 'Airwave'. This is used primarily to pass specific incident related information from the incident to Brigade Control or from Brigade Control to the incident. All fire engines are fitted with a fixed 'Airwave' radio in the cab of the vehicle.

15.4 All principal and senior officers in the Brigade are provided with personal issue portable handheld 'Airwave' radios. This radio is used by officers to monitor radio traffic (between Brigade Control and the incident) whilst they are en-route to the incident. Officers will typically use this radio to communicate with Brigade Control on their arrival at the scene of operations to book in attendance. Officers can also use this radio to talk to other agencies and organisations who utilise the Airwave system.

15.4 In addition to the 'Airwave' technology every operational firefighter, including senior and principal officers, have their own personal issue handheld analogue UHF radio (similar to what may more commonly be described as a 'walkie talkie'). These handheld radios are programmed with 8 channels, which include channels 1 & 2 for incident command, channels 5 & 6 for use by breathing apparatus crews and channel 3 for firefighter crew communication. These UHF analogue radios can only transmit or receive voice transmissions on one channel at a time. This means it is not possible for more than one user to simultaneously broadcast on the same channel at the same time.

15.5 Channel 1 on the analogue radios is the default channel for all initial incident command communications. It remains the primary command channel until the circumstances of the incident dictate, or the incident commander decides, that additional command and control radio capacity is desirable or required. If this occurs, and once a command unit (CU) is in attendance and operational, the incident commander can introduce the use of an additional command channel (Channel 2). The Brigade's fleet of CU vehicles are fitted with a fixed UHF radio repeater that allows this additional radio channel to be introduced.

15.6 The Brigade's fleet of CU vehicles also carry portable UHF radio repeaters and 'leaky feeder' equipment. The radio repeater technology can be deployed to aid or enhance communications on the UHF channels 2 and 5. However, channel 2 and channel 5 repeaters must not be run simultaneously on the same vehicle and must be at least 10m away from each other to avoid the potential for signal blocking.

15.7 Breathing apparatus (BA) sets are also fitted with a dedicated UHF analogue radio. However, as breathing apparatus crews can be committed into potentially explosive atmospheres all BA radios are certified as intrinsically safe. In order to meet this certification they are programmed

to a lower power output of 1 watt per channel. The lower power output of the radio can in some cases reduce the range of transmission. The radio traffic generated using the UHF BA radios is not recorded.

## **16. Respiratory Protective Equipment (RPE)**

- 16.1 Given the nature of the environment within which fire fighters frequently work the use of RPE is a critical part of the Brigade's operational response to an incident. Breathing Apparatus (BA) equipment provides respiratory protection to firefighters and is essential for their safety and to provide them with the ability to conduct rescues and firefight at incidents where smoke and/or irrespirable atmospheres are, or have the potential to be present.
- 16.2 At all incidents the IC is responsible for ensuring that the correct level of BA is worn whenever there is a risk of personnel suffering respiratory injury or discomfort. Where any doubt exists as to the presence of safe (clean) air the IC will give instructions for RPE to be used. BA is the default level of RPE for fires and other incidents presenting an acute respiratory hazard.
- 16.3 In addition to the respiratory hazards the human body only has a certain capacity to deal with the effects of heat and other stresses imposed upon it during arduous firefighting operations. Firefighters wear protective firefighting clothing, known as firegear, to provide thermal protection. This additional level of personal protection has an impact on the body's ability to dissipate heat and when firefighters work extremely hard, for prolonged periods in high temperatures, this can result in an increase in the person's core body temperature, which in turn can lead to hyperthermia and in extreme cases even death.
- 16.4 The Brigade's policy note 466 (Respiratory Protection Equipment – Breathing Apparatus – Operational Procedure) covers in detail the Brigade's use of BA equipment. However, to assist the understanding of this important element of the Brigade's equipment and capability an overview of the key BA related information is set out below.

## **17. Breathing Apparatus (BA) Sets**

- 17.1 The Brigade uses two types of BA set; Standard Duration Breathing Apparatus (SDBA) and Extended Duration Breathing Apparatus (EDBA). SDBA is a single cylinder system weighing approximately 15kgs and providing the user with around 31 minutes of air. EDBA is a double cylinder system weighing approximately 23kgs and providing approximately 47 minutes of air. These times are only approximate and can be affected significantly by matters such as a firefighter's workload, the location of the fire within the building and the environmental conditions, i.e., extent of smoking logging and temperature the firefighters are experiencing whilst undertaking their firefighting and search and rescue activities.
- 17.2 SDBA is used for all routine fires and rescue operations, whilst EDBA is provided to give an enhanced capability at certain incidents where long travel distances or the conditions likely to be encountered make SDBA less effective, e.g. incidents in tunnels or sub-basements and searching collapsed buildings.
- 17.3 Specialist training is required to wear EDBA and it is predominantly the firefighters that crew the Fire Rescue Units (FRUs) who receive the training to wear and use this type of breathing apparatus. SDBA is normally used to fight fires in high rise premises. As such, EDBA is not mobilised as part of the PDA for high rise fires because it would not normally form part of the tactical plan for dealing with incidents in these types of premises. EDBA is generally used if an extended travel time is required in order to reach the scene of operations, such as a fire on a train in a tunnel.

## 18. **Breathing Apparatus (BA) Procedures**

18.1 When firefighters need to be committed in BA specific procedures must be followed to ensure their safe return before the air in the BA cylinder runs out. These procedures are safety critical and have been developed nationally following years of experience and learning from previous serious injuries and fatalities involving firefighters at incidents. One critical safety procedure relates to the control of firefighters as they enter a premise, which is known as BA Entry Control (BAEC).

## 19. **Breathing Apparatus (BA) Entry Control**

- 19.1 Whenever BA equipment is being deployed a BAEC operative (BAECO) will always be appointed to manage this aspect of the incident as it is vital to safe working practices. The importance of this role cannot be overstated. Crews are normally committed to a building in teams (minimum of 2) and should also return to the BAECO together once they have completed their task. A BA wearer will monitor the air within their own cylinder in order to gauge when they should withdraw from the building. Each BA set also includes a device that will emit an audible warning to firefighters when their air supply is running low.
- 19.2 As an additional safety control the Brigade uses a telemetry capability, which is a live data system that transmits information to and from individual breathing apparatus (BA) sets and the Entry Control Board (ECB) using a set radio frequency. This data exchange allows the BAECO to remotely monitor the actual air consumption of individual BA wearers. The use of telemetry greatly assists the BAECO to effectively monitor air consumption rates for individual BA wearers. The telemetry also provides the BAECO/IC with an ability to alert BA wearers to danger and the need to evacuate a premises and for those BA wearers to acknowledge this alert at the touch of a button located on their BA set.
- 19.3 Telemetry operates in conjunction with the BA Entry Control Board (ECB), which is a rechargeable battery powered unit incorporating a digital radio transmitter/receiver with integral antenna. The ECB has twelve BA tally channel slots each able to accept the encoded BA tally of each BA set. The data transmission link between the ECB and each BA set is activated following the insertion of a BA tally (which has a built in encoded transponder) into any of the available BA tally channels of the ECB. The ECB identifies the associated BA set and the individual BA wearer's telemetry signal radio icon illuminates (green) continuously, confirming a successful telemetry signal with the BA set. This signal can be affected by a building's layout and structure.
- 19.4 The individual BA tally channel LED display defaults to show the actual 'time of warning' (the end of the working duration of the cylinder) information for each wearer. The following additional information is also communicated to the ECB every 20 seconds from each 'logged-on' BA set:
- Time of warning (TOW) default setting
  - Time to warning (TTW)
  - Cylinder pressure (measured in bars)
  - Time elapsed (EL) from loss of signal from a logged-on BA set
- 19.5 Each ECB is individually programmed with a unique identity code together with the allocated individual ECB identification (ID) number. The ECB stores and maintains data that can be downloaded to support any post incident analysis.

## 20. **Breathing Apparatus (BA) Tactics**

- 20.1 The Brigade's primary objective is always to save saveable life. Equally important is the control over the developing fire whilst undertaking any necessary search and rescue of casualties. Fire and the production of hot flammable gases and noxious smoke will continue to grow exponentially where additional fuel is available. Fire and hot smoke may also spread, creating irrespirable and potentially explosive environments in other areas of the building. Not achieving a degree of control over the fire and the explosive gases that are produced has previously resulted in deaths amongst members of the public and firefighters. Therefore, an initial crew's key focus will always include trying to control the fire to enable the search and rescue operations to be commenced and carried out safely.
- 20.2 When dealing with incidents in high rise premises a BA crew's expectation is that the fire would remain in the compartment of origin providing that the fire is fought in a timely fashion. If the fire spreads to other areas of the building more quickly than expected it not only adds to the urgency of extinguishing the new seats of fire, but it can also delay and impact on the progress of undertaking search and rescue activities.

## 21. **Aerial Appliances**

- 21.1 The Brigade has 11 frontline aerial appliances, which consist of 3 different types of vehicle:
- Turntable Ladders
  - Aerial Ladder Platforms
  - Hydraulic Platforms
- 21.2 All three vehicle types have varying functions/capabilities and achieve a range of heights from 22 to 32 metres. In optimum conditions the Turntable Ladder has the maximum 32m height reach, which is equivalent to the 10th floor of a typical high rise premise.
- 21.3 These vehicles were originally chosen taking in to account factors such as the technology available at the time of purchase, the ability to locate the vehicles within the existing Brigade's fire station estate, their operational capability and vehicular access in London streets, etc.
- 21.4 Across London, arrangements for access to buildings for Brigade vehicles, including aerial appliances, varies considerably. Whilst current building regulations require that new buildings should provide access for both fire engines (pumps) and aerial appliances, the reality is that older buildings in London often provide limited access, especially for the larger vehicles, such as aerial appliances.
- 21.5 Aerial appliances are not normally used for external firefighting in high rise residential premises until it has been confirmed that there is no longer any life risk in the building. This is because there is a danger of jets entering the building and injuring occupants or firefighters. Equally, whether a jet or a covering spray is used, there is a real risk of preventing hot gases and other products of combustion being vented from the building. This in turn makes the conditions inside the premises even more difficult for occupants and firefighters and increases the likelihood of pushing the fire further into the building.
- 21.6 The effective deployment of an aerial appliance at a residential high rise fire will nearly always be predicated on being able to position the vehicle in close proximity to the building. This is not always possible due to a number of factors such as restricted access, falling debris, radiated heat and the volume of smoke and flame venting from the building.

- 21.7 At the time of the Grenfell Tower fire an aerial appliance was not automatically included within the PDA for high rise premises. Prior to Grenfell their inclusion in the PDA was a matter of discretion for the local fire station crews, in conjunction with their Station Manager. In considering whether an aerial appliance should be included as part of the PDA to a particular high rise premise the fire station personnel would have placed a considerable reliance on the fact that the building would be compliant with the statutory requirements in respect to its building design, construction, maintenance and refurbishment. Fire station personnel would also have been aware of the Brigade's policy on high rise firefighting tactics, which states that fires in these types of buildings are intended to be fought from within.
- 21.8 As a result of the Grenfell Tower fire and while waiting for the outcome of the MHCLG work into cladding on high rise buildings the Brigade implemented an interim change to the pre-determined (PDA) to all high rise building. This resulted, from 22 June 2017, in five fire engines and one aerial appliance being mobilised to any high rise fire related incident. This interim PDA is still in force at the point this document was produced (March 2018).

## 22. Command Support

- 22.1 The Brigade operates a range of command support functions based upon on the size and nature of the incident. For the smaller more routine incidents, typically those that do not require any additional resources to be mobilised, the command support function will be carried out from the Initial Command Pump (ICP) . The ICP will be established as soon as possible whenever more than one pumping appliance is in attendance. The headlights and blue beacons of the designated ICP will remain on to assist in identifying this appliance as the ICP.
- 22.2 The ICP will provide the communications link between Brigade Control and the incident and remain the incident focal point until the incident is concluded or relieved by a Command Unit (CU). Appliance commanders and senior officers will report to the ICP, hand in their nominal roll board (NRB)<sup>4</sup> and gather information on the incident. The ICP will also be utilised as a focal point for a roll call (when the CU is not in attendance) following an evacuation of Brigade personnel from a building or area of operations.

<sup>4</sup> NRB is a physical plate carried on all Brigade vehicles that provides details about the fire engine type, vehicle call-sign and the names and rank of the crew riding that vehicle. For senior officers it will detail the officer's name, call-sign, car registration and any specialist qualifications that the officer holds.

- 22.3 At the larger operational incidents (typically 4 or more fire engines) a CU will be mobilised to provide a dedicated and enhanced level of command support. The CU will be crewed by minimum staffing of two Watch Managers (WM) and provide command support to the IC. The vehicle has a bespoke software application, called the Command Support System (CSS) which is used to help manage the incident. It also has a range of information systems, which enables the IC to access a wide range of information, including the operational risk database, water supplies, chemical data, google maps, etc. Once in attendance and set-up the CU will become the focal/rendezvous point for booking-in fire engines, senior officers and other emergency agencies attending the incident.
- 22.4 The CU staff will carry out the following specific tasks when in-attendance at an incident:
- Provide advice to the IC in relation to command support
  - Relieve the ICP of its duties and transfer all available information to the CU
  - Notify Brigade Control that the CU is now incident command vehicle
  - Enter preliminary incident details on the CSS or the incident information boards
  - Transmit and receive messages to and from Brigade Control

- Maintain and update the plan of the incident, including the recording of the duties and location of senior officers and operational crews committed at the incident
- Maintain an operational overview of the reserve appliances and crews held at the marshalling area (if in operation) and advise the IC accordingly
- Maintain radio contact with the IC when they leave the CU
- Co-ordinate and maintain radio contact with sector/operations commanders
- Provide the appropriate level of information technology support using the available systems
- Maintain contact details of other agencies
- Record key decisions
- Prompt on any risk critical information or action.

22.5 Command staff may request additional personnel from the IC to assist with the CU's administrative functions. When allocated these personnel will be briefed by command staff, they will not however undertake the specialist duties of the command staff.

22.6 At the larger more complex incidents additional CUs will be automatically mobilised and/or can be requested by the IC. For example, when Brigade Control is undertaking a fire survival guidance (FSG) call(s) an additional CU will be automatically mobilised along with a senior officer to deal with the collation and management of the FSG information. CU vehicles can also be used for functions such as marshalling, hosting the Tactical Co-ordination Group (multi-agency) meetings or to provide a dedicated working space for an officer undertaking a command or specialist support role.

## 23. **Fire Investigation**

23.1 The Brigade currently has five fire investigation (FI) vehicles that operate from Dowgate fire station located in the City of London. The FI teams provide support to the Incident Commander in order to assist with determining the cause of a fire. The FI team's other main function is to record how the people and buildings involved in the fire were affected. While there is not a statutory duty to provide a dedicated FI function, the Brigade's fire investigators do have statutory powers under the Fire & Rescue Services Act (2004), which provide powers of entry to investigate fires and take samples.

23.2 The Brigade's FI teams are also unique among Fire & Rescue Services due to the team's key contribution to Prevention activities, with a focus on accidental fire trends such as electrical causes and white goods fires. As well as this type of prevention work the FI team regularly prepare reports and attend Coroner's inquests to give evidence on behalf of the Brigade.

## 24. **Underpinning Systems**

24.1 The following sections detail some of the key under-pinning systems that support the functions and services provided by the Brigade.

## 25. **National Operational Guidance (NOG)**

25.1 Operational guidance takes on a particular significance in the context of the fire service, due to the inherent risks faced by staff in the course of their work. National Operational Guidance (NOG) therefore exists to ensure that the technical and operational considerations in areas such as working in tunnels and at incidents involving railways or aircrafts are properly understood. It provides guidance on how these considerations should influence pre-planning for incidents as well as incident management during an actual incident to both minimise the risks to staff and also optimise the likelihood of successful incident outcomes.

25.2 In 2012 the NOG programme was set up by the Brigade in collaboration with the Chief Fire Officers Association (CFOA), the Department for Communities and Local Government (DCLG) and the Local Government Association (LGA), to develop a programme of guidance to replace existing manuals and bulletins that were in use across FRSs. The aim was to:

- Develop and enhance safe systems of work
- Promote interoperability between fire services
- Promote effective operational deployment
- Reduce the large volume of guidance, policies and operational doctrine used across the fire sector

25.3 National guidance is written to inform local operational policies and procedures, but does not completely replace them, as individual fire and rescue services have responsibility to ensure that policies and procedures are appropriate for their local risk, circumstances and resources. A team was set up in London at the Brigade Headquarters to carry out this work, known as the Central Programme Team. The team is currently made up of secondees from fire and rescue services including London Fire Brigade. They have been rewriting all the national guidance in phases over the past five years and are scheduled to finish this work in 2018.

## 26. **Brigade Operational Policy**

26.1 The Brigade has developed and has in place an extensive and mature portfolio of operational policies. These extant policies contain a combination of policy statements, procedures, technical information and training. This combined with the training that staff receive, ensures the Brigade has a framework within which staff are able to respond safely to operational incidents.

26.2 To ensure currency all of the Brigade's policy notes they are reviewed on a 3-yearly cyclical basis or more frequently if required.

26.3 To align the Brigade's policies to NOG an integration project was established by the Brigade's Operational Policy department. This enables the Brigade to:

- ensure that Brigade procedures reflect NOG
- change the structure of Brigade operational policy to minimise duplication and provide clear differentiation between 'policy', 'procedure' and 'training'
- ensure the Brigade's operational policies follow a standard format
- facilitate engagement to ensure that any changes, meet the needs of all Brigade stakeholder departments and policy-users
- provide a user friendly interface which allows staff to easily access appropriate operational guidance, training and technical information.

## 27. **Brigade Training Facilities**

27.1 In November 2011 the Brigade agreed to outsource its training function and awarded a 25 year contract for the full provision of training, except that associated with the Brigade Control, to Babcock International Group. This contract commenced on 1 April 2012. Babcock currently deliver the majority of their operational skills training at two purpose built training facilities located at Beckton (East London) and Park Royal (West London).

27.2 Beckton - The Beckton training facility occupies around 3,200 square metres and contains a carbonaceous firehouse. It is an indoor 'all-weather' facility supporting a range of operational and personal skills training. The classroom facilities include the main incident command training suite, which includes a full size static replica of a Command Unit (CU) to provide a realistic



training environment for ICs. The fire house at Beckton is a three storey carbonaceous facility with multiple burn rooms in which staff train in a wide variety of scenarios. Using the latest technology the fire house has zero emissions ensuring that the facility remains carbon neutral. This smoke cleansing system also means that other BA courses can run concurrently thereby maximising the capacity for training. There is also an urban search and rescue (USAR) rig at Beckton, which includes six areas for specialist rescue training that can be used individually or as one large multi-disciplined facility. Brigade staff benefit from being able to receive both practical and knowledge based training through the use of on-site classroom facilities.

- 27.3 Incident Command training at Beckton is delivered using state-of-the-art technology including floor to ceiling screens, recorded audio and a gaming style interactive software platform. All supervisory managers and above are able to hone their incident command skills in an immersive training experience. There are four pods on site, which can be used individually or together for a full view of the simulated incident ground. A wide range of incident command scenarios, including many involving high rise premises, are available to keep training varied and current. Interaction with on-screen characters (known as talking-heads) adds to the realism of the learning experience and trainers are able to monitor actions and provide immediate feedback.
- 27.4 Park Royal - the Park Royal training facility is located on a site of around 4,500 square metres and includes a four storey fire house and drill tower facility capable of supporting carbonaceous fire training. The facility provides a wide range of operational skills training, personal skills training and modules within the initial trainee firefighter programme. The training block also contains classrooms, syndicate rooms, gym and welfare facilities. The Park Royal fire house is spread over four floors and can be set-up to replicate both commercial and domestic related scenarios. There are multiple burn rooms, which can be used simultaneously and operational crews benefit from being able to practice their BA skills and firefighting tactics at a range of challenging scenarios.
- 27.5 In addition to the two dedicated training facilities and as well as using Brigade venues such as fire stations, Babcock utilise external venues. For example; staff train in water rescue at the Lee Valley White Water Centre in Hertfordshire and undertake trench rescue training at an external site close to City Airport.
- 27.6 Approval for funding to build a Brigade Training Centre in Croydon, was agreed in September 2016. The Croydon facility will include a six storey fire house, which will be used to simulate high rise scenarios. This new facility is expected to be operational in early 2020.

## 28. **Staff Development and Training Delivery**

28.1 The Brigade's training requirements and frequency of delivery are categorised using the following criteria:

- Initial acquisition: This refers to courses where a delegate is gaining specific knowledge and skills for the first time. An individual will usually only complete this course once; for example, firefighter development courses (operational staff).
- Refresher: This refers to a course that is completed to refresh the skills that an individual gained in their initial acquisition training. For example, a firefighter will gain initial training in breathing apparatus (BA) during their firefighter development programme. These skills are then refreshed in a two day BA Refresher course. Refresher course frequencies are determined by HSE guidance (e.g. BA Refreshers), National Competency Frameworks (e.g. High Volume Pump and Mass Decontamination), external governance arrangements (e.g. clinical governance for Immediate Emergency Care training) and industry standards (e.g. line and water). These frequencies are reviewed annually.

- Confirmation of skills: There are a small number of courses, which confirm an individual's skills and may include refresher training, such as the one day BA Confirmation of Skills course or the Emergency Response Driver Refresher and Reassessment course.
- Initial/refresher: There are a number of courses, for which delegates will repeat the initial course in order to refresh their skills and knowledge. This is due to time elapsed between a delegates initial attendance and repeating the course. It is highly probable that the course will have been updated to reflect changes in legislation and to ensure that current practice is adopted. This is the case for Senior Officer (operational staff) First Aid training.
- Assessment: These courses are completed by individuals going through a formal Assessment Development Centre (ADC) to gain promotion.

- 28.2 Learning and development opportunities are advertised in a course guide on the Brigade's intranet site. The current course guide contains over 250 separate training interventions available to Brigade staff. In addition there are around 300 online e-learning training packages. Each of these courses and training packages are reviewed formally on a 2 year rolling programme.
- 28.3 The National Incident Command System (NICS) forms an integral part of all the Brigade's incident command training. A comprehensive training programme is in place to ensure that all ICs (and potential ICs) are afforded high quality incident command development and the opportunity to practice command skills in a safe environment. Effective systems are in place to ensure that all relevant staff are assigned regular training courses and monitoring systems are used to identify development needs and provide additional training and support if required.
- 28.4 Incident command training for level 1 (crew manager and watch manager) and level 2 (station manager and group manager) include an online pre-course knowledge digest and a multi-choice knowledge check on the first day of the training course. This knowledge digest contains extracts from a range of Brigade policies and other guidance such as the NOG notes and includes several references to high rise buildings and firefighting. For level 1 training there are currently five exercise scenarios that can be used which relate to incidents in a building with 5 or more floors. The level 2 training also includes a workshop relating to an incident in a 11-storey building, which may be used.
- 28.5 The established incident command training regimes for operational, tactical and strategic command have been enhanced over recent years. The 2012 Olympic and Paralympic Games provided additional opportunities for command training and exercising at all levels. The Joint Emergency Services Interoperability Programme (JESIP) programme has also provided further opportunities for enhanced training and exercising.
- 28.6 Multi-agency training - a comprehensive multi agency training and exercising agenda is also in place for tactical and strategic commanders. This includes the Multi Agency Gold Incident Command (MAGIC) course, which is delivered by the College of Policing.
- 28.7 Breathing apparatus (BA) training - Training in breathing apparatus (BA) in a real fire setting is delivered in the Beckton and Park Royal training facilities. These fire house facilities allow operational staff at firefighter, crew and watch manager levels to practice their skills in a safe environment. Staff individually attend a two day BA course every two years and a one day 'Confirmation of Skills' BA course usually as a crew, annually. Monitoring systems are in place to identify development needs and provide additional training and support if required.
- 28.8 Immediate emergency care (IEC) training - IEC is a training package developed by the Brigade and the London Ambulance Service's (LAS) Clinical Education and Standards Department to give firefighters an enhanced first aid capability to treat casualties whilst carrying out their duties. Firefighters, crew managers and watch managers (excluding watch managers on the

command units and fire investigation vehicles) receive a five day initial acquisition course, a three day refresher course every three years and a one day update course annually. Senior officers (Station Managers and above, plus watch managers from the command units and fire investigation teams) currently receive an one day IEC overview course every two years.

- 28.9 Personal Development Records (PDR) - An online PDR system is used to record development and assessment activities in the workplace and record feedback on an individual's performance and development. Quality assurance of PDR records is achieved using a two stage process. The assessor's line manager acts as a primary quality assurer, moderating the record to make sure that consistent assessment standards are applied and maintained. The Development and Training department complete a final quality assurance check to help ensure that assessment decisions are fair, consistent and robust across the organisation. Following this, the request for competence is either authorised or returned to the assessor and moderator for further action.
- 28.10 Following completion of the 11 week initial firefighter training programme or promotion to a new role, operational staff undertake a formal development programme before being assessed as competent in role by a sector competent assessor. The competent assessor is usually the individual's line manager. Sector competence means that an assessor is occupationally competent in the area or sector in which a candidate is being developed and assessed. The line manager assesses competence against national occupational standards using the appropriate role map.
- 28.11 For new firefighters competence in the role is expected to be gained within 36 months of joining the Brigade. For other operational roles, competence is expected to be demonstrated within 18 months from the date of promotion to a new role.

## 29. **Development and Maintenance of Operational Professionalism (DaMOP)**

- 29.1 The Brigade uses a number of systems to measure and evaluate the effectiveness of its training and development activities. A regular report is provided on the performance of Babcock Training Limited to the Brigade's Corporate Management Board (CMB) and Resources Committee. The latest report is available on the London Fire Brigade website.
- 29.2 In addition to the formal reporting processes the Brigade has a range of other training quality assurance and evaluation processes in place. Through these processes, the Brigade measures Babcock Training Limited's performance and seeks assurance that the training provided fully meets the needs of the organisation. All courses in the Brigade's annual training delivery plan are audited at least once a year. In addition, and as a minimum, all centrally led training delivery is subject to a formal Level 1 evaluation. This performance data is reviewed on a monthly basis and remedial action is taken to improve areas of under-performance if any are identified.

## 30. **Staff Promotion**

- 30.1 Selection processes for all Level 1, 2, 3 and 4 command roles incorporate a formal incident command assessment. For station managers and above (level 2 to 4) this involves a formal assessment at one of Babcock's incident command training facilities. The formal assessments are facilitated by Babcock Training Limited using Brigade principal and senior officers as role players and assessors.

## 31. **Health & Safety**

- 31.1 Health and safety is an integral component in delivering quality services to the public by ensuring that we manage risk in order to protect the health, safety and welfare of all our employees and any other persons who may be affected by our operations, including members of the public.

31.2 In confirming this commitment the aims of the Authority's Health and Safety Policy are to:

- Provide visible leadership by senior management through demonstration of the behaviour and culture that the Brigade requires of all employees and those who work with us
- Ensure compliance with relevant legislation, Authority Policy, Procedures and Mayoral Strategies
- Clearly define the responsibilities and duties of all employees
- Engage the co-operation of employees at all levels through open communication and consultation and the promotion of health and safety awareness
- Ensure safe systems of work are in place to minimise risk of injury and ill health, so far as is reasonably practicable
- Provide and maintain safe working conditions, plant and equipment
- Ensure safe handling, use, transportation and storage of substances
- Provide training and resources to ensure that all employees have and demonstrate the required skills, knowledge and understanding to carry out their work safely
- Ensure continuous improvement of the health and safety management system

31.3 To support the above the Brigade promotes communication and consultation with its staff and trade union Safety Representatives to ensure participation in the continued development of a positive health and safety culture.

31.4 This Brigade has a specific policy detailing its health and safety commitments (policy No. 597 refers) and this is reviewed annually by the Corporate Management Board (CMB) and/or when there has been significant changes in working practices, re-organisation, risk or legislation. The policy sets out individual responsibilities for the management and integration of health, safety and welfare within designated roles.

31.5 The Brigade also employs a Head of Health and Safety (HoHS) who is responsible for a range of functions, including reviewing and recommending strategic changes, where necessary, to the Health and Safety Policy, organisation, responsibilities, control, monitoring and review arrangements. In liaison with the Brigade's Information Management Team, the HoHS also prepares quarterly and other routine Health and Safety performance management reports, which are scrutinised by the CMB and the Brigade's Elected Members. The Elected Members scrutiny function was passed to the Mayor's office once the Policing and Crime Act was enacted (April 2018).

31.6 The Brigade also requires all personnel to be trained to the required level of competence for their duties with regard to health and safety. These competence are demonstrated by such methods as:

- Examination
- Testing
- Maintenance of skills
- Externally accredited and recognised qualifications
- Independent quality assurance assessments of the training provision

31.7 The training of the Brigade's firefighters relies upon maintaining the Safe Person Concept, which requires them to possess the necessary knowledge, skills and understanding of potential hazards to facilitate professional judgement in order to control risks inherent in the unique circumstances of any emergency situation. This process does not require exhaustive prescriptive procedures.

## 32. **Provision and Maintenance of Appliances and Equipment**

- 32.1 All of the Brigade's fleet of vehicles and operational equipment items are capital assets and are currently wholly owned by the Brigade. With the exception of personal protective equipment (fire gear), breathing apparatus, hose, line rescue, hazardous material and first aid equipment all the assets are managed through a 'Vehicles and Operational Equipment' contract with Babcock Critical Services Ltd (BCS).
- 32.2 All vehicles and operational equipment items covered by the BCS contract are subject to a lifing policy that baselines the expected life for each type of asset and group of assets. All asset lifing policies are reviewed annually with BCS.
- 32.3 In advance of each asset's end of life, projects are initiated with lead times intended to be sufficient to work through the processes and procedures in order to procure and implement the replacement items before the old equipment becomes redundant.
- 32.4 The requirements and specifications for new types of equipment (or additions to existing types of equipment) are initiated by requests and business cases from the Brigade's lead user departments. These requests initiate procurement and implementation projects that are managed in the same manner as for replacement items. User engagement and feed back is undertaken through an Operational Sounding Board (OSB), which is managed by the Brigade's Operational Policy Department.
- 32.5 The OSB meets as and when required and includes approximately 120 staff from across the Brigade who have volunteered to represent their operational colleagues in helping to identify improvements to operational vehicles and equipment. This approach ensures that end users have input into the development of the specification for new and replacement appliances and equipment.
- 32.6 There is also a Vehicles & Equipment Assets Oversight Board, which sits quarterly to ensure the Brigade's operational needs are being met. This board also monitors the progress of the capital assets' budget for all new and replacement projects.
- 32.7 In relation to the maintenance of the Brigade's vehicles and equipment BCS have a large workshop in Ruislip that they took over from the Brigade on the commencement of the contract. The company also provide a mobile repair service.
- 32.8 BCS produce an annual planned service programme for the Brigade and once this is agreed they provide the Brigade with a monthly service schedule for its fleet of vehicles. Each monthly service is listed in date order with an additional provisional date as a contingency should the first service date be missed due to the vehicle being unavailable or deployed at an operational incident. The Brigade also employs its own 'compliance officer' who ensures the BCS timings for the maintenance and vehicle checks conform to both legal and manufacturers recommended requirements.
- 32.8 A minimum of 28 days in advance BCS will, in writing, contact the officer of any vehicle or equipment item required for planned maintenance. This notification confirms the collection or appointment time. The Brigade officer will ensure that this information is recorded in the station diary. This helps to ensure that the vehicle or item of equipment is available for collection on the planned day, subject to the Brigade's operational requirements. At least 24 hours before the collection/appointment, BCS will contact the fire station to confirm a time with them and this will be repeated on the day of collection/appointment no later than 20 minutes before arrival to ensure the vehicle or item of equipment is ready.

32.9 In terms of vehicle and equipment defects, BCS is contracted to either replace the item or repair it within certain time frames. This is dependant on the nature and type of defect being reported. For vehicle defect there are four different codes, which are:

- Code 1 - Fleet item unavailable due to being dangerously unsafe, illegal or not fit for purpose. In this case, all pumping appliances must be repaired or replaced within 2 hours and 4 hours for all other vehicle types
- Code 1d - 'Delayed'; can be applicable to a limited range of defects and has a maximum time of 24 hours to repair or replace the fleet item unless prevailing conditions change and the vehicle is then rendered unavailable (Code 1)
- Code 2 - This level of defect does not render the fleet item unavailable, but it is serious enough to require a repair or replacement within 5 days
- Code 3 - This refers to a minor defect that does not render the vehicle unavailable and can be left to the next scheduled routine service if soon enough or rectified within 13 weeks as a maximum.

32.10 Equipment defects have two different categorisations as follows;

- Category 'A' - Operational equipment that is of such importance that it must be repaired or replaced within 2 hours if carried on a front line pumping appliance and 4 hours for all other vehicle types
- Category 'B' - All other operational equipment items, these should be replaced within 5 days.

32.11 In respect to the Mobile Data Terminals (MDTs) and the Command Support Software (CSS) these systems are jointly maintained by the Brigade and BCS depending on whether the issue is identified as a hardware or software problem.

### 33. **Cross Border Deployments**

33.1 The mobilisation of resources into and from neighbouring Fire and Rescue Service (FRS) areas is known as cross-border deployments. Resources that may be requested to deploy cross-border are mobilised under mutual aid arrangements provided for under sections 13 and 16 of the Fire and Rescue Services Act 2004 (FRSA).

33.2 Requests for resources from a neighbouring FRSs will normally being initiated by an LFB IC or when the Brigade Coordination Centre (BCC) has been established the Deputy Assistant Commissioner (DAC) who is managing this function. This would normally be done in consultation with the IC at the scene of operations and the Operations Manager in Brigade Control. Once the decision is taken to request a specific appliance or asset from a neighbouring FRS it is Brigade Control that will initiate the request and provide details of the address where the resource is required to go. In the event that the requested asset from the neighbouring FRS needs assistance in locating the London incident arrangements can be made with the Metropolitan Police Service (MPS) to rendezvous with the vehicle/resource at an agreed location. From this agreed rendezvous point the MPS will provide a pathfinder vehicle to lead the appliance/resource to the incident.

### 34. **Major Incident Investigation**

34.1 In the course of delivering its services to London, the Brigade has to respond to major incidents and large scale events. Some of these will inevitably become the subject of detailed scrutiny at a subsequent inquest, public inquiry or other public forum. Examples of such incidents include the London bombings (July 2005), and the Lakanal House fire (July 2009).

- 34.2 These types of events require extensive investigation over and above the existing investigation processes and/or may require an enhanced level of co-ordination. When this situation arises the Brigade will consider appointing a dedicated team to take responsibility for coordinating and managing all the available evidence that may be needed for disclosure to an external body.
- 34.3 The same team will also manage the internal review of the Brigade's performance and carry out any safety related investigations to highlight any lessons to be learnt, which would improve public/firefighter safety and drive organisational development.
- 34.4 Following the Grenfell Tower fire the Brigade established a dedicated team to undertake the above functions including supporting the disclosure requirements associated with both the criminal investigation and Public Inquiry.





# **LAKANAL HOUSE INCIDENT**

## **ASSURANCE REVIEW**

**A review of actions taken by the Brigade in response to the Lakanal House incident.**

**A report prepared for the Grenfell Tower Investigation and Review Team.**  
**7 August 2018**



## **CONTENTS**

<b>INTRODUCTION</b>	<b>5</b>
The Lakanal House Fire and Inquests	5
Purpose of the report	7
Scope of the review	7
<b>METHODOLOGY – Gathering and presenting evidence</b>	<b>9</b>
<b>SECTION 1 – Actions identified by the Brigade in advance of the inquests into the Lakanal House fire</b>	<b>12</b>
<b>SECTION 2 – Actions taken by the Brigade in response to the recommendations made by the Coroner following the inquests into the Lakanal House fire</b>	<b>24</b>
<b>SECTION 3 – Further actions taken by the Brigade following the inquests into the Lakanal House fire (but not in response to the recommendations made by the Coroner following the inquest)</b>	<b>33</b>
<b>LIST OF REFERENCES (Documentary evidence)</b>	<b>37</b>

# INTRODUCTION

## THE LAKANAL HOUSE FIRE AND INQUESTS

On 3 July 2009 the Brigade was called to a fire in a high rise residential block, Lakanal House, Camberwell, London. The fire started in a maisonette on the 9<sup>th</sup> floor and very quickly spread up the building to the 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> floors. The first crews arrived within 3 minutes of being mobilised and began to tackle the flat fire within 10 minutes.

Unusually, the fire also spread down the building to the 5<sup>th</sup> and 7<sup>th</sup> floors. This unusual fire spread challenged our existing high rise policy and the national Generic Risk Assessment, both documents which rely on the compartmentation within the building containing a fire and allowing sufficient time for the Brigade to intervene. Over the next 30 minutes the fire and smoke breached the original flat compartment and spread to involve the 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> floors. Smoke logging affected large parts of the building including the communal staircase, communal corridors and many of the 98 flats in the 14 storey building. 6 people, including three children, lost their lives as a result of the fire. Additionally, 15 people were taken to hospital suffering from smoke inhalation and one firefighter was admitted to hospital to receive treatment for heat exhaustion. 38 people were assisted out of the building or rescued by the Brigade.

At the height of the incident more than 100 firefighters were at the scene as part of an attendance that included 18 pumping engines, 9 Fire Rescue Units and a range of other specialist fire engines and officers.

Following the fire the Metropolitan Police Service initiated an investigation, which involved the Health and Safety Executive and the Brigade, looking at possible manslaughter charges. However, in May 2012 the Crown Prosecution Service announced that they would not prosecute as they were satisfied there was no realistic prospect of conviction for an offence of manslaughter by gross negligence or corporate manslaughter against any body or persons.

Following the Crown Prosecution Service's decision not to prosecute, the Coroner, Her Honour Judge Frances Kirkham, set a date for the inquests. The inquests commenced at Lambeth Town Hall on 14 January 2013 and continued until 28 March 2013. The Coroner

summed up the evidence to the jury on 20 and 21 March 2013 and the jury provided their narrative verdicts on 28 March 2013. A full transcript of the Coroner's summing up to the jury, together with transcripts of the proceedings can be found on Lambeth Council's website:

<https://www.lambeth.gov.uk/elections-and-council/lakanal-house-coroner-inquest>

In relation to the Brigade's response to the incident the jury's comments focused mainly on three matters. Firstly the perceived lack of knowledge amongst Brigade personnel about the layout of the building and flat numbering system. Secondly, the fact that smoke logging within the communal areas of the building, together with firefighters becoming involved in rescuing other residents, hampered rescue attempts from flats 79 and 81 (where the 6 deceased people were found). Additionally, the jury commented that insufficient efforts were made to prioritise these flats. Brigade Control training, communications between Brigade Control and the fireground and Brigade Control operator's reliance on callers being rescued were issues also highlighted by the jury.

The jury also expressed their views in each verdict on the lack of fire compartmentation within the building. The jury's verdicts should be considered against the background of the evidence of the fire officers and experts that this was an unusual fire in the history of the fire and rescue services in the United Kingdom. In particular, the Coroner's firefighting expert Brian Davey explained that he had not found any other examples of fire having spread downwards in a similar manner. The Coroner made 5 recommendations using her powers under Rule 43 of the Coroners Rules 1984<sup>1</sup>. A Rule 43 report identifies actions that should be taken to prevent future deaths; one of these was addressed to the Brigade. However, the Coroner also acknowledged the extensive work that the Brigade has specifically undertaken in the period since the Lakanal House fire, which included the following:

---

<sup>1</sup> Coroners Rules were changed in 2013. The Coroner's power to make recommendations to prevent future deaths is now covered in Regulation 28 of the Coroners (Investigations) Regulations 2013.

- guidance to crews making risk assessments for sites in their area
- guidance as to matters which should be noted by crews making familiarisation visits and visits pursuant to section 7(2)(d) of the Fire and Rescue Services Act 2004, including the gathering of information regarding flats or maisonettes with unusual layouts and
- arrangements for access and use of aerial ladder platforms and other specialist vehicles
- cooperation with London Boroughs to develop a pilot scheme for the provision of "premises information plates" at buildings
- awareness that fire can spread downwards and laterally in a building and that burning debris might fall through open windows or on to balconies
- awareness of the risk of spread of fire above and adjacent to a fire flat
- procedures for moving a bridgehead
- communication between Brigade Control and those at an incident
- new guidance as to the handling of fire survival guidance calls and training for officers dealing with such calls
- introduction of Mobile Data Terminals in all front line fire engines, and
- introduction of forward information boards.

result in rapid and frequent changes of Incident Commander. It is also recommended that consideration be given to training of Incident Commanders to enhance their performance in relation to a number of specific areas

- It is recommended that the Brigade consider whether training be given to operational crews about Brigade Control practices and procedures
- It is recommended that the Brigade consider whether it would be beneficial to use additional breathing apparatus radio communications channels and personal radio channels at major incidents to reduce the amount of traffic on each channel.

A summary of the specific Coroner's recommendations sent to the Brigade is as follows:

- It is recommended that the Brigade considers how to improve the dissemination of fire safety information to achieve effective communication with residents of high rise buildings
- It is recommended that the Brigade review procedures for sharing information as a result of section 7(2)(d), familiarisation and home fire safety visits with crews both within the station in question and at other local stations
- It is recommended that the Brigade review its policy and procedures concerning incident command, having regard to whether it is effective for the choice of Incident Commander to be tied closely to the number or type of fire engines attending an incident and the effectiveness of a policy which may

## PURPOSE OF THIS REPORT

This report was commissioned by the Grenfell Tower Investigation and Review Team following the Grenfell Tower fire in June 2017. Similarities had been observed between the Grenfell Tower fire and the Lakanal House fire of 3 July 2009 and it was determined that the Brigade should complete an internal review of the lessons learned following the Lakanal House fire and the progress made against actions identified internally and by HM Coroner following the inquests into the Lakanal House fire.

The primary aim of the review is to establish if actions taken by the Brigade in response to the Lakanal House fire have been completed and embedded in daily working routines.

The objectives of the review are to:

- (1) Identify the key actions taken by the Brigade following the Lakanal House fire to improve working practices and public safety in relation to residential high rise premises
- (2) Identify the key actions taken by the Brigade in response to the Coroner's recommendations to prevent future deaths following the inquests into the Lakanal House Fire
- (3) Assess whether all key actions have been completed, and
- (4) Assess whether all key actions have been embedded in the daily working routines of the Brigade.

Furthermore, if suitable evidence is not available to fully assess the above the review will:

- (5) Undertake to provide further assurance against actions where none is currently available
- (6) Raise any issues identified in the review with the Grenfell Tower Investigation and Review team

## SCOPE OF THE REVIEW

The review is limited to actions taken by the Brigade in response to the Lakanal House fire and includes actions independently identified by the Brigade following the fire and monitored by the Lakanal Board, those recommendations directed at the Brigade by HM

Coroner to prevent future deaths following the inquests into the into the deaths of 6 people who lost their lives in the Lakanal House fire and monitored by the Operational Directorates Coordination Board and those actions taken by the Brigade following the inquests that were identified and monitored by the Lakanal House Working Group.

It will not consider any actions that were directed at third parties by the Coroner or others.

It will not seek to identify any further work or actions that may be indirectly related to the Lakanal House fire where they were not identified by work directly in response to the Lakanal House Fire and/or where they were not incorporated into or monitored via these action plans.

# **METHODOLOGY**

## **Gathering and presenting evidence**



## METHODOLOGY – GATHERING AND PRESENTING EVIDENCE

Correspondence with the Coroner and minutes of Brigade meetings, such as the Lakanal Board and action plans used for monitoring progress have been used for the purposes of identifying the actions the Brigade undertook in response to the Lakanal House fire. For the purposes of this report these actions have been separated into:

- **Pre-inquest actions;** those actions identified by the Brigade in advance of the Coroner's recommendations
- **Inquest actions;** those actions taken in direct response to the recommendations of the Coroner following the inquests into the deaths of 6 people who lost their lives in the Lakanal House fire, and
- **Post-inquest actions;** further actions identified by the Brigade following the response to the recommendations made by the Coroner but not directly related to the Coroner's recommendations or any previous actions undertaken by the Brigade in response to the Lakanal House fire

The anticipated outcomes of Brigade actions were confirmed from action plans and minutes of the various working groups established by the Brigade over time to monitor improvements made in response to the Lakanal house fire, including the Lakanal Board, the Operational Directorates Coordination Board and the Lakanal House Working Group.

Responsible officers for actions were identified through action plans and minutes of Brigade meetings. Where responsible officers had left the Brigade or where staff had changed roles over time alternative officers were identified to provide a point of contact who could talk to the actions and the work undertaken to implement actions with authority.

The initial route to the identification of evidence for completion and/or implementation actions was to hold a series of meetings with responsible officers to discuss (a) the purpose of the Lakanal House Incident assurance review and (b) the actions undertaken and the evidence available to demonstrate that actions had been completed.

This generally identified relevant documentary evidence and records (e.g. reports, papers, minutes,

policies, training materials, communications) related to actions. These documents were reviewed to establish if the specific outcome required by actions had been achieved. Where relevant, evidence was reviewed in respect of national fire and rescue service guidance and national occupational standards.

Where documentary evidence was not immediately available to fully support the completion of actions Brigade databases, electronic records and email accounts were searched, using an electronic discovery software tool, in order to locate the necessary evidence in Brigade emails and electronic data stores.

A variety of information has been used to compile the report and to provide evidence that actions have been adequately completed, including:

- London Fire and Emergency Planning Authority (or sub-committees of the Authority) reports (publicly accessible- Authority papers)
- Brigade Corporate Management Board (CMB) reports
- Brigade internal reports
- External reports, commissioned by or produced for the Brigade
- Brigade policy (policies have been subject to internal consultation – some policies through governance)
- Official letters
- National Fire and Rescue Service guidance
- Brigade training records
- Brigade training materials
- Articles published in internal Brigade media

The relevant documentary evidence for actions has been referenced at the relevant position in the text and is provided as a full list at the end of the report. The referenced documents will generally provide the detail and description of work undertaken to achieve actions; this may be through discussion in a Brigade report or by providing the actual product of actions in terms of policy development or training materials. As such, discussion within the report has been kept to a minimum.

Documentary evidence has been selected such that it is the most relevant and reliable evidence for an action. Wherever possible publicly available papers (i.e. papers the Brigade has previously published on its

website or elsewhere) have been used to establish that outcomes have been achieved. This is because these papers and reports have been subject to additional governance and scrutiny through the Brigade's Corporate Management Board and/or a London Fire and Emergency Planning Authority committee(s), and so the content of such papers and reports will have been reviewed and evaluated by the Commissioner and their advisors and/or by Members of the London Fire and Emergency Planning Authority.

Where actions were related to the amendment or introduction of Brigade procedures and/or working routines further investigation was carried out to assess whether the changes made were communicated to staff and/or were the subject of staff training such that the changes were embedded in daily working routines.

As previously mentioned this report is presented in three sections: pre-inquest actions, inquest actions, and post-inquest actions (other than those directed at the Coroner's recommendations). Where actions have not been completed and/or further work may still be necessary this has been noted in the action description and in the summary to each of the sections.

Where issues are identified in the review they will be raised directly with the Grenfell Tower and Investigation Review Team for their consideration alongside other learning being identified through their investigations into the Grenfell Tower fire. Issues identified in the review will be considered for action in accordance with existing Brigade processes.

## **SECTION 1**

**Actions identified by the Brigade  
in advance of the inquests into the  
Lakanal House fire**

This section covers actions identified by the Brigade before the outcomes of the inquests into the Lakanal House fire and the specific recommendations directed to the Brigade by the Coroner. These actions were monitored through the Lakanal Board.

### **ACTION 1**

**Analyse Brigade High Rise policy in order to:**

- **identify differences between the national Generic Risk Assessment for high rise and the Brigade's policy**
- **identify where the fire behaviour and the response of the Lakanal House building were not supported by local policy and the national Generic Risk Assessment**

A gap analysis was completed to assess the differences between the Brigades High Rise policy (the analysis was completed using the high rise policy extant at July 2009) and the national Generic Risk Assessment for High Rise Firefighting<sup>1</sup>. When completing the gap analysis consideration was given to the specific nature of the Lakanal House fire. Where gaps in Brigade policy were identified recommendations were made to amend Brigade policy (see section 1; action 6). Gaps in the national Generic Risk Assessment were also identified and raised with the Chief Fire and Rescue Adviser's Unit<sup>2</sup>. Further to this action the Brigade subsequently undertook to review the national Generic Risk Assessment for High Rise Firefighting.

### **ACTION 2**

**Commission the Building Research Establishment to undertake modelling in order to:**

- **improve the understanding of the effects of the environmental factors on the building, and**
- **explain the fire development and spread**

The Brigade, together with the Metropolitan Police Service, commissioned Building Research Establishment to investigate how the fire developed and spread to affect the various parts of Lakanal House. Within the agreed objectives of this investigation the Building Research Establishment were asked specifically to develop 'a possible progression sequence for the fire spread and development'. The Building Research Establishment completed computer

modelling supported by a partial reconstruction of the fire, which included consideration of environmental factors, providing an analytical report to the Brigade with their conclusions<sup>3</sup>.

### **ACTION 3**

**Complete an operational sequential time event plot in order to provide a single reference point for all significant operational events and actions, recorded in chronological order at this incident.**

A detailed sequence of events (or timeline) was completed using information from the Brigade's management information system that takes the logs from the Brigade's mobilising system and translates them into incident management data (MobIS), main scheme radio logs and key events identified through investigation<sup>4</sup>.

### **ACTION 4**

**Complete a sequence of events in order to provide an evidenced timeline explaining the sequence in which events happened.**

A detailed sequence of events (or timeline) was completed using information from the Brigade's management information system that takes the logs from the Brigade's mobilising system and translates them into incident management data (MobIS), main scheme radio logs and key events identified through investigation<sup>4</sup>.

### **ACTION 5**

**Undertake a gap analysis of National and Brigade fire survival guidance policies and guidance in order to produce a report identifying where Brigade Control fire survival guidance policy differs from the national guidance.**

A gap analysis of the National Control guidance and Brigade fire survival guidance policies was completed<sup>5</sup>. The gap analysis specifically compared Fire Service Circular 10/1993 'Training of Fire Control Staff' and the accompanying Fire Control Personnel Training package 'Keeping People Safe' (1994) with Brigade policy 539 'Emergency call management' (September 2007 version)<sup>6</sup> and fire survival guidance training materials.

**ACTION 6**

**Undertake a review of high rise policy in order to improve guidance for front line staff to prepare them for the demands of a similar incident by recognising the activities that were necessary.**

Brigade high rise policy was reviewed by completing a gap analysis of existing high rise policy against the national generic risk assessment for high rise, with consideration given to the specific nature of the Lakanal House fire (see section 1; action 1). Following this review Brigade high rise policy was updated to address the recommendations made following the gap analysis and following a further review of the national generic risk assessment for high rise incidents<sup>7,8</sup>.

Changes to high rise procedures were communicated to staff through articles in the Brigade publication Operational News in November 2011<sup>9</sup>, June 2015<sup>10</sup> and again in July 2016<sup>11</sup>, which incorporated a mandatory requirement for watch-based staff to complete training on the high rise procedure. High rise procedures were also the focus of 'back to basics' training on stations in 2016. Changes to procedures, operational equipment and training for high rise firefighting were further promoted with staff in May 2017 as part of the Learning at Work week. This work was supported by the Lakanal House Case study training package, which covers a range of issues associated with the Lakanal House fire (see section 2; action 3(c)).

**ACTION 7**

**Undertake a review of Brigade Control involvement in the Performance Review of Command meetings and Operational Review Team meetings in order to ensure Brigade Control is represented at meetings when a significant control input has been made with the fire ground, such as when multiple fire survival guidance calls have been made.**

A review of Brigade Control involvement in Performance Review of Command meetings was completed and Brigade policy 421 'Performance reviews of the command function (PRC)' was amended to require a representative from Brigade Control to be invited to Performance Review of Command meetings for incidents of 12 pumps and above<sup>12</sup>. In addition a senior Brigade Control Manager attends weekly

Operational Review Team meetings to provide feedback on Brigade Control issues.

**ACTION 8**

**Include an input from Fire Safety Officers in Control Officers' Fire Survival Guidance training in order to ensure that training for Control Officers complies with the requirements of the national guidance (Fire Service Circular 10/1993 'Training of Fire Control Staff').**

Initial training and training for new entrants to the Control Room Officer role in fire survival guidance includes fire safety issues covering fire behaviour, building structure (types and concepts) and fire survival in accordance with the national guidance. This training material was designed by Fire Safety Officers. Fire Safety Officers deliver training presentations on fire behaviour, fire survival and building structure (types and contents) to new entrants to the Control Room Officer role.

The fire survival guidance presentations used for refreshing staff on the principles of fire survival guidance calls cover the basic elements of the national guidance with respect to escape from different types of properties and basic fire survival techniques to protect callers from the effects of flames, heat and smoke. Although recommended by the national guidance Fire Safety Officers are not involved in delivering fire survival guidance refresher training<sup>13</sup>.

**ACTION 9**

**Revise the Reference Information File used by Control Officers when delivering fire survival guidance in order to ensure that they comply with national guidance.**

Reference Information Files provide Control staff with a concise summary of the key actions that should be taken for an incident when handling emergency calls.

The two Reference Information Files relevant to fire survival guidance have been reviewed and amended to comply with Fire Service Circular 10/1993 'Training of fire control staff' (and associated training materials) and Fire Service Circular 54/2004 'Emergency Call Management'. The Reference Information Files are

installed on the Brigade's mobilising system where they are available electronically to Control staff.

Two Reference Information Files are available; one for Control Officers<sup>14</sup>, that covers the specifics of dealing directly with fire survival guidance calls, and one for Control Supervisors<sup>15</sup>, which outlines the role of the Control Officer in fire survival guidance, provides specific checks to make and describes how and what information should be passed to the incident ground.

#### **ACTION 10**

**Review Brigade policy 539 'Emergency Call Management' in order to ensure it complies with national guidance.**

Brigade policy 539 'Emergency Call Management' was reviewed in line with Fire Service Circulars 10/1993 'Training of Fire Control Staff' and 54/2004 'Emergency Call Management'. The policy contains guidance on fire survival calls and obtaining critical information from callers to be passed to the incident ground in accordance with the national guidance<sup>16</sup>.

#### **ACTION 11**

**Deliver initial Fire Survival Guidance (FSG) training which complies with the National Guidance to Control Room Officers (CRO) in order to develop the performance of the CROs when handling FSG calls.**

The Brigade reviewed fire survival guidance training, conducting a gap analysis of current training with national guidance<sup>5</sup> (Fire Service Circular 10/1993 'Training of Fire Control Staff'), before developing a suite of training presentations covering fire behaviour, building structure (types and concepts), fire survival and emergency call handling techniques to meet the requirements of both national guidance and Brigade policy<sup>13</sup>. These training presentations were initially delivered to all Control staff between July and September 2011.

This learning was supplemented for a number of Control staff with a fire survival guidance role play. A number of fire survival guidance scenarios were developed with the purpose of embedding learning and allowing Control staff to practically explore this learning in a realistic situation.

In the same period (2011/12 financial year) Brigade Policy 790 'Fire survival guidance calls' was released (See action 14) and all Control staff received a presentation on the content of the policy and in particular further guidance on information gathered in fire survival guidance calls to be passed to the incident ground.

All new entrants to the Control Room Officer role receive extensive training, which covers the full range of the Control Room Officer's role and duties. Specifically in relation to fire survival guidance new entrants receive training on fire survival guidance policy, fire survival guidance call handling techniques (including British Academy of Film and Television Arts (BAFTA) Award winning film on a fire survival call). All new entrants are also given training on fire behaviour and evacuation, which is delivered by a Fire Safety Officer.

#### **ACTION 12**

**Establish a recurring programme of Fire Survival Guidance (FSG) refresher training in accordance with the National Guidance for all Control personnel.**

The national guidance (Fire Service Circular 10/1993 'Training of Fire Control Staff') promotes continuation training, which it describes as 'further (continuation) training should be carried out progressively with the aim of improving skills and knowledge gradually'. The guidance also recommended that '... on-watch refresher training should be given to all fire control staff on a systematic basis, i.e. it should be both scheduled and monitored'. National guidance recommends that refresher training should be delivered no more than every 12 months.

The Brigade reviewed fire survival guidance training, conducting a gap analysis of current training with national guidance<sup>5</sup> (Fire Service Circular 10/1993 'Training of Fire Control Staff'), before developing a suite of training presentations covering fire behaviour, building structure (types and concepts), fire survival and emergency call handling techniques to meet the requirements of both national guidance and Brigade policy<sup>13</sup>. These training presentations were initially delivered to all Control staff between July and September 2011.

The Brigade provided refresher training to Control staff using a variety of training techniques in the years following 2011. This included:

- Fire survival guidance refresher presentations
- Fire survival guidance policy updates
- Fire survival guidance role play
- Fire survival guidance reference information file (RIF) training
- Fire survival guidance exercises (combined with operational firefighters)
- Computer-based training with the following topics:
  - Fire survival
  - Call handling techniques
  - Building types and concepts
  - Fire behaviour

The Brigade invested significant effort in developing and maintaining fire survival guidance training and in providing practical opportunities for Control staff to exercise this knowledge in realistic scenarios. Brigade training records show, however, that Control staff have not consistently completed refresher training for fire survival guidance on an annual basis<sup>17</sup>.

### **ACTION 13**

**Draft a letter to the Department for Communities and Local Government (DCLG) to obtain clarification on the national guidance for fire survival guidance in order to ensure that a consistent approach is followed by all Fire Rescue Services.**

The Brigade drafted a letter to the Chief Fire and Rescue Adviser (employed at that stage by the Department of Communities and Local Government), which included some recommendations for a review of national fire survival guidance<sup>18</sup>. The Brigade took the decision not to send this letter pending the outcome of the Coroner's Inquests. It has not been possible to confirm however that this letter was sent following the inquests.

### **ACTION 14**

**Create a policy describing how information between Brigade Control and the incident ground should be exchanged during fire survival guidance calls in order to:**

- **Standardise the protocols for sharing fire survival guidance information between Control and the fire ground, and**
- **Maintain updates from the fire ground at Control**

Brigade policy 790 'Fire survival guidance calls' was introduced to describe the two-way exchange of critical information between Brigade Control and the incident ground when fire survival guidance calls are occurring<sup>19</sup>.

The introduction of Brigade policy 790 was communicated to staff through articles in the Brigade publication Operational News in November 2011<sup>20</sup> and again in March 2013<sup>21</sup>, the latter of which incorporated a mandatory requirement for watch-based staff to complete training on the fire survival guidance calls procedure.

Training aimed at increasing awareness of Brigade Control practices and procedures, including fire survival guidance, was developed and implemented for operational crews (see section 2; action 4(b) and 4(c)). This was also supported by the Lakanal House Case study training package, which covers a range of issues associated with the Lakanal House fire (see section 2; action 3(c)).

### **ACTION 15**

**Brief the Fire Brigade's Union about the findings of Lakanal House incident investigations in order to secure an efficient and effective delivery of the required changes with all personnel.**

The Management Joint Secretary of the Brigade's Joint Committee for Health, Safety and Welfare met with the London Fire Brigade's Union Regional Chair and Staffside Joint Secretary to brief them on the Lakanal House investigation and associated actions in August 2010.

### **ACTION 16**

**Undertake a general review of the training delivered to Control Officers in order to confirm that the fire survival guidance training is suitable and sufficient**

Brigade Control Officer training and knowledge was reviewed and several recommendations were made to improve fire survival guidance training for Control Officers<sup>5</sup>. These recommendations were translated in to actions, which have been covered elsewhere in this review (see section 1; actions 8, 11, 12 and 17).

#### **ACTION 17**

**Develop and deliver an enhanced fire survival guidance training package for Control Supervisors in order to ensure that Control Supervisors are trained to support a Control Room Officer when they are handling a fire survival guidance call, to a standard commensurate with the national guidance.**

The Brigade reviewed fire survival guidance training, conducting a gap analysis of current training with national guidance (Fire Service Circular 10/1993 'Training of Fire Control Staff'), before developing a suite of training presentations covering fire behaviour, building structure (types and concepts), fire survival and emergency call handling techniques to meet the requirements of both national guidance and Brigade policy. These training presentations were initially delivered to all Control staff between July and September 2011.

An additional training presentation was developed for Control Supervisors<sup>22</sup>, which concentrates on providing support to the Control Room Officer as they take the fire survival guidance call and on passing information to the incident ground. Familiarisation was also provided in relation to the Reference Information File 'Fire survival guidance for Control Supervisors' (See section 1; action 9).

This learning was supplemented for a number of Control staff with a fire survival guidance role play. A number of fire survival guidance scenarios were developed with the purpose of embedding learning and allowing Control staff to practically explore this learning in a realistic situation. Control Supervisors played the role of the supervisor or the caller in these role play scenarios<sup>17</sup>.

#### **ACTION 18**

**Produce a Brigade Control Sequence of Events indexing all messages between the original**

**emergency call made at 16.18 and 21.00 on the same day (to be listed in chronological order).**

A detailed sequence of events (or timeline) was completed using information from the Brigade's management information system that takes the logs from the Brigade's mobilising system and translates them into incident management data (MobIS), main scheme radio logs and key events identified through investigation<sup>4</sup>.

In addition the calls made by the public to Brigade Control have been chronologically listed in a Brigade report<sup>23</sup>.

#### **ACTION 19**

**Review Brigade Control's response to the Lakanal House fire and produce a report analysing the actions at Control.**

The Brigade Control's response to the Lakanal House fire was reviewed and a comprehensive report detailing the role and actions of Brigade Control was published in September 2012<sup>24</sup>.

#### **ACTION 20**

**Undertake a review of high rise fires where fire spread beyond the compartment in order to identify recorded fires which could have produced a learning opportunity, prior to 3<sup>rd</sup> July 2009.**

The Brigade's Fire Investigation report<sup>25</sup> following Lakanal House reported that a study of high rise fires recorded within the Brigade's Incident Management System was carried out by the Brigade's Fire Investigation Team and concluded that none of those fires were found to have the same fire spread mechanisms as those at Lakanal House. A request was also made to approximately 900 members of a forum for fire, explosion and arson investigators, the International Association of Arson Investigators - UK (IAAI-UK) for information regarding any external fire spread within high rise buildings; the only feed back related to external upward vertical fire spread. There were no replies with evidence of external downward vertical fire spread.



**ACTION 21**

**Fire crews to increase the level of pre-planning at residential high rise fires to include single line diagrams showing the number and location of individual flats in order to ensure that access to risk information related to residential high rise buildings is available to assist with the implementation of high rise procedure and the development of an operational plan.**

The level of pre-planning at residential high rise premises was increased and is detailed in Brigade policy 800 'Management of Operational risk information' which lays out the Brigade's risk-based approach to recording risk information<sup>26</sup>. Where residential high rise premises were recorded on the Operational Risk Database, staff were instructed to include suitable line drawings<sup>27, 28</sup>, with details including:

- The internal layout of common areas
- The layout of flat numbers and their associated floors
- Whether the flats are single storey or maisonettes
- The location of staircases
- Any escape routes
- The availability of fixed installations, such as the dry rising mains and firefighting lifts

The importance of line drawings was highlighted in the Lakanal House case study training package (see section 2; action 3(c)) with a practical task to complete a line drawing.

The Brigade supplemented single line drawings with electronic-Premises Information Plates, which allowed additional important operational details to be included on diagrams (See section 2; action 2a).

Information recorded on the Operational Risk Database is available to staff through the mobile data terminal installed on fire engines.

**ACTION 22**

**Develop a Brigade policy on recording command information at the bridgehead in order to establish a standardised protocol supporting**

**commanders at forward command points and allowing the recording of command decisions and operational progress.**

Brigade policy 820 'Forward Information Board' has been developed introducing portable Forward Information Boards designed to allow the recording of key information at locations that are remote to the Command Unit, including the bridgehead<sup>29</sup>.

The Forward Information Board has been designed with a range of operational templates to support the gathering and recording of information at a range of different incident types. Additionally the Forward Information Board can provide incident and sector commanders with information that can be used to support briefings to staff and the transfer of information from one officer to another during handovers.

The introduction of the Forward Information Board was communicated to staff through an email message from the Assistant Commissioner responsible for Operational Policy in January 2013<sup>30</sup>, which incorporated a mandatory requirement for watch-based staff to complete training on the use of the Forward Information Board. This was supported by an article in the Brigade publication Operational News in July 2016<sup>11</sup> and by the Lakanal House Case study training package, which covers a range of issues associated with the Lakanal House fire (see section 2; action 3(c)).

**ACTION 23**

**Develop a Brigade policy for operational staff dealing with fire survival guidance calls at incident in order to standardise the protocols for managing fire survival guidance information on the fire ground.**

Brigade policy 790 'Fire survival guidance calls' has been developed and introduced<sup>19</sup>; the policy explains what a fire survival guidance call is and describes how critical information should be exchanged between Brigade Control and the fire ground and how this information is to be recorded for use by incident commanders.

The introduction of Brigade policy 790 was communicated to staff through articles in the Brigade

publication Operational News in November 2011<sup>20</sup> and again in March 2013<sup>21</sup>, the latter of which incorporated a mandatory requirement for watch-based staff to complete training on the fire survival guidance calls procedure.

Training aimed at increasing awareness of Brigade Control practices and procedures, including fire survival guidance, was developed and implemented for operational crews (see section 2; action 4(b) and 4(c)). This was also supported by the Lakanal House Case study training package, which covers a range of issues associated with the Lakanal House fire (see section 2; action 3(c)).

#### **ACTION 24**

**Develop a Brigade policy for controlled movement of the bridgehead at high rise incidents in order to enable front line crews to be able to relocate the bridgehead when necessary.**

Brigade policy 633 'High rise firefighting' was amended to reflect this requirement. Section 7.33 of the policy<sup>31</sup> provides directions on repositioning the bridgehead in the event of worsening conditions or fire spread below the bridgehead. The policy also provides actions that should be taken when the bridgehead is moved in order to maintain staff safety.

Policy amendment on repositioning the bridgehead was communicated to staff through an article in the Brigade publication Operational News in November 2011<sup>9</sup>, which incorporated a mandatory requirement for watch-based staff to complete training on the high rise procedure. This was also supported by the Lakanal House Case study training package, which covers a range of issues associated with the Lakanal House fire (see section 2; action 3(c)).

#### **ACTION 25**

**Develop a Brigade policy for conducting search operations, which includes guidance for those conducting the search and those having to manage search operations, in order to:**

- **Provide consistent guidance for crews conducting complex searches, and**

- **Provide consistent guidance for the officers giving briefings and managing crews undertaking search operations**

Brigade policy 803 'Search and rescue procedures within structures' has been developed and introduced to address this requirement<sup>32</sup>. The policy includes compartment search procedures for crews conducting searches and rescuing casualties and guidance for incident commanders on information gathering, selecting the appropriate method of searching premises, briefing for search operations and maintaining communications.

The introduction of Brigade policy 803 was communicated to staff through articles in the Brigade publication Operational News in October 2013<sup>33</sup> and again in July 2017<sup>34</sup>, which incorporated a mandatory requirement for watch-based staff to complete training on the search and rescue procedure. This was also supported by the Lakanal House Case study training package, which covers a range of issues associated with the Lakanal House fire (see section 2; action 3(c)).

#### **ACTION 26**

**Develop a Brigade policy to mitigate the risk presented by cables that fall when affected by fire.**

Cable cutters were introduced in October 2013 and provided to all breathing apparatus wearers to deal with the hazards of firefighters becoming entangled in loose and fallen cables at incidents. Brigade policy 466 'Respiratory protective equipment – breathing apparatus – Operational procedure' provides guidance on their operational use<sup>35</sup>.

This work was supported by articles in the Brigade publications 'Operational News' in November 2010<sup>36</sup> informing staff of the risk and 'Shout' in October 2013<sup>37</sup> where staff were provided with further details of the introduction of cable cutters. In addition, a practical cable entanglement exercise, where operational crews had the opportunity to use the cable cutters for their intended purpose, was also included in the 'back to basics' training on stations in 2015.

**ACTION 27**

**Consideration of changing national requirements for the fixing of cables in order to influence a change in the national standards and reduce the risk of entanglement to firefighters and the public.**

The Brigade provided evidence and supported the change to wiring regulations to help prevent dropping cables and make consumer units safer. This was covered by the Brigade's involvement in the review of British Standard (BS) 7671; 'Requirements for Electrical Installations', which provides the national standard for the UK in the installation of low voltage electrical installations. The British Standard was amended to require that wiring in escape routes should be supported to avoid premature collapse in the event of fire.

The Brigade have since worked with others to expand this requirement beyond 'escape routes'. The Brigade provided a physical demonstration to stakeholders, which showed how cables could entangle firefighters, and as a result the next amendment of the standard (set to be released in July 2018) should cover cables in 'all areas'<sup>38</sup>.

**ACTION 28 (linked with action 29)**

**Revise the agreements between the Brigade and London Boroughs, in relation to Fire Safety responsibilities for residential premises (as described in the Housing Act 2004 and the Fire Safety Order 2005) to support compliance with the national Local Authorities Coordinators of Regulatory Services protocols.**

The protocols between London Boroughs and the Brigade that establish the principles and describe the joint working arrangements to deliver the objective of improved fire safety within housing occupied by more than one household were revised in accordance with Local Authorities Coordinators of Regulatory Services Housing Fire Safety guidance. Each London Borough has signed such an agreement with the Brigade<sup>39</sup>.

Examination of a proportion of the agreements between the Brigade and London Boroughs shows that not all agreements have been reviewed within the timescales identified and that generally the

requirement for both parties to the agreement to jointly produce a monitoring and evaluation report on an annual basis is not being observed.

**ACTION 29 (linked with action 28)**

**Review the engagement with London Boroughs in order to support a Local Authorities Coordinators of Regulatory Services agreement as described in the national guidance and seek agreement with all 33 London Boroughs.**

The protocols between London Boroughs and the Brigade that establish the principles and describe the joint working arrangements to deliver the objective of improved fire safety within housing occupied by more than one household were revised in accordance with Local Authorities Coordinators of Regulatory Services Housing Fire Safety guidance. Each London Borough has signed such an agreement with the Brigade<sup>39</sup>.

Examination of a proportion of the agreements between the Brigade and London Boroughs shows that not all agreements have been reviewed within the timescales identified and that generally the requirement for both parties to the agreement to jointly produce a monitoring and evaluation report on an annual basis is not being observed.

**ACTION 30**

**Raise standards on installation and testing of fire lifts as a national issue, and in particular influence the amendment of the national industry standards to include inspection of the lift's firefighting functions as part of routine testing.**

The Brigade places representatives on numerous committees for the introduction and amendment of national industry standards and this has included influencing standards for the inspection and maintenance of firefighting lifts.

In 2016 British Standard (BS) 8899:2016 'Improvement of fire-fighting and evacuation provisions for existing lifts: a code of practice' was introduced. Chapter 8 of this standard is dedicated to the testing and maintenance of firefighting lift installations.

BS EN 81-72:2015 'Safety rules for the construction and installation of lifts - Particular applications for passenger

and goods passenger lifts. Part 72: Firefighters lifts' was rewritten in 2015 and Annex J was added specifically to cover the maintenance requirements for firefighting lifts.

Annex I of BS9999:2017 'Fire safety in the design, management and use of buildings – code of practice' also gives basic instruction on appropriate testing and maintenance for firefighter and evacuation lifts.

### **ACTION 31**

**The Brigade continue targeting of social housing using a risk based approach in order to demonstrate the methodical use of Fire Safety resources by inspecting premises according to their assessed risk levels.**

The Brigade have been using a risk based approach to inspections for many years utilising a risk matrix to determine the length of time before revisiting a premises<sup>40, 41, 42</sup>. This applies to residential blocks of flats and converted houses into flats or houses of multiple occupation in partnership with the Local Authority. The Brigade also conduct responsive visits based on concerns from residents and will inspect premises post fire.

In addition to this risk based approach, the Brigade have over the last few years built up relationships with Residential Social Landlords and Local Authorities using partnership agreements and memorandums of understanding to work together at a strategic level to identify risk to vulnerable persons using a 'person centred risk assessment' approach. This includes older people, people with mobility or cognitive impairments and those that are living in poverty, for example using unsuitable heating.

The Brigade support vulnerable people to register with UK Power Networks priority services register so they can get enhanced support in the event of a power cut, reducing the fire risk that can result from using alternative light and heat sources. Residential Social Landlords and Local Authorities refer people that they have identified as high risk to the Brigade for Home Fire Safety Visits.

The Brigade continue to carry out Home Fire Safety Visits for vulnerable people<sup>43, 44, 45, 46</sup>, particularly those

at higher risk from fire and with the reduced ability to respond or escape from a fire. The Brigade provide free smoke alarms in all rooms of risk.

The Brigade continue to operate within our Safeguarding policies, identifying those that are high risk and referring to the Local Authority for action, including those with hoarding behaviours, where Brigade Officers work locally with partners to address risk within their localities<sup>47</sup>.

### **ACTION 32**

**Conduct a post investigation/prosecution review, in particular in relation to liaison with the Metropolitan Police Service, Crown Prosecution Service and the Health and Safety Executive in order to confirm compliance with the recommendations arising from the inquests or enforcement.**

The Brigade reviewed the investigative process following the Lakanal House fire and identified a number of elements that would benefit from being covered in policy or guidance. These elements included governance, project management, accommodation, data collection, storage, communications, investigation, physical evidence collection, evidence presentation, working with partner agencies and the support of witnesses.

These elements were covered in a new policy, Brigade policy 920 'Major incidents investigation'<sup>48</sup>, which identifies key actions to take following a major incident. The policy covers liaison with partner agencies in any investigative process and includes a draft memorandum of understanding for liaison between agencies at appendix 2 of the policy.

This policy was in draft for some time (a version is appended to a Corporate Management Board report in September 2015<sup>49</sup>) and was not formally published until 12 December 2017.

### **ACTION 33**

**Review the learning and training for inspecting officers in terms of social housing in order to demonstrate that organisationally the Brigade has a robust process to develop the competency of**

### fire safety inspecting officers in relation to these types of premises.

Inspecting Officers complete a range of audits on premises where the Regulatory Reform (Fire Safety) Order (the 'Fire Safety Order') applies to reduce risk and carry out other duties in respect of the Fire Services Act, Fire Safety Order and building consultation requirements.

There are National Occupational Standards for Fire Safety. National Occupational Standards specify UK standards of performance that people are expected to achieve in their work, and the knowledge and skills they need to perform effectively. National Occupational Standards are approved by UK government regulators. Skills for Justice is the body responsible for the fire safety, investigation and enforcement sector.

The Brigade train Inspecting Officers in accordance with the relevant National Occupational Standards. Since 2012 the development route for Inspecting Officers has been to complete and pass the following qualifications:

- Level 3 certificate in Fire Safety (Advisor)
- Level 4 certificate Fire Safety (Auditors)
- Level 4 Diploma in Fire Safety (Inspecting Officer)

The candidate has to pass twelve assessments to demonstrate they can apply the knowledge they have acquired in the formal qualification correctly in the work place, which cover all types of premises.

### **ACTION 34** Consider any external and national regulatory fire safety issues.

The Brigade identified a range of regulatory fire safety issues that it considered should be raised nationally, including:

- The definition of the term 'parts used in common' in buildings containing multiple domestic premises

- Whether the Fenestration Self Assessment Scheme (FENSA) is an appropriate means for certifying compliance with Building Regulations 2010 in tall residential buildings
- The definition of the term 'window' as detailed in the FENSA scheme.
- Spread of fire over the external surfaces the building (Requirement B4 of the Building Regulations 2010 refer).
- How the 'responsible person' should assess that the risk assessor has sufficient training, experience and knowledge to undertake a suitable assessment of the risks in complex and high risk premises

The Brigade wrote to the Fire Minister (Parliamentary Under Secretary of State for Communities and Local Government ) outlining all of the points above and making a series of recommendations with respect to how each of these issues may be improved or resolved<sup>50</sup>.

The Department of Communities and Local Government responded by letter<sup>51</sup> and further to this there were some meetings between Brigade officers and Government officials (See section 3; action 1).

### **SUMMARY OF PRE-INQUEST ACTIONS**

A number of actions were identified by the Brigade through their own internal reviews and investigations prior to the Coroner's recommendations following the Lakanal House inquests.

These represented a broad range of activities including:

- Producing investigative reports analysing the actions at Brigade Control
- Developing new policies and procedures for search and rescue operations
- Reviewing existing policy for high rise firefighting and fire survival guidance
- Reviewing staff training in a numbers of areas including fire survival guidance for control operators

- Introducing new operational equipment including the forward information board and cable cutters
- Considering external and national Regulatory issues and informing Government
- Influencing third parties to review national guidance, legislation and standards

The majority of actions have been completed satisfactorily. Several issues were however identified and these have been raised directly with the Grenfell Tower Investigation and Review Team. They include:

- (1) Whilst Fire Safety Officers were involved in developing the building structure/fire safety issues content for the fire survival guidance training and they have delivered the content on initial training, they have not consistently delivered that content in the refresher courses
- (2) Training records show that fire survival guidance refresher training has not been completed by all staff on an annual basis in accordance with national guidance
- (3) It has not been possible to confirm that a letter was sent to the Chief Fire Rescue Adviser in relation to national guidance for fire survival guidance calls
- (4) A review of a proportion of the Local Authorities Coordinators of Regulatory Services agreements between the Brigade and London Boroughs shows that not all agreements have been reviewed within the timescales identified and that generally the requirement for both parties to the agreement to jointly produce a monitoring and evaluation report on an annual basis is not being observed.

## **SECTION 2**

**Actions identified by the Brigade  
in response to recommendations made  
by the Coroner**

This section covers actions identified by the Brigade in direct response to recommendations made against the Brigade by the Coroner. These actions were monitored through the Operational Directorates Coordination Board.

## CORONER'S RECOMMENDATION 1

### Public awareness of fire safety

A number of former residents of Lakanal House gave evidence. There was little awareness of fire safety advice published by London Fire Brigade, whether through leaflets, the website or home fire safety visits. Residents of high rise residential buildings need to be aware of the dangers associated with fire in such buildings and to have a clear understanding of what they should do in case of fire. Whilst this is a matter which concerns housing providers, **it is recommended that your Brigade also consider how to improve dissemination of fire safety information to achieve effective communication with residents of such buildings.**

To address this recommendation the Brigade explored how communications with partners could be improved through the following:

#### **ACTION 1a** **Establishing a fire safety high rise forum**

The Brigade worked with partners to establish a fire safety high rise forum. The Inaugural Forum meeting, organised and chaired by Brigade Officers, was held on 4 October 2013<sup>52</sup>. This was attended by 22 delegates representing both public and private sector landlords, including London Councils, the National Social Housing Fire Strategy Group, the Association of Residential Letting Agents and a number of other associations. The initial meeting of the forum covered a range of topics including:

- the purpose of the forum
- issues raised by the Coroner in their recommendations to prevent future deaths identified by the Lakanal House inquests
- a discussion on the Regulatory Reform (Fire Safety) Order 2005 and the experiences of each

organisation regarding its effectiveness and how it could be improved

- expectations and outcomes of the Forum and other topics for consideration

The Brigade continued to organise and chair the forum, which met regularly throughout 2014 and 2015. The forum established a work programme concerning relevant topics and issues raised by stakeholders. The last meeting of the high rise forum was held on 27 November 2015<sup>53</sup>, when it was concluded that most of the work programme had been debated at previous meetings of the forum.

#### **ACTION 1b** **Review existing information provided to residential high rise dwellers**

The Brigade reviewed Home Fire Safety guidance and subsequently developed specific guidance for high rise dwellers. The Brigade produced 25,000 leaflets on Compartment Fires, which it made available for use by station staff and Community Safety teams.

The Brigades website has been updated to reflect the revised guidance. General guidance is available at <https://www.london-fire.gov.uk/safety/> and specific guidance on flats and maisonettes is available at <https://www.london-fire.gov.uk/safety/the-home/escape-plan/escape-plan-blocks-of-flats/>. Information on the risks of fire at home and the special considerations for purpose built flats or maisonettes can also be downloaded from the Brigade's website in a booklet called 'Fire safety in the home'<sup>54</sup>.

#### **ACTION 1c** **The Brigade's communications department will run a campaign in 2014 targeted at housing providers and people who live in purpose built blocks of flats**

The Brigade's 'Know the Plan' campaign was launched on 28 March 2014 and finished on 29 March 2015<sup>54</sup>. The aim of the 'Know the Plan' campaign was to encourage people to have an escape plan and know who to ask for fire safety advice. It was a London-wide campaign targeted at those living in high-rise premises.



The campaign used a variety of means to promote the know the plan message including (but not limited to):

- advertising the campaign in newspapers and on radio
- advertising the campaign through social media
- letters advising of the campaign were sent to all London Boroughs and Housing Associations
- campaign literature was sent to all fire stations for them to use and distribute locally
- know the plan guides prepared for local councillors<sup>55</sup>
- campaign microsite 'www.knowtheplan.co.uk' was introduced with clear sections for residents and landlords (NB: fire safety advice including information on 'escape plan' for residents<sup>56</sup> and landlords is now provided via the Brigades website: <https://www.london-fire.gov.uk/safety/the-home/escape-plan/escape-plan-blocks-of-flats/> )

Two YouGov surveys were used to assess whether the campaign had achieved its objective of raising public awareness regarding safety in residential high rise building. The survey results showed behaviour change after six months of the campaign with a 70 per cent increase in the number of people saying they had an escape plan for if there were a fire in their home.

## **CORONER'S RECOMMENDATION 2**

### **Visits made pursuant to section 7(2)(d) Fire and Rescue Services Act 2004, general familiarisation visits and home fire safety visits**

**It is recommended that the Brigade review procedures for sharing information gained as a result of section 7(2)(d), familiarisation and home fire safety visits with crews both within the station in question and at other local stations.**

To address this recommendation the Brigade reviewed its policies for information gathering during 7(2)(d) visits, established a risk-based approach to premises inspection and reviewed its policy for identifying serious outstanding fire risks during home fire safety visits.

## **ACTION 2a**

### **Review existing policy related to information gathering and contingency plans**

Following the Lakanal House fire the Brigade committed to increase the level of pre-planning at residential high rise fires and to specifically include single line diagrams showing the number and location of individual flats (See section 1; action 21). In the same period the Brigade were reviewing how information could be made available to operational crews at the incident via a mobile data terminal and mobile data terminals were fitted to all frontline fire engines in 2010. The mobile data terminals are supported by a robust database, the Operational Risk Database, which allows for the provision of instantly accessible safety critical information to Incident Commanders at the incident.

The Brigade's Operational Risk Database is the main database which holds operational risk information for premises. In addition, the Operational Risk Database also holds information derived from centrally managed datasets (some obtained externally). All the information held in the Operational Risk Database is made available to crews via icons on maps displayed on fire engine mobile data terminals and can also be accessed by the subsequent incident commanders through the systems available on the Brigade's Command Units.

In 2011, following the inspection of a number of Fire and Rescues Services, the Health and Safety Executive made a number of recommendations, to all Fire and Rescue Services; one of these centred on operational risk information with the Health and Safety Executive recommending that all services should ensure that:

- They provide adequate training for staff gathering and assessing risk critical information
- There is a system in place to actively collect relevant risk critical information
- They monitor the effectiveness of these arrangements
- Risk critical information is kept up to date and is in a suitable format
- Incident commanders are able to access the information to inform their command decisions

The Health and Safety Executive also recommended that national guidance on the classification of risk premises and the collection and dissemination of risk information was produced. The Brigade reviewed its policies and procedures in relation to 'risk information' and the Health and Safety Executive's recommendations and concluded that its existing systems were compliant with expectations<sup>57</sup>.

Further to the Health and Safety Executive's recommendations the Chief Fire and Rescue Adviser of the Department of Communities and Local Government produced guidance on 'operational risk information', which was issued in April 2012. The Brigade reviewed its policies, procedures and processes for collecting, recording and providing information to crews in accordance with this national operational guidance<sup>58</sup>. Whilst making some recommendations for improvements in line with the guidance the Brigade concluded that its arrangements for the gathering of risk information appeared to be robust and largely in compliance with the national operational guidance.

The Brigade reviewed its policy for collection and management of operational risk information again following the Coroner's recommendations. At this stage the Brigade's policy for the collection and management of operational risk information had already been reviewed and was consistent with national guidance issued following the Lakanal House fire and the Health and Safety Executive's inspection of Fire and Rescue Services. As such, the Brigade focussed this review on optimising the Brigade's pre-planning activities to ensure the effective sharing of information gained as a result of 7(2)(d) familiarisation and Home Fire Safety Visits and to maximise the use and availability of this information when operational personnel respond to emergencies.

The Brigade gave consideration to the way in which crews could access specific building information when required to attend operationally. The Brigade conducted a trial during 2014 where over 160 plates containing building information relevant to firefighters were installed at blocks within the boroughs of Tower Hamlets, Camden, Wandsworth, Lambeth, Southwark,

Lewisham, Croydon, Hackney, Haringey and Hounslow.

Feedback from the trial was positive, both from crews and our external partners. All parties involved recognised the benefits that the plates can provide and the improved working relationships delivered with housing providers and local authorities. As part of the trial, virtual images of the plates were included on the mobile data terminals and these proved useful for crews. Following a thorough evaluation it was agreed that instead of rolling out physical plates, electronic images (virtual plates – called electronic premises information plates or ePIPs) with improved layout and design, would be provided to crews via the mobile data terminals on fire engines<sup>59</sup>.

This allowed a number of further improvements including:

- improved icons
- a single plan view allowing improved detail and visibility
- additional information of sprinklers, non 'fire' lifts, legend for flats and location of fire lifts
- the inclusion of roads to provide improved orientation
- improved detail regarding location of hydrants
- replacing information on the height of building with dimensions to assist formulation of the first informative message.

A series of amendments were required to Brigade computer systems to accommodate this change and electronic-premises information plates were made available to staff on the station diary (outside duties) system on 30 June 2015. As a result all residential high rise premises visited by crews for the purpose of premises risk assessment were required to have an electronic-premises information plate created, which would be available electronically to all staff regardless of their base location via the mobile data terminal.

Further changes were made to Brigade policy 800 'Management of Operational Risk Information' in August 2015<sup>60</sup>. Additional detail was included in the 'information gathering' section and new sections were added on 'recording information in the Operational

Risk Database' and '7 (2) (d) visits and the review of information'.

The management of operational risk information was communicated to staff through an article in the Brigade publication Operational News in July 2016<sup>61</sup>, which incorporated a mandatory requirement for watch-based staff to complete training on the management of operational risk information policy.

### **ACTION 2b**

#### **Create an inspection regime targeted at high priority buildings**

An order of priority for inspecting premises based on risk was developed. Premises were grouped into three bands based on premises type and risk. Staff were informed of a priority order for inspecting premises based on risk via email and instructed to focus on band 1 premises, which included residential high rise<sup>62</sup>. The use of the risk assessment in Brigade policy 800 'Management of operational risk information' determines the level of risk in relation to a premises<sup>63,60</sup>.

The level of risk is applied to a risk matrix, which determines how often the premises should be visited, whether it requires an on site exercise and whether hazard information or a full tactical plan need to be recorded.

### **ACTION 2c**

#### **Develop new policy/guidance to address known outstanding risks identified through home fire safety visits**

Guidance has been developed with the objective of identifying and lowering the risk of harm to members of the public from fire in their homes<sup>43, 44, 45, 46</sup>. The guidance describes the actions to be taken by staff when a serious outstanding risk is identified in a home fire safety visit. This may be a risk from fire which cannot be fully resolved through installation of smoke alarms, e.g. where the resident's risk factors may mean that we would also recommend provision of resources such as fire retardant bedding, a telecare link and in some cases sprinklers.

Where serious outstanding risks are identified the station manager will work with the resident, their representative and where appropriate the local social services or health team, to identify the measures that would help to protect the resident and to discuss how those measures might be provided.

In October 2012 the Brigade commissioned an outside organisation (Cordis Bright) to complete a review of the effectiveness of home fire safety visits<sup>64</sup>. The report concluded that the Brigade's approach to home fire safety visits has reduced accidental dwelling fires. The report noted that home fire safety visits were effective in the high priority postcodes (those postcodes where the most domestic fires have occurred over the last 5 years) and with high priority people (those people who are likely to be more vulnerable to a fire should one occur) that the Brigade was prioritising for visit. The development of the Serious Outstanding Risk process to identify residents for whom a standard home fire safety visit is not enough to significantly reduce the risk of fire was noted as part of the review.

### **ACTION 2d**

#### **Set corporate targets for 7 (2) (d) activities**

There is no evidence that a corporate target was set for 7(2)(d) activities, in the sense that such a target was not established in the corporate suite of performance indicators, or that a target was established elsewhere to define and monitor the number of 7(2)(d) visits completed by the Brigade.

That is not to say that 7(2)(d) activities were not monitored however. In the minutes of the Operations, Prevention and Response department Principle Management Board meeting of December 2013 it is recorded that, in respect to this action, the Chair of the Board confirmed that "the corporate target will be to complete all 7(2)(d) inspections"<sup>65</sup>. The description of this target is ambiguous and it has not been possible to confirm what this meant specifically. It appears to have been interpreted as relating specifically to those premises already recorded on the Operational Risk Database and the target was to ensure that those premises were revisited in accordance with the

frequency determined by their premises risk assessment.

For some time the Brigade monitored completions of outside duties visits (i.e. 7(2)(d) visits) to premises already recorded on the Operational Risk Database (i.e. these were revisits to residential high premises that had already been subject to a premises risk assessment). The last available monitoring report for this activity is from October 2016 and no monitoring is currently taking place. Whilst the Brigade established a process for prioritising inspections to buildings based on risk (see section 2; action 2b) there is no evidence that any targets were ever set for inspecting residential high rise premises that were not already recorded on the Operational Risk Database (i.e. those residential high rise premises that had not previously been visited for the purposes of carrying out a premises risk assessment).

A review of the Operational Risk Database shows that on average approximately 40 visits to residential high rise premises, that were not yet recorded on the Operational Risk Database, were completed each month under the requirements of section 7 (2) (d) of the Fire and Rescue Services Act resulting in the production of an electronic-Premises Information Plate for those premises (Note: data between April 2014 and October 2017). Using the same data set (i.e. as of October 2017) it was identified that approximately 1,700 residential high rise premises had a premises risk assessment recorded against a total of approximately 6,900 residential high rise premises in London.

Of premises that have been scored using the risk matrix (premises risk assessment) in Brigade policy 800 'Operational risk information' the majority (approximately 75%) of residential high rise premises are categorised as having 'low' or 'negligible' risk. A further 23% (approximately) of residential high rise premises were categorised as having 'medium to low' risk and less than 2% (approximately) of residential high rise premises were categorised as having 'medium' or 'high' risk.

### CORONER'S RECOMMENDATION 3

#### Incident commanders

During the Lakanal House fire there were six changes of Incident Commander (IC) with some serving as IC for brief periods.

**It is recommended that the Brigade review its policy and procedures concerning incident command, having regard to whether it is effective for the choice of IC to be tied closely to the number or type of appliances attending an incident and the effectiveness of a policy which may result in rapid and frequent changes of IC. It is also recommended that consideration be given to training of ICs and potential ICs to enhance their performance in relation to the following**

- use of the Dynamic Risk Management model and other management tools to enable ICs to analyse a situation, and to recognise and react quickly to changing circumstances
- to recognise when to escalate attendance by more experienced ICs
- to anticipate that a fire might behave in a manner inconsistent with the compartmentation principle
- to be aware of the risks to those above and adjacent to the fire flat
- handover from one IC to the next and effective deployment of outgoing ICs
- the collection of information from all possible sources
- use of methodical search patterns.

To address this recommendation the Brigade implemented the recommendations of the report 'Review of incident command and support levels and undertook a further review of incident command training with respect to the issues identified by the Coroner.

#### **ACTION 3a**

**Implement recommendations from the report 'Review of incident command and support levels'.**

The Brigade completed a review of incident command and support levels<sup>66</sup> and recommended changing the incident command thresholds at 8 pump fire and above such that Group Managers would remain in charge at incidents longer and at incidents up to and including 10 pump fires<sup>67</sup>. The recommendations to change incident command thresholds for Group Manager and above were implemented in November 2013<sup>68, 69</sup>, following agreement with the Representative Bodies.

### **ACTION 3b**

#### **Review incident command training to ensure the 7 points are adequately covered.**

The Brigade delivers incident command training through its training provider, Babcock Training Ltd. Together with the training provider the Brigade reviewed incident command training to establish whether the existing incident command training needed to be amended to include or enhance the specific elements highlighted by the Coroner.

The review started with Brigade Officers submitting a formal request to its training provider to commission and/or alter incident command training to ensure that the 7 areas highlighted by the Coroner were being met by current training or changes were required<sup>70</sup>. The Brigade supplied detail of the Coroner's recommendations, relevant existing operational policy and training, and instructed its training provider to provide a proposal detailing how training would need to be delivered in order to meet the recommendations.

The Brigade's training provider translated the Coroner's recommendations into learning outcomes and cross referenced these against existing training. They used this to produce the proposal for changes to incident command training, which they submitted to the Brigade<sup>71</sup>.

The areas of incident command focussed on in this action have been carried through into a new suite of incident command courses, including Level 1 and Level 2 incident command development and maintenance courses. Some of the focus areas are scenario specific and they are covered variously across a range of Command Decision Exercises. One Command Decision

Exercise (Blackwall Tower) was designed to incorporate all of the focus areas and is set in a high rise residential block with a scenario that includes an escalating incident with fire spread beyond the compartment of origin, search and rescue activities and multiple fire survival guidance calls<sup>72</sup>.

The training commissioning documentation describes the development of a further residential high rise command decision exercise called 'Holcroft House'. No evidence was provided to confirm that this command decision exercise has been completed and is in use.

### **ACTION 3c**

#### **Introduce a case study training package incorporating learning outcomes from inquests.**

A computer based training (CBT) solution, the Lakanal House Case Study, was developed to cover the learning outcomes from the Lakanal House inquests<sup>73, 74</sup>. The specified learning outcomes for the case study incorporated both the Coroners recommendations (above) and the relevant training recommendations from the Brigade's Operational Review Report. All watches completed the case study training package as station-based training. Senior Officers were invited to attend one of a series of Lakanal House training presentations where the case study was delivered by a senior officer who had been closely involved in the Lakanal House investigation.

Training records are available, which show case study completions by watch and attendance of senior officers at training presentations. The case study remains available for use by staff but has not been promoted with staff since the initial training.

## **CORONER'S RECOMMENDATION 4**

### **Brigade Control**

**It is recommended that the Brigade consider whether training be given to operational crews about Brigade Control practices and procedures.**

To address this recommendation the Brigade reminded operational crews about fire survival guidance procedures and developed a training package for

operational crews covering Brigade Control practices and procedures.

#### **ACTION 4a**

#### **Remind staff of revised Fire Survival Guidance practices**

An article covering fire survival guidance was published in the Brigade's publication 'Operational News' in March 2013<sup>21</sup>. In addition to the article watches were required to review Policy 790 'Fire Survival Guidance Calls' as a watch.

#### **ACTION 4b and 4c**

#### **4b - Develop a specification for a new training solution covering Brigade Control practices and procedures**

#### **4c – Deliver the training to operational staff**

A training commissioning document was drafted that required the development of a new training solution aimed at raising awareness of Brigade Control practices and procedures<sup>75</sup>. A computer-based training package (Brigade Control Fire Survival Guidance) was developed for station-based staff (firefighter to watch manager) and all watches completed the training package.

Training records for all watches are available. This training has not been repeated with staff since the initial training.

### **CORONER'S RECOMMENDATION 5**

#### **Communications**

**It is recommended that the Brigade consider whether it would be beneficial to use additional breathing apparatus radio communications channels and personal radio channels at major incidents to reduce the amount of traffic on each channel.**

In response to this recommendation, the Brigade considered whether it would be beneficial to use additional breathing apparatus (BA) radio communication channels at major incidents to reduce

the amount of traffic on each channel. The risks and benefits of multiple channel use were explored and the Brigade concluded that the risks associated with using more than one BA channel during an incident would outweigh the benefits that this operational practice would afford<sup>76</sup>.

Through the introduction of BA telemetry capability the Brigade have reduced the amount of BA radio communication required at incidents and in so doing further increased capacity when using a single BA radio channel and reduced the risk of congestion.

The Brigade also committed to undertake some additional incident communications familiarisation training, which is detailed in action 5a below.

#### **ACTION 5a**

#### **Engage with the Brigade's training provider to ensure that issues relating to incident communications are embedded within current operational training**

A training commissioning document has been drafted<sup>77</sup> that required the development of a new training solution aimed at ensuring operational staff have the knowledge and understanding to use Authority-issued radio communications equipment (including handheld radios and airwave 'main scheme' radios). Computer-based training packages station-based staff (firefighter to watch manager) and senior officers (Station manager and above) were signed off in May 2015, however, the training packages have not yet been released.

### **SUMMARY OF INQUEST ACTIONS**

A variety of actions were taken by the Brigade in direct response to the recommendations made by HM Coroner following the Lakanal House inquests.

These represented a broad range of activities including:

- Establishing a forum to discuss fire safety issues in high rise buildings with other stakeholders including local authorities and housing associations

- Launching a significant campaign to raise awareness of fire safety issues in high rise buildings with high rise dwellers and housing providers
- Reviewing existing policy for gathering operational risk information
- Reviewing incident command training
- Introducing a case study training package specific to the Lakanal House fire
- Developing awareness of Brigade Control practices and procedures with operational crews

The majority of actions have been completed satisfactorily. Several issues were however identified and these have been raised directly with the Grenfell Tower Investigation and Review Team. They include:

- (1) The Brigade has not introduced clear targets or other guidelines for the completion of 7(2)(d) visits to high rise premises that have not previously been subject to a premises risk assessment. It appears the intention was to carry out premises risk assessments for all residential high rise premises. This has not been completed.
- (2) Whilst training interventions have been introduced (Lakanal case study and Brigade Control practices for operational crews) and these have been completed by staff and remain available for use there has been no repeat promotion of this training
- (3) Training packages developed in relation to incident communications have not yet been released

## **SECTION 3**

**Actions identified by the Brigade following the Coroner's inquests but not directly related to either the Coroner's recommendations or the actions identified by the Brigade before the inquests**



This section covers additional actions identified by the Brigade following the inquests but which are not directly related to the Coroner's recommendations or any previous actions undertaken by the Brigade in response to the Lakanal House fire. These actions were monitored by the Lakanal House Working Group.

### **ACTION 1**

**The Brigade will seek to secure clarification and further guidance from the Fire Minister and the Department for Communities and Local Government on issues previously raised with them (see section 1; action 34) including:**

- **The definition of the term 'parts used in common' in buildings containing multiple domestic premises**
- **Whether the Fenestration Self Assessment Scheme (FENSA) is an appropriate means for certifying compliance with Building Regulations 2010 in tall residential buildings**
- **The definition of the term 'window' as detailed in the FENSA scheme.**
- **Spread of fire over the external surfaces the building (Requirement B4 of the Building Regulations 2010 refer).**
- **How the 'responsible person' should assess that the risk assessor has sufficient training, experience and knowledge to undertake a suitable assessment of the risks in complex and high risk premises**

The Chairman of the London Fire and Emergency Planning Authority and the Commissioner of the Brigade wrote to the Fire Minister (Parliamentary Under Secretary of State for Communities and Local Government ) requesting an update on progress made in Government on the issues that had been raised<sup>78, 79</sup>.

A response to these letters has not been identified.

### **ACTION 2**

**The Brigade will undertake a review into whether building control and other processes within local authorities are effective in protecting the fire safety integrity of a building during significant refurbishment projects**

The Brigade completed a review of structural fire safety in new and refurbished buildings<sup>80</sup>. This involved a piece of work to examine whether those who take decisions about building and maintenance works can feel confident that those works have been designed and delivered in a way that at least maintains the fire safety integrity of the building.

In response to this work the Brigade produced an audit tool for use by Local Authorities or housing providers to seek assurance on the efficacy of all key stages of their building maintenance and refurbishment programme in relation to fire safety precautions. The audit tool covers three areas:

- Governance and assurance
- Process and policy
- Practical assessment and risk

The tool is designed to provide a consistent level of assurance against a refurbishment project. The outcomes of the audit should not only address any issues with the building itself but also inform future policy and governance arrangements around commissioning and supervision of relevant programmes, thus reducing the risk of a major fire safety failure.

The 'Fire Safety in Refurbished Buildings – Audit Tool' is available on the Brigade's website on its advice pages for Landlords (<https://www.london-fire.gov.uk/safety/property-management/landlords-responsibilities/large-landlords-las-social-landlords-and-private-blocks/> ).

**ACTION 3**

**The Brigade should raise awareness regarding the risks, in terms of increased fire loading, associated with the build up of paint layers within communal areas of residential high rise premises.**

The Brigade originally raised this as an issue with Local Authorities and social landlords in January 2009. The Brigade wrote again to all London Borough Directors of Housing and over 200 Housing Associations and Residential Social Landlords reminding them of the risk in 2013<sup>81</sup>. The issue was also raised as agenda item at the High Rise Forum and information on the risk has been added to the guidance note 'Councillor guide for fire safety for use during estate visits' available for landlords on the Brigade's website at <https://www.london-fire.gov.uk/safety/property-management/landlords-responsibilities/large-landlords-las-social-landlords-and-private-blocks/>.

**ACTION 4**

**The Brigade should raise awareness of the needs of those people who are directly affected by incidents such as the Lakanal House fire, in terms of victim support.**

The Brigade reviewed the role of Local Authorities and humanitarian assistance organisations in response to a major incident<sup>82</sup>. This led the Brigade to meet with a number of voluntary sector organisations in order to discuss their role in large scale incidents. This confirmed that the British Red Cross Fire and Emergency support Division has a Memorandum of Understanding with the majority of London Councils to provide welfare support and humanitarian services in the aftermath of a major incident.

**ACTION 5**

**The Brigade should improve the use of intelligence from fire investigation work to ensure that fires in premises where building structural issues or deficiencies in building control/management have**

**played a part in the spread or development of the fire are systematically identified and the relevant building control body informed.**

The Brigade has policies and procedures for completing post fire audits and reviews following fires meeting certain criteria<sup>83</sup>. The purpose of these audits and reviews is to develop a greater understanding of the contributory factors of an incident to prevent similar incidents occurring in the future.

A Post Fire Audit will be considered following every primary fire<sup>2</sup> within premises where the Regulatory Reform (Fire Safety) Order 2005 applies or partly applies and must be undertaken where a fire related fatality, injury or rescue has occurred. A Post Fire Review is an extra level of scrutiny applied to the more significant incidents, including fatal and injury fires and those fires where building structural issues or deficiencies in building control/management have contributed to the development or spread of the fire.

Where building structural issues or deficiencies in building control/management are identified the Brigade will give consideration to enforcement and prosecution of the responsible person under the Regulatory Reform (Fire Safety) Order 2005. Where planning issues or contributory factors that were related to a current or recent construction/ refurbishment are identified then the relevant Building Control will be informed. On occasion this will involve joint inspections by the Brigade with Building Control and/or other local authority enforcement teams.

---

<sup>2</sup> Primary fires are generally more serious fires that harm people or cause damage to property. Primary fires are defined as fires that cause damage and meet at least one of the following conditions:

- Any fire that occurred in a (non-derelict) building, vehicle or (some) outdoor structures
- Any fire involving fatalities, casualties or rescues
- Any fire attended by five or fire engines.

**ACTION 6****The Brigade should review whether Borough Commanders have sufficient awareness of significant refurbishment projects in high rise residential premises.**

The Brigade reviewed Borough Commanders proactive and collaborative liaison with Borough Councils and the private sector in relation to significant refurbishment projects. The review showed that the overwhelming majority of Borough Commanders enjoy a close and effective relationship with their Borough Council<sup>84</sup>.

**ACTION 7****The Brigade should produce guides for councillors relating to fire safety requirements and the responsibilities of local authorities as landlords.**

The Brigade produced two guides for councillors:

- the 'Councillor guide on fire safety for use during council meetings', which sets out the role of the local authority as a responsible person under the Regulatory Reform (Fire Safety) Order 2005, and
- the 'Councillor guide on fire safety for use during estate visits', which provides some fire safety issues that should be considered when visiting estates.

These guides are available on the Brigade's website at <https://www.london-fire.gov.uk/safety/property-management/landlords-responsibilities/large-landlords-las-social-landlords-and-private-blocks/>.

**ACTION 8****The Brigade should complete a study of the experience of the operation of the Regulatory Reform (Fire Safety) Order 2005 in London.**

The Brigade developed terms of reference for a study of the experience of the operation of the Regulatory Reform (Fire Safety) Order 2005 in London<sup>85</sup> and commissioned BRE Global Ltd to complete the work. The outcome of BRE Global Ltd's review was reported

to the Strategy Committee of the London Fire and Emergency Planning Authority in November 2015<sup>86</sup>.

**SUMMARY OF POST-INQUEST ACTIONS**

A variety of actions were taken by the Brigade after the Lakanal House inquests but which were not in direct response to the recommendations made by HM Coroner following the Lakanal House inquests.

These actions were generally directed by the Lakanal House Working Group and represented a broad range of activities including:

- Seeking further clarification from the Department of Communities and Local Government on a range of fire-related standards and regulatory issues
- Reviewing building control activity with respect to protecting the fire safety integrity of a building
- Reviewing existing policy for gathering operational risk information
- Producing a 'Fire Safety in Refurbished Buildings – Audit tool'
- Reviewing policies and procedures for post fire audits and reviews
- Raising awareness of issues such as victim support and multilayer paint
- Developing a range of fire guides for local councillors relating to fire safety requirements and the responsibilities of local authorities as landlords

All Brigade actions have been completed satisfactorily. With respect to the issue of clarifying a range of fire-related standards and regulatory issues the Brigade raised with the Department of Communities and Local Government, and as there is some uncertainty as to the current status of those issues, this action has however been referred to the Grenfell Tower and Investigation Review Team for their attention.

## REFERENCES

## REFERENCES

References are supplied within the text of the document. References include the title of the documentary evidence followed by the reference used by the Grenfell Tower Investigation and Review Team (GTIRT Reference) for the purposes of disclosure to the Grenfell Tower inquiry.

- 
- 1 A comparison of Generic Risk Assessment 3.2 High Rise Firefighting V2 September 2008 and London Fire Brigade Policy 633: High Rise firefighting.  
**GTIRT Reference:** Appendix 70 of  
PI\_D21\_TRANCHE\_2\_GTIRT18-02963\_SECTION\_10\_Recommendation\_5\_Lakanal\_Operational\_Review\_Report
  - 2 Email memorandum 'Brief for FRAU with considerations for a Review of the Generic Risk Assessment for High Rise Firefighting following the fire at Lakanal House', January 2010.  
**GTIRT reference:** Appendix 71 of  
PI\_D21\_TRANCHE\_2\_GTIRT18-02963\_SECTION\_10\_Recommendation\_5\_Lakanal\_Operational\_Review\_Report
  - 3 Lakanal House Fire Investigation – Computer modelling and reconstruction fire (30 June 2010), Building Research Establishment.  
**GTIRT reference:**  
PI\_D21\_TRANCHE\_4\_GTIRT18-03414\_SECTION\_10\_Lakanal\_House\_Fire\_Investigation\_BRE\_Global\_Report
  - 4 Lakanal Master sequence of events.  
**GTIRT reference:**  
PI\_D21\_TRANCHE\_4\_GTIRT18-03415\_SECTION\_10\_Lakanal\_Master\_Sequence\_of\_Events
  - 5 Brigade report; 'Fire at Lakanal, Havil Street, SE5 on 3 July 2009. Role and actions of the LFB Control room'. See: Annex B - Comparison between national guidance and LFB policy, guidance and training notes.  
**GTIRT reference:**  
PI\_D21\_TRANCHE\_4\_GTIRT18-03417\_SECTION\_10\_LFB\_Report\_Fire\_at\_Lakanal\_Role\_and\_Actions\_of\_the\_LFB\_Control\_Room\_Annexes
  - 6 Brigade policy 539 'Emergency Call Management' (September 2007 version).  
**GTIRT Reference:**  
PI\_D21\_TRANCHE\_4\_GTIRT18-03421\_SECTION\_10\_PN\_0539\_Emergency\_Call\_Management\_2007
  - 7 Brigade policy 633 'High rise fire fighting', November 2008 version.  
**GTIRT Reference:** Appendix 3 of  
PI\_D21\_TRANCHE\_2\_GTIRT18-02963\_SECTION\_10\_Recommendation\_5\_Lakanal\_Operational\_Review\_Report
  - 8 Brigade policy 633 'High rise fire fighting', November 2011 version.  
**GTIRT Reference:** Appendix 68 of  
PI\_D21\_TRANCHE\_2\_GTIRT18-02963\_SECTION\_10\_Recommendation\_5\_Lakanal\_Operational\_Review\_Report
  - 9 Operational News, Issue 20, November 2011 'High rise firefighting'.  
**GTIRT Reference:** Previously provided in  
PI\_D14\_SECTION\_2\_GTIRT18-02608\_Operational\_News\_Issue\_20\_November\_2011
  - 10 Operational News, Issue 29, June 2015 'Summer season – High rise firefighting'.  
**GTIRT Reference:**  
PI\_D21\_Tranche\_5\_GTIRT18-03624\_Section\_10\_Operational\_News\_Issue\_29\_June\_2015
  - 11 Operational News, Issue 31, July 2016 'Firefighting in high rise buildings'.  
**GTIRT Reference:** Previously provided in  
PI\_D14\_SECTION\_2\_GTIRT18-02612\_Operational\_News\_Issue\_31\_July\_2016

- 
- 12 Brigade policy 421 'Performance reviews of the command function (PRC)'.  
**GTIRT Reference:** PI\_D3\_GTIRT17-02039\_SECTION\_B
- 13 Fire survival guidance training materials  
**GTIRT Reference:** PI\_D21\_TRANCHE\_4\_GTIRT18-03466\_SECTION\_10\_FSG\_Training\_Materials
- 14 Reference Information File 'Fire survival guidance for Control Officers'.  
**GTIRT Reference:** PI\_D19\_GTIRT17-02799\_FSG\_Reference\_Information\_File\_(RIF)\_Operator
- 15 Reference Information File 'Fire survival guidance for Control Supervisors'.  
**GTIRT Reference:** PI\_D19\_GTIRT17-02800\_FSG\_Reference\_Information\_File\_(RIF)\_Supervisor
- 16 Brigade policy 539 'Emergency Call Management', September 2010 version.  
**GTIRT Reference:** PI\_D21\_TRANCHE\_4\_GTIRT18-03422\_SECTION\_10\_PN\_0539\_Emergency\_Call\_Management\_03092010
- 17 Control officers fire survival guidance training records (2011-)  
**GTIRT Reference:** PI\_D21\_TRANCHE\_4\_GTIRT18-03413\_SECTION\_10\_FSG\_Training\_Records\_2011\_To\_Present
- 18 Draft letter to Sir Ken Knight, Chief Fire and Rescue Adviser.  
**GTIRT Reference:** PI\_D21\_TRANCHE\_4\_GTIRT18-03405\_SECTION\_10\_Unaddressed\_Letter\_to\_DCLG\_re\_FSG\_DRAFT
- 19 Brigade policy 790 'Fire survival guidance calls'.  
**GTIRT Reference:** PI\_D2\_GTIRT17-00974\_SECTION\_4.1\_SPPT\_DOC\_xxix
- 20 Operational News, Issue 20 (November 2011), 'Fire Survival Guidance Calls policy'.  
**GTIRT Reference:** Previously provided in PI\_D14\_SECTION\_2\_GTIRT18-02608\_Operational\_News\_Issue\_20\_November\_2011
- 21 Operational News, Issue 24 (March 2013), 'Fire Survival Guidance Calls'.  
**GTIRT Reference:** Previously provided in PI\_D14\_SECTION\_2\_GTIRT18-02610\_Operational\_News\_Issue\_24\_March\_2013
- 22 Supervisor Fire Survival Guidance presentation.  
**GTIRT Reference:** Included in the zip folder PI\_D21\_TRANCHE\_4\_GTIRT18-03466\_SECTION\_10\_FSG\_Training\_Materials
- 23 Brigade report; 'Fire at Lakanal, Havil Street, SE5 on 3 July 2009. Role and actions of the LFB Control room'. See: Table 5 - Calls received by Control regarding the fire at Lakanal, including time of call, duration, call handler and in indication whether fire survival guidance (FSG) was given.  
**GTIRT Reference:** PI\_D21\_TRANCHE\_4\_GTIRT18-03416\_SECTION\_10\_LFB\_Report\_Fire\_at\_Lakanal\_Role\_and\_Actions\_of\_the\_LFB\_Control\_Room
- 24 Brigade report; 'Fire at Lakanal, Havil Street, SE5 on 3 July 2009. Role and actions of the LFB Control room'.  
**GTIRT Reference:** PI\_D21\_TRANCHE\_4\_GTIRT18-03416\_SECTION\_10\_LFB\_Report\_Fire\_at\_Lakanal\_Role\_and\_Actions\_of\_the\_LFB\_Control\_Room
- 25 Brigade report; Fire Investigation report (See Section 11.5).  
**GTIRT Reference:** Appendix 1 of PI\_D21\_TRANCHE\_2\_GTIRT18-02963\_SECTION\_10\_Recommendation\_5\_Lakanal\_Operational\_Review\_Report
- 26 Brigade policy 800 'Management of Operational Risk Information'.  
**GTIRT Reference:** PI\_D22\_Tranche\_2\_GTIRT18-02844\_SECTION\_1\_Policy\_Number\_0800\_Management\_of\_Operational\_Risk\_Information

- 
- 27 Operational News, Issue 24 (March 2013), '7 (2) (d) visits'.  
**GTIRT Reference:**  
PI\_D14\_SECTION\_2\_GTIRT18-02610\_Operational\_News\_Issue\_24\_March\_2013
- 28 Shout, Issue 12 (November 2012), 'Recording of residential high rise on the ORD'.  
**GTIRT Reference:**  
PI\_D21\_TRANCHE\_4\_GTIRT18-03401\_SECTION\_10\_SHOUT\_Issue\_12\_November\_2012
- 29 Brigade policy 820 'Forward information board'.  
**GTIRT Reference:** PI\_D2\_GTIRT17-00977\_SECTION\_4.1\_SPPT\_DOC\_xxxii
- 30 Email message to all Brigade Watch and Crew Managers, 'Forward Information Board', January 2013.  
**GTIRT Reference:** PI\_21\_Tranche\_5\_GTIRT18-03626\_Section\_10\_Communications\_Message\_Forward\_Information\_Boards
- 31 Brigade policy 633 'High rise firefighting' (July 2017 version and extant policy as at July 2018).  
**GTIRT Reference:** PI\_D2\_GTIRT17-00963\_SECTION\_4.1\_SPPT\_DOC\_xxv
- 32 Brigade policy 803 'Search and rescue procedures within structures'.  
**GTIRT Reference:** PI\_D2\_GTIRT17-00976\_SECTION\_4.1\_SPPT\_DOC\_xxxi
- 33 Operational News, Issue 25, October 2013 'Search and rescue procedures'.  
**GTIRT Reference:**  
PI\_D21\_Tranche\_5\_GTIRT18-03623\_Section\_10\_Operational\_News\_Issue\_25\_October\_2013
- 34 Operational News, Issue 33, July 2017 'BA search patterns/emergency teams'.  
**GTIRT Reference:**  
PI\_D21\_Tranche\_5\_GTIRT18-03625\_Section\_10\_Operational\_News\_Issue\_33\_July\_2017
- 35 Brigade policy 466 'Respiratory protective equipment – breathing apparatus – operational procedure'.  
**GTIRT Reference:** PI\_D2\_GTIRT17-00957\_SECTION\_4.1\_SPPT\_DOC\_ii
- 36 Operational News, issue 17, November 2010 'Loose cabling encountered within fires'.  
**GTIRT Reference:** Appendix 69 of  
PI\_D21\_TRANCHE\_2\_GTIRT18-02963\_SECTION\_10\_Recommendation\_5\_Lakanal\_Operational\_Review\_Report
- 37 SHOUT, Issue 10, October 2013 'New cable cutters for BA wearers'.  
**GTIRT Reference:**  
PI\_D21\_TRANCHE\_4\_GTIRT18-03397\_SECTION\_10\_SHOUT\_Issue\_10\_October\_2013
- 38 London Fire and Emergency Planning Authority (LFEPA) Briefing Note, 'Dropping cables'.  
**GTIRT Reference:**  
PI\_D21\_TRANCHE\_4\_GTIRT18-03406\_SECTION\_10\_LFEPA\_Briefing\_Note\_Dropping\_Cables
- 39 Local Authorities Coordinators of Regulatory Services agreements with London boroughs.  
**GTIRT Reference:**  
PI\_D21\_TRANCHE\_4\_GTIRT18-03420\_SECTION\_10\_LACORS\_Agreements\_with\_London\_Boroughs
- 40 Brigade Fire Safety Information and Guidance Note 114 'Fire Safety Regulation Team Plan'.  
**GTIRT Reference:** PI\_D2\_FSR17-00002\_SECTION\_2.1.1\_SPPT\_DOC\_i
- 41 Brigade Fire Safety Information and Guidance Note 115 'Relative Risk Level System'.  
**GTIRT Reference:**  
PI\_D21\_TRANCHE\_4\_GTIRT18-03398\_SECTION\_10\_FSIGN\_115

- 
- 42** Brigade Fire Safety Information and Guidance Note 116 'Assigning Relative Risk Level to new and '0' rated premises'.  
**GTIRT Reference:**  
PI\_D21\_TRANCHE\_4\_GTIRT18-03399\_SECTION\_10\_FSIGN\_116
- 43** Brigade policy 741 'Home Fire Safety Visits (HFSV)'.  
**GTIRT Reference:** PI\_D2\_FSR17-00039\_SECTION\_2.5.1\_SPPT\_DOC\_ix
- 44** Brigade policy 742 'Home Fire Safety Visits – Grouped risk'.  
**GTIRT Reference:** PI\_D2\_FSR17-00035\_SECTION\_2.5.1\_SPPT\_DOC\_v
- 45** Brigade policy 743 'Home Fire Safety Visits – Individual risk'.  
**GTIRT Reference:** PI\_D2\_FSR17-00034\_SECTION\_2.5.1\_SPPT\_DOC\_iv
- 46** Brigade policy 744 'Home Fire Safety Visits – Carrying out the visit'.  
**GTIRT Reference:** PI\_D2\_FSR17-00033\_SECTION\_2.5.1\_SPPT\_DOC\_iii
- 47** Brigade policy 736 'Safeguarding adults at risk'.  
**GTIRT Reference:**  
PI\_D21\_TRANCHE\_4\_GTIRT18-03400\_SECTION\_10\_PN\_0736\_Safeguarding\_Adults\_At\_Risk
- 48** Brigade policy 920 'Major incidents investigation'.  
**GTIRT Reference:** PI\_D6\_GTIRT18-00262\_POLICY\_920\_MAJOR\_INCIDENTS\_INVESTIGATION
- 49** Brigade report (CMB 117/15) 'Major Investigations Policy'.  
**GTIRT Reference:**  
PI\_D21\_TRANCHE\_4\_GTIRT18-03412\_SECTION\_10\_CMB117\_Major\_Investigations\_Policy
- 50** Brigade letter to Parliamentary Under Secretary of State for Communities and Local Government (responsible for fire).  
**GTIRT Reference:**  
PI\_D21\_TRANCHE\_4\_GTIRT18-03403\_SECTION\_10\_Letter\_to\_Brandon\_Lewis\_MP\_11122012
- 51** Department of Communities and Local Government letter in response to the Brigade.  
**GTIRT Reference:**  
PI\_D21\_TRANCHE\_4\_GTIRT18-03404\_SECTION\_10\_Letter\_from\_DCLG\_06022013
- 52** Minutes of inaugural meeting of the Fire Safety High Rise forum, held on 4 October 2013.  
**GTIRT Reference:** PI\_D2\_GTIRT17-01062\_SECTION\_2.6.1\_SPPT\_DOC\_xxxv.docx
- 53** Minutes of the Fire Safety High Rise forum meeting, held on 27 November 2015.  
**GTIRT Reference:** PI\_D2\_GTIRT17-01052\_SECTION\_2.6.1\_SPPT\_DOC\_xxv
- 54** London Fire and Emergency Planning Authority report FEP 2846 'Know the plan – Campaign results', July 2015.  
**GTIRT Reference:** PI\_D2\_GTIRT17-01002\_SECTION\_2.5.1\_SPPT\_xvii
- 55** Brigade leaflet 'Councillor guide on fire safety for use during estate visits'.  
**GTIRT Reference:** PI\_D2\_FSR17-00139\_SECTION\_2.2.5\_SPPT\_DOC\_Li
- 56** Brigade leaflet 'Home Fire Safety Guide for purpose built flats and maisonettes'.  
**GTIRT Reference:** PI\_D2\_FSR17-00140\_SECTION\_2.5.2\_SPPT\_DOC\_x
- 57** Brigade CMB paper 057/11, Analysis of the HSE Report: "The Management of H&S in the GB Fire and Rescue Service" (April 2011).  
**GTIRT Reference:**  
PI\_D21\_TRANCHE\_2\_GTIRT18-



- 
- 02964\_SECTION\_10\_Recommendation\_2a\_11-CMB057\_Analysis\_of\_the\_HSE\_report
- 58** Brigade CMB paper 043/13, Operational risk information: LFB response to national operational guidance (February 2013).  
**GTIRT Reference:**  
PI\_D21\_TRANCHE\_4\_GTIRT18-03411\_SECTION\_10\_CMB043\_Operational\_Risk\_Information\_LFB\_Response\_to\_National\_Operational\_Guidance
- 59** Brigade CMB paper 140/14 'Premises Information Plates' (September 2014).  
**GTIRT Reference:**  
PI\_D21\_TRANCHE\_2\_GTIRT18-02966\_SECTION\_10\_Recommendation\_2a\_14-CMB140\_Premises\_Information\_Plates
- 60** Brigade policy 800 'Management of Operational Risk Information' (August 2015 version).  
**GTIRT Reference:**  
PI\_D22\_Tranche\_2\_GTIRT18-02844\_SECTION\_1\_Policy\_Number\_0800\_Management\_of\_Operational\_Risk\_Information
- 61** Operational News, Issue 31, July 2016 'Operational Risk Information'.  
**GTIRT Reference:** Previously provided in  
PI\_D14\_SECTION\_2\_GTIRT18-02612\_Operational\_News\_Issue\_31\_July\_2016
- 62** Email message 'Prioritising inspections to premises based on risk', May 2014.  
**GTIRT Reference:**  
PI\_D21\_TRANCHE\_4\_GTIRT18-03418\_SECTION\_10\_Communications\_Message\_Prioritising\_Inspections\_to\_Premises\_Based\_on\_Risk\_24052014
- 63** Brigade policy 800 'Management of Operational Risk Information' (July 2012 version).  
**GTIRT Reference:**  
PI\_D21\_TRANCHE\_2\_GTIRT18-02968\_SECTION\_10\_Recommendation\_2a\_PN800\_July\_2012
- 64** London Fire and Emergency Planning Authority report FEP 2085 'Evaluation of effectiveness of home fire safety visits', July 2013.  
**GTIRT Reference:**  
PI\_D21\_TRANCHE\_2\_GTIRT18-02969\_SECTION\_10\_Recommendation\_2c\_Evaluation\_of\_Effectiveness\_of\_HFSVs\_FEP\_2085
- 65** Operations, Prevention and Response department Principal Management Board, note of meeting held on 18 December 2013.  
**GTIRT Reference:**  
PI\_D21\_Tranche\_5\_GTIRT18-03671\_Section\_10\_OPR\_PMB\_Note\_18122013
- 66** Brigade report CMB 101/11 'Review of Incident Command and Support Levels'.  
**GTIRT Reference:**  
PI\_D21\_TRANCHE\_2\_GTIRT18-02971\_SECTION\_10\_Recommendation\_3a\_CMB\_101\_Review\_of\_Incident\_Command\_and\_Support\_Levels
- 67** Brigade Mobilising User Requirement (MUR) 'Changes to incident command thresholds'.  
**GTIRT Reference:**  
PI\_D21\_TRANCHE\_2\_GTIRT18-03030\_SECTION\_10\_Recommendation\_3\_Lakanal\_House\_Action\_Plan\_Training\_Response\_Part\_2\_of\_5
- 68** Brigade policy 412 'Mobilising Policy'.  
**GTIRT Reference:** PI\_D2\_GTIRT17-00953\_SECTION\_4.1\_SPPT\_DOC\_vi
- 69** Message from Third Officer to all senior managers and control staff regarding changes to incident command thresholds (November 2013).  
**GTIRT Reference:**  
PI\_D21\_TRANCHE\_2\_GTIRT18-03028\_SECTION\_10\_Recommendation\_2\_Changes\_to\_Incident\_Command\_Thresholds\_Communication

- 
- 70** Training Commissioning and Alteration Process (TCAP) form 0124, 'Enhanced Incident Command Training Based on Lakanal Inquest Rule 43 Recommendations' (July 2013 to August 2016).  
**GTIRT Reference:** PI\_D21\_TRANCHE\_2\_DT18-00030\_SECTION\_10\_TCAP\_0124\_10\_SM\_RICKARD
- 71** Babcock report – 'TCAP 0124 Enhanced Incident Command Training Based on Lakanal Inquests Rule 43 recommendations - Proposal for Enhancing Existing Incident Command Training' (September 2013).  
**GTIRT Reference:** Attached to email disclosed as PI\_D21\_TRANCHE\_2\_DT18-00017\_SECTION\_10\_Rule\_43
- 72** Brigade Command Decision Exercise - Blackwall Tower.  
**GTIRT Reference:** Attached to email disclosed as PI\_D21\_TRANCHE\_2\_DT18-00017\_SECTION\_10\_Rule\_43
- 73** Training Commissioning and Alteration Process (TCAP) form 0153, Lakanal Training Case Study.  
**GTIRT Reference:** PI\_D21\_TRANCHE\_2\_DT18-00032\_SECTION\_10\_TCAP\_0153\_Signed\_and\_closed
- 74** Story Board Lakanal Case Study.  
**GTIRT Reference:** PI\_D21\_TRANCHE\_2\_GTIRT18-02995\_SECTION\_10\_Recommendation\_3c\_Story\_Board\_Lakanal\_Case\_Study
- 75** Training Commissioning and Alteration Process (TCAP) form 0143, Awareness of Brigade Control's FSG procedures and practices.  
**GTIRT Reference:** PI\_D21\_TRANCHE\_2\_GTIRT18-02998\_SECTION\_10\_Recommendation\_4b\_LFB\_signed\_TCAP\_0143
- 76** Brigade report 'Report into the performance of personal and breathing apparatus radios at Lakanal House'.  
**GTIRT Reference:** Appendix 63 of PI\_D21\_TRANCHE\_2\_GTIRT18-02963\_SECTION\_10\_Recommendation\_5\_Lakanal\_Operational\_Review\_Report
- 77** Training Commissioning and Alteration Process (TCAP) form 0039, Use of Authority issued radio communication equipment.  
**GTIRT Reference:** PI\_D21\_TRANCHE\_4\_GTIRT18-03402\_SECTION\_10\_TCAP\_0039
- 78** Chairman of London Fire and Emergency Planning Authority letter to Parliamentary Under Secretary of State for Communities and Local Government (responsible for fire).  
**GTIRT Reference:** Included in PI\_D2\_GTIRT17-00999\_SECTION\_2.5.1\_SPPT\_DOC\_xv
- 79** Brigade letter to Parliamentary Under Secretary of State for Communities and Local Government (responsible for fire).  
**GTIRT Reference:** PI\_D2\_GTIRT17-01066\_SECTION\_2.6.1\_SPPT\_DOC\_xxxvii
- 80** London Fire and Emergency Planning Authority report (FEP 2265) 'Structural Fire Safety in New and Refurbished Buildings'.  
**GTIRT Reference:** PI\_D21\_TRANCHE\_4\_GTIRT18-03409\_SECTION\_10\_FEP\_2265\_Structural\_Fire\_Safety\_in\_New\_and\_Refurbished\_Buildings
- 81** Brigade letter to Heads of Housing all London Boroughs, Arms Length Management Organisations, and social housing landlords on 'multi-layer paint – fire safety issues'.  
**GTIRT Reference:** PI\_D2\_GTIRT17-01012\_SECTION\_2.5.2\_SPPT\_DOC\_xvi
- 82** London Fire and Emergency Planning Authority Briefing Note 'Lakanal House Working Group – Victim Support', January 2013.  
**GTIRT Reference:** PI\_D2\_GTIRT17-00996\_SECTION\_2.5.1\_SPPT\_DOC\_xii

- 
- 83** Brigade Fire Safety Information and Guidance Note 206 'Post fire audits and post fire reviews'.  
**GTIRT Reference:**  
PI\_D21\_TRANCHE\_4\_GTIRT18-03419\_SECTION\_10\_FSIGN\_206
- 84** Minutes of the Lakanal House Working Group (LHWG) meeting, held in March 2014 (For details see agenda item 5 and Appendix 3 of the minute).  
**GTIRT Reference:** PI\_D2\_GTIRT17-01000\_SECTION\_2.5.1\_SPPT\_DOC\_xvi
- 85** Terms of reference for review of the Regulatory Reform (Fire Safety) Order 2005 in London (See Appendix 2 to London Fire and Emergency Planning Authority report (FEP2262) 'Lakanal House Working Group'.)  
**GTIRT Reference:** PI\_D2\_GTIRT17-01037\_SECTION\_2.6.1\_SPPT\_DOC\_k
- 86** London Fire and Emergency Planning Authority report (FEP 2538) 'Evaluation of the effectiveness of the Regulatory Reform (Fire Safety) Order 2005', November 2015.  
**GTIRT Reference:** PI\_D2\_GTIRT17-01053\_SECTION\_2.6.1\_SPPT\_DOC\_xxvii.ppt



# National guidance and London Fire Brigade operational policy for fighting fires in high rise buildings

A report to explain how 'Generic Risk Assessment 3.2 – fighting fires in high rise buildings (2014)' was produced and which compares this guidance to London Fire Brigade's operational policy for high rise firefighting and other operational policies that are relevant to fighting fires in high rise buildings.

The report sets out the rationale underpinning the changes that were made to these documents and identifies differences between them.

The report also describes changes that were made to LFB's mobilising protocols and operational equipment in response to what were, at the time these documents were produced, newly defined hazards associated with fighting fires in high rise buildings.

# Contents

<b>Part 1</b>	Introduction
<b>Part 2</b>	Generic Risk Assessment review process and the development of 'GRA 3.2 - Fighting fires in high rise buildings'
<b>Part 3</b>	Generic Risk Assessment 3.2 Fighting fires in high rise buildings – comparison of Version 2 (published in 2008) with Version 3 (published in 2014)
<b>Part 4</b>	London Fire Brigade's approach to the production and maintenance of operational policy
<b>Part 5</b>	Comparison of GRA 3.2 - Fighting fires in high rise buildings (published in February 2014) with LFB operational policy PN 633 – High rise firefighting (issued in June 2015)
<b>Part 6</b>	Mobilising and operational equipment changes associated with fighting fires in high rise buildings
<b>Appendix 1</b>	GRA Review Process (as produced by the GRA review programme manager)
<b>Appendix 2</b>	Detailed comparison of high rise GRAs
<b>Appendix 3</b>	LFB operational policy process flowchart
<b>Appendix 4</b>	Detailed comparison of GRA 3.2 with LFB PN633

# 1 Introduction

## 1.1 Background

- 1.1.1 During the Grenfell Tower fire public inquiry, questions have been asked - and further questions are anticipated in the future - regarding the operational policies that were produced and used by London Fire Brigade (LFB) during this incident.
- 1.1.2 These questions have extended to the national 'Generic Risk Assessment 3.2 – fighting fires in high rise buildings – Version 3' (hereinafter referred to as 'GRA 3.2') and, in some instances, have also pointed to inconsistencies between the GRA and LFB policy.
- 1.1.3 It should be noted that two versions of GRA 3.2 are referred to in this report. The first was published in September 2008 and this is referred as 'Version 2'; the second was published in February 2014 and is referred to as 'Version 3'. Both documents were published by the Department for Communities and Local Government (DCLG) and the revisions made to Version 3 were led by LFB, as part of the review process that is described in Part 2 of this report.
- 1.1.4 Unless otherwise stated, where the term 'GRA 3.2' is used in this report without reference to a version number it refers to Version 3 of this document.

## 1.2 Strategic intent

- 1.2.1 This report examines how GRA 3.2 was developed and the consequent changes that were made to LFB's operational policy and other aspects of its capability to fight fires in high rise buildings. The report also identifies any inconsistencies between the GRA and LFB policy and provides supporting evidence to explain why, where this information is available.

## 1.3 Scope, objectives and report format

- 1.3.1 To deliver this intent, this report describes and, where necessary, provides analysis in relation to the following:
- the process which was followed to develop and consult on GRA 3.2 (including the wider context in which the entire GRA document series were reviewed)
  - the source and nature of the additional hazards and control measures that were identified during the review of GRA 3.2 (when compared to Version 2 of GRA 3.2)
  - the feedback that was received from consultees and how this and other influences shaped the development of GRA 3.2
  - the processes that are used to create and maintain LFB's operational policy, how it is structured and cross-referenced
  - changes relevant to fighting fires in high rise buildings that were made by LFB to operational policy, mobilising and equipment that were associated with the development of - and following - the publication of GRA 3.2
  - any discrepancies or gaps that exist between the GRA and LFB operational policy
- 1.3.2 As well as GRA 3.2, a key focus is LFB's 'Policy Note 633 – High rise firefighting operational policy' (hereinafter referred to as 'PN 633'), although it is pertinent to note that LFB's response to the Grenfell Tower fire was also based upon the use of a number of other operational policies.
- 1.3.3 These include - but are not limited to - those which cover incident command, fire survival guidance calls and ventilation.
- 1.3.4 Many of these other operational policies were developed during the time period when GRA 3.2 was undergoing review and, in varying proportions, they both influenced – and, in turn, were influenced by - GRA 3.2.

- 1.3.5 For clarity, this report has been divided into 6 Parts and any reference to the terms ‘section’ or ‘sub-section’ in this report relate to either GRA 3.2 or an LFB Operational Policy.
- 1.3.6 The following areas are outside the scope of this report, other than with respect to the extent to which they form part of - or are referenced to - in GRA 3.2 and PN 633:
- operational information gathering
  - training for personnel liable to be engaged in search, rescue and firefighting in high rise buildings
  - regulatory fire safety
- 1.3.7 All significant sources of information and documentary evidence used in the report are either included as appendices or set out in the References at the end of this report. Copies of all the documents listed in ‘References’ have been stored electronically and are available on request.

## 1.4 ‘Stay Put’ policy

- 1.4.1 There are a number of references to ‘stay put’ policy in this report and this reflects the terminology that was used in GRA 3.2, even though, in some instances, the phrase ‘stay put principle’ would have been a more accurate term to use.
- 1.4.2 This report is based on the following definitions and understanding of what these terms mean:
- ‘stay put principle’ refers to a theory that is used to aid the design of high-rise buildings
  - ‘stay put policy’ is a strategy that can be adopted by the ‘responsible person’ in blocks of flats and maisonettes. Under this policy, when a fire occurs in a flat or maisonette, the occupants of the affected dwelling evacuate, but occupants of all other dwellings should be able to safely remain in their dwellings unless directly affected by heat and smoke or directed to leave by the fire and rescue service<sup>1</sup>.
- 1.4.3 In this context, LFB does not, itself, have a ‘stay put’ policy but it is referred to in PN 633 and firefighters would be expected to implement this strategy at any premises where this policy forms part of the ‘responsible person’s’ fire risk assessment, unless the fire situation dictates otherwise.

## 1.5 Report authors and contributors

- 1.5.1 The main author of this report was formerly an Assistant Commissioner in LFB and was the Head of Service responsible for operational policy during the period 2013 – 2016. As such, he had overall responsibility for the version of PN 633 that was current at the time of the Grenfell Tower fire and for many of the other operational policies that are cited in this report.
- 1.5.2 In his previous role as Deputy Assistant Commissioner, the report author was also LFB’s principal representative on the GRA review committee that is described in Part 2 and in Appendix 1. As part of this role and the work undertaken with this group, he played a central part in developing and writing GRA 3.2.
- 1.5.3 The author’s role in leading on the review of GRA 3.2 and writing this report should not be treated as an inference that either he or other contributors are ‘subject matter experts’ in relation to firefighting in high rise buildings. The report author’s involvement in both tasks has been based on the experience and knowledge he has acquired from performing a variety of operational fire service roles over a period of 34 years, which included attending and undertaking the role of incident commander at a number of fires and other incidents involving high rise buildings.



- 1.5.4 With regard to GRA 3.2, the report author identified active engagement with stakeholders as a key part of the review, thereby ensuring that the development of this document benefitted from the combined understanding and experience of all of the organisations that were represented on the GRA review committee.
- 1.5.5 The composition of this committee and a list of the organisations who were consulted is provided in Appendix 1, noting that with regard to FRS, it was anticipated that each representative would seek comment from all the other fire services in their region as well as providing feedback from their own service. For all FRS, the expectation was that the consultation process would include all relevant service departments, such as those responsible for policy, health and safety, operational response and regulatory fire safety, even though the representatives themselves were mainly in senior operational response and health and safety management roles.
- 1.5.6 Group Manager Phil Morton (LFB Borough Commander for London Borough of Sutton) also made a significant contribution to the changes that were made to GRA 3.2. He assisted in the drafting of Appendices 2 and 4 of this report and he has provided feedback on all parts of this report.
- 1.5.7 Other significant contributions to the research and information gathering that supported the creation of this report were made by Leigh Brinton (Surrey Fire and Rescue Service) and by Station Manager Richard Abbot (LFB operational policy and assurance department).

**Peter Cowup**  
**January 2019**

## 2 Generic Risk Assessment review process and the development of 'GRA 3.2 - Fighting fires in high rise buildings'

### 2.1 Introduction

- 2.1.1 This part of the report describes the Generic Risk Assessment (GRA) review process and governance arrangements, noting that this was the framework within which GRA 3.2 was reviewed, amended and published in February 2014.
- 2.1.2 GRAs were provided by the DCLG to assist Fire and Rescue Services (FRS) in identifying and recording significant risks to their employees and others affected by their operations. FRS are responsible for ensuring that GRAs are valid within the setting of their own systems of work and they were encouraged to use them to inform and develop their own practises and procedures.
- 2.1.3 In this context, GRAs are intended to support those personnel in FRS who are responsible for creating and amending service risk assessments, operational policy and procedures. GRAs are not intended to be used directly to guide operations or to be used at incidents, although they are publicly available through the Government gateway 'GOV.UK' website. There is no requirement for operational personnel to know about or make use of these documents, but some may make reference to them for training and personal development purposes.

### 2.2 The Generic Risk Assessment review process

- 2.2.1 The GRA series was reviewed between 2010 and 2014, as part of a broader Operational Guidance (Health and Safety Guidance Review) programme. This programme was commissioned by DCLG and the Chief Fire & Rescue Adviser (CFRA) as the 'owners' of this guidance.
- 2.2.2 The responsibility for programme management and delivery was contracted to Surrey Fire and Rescue Service (SFRS)<sup>2</sup>.
- 2.2.3 Chris Boulton (who was a senior advisor to CFRA) was the programme sponsor and Assistant Chief Fire Officer (ACFO) Derek Clough (SFRS but seconded to CFRA as an advisor) was appointed as programme manager. Later in the review process, Leigh Brinton from SFRS made a significant contribution to the programme in her role as programme support officer and towards the end of the programme, she also took responsibility from ACFO Clough (when he retired in January 2013) for final delivery of those GRAs that remained un-published at that time.
- 2.2.4 The overall aim of the Operational Guidance programme was to increase firefighter and public safety. There was also an intention to improve interoperability between emergency responders and assist Fire and Rescue Services (FRS) to meet their statutory responsibilities, principally under regulations relating to Health and Safety duties<sup>3</sup>.
- 2.2.5 The programme included the review and production of a range of guidance documents, key among which was 40 GRAs. The purpose of GRAs was defined in terms of:
- minimising the effort that individual FRSs would need to devote to creating their own risk assessments and operational policies;
  - providing guidance on operational incidents, based on the combined understanding and experience of FRS from across the UK; and
  - reducing the risk of inconsistencies in approach and outcome across the UK fire service<sup>4</sup>.
- 2.2.6 The programme defined a detailed systematic process for GRA reviews, based on the participation of representatives from each Chief Fire Officers Association (CFOA) region and other stakeholders such as the Fire Brigades Union (FBU), the Fire Officer's Association (FOA) and the Health and Safety Executive (HSE)<sup>5</sup>.

- 2.2.7 Governance for this review process was provided by a project board and all CFOA regions, the devolved administrations and other stakeholders were represented on a larger review committee. The Board and review committee met monthly to discuss progress and discuss issues arising during the programme or associated with specific GRAs.
- 2.2.8 As a result of IT changes made in SFRS, only a limited number of review committee meeting notes were available to be referred to as part of the research underpinning this report.
- 2.2.9 Members of the review committee also took responsibility for leading on the production of one or more revised GRA, although this did not always mean that they were the 'authors' of these documents and in some cases that role was undertaken by personnel from another FRS in the nominated region.
- 2.2.10 The methodology for assessing and amending individual GRAs was defined as a staged process and the review guidance stated that this would run over a ninety-day period for each GRA. In practise, this timescale was generally exceeded for most of the GRAs reviews that the report author participated in and this particularly proved to be the case for GRA 3.2.
- 2.2.11 A description of the GRA review process and governance arrangements as set out by the GRA review programme manager is provided at Appendix 1.

### 2.3 The development of GRA 3.2 – Fighting fires in high rise buildings

- 2.3.1 LFB was represented on the review committee<sup>6</sup> and was asked to take responsibility for reviewing two GRAs i.e. GRA 2.2. Lifts and escalators and GRA 3.2 Fighting fires in high rise buildings. This decision reflected the fact that the nature of London's built environment and its transport infrastructure means that LFB (when compared to other FRS in the UK) has a relatively high level of experience of dealing with the hazards which are associated with the buildings and systems that are covered by these GRAs.
- 2.3.2 In addition, LFB had also identified and was in the process of implementing a number of 'lessons' from the high rise fire which had occurred at Lakanal House in July 2009. This incident had led to a significant loss of life and a range of learning had been identified through the inquest and the investigations which had followed<sup>7</sup>.
- 2.3.3 Version 2 of GRA 3.2 had been published by DCLG in September 2008 and it is believed by the report author that this was the only GRA in the series to be subject to what, in effect, constitutes an 'intermediate review'. This was completed *after* publication of the original GRA series but *before* the comprehensive review process which is outlined above and described in detail in Appendix 1.
- 2.3.4 GRA 3.2 was allocated to LFB by the programme manager in March 2011 and the decision for LFB to lead on the review of GRA 3.2 was initially opposed by FBU London regional officials, based on their perception that the Brigade's involvement in the Lakanal House fire created a potential conflict of interest when completing this work.
- 2.3.5 This contention was addressed, locally by LFB management and with national FBU officials by the GRA programme manager and agreement was subsequently reached with the FBU nationally that it would be acceptable for LFB to conduct this review.
- 2.3.6 Milestone 2 of the review process for GRA 3.2 was completed by December 2011. As LFB constitutes a CFOA region in its own right, no other FRS were involved in the initial consultation stage and the preliminary evolution of the GRA was accordingly shaped by research and internal consultation with relevant LFB departments.
- 2.3.7 A total of 13 versions of the document were produced during this period, reflecting the work that was undertaken to understand the risk and policy-related outcomes of both the Lakanal and Shirley Towers incidents.

- 2.3.8 LFB also enhanced its own high rise firefighting policy and introduced a number of new operational policies during the period in which the GRA review was conducted. These new policies included (but were not limited to) those relating to search procedures (July 2012), compartment firefighting (October 2012) and Tactical Ventilation (January 2016).
- 2.3.9 The research and information that was gathered to develop these policies was, to varying degrees, also used to support and inform the review of GRA 3.2; concurrently, information gained from the GRA review process was also fed into the development of LFB operational policy.
- 2.3.10 Further information regarding LFB's operational policies associated with fighting fires in high rise buildings is provided in Parts 4 and 5 of this report.

## 2.4 Regional and national consultation

- 2.4.1 GRA 3.2 was subject to consultation as described in milestones 3 – 4 of the GRA review process during the period December 2011 – March 2012. These consultations are described in more detail in Appendix 1 and it should be noted that the first round of national consultation was based on version 13 of the document.
- 2.4.2 A range of positive and negative comments were received from consultees, which resulted in a number of changes being made, such as how to enhance provision of premises information for use during incidents and the impact of moral pressure on responders.
- 2.4.3 Milestone 5 of the review process for GRA 3.2 was reached in May 2012. This protracted timescale reflected the fact consultees expressed a range of strongly held and sometimes varying views about the subject of high rise firefighting, which were articulated in both their written responses and when this GRA was discussed during the GRA review committee meetings.
- 2.4.4 It consequently took longer than the period envisaged by the review process to receive and work through the feedback that was offered.
- 2.4.5 Another reason for the extended timescales was a recommendation from the GRA 3.2 author to ACFO Clough (which was accepted) to delay publishing GRA 3.2 until after the formal findings anticipated in relation to two significant high rise fires, both of which were subject to Coroner's inquests<sup>8</sup>.
- 2.4.6 A second round of national consultation for GRA 3.2 opened in July and closed in September 2012, based on version 17 of the document. This phase of consultation was additional to the arrangements that are set out in Appendix 1 and compared to the level of response typically received in response to other GRAs, a relatively large amount of verbal and written feedback was received, reflecting high levels of interest among review committee members.
- 2.4.7 Comments were either accepted by incorporating them into the text or, if rejected, a separate record of these comments was made. In the latter case, each consultee making a written comment (other than the FBU, whose involvement is described in detail below) was provided with the reason(s) why their comment had not been accepted and copies of these emails have been retained<sup>9</sup>.
- 2.4.8 A full record of all those comments that were not included in GRA 3.2 is available in the form of the emails that were sent at the time to consultees. These emails include any explanation of why these comments were not adopted and a description of how the FBU's feedback was managed is provided in paragraph 2.5, as this was different for the reasons explained elsewhere in this report.
- 2.4.9 The volume of comments received from the second national consultation phase was greater than the previous stage. Among the many positive suggestions made and incorporated into the GRA at this time were:
- The need to make high rise premises a focus for 7(2)d visits
  - The impact of any absence or breakdown in fire compartmentation on the spread of fire, heat and smoke

- Safety procedures and considerations relating to the use of covering jets and ventilation
- The risks associated with the replacement of original fire-rated doors with any type that did not provide the same or better standard of fire protection
- Potential safety issues associated with the use of fire lifts, including the risk that firefighters may mistakenly use non-designated lifts during an incident
- Use of aerial appliances for reconnaissance purposes

- 2.4.10 One of the common and most prominent themes that emerged from the consultation was that the section of GRA that described control measures had become too ‘procedural’. It was certainly true that Version 3 presented the actions necessary for safe and effective fire service operations in a logical order, but in this respect, the changes that were made were only expanding on the approach that had already been taken in Version 2 of GRA 3.2.
- 2.4.11 Another recurring theme was the differing views expressed in relation to the addition of operational discretion. Most consultees were broadly in agreement with the concept, but many opposed its inclusion within GRA 3.2 and stated that it should be included within a national framework document, given its application to all incident types.
- 2.4.12 On 26<sup>th</sup> October 2012, the GRA authors met with members of Hampshire Fire and Rescue Service’s (HFRS) accident investigation team. The aim was to gain a fuller understanding of the Shirley Towers fire, in which two firefighters had lost their lives whilst fighting a fire in a 16-storey high rise residential block in April 2010.
- 2.4.13 A large number and broad range of learning points that had been identified by the HSE, HM Coroner and through HFRS’s own investigation into this incident.
- 2.4.14 A large percentage of these related to the improvements designed to deliver improved firefighter safety and the impact that these had are set out in Part 3 and Appendix 2 of this report, where the changes that were made to GRA 3.2 are described in detail.

## 2.5 FBU response to national consultation

- 2.5.1 In April 2012, the FBU stated that they had some ‘major concerns’ about the GRA but, at this time, their response did not state what these were<sup>10</sup>.
- 2.5.2 The FBU’s comments to the second national consultation were received on 26<sup>th</sup> September 2012, but these had been made in relation to an earlier version of the document which had been circulated at the commencement of the consultation undertaken between Milestones 1 and 4 i.e. version 13 of GRA 3.2.
- 2.5.3 The correct version of GRA 3.2 was re-sent to the FBU on 27<sup>th</sup> September.
- 2.5.4 The FBU’s written feedback from Milestone 4 of the consultation process was received on 29<sup>th</sup> November 2012<sup>11</sup>.
- 2.5.5 The FBU made a range of comments but among the most significant elements of their overall response to GRA 3.2 was a statement that it was too much like a ‘standard operating procedure’ and an insistence that the term ‘must’ should replace the term ‘should’ in many instances throughout GRA 3.2.
- 2.5.6 The FBU’s rationale for these assertions was that many aspects of planning for - and response to - fires in high rise buildings are vital to firefighter safety. As such, the FBU’s view was that certain actions and resource provision should be mandated for individual FRS to follow through national guidance.

- 2.5.7 This change was at variance to the approach that was taken in the rest of the GRA series, where use of the term 'should' meant that it was for each FRS, through their own risk assessment and policy decisions, to determine the specific detail of *how* and with which resources they would deliver a 'safe system of work'.
- 2.5.8 However, in the context of GRA 3.2, it was clear from numerous interactions, between the union, the programme manager and this report author, that the FBU would only endorse the publication of a revised version of the document to their members *if* it included explicit direction to FRS to employ those control measures which the union deemed essential. Beyond this, the consultation process generally had highlighted general agreement among all stakeholders that high rise firefighting constituted a high risk activity and that, as such, it seemed appropriate to be more 'specific' than normal in GRA 3.2 regarding how such incidents should be planned for and managed.
- 2.5.9 In this context - and to ensure that GRA 3.2 benefitted from the positive endorsement of all stakeholders - the GRA authors met with national FBU officials and the GRA programme manager over the course of several days in January 2013<sup>12</sup>.
- 2.5.10 After lengthy discussion and a 'line-by-line' consideration of the union's proposed changes, those attending were able to agree a version of the document that the FBU would support. During these meetings, changes were made to a paper copy of GRA 3.2 and this was subsequently used to amend the electronic version of this document.
- 2.5.11 This revised version of GRA 3.2 was subsequently emailed to FBU officials and its receipt was acknowledged in an exchange of emails dated February 2013<sup>13</sup>.
- 2.5.12 There is, however, no record - either written or verbal - of the FBU's explicit approval for GRA 3.2.
- 2.5.13 At the same time, there is also neither any record nor recollection by SM Morton, Leigh Brinton or the report author of any further feedback or challenge being made by the FBU in relation to the amended version of GRA 3.2 that was agreed at the conclusion of the meetings outlined above.
- 2.5.14 Given the considerable interaction with FBU representatives in relation to GRA 3.2 and the fact that many of their proposed changes had been accepted, it would seem reasonable to infer from the absence of any further correspondence on this matter that they were satisfied by the outcome of the consultation process.
- 2.5.15 It is also worthy of note that the same approach was taken with all of the organisations that formed part of the review committee, insofar as the GRA review process did not seek nor require an explicit statement of their agreement to each GRA at the conclusion of the consultation process for each document.
- 2.5.16 DCLG's ownership of the GRA series is also meant that they made the final determination with regard to each GRA's content and an outline of DCLG's specific involvement in and contribution to GRA 3.2 is provided below.

## 2.6 The further development of GRA 3.2

- 2.6.1 Given the volume of feedback that had been received and extent of the changes that had been made to the document, the GRA author initiated a 'final sense check' of GRA 3.2 within LFB<sup>14</sup> in February 2013.
- 2.6.2 A range of personnel were chosen to undertake this work, on the basis of their subject-matter knowledge and/or professional interest in the subject of high rise firefighting. They were asked to check the document for consistency and to help ensure that the large number of changes that had been made through the review process had not 'corrupted' the content nor caused GRA 3.2 to become 'un-readable'.

- 2.6.3 Although it was made clear that this was *not* a consultation regarding the document's content, one respondent<sup>15</sup> did offer substantive feedback regarding changes that could be made with respect to building construction which has the potential to be taken as relevant in the context of the Grenfell Tower fire.
- 2.6.4 The comment related to 'Large Panel System' (LPS), which are pre-fabricated sections of concrete that had commonly been used in residential high rise buildings that were constructed in the 1960's. LPS should not be confused with more modern cladding systems and the hazard identified was that if it is poorly installed, LPS can create gaps and allow fire, smoke and heat to pass from one building compartment to another.
- 2.6.5 As this comment had been received after the document content had already been agreed and its impact had already been explained within GRA 3.2<sup>16</sup>, the GRA author decided against making the requested change.
- 2.6.6 The 'Rule 43' letters arising from the inquests arising from the Lakanal and Shirley Towers incidents were received on 28<sup>th</sup> March and 8<sup>th</sup> April 2013 respectively.
- 2.6.7 The receipt of these documents enabled 'final checks' to be made to ensure that GRA 3.2 was fully consistent with all those findings by HM Coroner that were relevant to national guidance for fighting fires in high rise buildings. With regard to Lakanal, the changes that had been made were described in a separate document titled 'High Rise GRA Abstract'<sup>17</sup>.
- 2.6.8 On 23<sup>rd</sup> April 2013, the GRA author sent what was considered to be at the time the 'final' version of GRA 3.2 to Leigh Brinton for typesetting by Peter Tomas Grey<sup>18</sup>. At this point the document numbering system was changed by DCLG and the first formatted version of GRA 3.2 was referred to by DCLG as 'version 1'.
- 2.6.9 In June, the formatted document was returned and it became apparent that a number of material changes had been made to the content, in order to comply with various DCLG conventions and protocols. In particular, all the references to 'must' which had previously been meticulously agreed with the FBU had been amended back to read 'should'.
- 2.6.10 To rectify this situation, a considerable amount of additional and unplanned work was required by the GRA authors to reinstate the document content to that which had been previously agreed with other consultees and, in particular, the FBU.
- 2.6.11 In July 2013, Les Britzman, a CFRA advisor became involved in the work to complete GRA 3.2. In particular, he had been directed to obtain an assurance - on behalf of DCLG and CFRA - that all of the issues which had been identified in the Lakanal House inquest that were relevant to national fire service operational guidance had been fully addressed in Version 3 of GRA 3.2.
- 2.6.12 Subsequent e-mail correspondence from Les Britzman also re-opened the debate regarding whether or not GRA 3.2 should make reference to the concept of 'operational discretion'<sup>19</sup>
- 2.6.13 Between July and December 2013, a number of face-to-face meetings and email exchanges were held between Les Britzman, DAC Cowup, SM Morton, Leigh Brinton and others from DCLG to address the matters being raised.
- 2.6.14 The issues discussed during that period included but were not limited to:
- the extent and nature of consultation that GRA 3.2 had been subject to;
  - confirmation that all relevant 'Rule 43' recommendations resulting from the Lakanal House inquest had been met and included; and
  - the justification for the length of the document and the level of detail which it contained

- 2.6.15 As part of DCLG's consideration of GRA 3.2, it has been confirmed - during a meeting that the report author held with Les Britzman on 21<sup>st</sup> September 2018 as part of his research for this report – that a number of senior personnel at DCLG/CFRA had seen and/or had commented on this document.
- 2.6.16 As a result, the report author was advised that the following individuals had seen GRA 3.2:
- Neil O'Connor - DCLG Director for Fire
  - Peter Holland - CFRA
  - Sheridan Westlake - Special Advisor (SPAD) to the DCLG Minister
  - Anthony Maude - DCLG Industrial Relations
  - Dawn Eastmead - DCLG Deputy Director National Fire Policy Division
  - Louise Upton - DCLG fire safety policy team
  - Andy Stapleton - seconded operational Essex FRS officer with responsibility for Regulatory Fire Safety policy in DCLG
- 2.6.17 A number of amended versions of GRA 3.2 were produced between July and when the document was published in February 2014; email correspondence confirms that a further six iterations of the document were produced between June and December 2013.<sup>20</sup>
- 2.6.18 In February 2014, the Chief Fire Rescue Advisor wrote to all interested parties to advise them that a revised version of GRA 3.2 had been published<sup>21</sup>. This letter acknowledged that this GRA had been subject to very extensive consultation and that it fully covered all of the Rule 43 recommendations and issues which had been identified by HM Coroner.
- 2.6.19 As a result of the time taken to finalise the content of GRA 3.2, it is worthy of note that its production overlapped with the early stages of the National Operational Guidance (NOG) programme.
- 2.6.20 NOG had been established to replace the various types of national fire service guidance that had been published as manuals, policy and technical notes and letters to Chief Fire Officers. In these formats, it had proved difficult to maintain the currency and consistency of this information. NOG was formed in 2012 under the shared governance of the Local Government Association, CFOA and LFB.
- 2.6.21 Through liaison with the NOG management team at the time, it had been established that there would be *at least* a 12 month period before the programme expected to publish any guidance relating to high rise fires.
- 2.6.22 This position, together with the additional time that would also be necessary to consult on such guidance, was an important part of the justification to include the level of detail that was contained within GRA 3.2. Otherwise there was a risk that there would be a significant elapse of time before the numerous 'lessons identified' from Lakanal, Shirley Towers and other recent incidents could be shared with the UK fire service.
- 2.6.23 Although the intention of the NOG programme is to completely replace what has been described as 'legacy guidance', all such guidance remains extant until it is replaced and this includes GRA 3.2 at the time this report was written.



### 3 Generic Risk Assessment 3.2 Fighting fires in high rise buildings – comparison of Version 2 (published in 2008) with Version 3 (published in 2014)

#### 3.1 Introduction

- 3.1.1 This part of the report and Appendix 2 describe the layout and content changes that were made to Version 3 of GRA 3.2, based on a comparison with Version 2<sup>22</sup>. This information is provided to assist the inquiry to understand how the UK fire service developed its understanding of the hazards and control measures that are associated with fighting fires in high rise buildings.
- 3.1.2 The title change of GRA 3.2 resulted from the review process outlined in Part 2 of this report, as resulted in the GRA series being grouped into five sections<sup>23</sup> and GRA 3.2 is part of Section 3 of the series (i.e. that relating to fighting fires).

#### 3.2 Comparison methodology

- 3.2.1 To systematically identify the differences between Versions 2 and 3 of GRA 3.2, a 'line-by-line' and detailed comparison of the two documents has been carried out.
- 3.2.2 The detail of this analysis is provided in Appendix 2 and where it is known, this appendix also states the source of the changes which were made to Version 2 of GRA 3.2
- 3.2.3 This part of the report provides a commentary on the main changes that were made to GRA 3.2 and an explanation of how this document was developed. Where appropriate, this part of the report also offers a narrative to explain matters which are known (or anticipated to be) of particular interest to the inquiry.

#### 3.3 Changes in layout and format

- 3.3.1 A number of changes were made to GRA 3.2's layout, which are relevant to understanding the overall development of this document.
- 3.3.2 In making these alterations, the intention of the GRA author was to present information in a more logical order. This resulted in amendments being made to the headings that were used in Version 3, some of which reflect changes that were made to the GRA series generally.
- 3.3.3 The specific aim in GRA 3.2 was to provide a description of the hazards and control measures which are associated with high rise firefighting. The intention was to provide information in a format that would make it easier for individual FRSs to use the content as a basis to update or create their own risk assessment and operational policy documents.
- 3.3.4 Version 2 of GRA 3.2 had been divided into 3 sections<sup>24</sup> and had also included 'aide memoires'. This structure resulted in some information being duplicated and/or presented in a potentially confusing manner.
- 3.3.5 By comparison, Version 3 of GRA 3.2 was divided into 2 sections and included 5 appendices<sup>25</sup>, which provide specific information regarding some of the systems and facilities which firefighters may need to use when they are tackling fires in high rise buildings.
- 3.3.6 The order in which information is presented in Version 3 was designed to be consistent with the fire service's Decision-Making Model and to more closely follow the sequence in which control measures are likely to be implemented during an incident.

- 3.3.7 As already noted in Part 2, this approach resulted in some consultees considering that GRA 3.2 had become ‘too procedural’<sup>26</sup>, even though Version 2 had taken a similar approach and had set out many of the control measures in an order that broadly approximated to the sequence in which they would be implemented at an incident.
- 3.3.8 This contention was discussed during a number of GRA review committee meetings when it was agreed that this detail would remain in GRA 3.2. The rationale for this decision was that there was a risk that the information on fighting fires in high rise buildings in legacy documents - such as the ‘Manuals of Firemanship’ - might otherwise not be available in current national guidance.
- 3.3.9 The matrix that is provided in Section 2 of Version 3 did repeat information contained within Section 1, but its inclusion reflects the overarching review requirement to provide such matrices as part of the agreed new format for GRAs.
- 3.3.10 The purpose of the matrix is to provide an explicit cross reference between each of the 35 hazards identified for fires in high rise buildings, the persons at risk and the control measures that could be taken by FRS to either remove or reduce risk. As such, it was anticipated that Section 2 of GRA 3.2 would provide a platform on which each FRS could develop their own, service-specific risk assessment.

### 3.4 Gap analysis

- 3.4.1 In almost all instances, the content from Version 2 was carried across into Version 3, albeit some changes were made to phrasing and the position where this information was presented in the document.
- 3.4.2 Version 3 makes reference to the effects of wind as a hazard, but unlike Version 2, this is not carried forward into the main ‘Key control measures’ section under the heading ‘Command and control at incidents – committing teams’. This constitutes a partial omission, because although the control measures that an FRS can take to mitigate the adverse effects of wind at high rise fires are omitted from Section 1, they are stated in the matrix provided in Section 2 of GRA 3.2<sup>27</sup>.
- 3.4.3 Another difference relates to a section titled ‘Issues which could impact upon a response, exacerbate a fire situation and/or augment risk to firefighters’ in Version 2. This focussed on increased risk to firefighters if illicit drugs are being produced in high rise buildings, such as the presence of ‘sharps’ and firefighters being assaulted when responding to incidents.
- 3.4.4 This potential hazard was referenced in Section 1<sup>28</sup> of Version 3, but expanded to include other forms of anti-social behaviour and in the narrative describing firefighting and search operations, this topic was covered more concisely, as described later in this report.<sup>29</sup>

### 3.5 Hazard comparison

- 3.5.1 In numerical terms, Section 1 of Version 3 describes 15 *more* hazards than Version 2 and many of the existing hazards described in Version 2 were enhanced by the inclusion of additional information. These new hazards were either identified through analysis of FRS experience at previous incidents or they were brought forward during the consultation process.<sup>30</sup>
- 3.5.2 A large percentage of the newly identified hazards in Version 3 form part of the ‘building height and design’ sub-section and they include risks associated with wall panel failure, cable entanglement and the unavailability or malfunction of fixed installations.

- 3.5.3 The ‘construction technique’ and ‘buildings under construction and refurbishment’ hazards describe how combustible material in voids and cavities and poor quality construction can contribute to the spread of fire and smoke beyond the compartment of origin. These hazards also acknowledge that the introduction of modern materials and services into a high rise building may compromise existing fire safety measures or compartments. In particular, it is highlighted that the original doors in a high rise premises may have been replaced with a type that does not offer the required level of fire protection.
- 3.5.4 With regard to ‘fire behaviour and development’, Version 3 makes explicit reference to the fact that fire and smoke can spread in an upward, downward and horizontal direction and in ways that can be less predictable than in other building types. A new hazard was identified with regard to the risk of fires occurring simultaneously on multiple floors and explicit reference is made to the fact that falling debris has the potential to cut hose lines and interrupt water supplies during firefighting.
- 3.5.5 The ‘firefighting and rescue operations’ sub-section was also expanded, with 6 new hazards being added and many of the hazards described in Version 2 being augmented with new information. The challenges of ‘locating the fire floor’ were made clearer by explaining that a high rise building’s size, layout and height may make it difficult to determine from the ground level the location of the fire floor. It can also lead to an incorrect floor count.
- 3.5.6 Among the most significant changes in this sub-section was the addition of hazards that are linked to ‘evacuation’ and ‘moral pressure and human factors’.
- 3.5.7 These made it clear that firefighting operations can be affected by the type and scale of evacuation being undertaken, such as by diverting firefighters from the task that they were briefed to undertake. The concept of a ‘stay put’ policy for some residential buildings is also described, making it clear that this is based upon a presumption that the building provides secure fire separation between compartments.
- 3.5.8 The hazard that explains ‘moral pressures’ reminds FRSs of the pressures that can be created for firefighters by public expectations, particularly in relation to a situation where there may be an imperative to act immediately, even if the incident is beyond the capacity of the resources that are available at the time.

## 3.6 Control measure comparison

- 3.6.1 Both Versions 2 and 3 of GRA 3.2 begin their descriptions of control measures with ‘Planning’ and a recognition of the importance of this as a basis for both strategic and tactical planning for operations.
- 3.6.2 Version 3 builds on the planning content of its predecessor document by emphasising the need to draw upon information about high rise buildings from a variety of sources and agencies<sup>31</sup>. It also highlights the need to take a systematic approach to identifying and recording new risks (e.g. new high rise building developments) and for FRS to plan in advance for the operational equipment that should automatically be taken aloft, up to the bridgehead at a high rise building fire.
- 3.6.3 FRSs were also directed to consider in advance the need for an operational evacuation plan in the event the ‘stay put’ policy becomes untenable and the logistical and physical demands that will be placed on personnel when firefighting operations span multiple floors and compartments.
- 3.6.4 Other newly identified planning issues include the need to plan ahead for options to enable re-locating bridgeheads if, during an incident, they become compromised by worsening conditions and to have effective arrangements in place to handle ‘fire survival calls’, both in Brigade Control and at the scene of an incident.

## Competence and training

- 3.6.5 This is the first sub-section under the ‘Control measure’ heading in Version 3 of GRA 3.2 that is almost wholly new.

- 3.6.6 Version 2 does make several references to training<sup>32</sup>, but these are brief and do not provide any detail regarding the areas which FRS need to consider when training their personnel to fight fires in high rise buildings.
- 3.6.7 Version 3 provides a more comprehensive range of guidance for FRS in relation to their planning for and delivery of training, making explicit reference to other relevant national guidance<sup>33</sup> and the need to ensure personnel are adequately trained to deal with the hazards and risks associated with high rise fires.
- 3.6.8 This sub-section makes explicit reference to the need for FRS training to include the impact of fire on a high rise building's construction and occupant behaviour. It also highlights the importance of training covering the risk of rapid and unpredictable fire spread, evacuation and tactics for removing casualties from the building.
- 3.6.9 In particular, it is stated that all those liable to undertake the Incident Commander (IC) role at high rise fires should possess an understanding of when a partial or full evacuation strategy might become necessary in a residential building where a 'Stay Put' policy is normally in place.

### Operational discretion

- 3.6.10 The inclusion of 'operational discretion' into this GRA as a new control measure was probably the most significant and far-reaching change made to the document. This concept was also included within the national 'Health and Safety Framework' document which, alongside the GRA series, was also part of the programme described in Part 2 of this report<sup>34</sup>.
- 3.6.11 The work to define this concept was being undertaken by LFB at the same time as when GRA 3.2 was being reviewed. It also relevant to note that the LFB officers responsible for devising this concept were also those leading on the review of GRA 3.2.
- 3.6.12 FRS national incident command guidance included a long-standing reference to a notion of 'professional judgement', but this was not explained and crucially, there was no direction offered to help ICs apply this concept in practise.
- 3.6.13 The guidance stated:
 

*"Having gathered all available information, the Incident Commander must then apply professional judgement in conjunction with Standard Operating Procedures to decide the most appropriate course of action, weighing the benefit of proceeding with the task against the likely benefits to be gained"*<sup>35</sup>
- 3.6.14 The question of whether firefighters – and particularly those undertaking the role of IC – were sufficiently empowered to use their discretion had been brought into sharp focus by a number of incidents where there had been a loss of life and firefighters had delayed their response in order to follow FRS policy.
- 3.6.15 At Galston mine in July 2008, a woman died after falling into a mineshaft in Ayrshire, Scotland. Whilst this person's successful rescue was never guaranteed, the inquest found that the 5 hours taken by the FRS to remove her from the shaft significantly decreased her chances of survival. As reported to the inquest, the reasons for the time taken included a refusal by the IC to use equipment provided for firefighter rescue to remove the casualty and a failure to recognise the imperative to act to avoid the risks to the casualty of remaining in cold and wet conditions.
- 3.6.16 During the inquest, the Coroner stated that there should have been:
 

*"a rigorous and thorough risk assessment by Strathclyde Fire and Rescue Service...(which balanced conditions in the shaft with the casualty's condition)...and the time it was taking to rescue her due to restrictive Strathclyde Fire and Rescue Service corporate policy"*<sup>36</sup>

- 3.6.17 In March 2011, a man with a history of epilepsy died after falling into 3 feet of water in a Gosport boating lake. At this incident, personnel from Hampshire FRS did not enter the water for almost 30 minutes because the IC decided not to act until personnel specially trained in water rescue arrived.
- 3.6.18 Similar to the Galston mine inquest, the Coroner questioned whether the personnel involved had made a properly balanced decision and stated the FRS need to:
- “improve their training to ensure the right decision is made in future drowning cases”<sup>37</sup>*
- 3.6.19 Taken together, these incidents could be considered as indicative of a growing cautiousness within the FRS and the dilemmas that can be created for ICs when they are dealing with unusual, emotionally charged and potentially complex incidents.
- 3.6.20 The scrutiny applied to these events had also revealed uncertainty among those undertaking the role of IC regarding when they should improvise. In particular, there was a lack of clarity regarding how to respond when a risk/benefit analysis would justify deviating from policy in order to achieve a specific objective or priority, such as saving a life.
- 3.6.21 For LFB, the need to provide more explicit guidance for ICs in circumstances where there is a potential conflict between policy and an imperative to act had emerged as a central theme during the 7/7 London bombings inquest and in the subsequent Coroner’s report<sup>38</sup>.
- 3.6.22<sup>39</sup>. The predicaments faced by LFB ICs during the four simultaneous London bombings had included the moral pressure to act before confirmation had been received that traction current was discharged and to commit personnel in breathing apparatus when only one crew was available.
- 3.6.23 When dealing with these complex issues, Lady Justice Hallet was careful to explain the importance of LFB meeting its legal requirements under health and safety law and, where appropriate, adhering to operational policies. She stated:
- “The invaluable role (Health and Safety) legislation has played, when properly interpreted, in protecting workers from injury, disease and death should not be forgotten...The LFB must take care to keep its firefighters reasonably safe, balancing properly the interests of its crews with the interests of those who require rescuing”<sup>40</sup>*
- 3.6.24 Lady Justice Hallet thus acknowledged that an IC should never take decisions that would allow firefighters to act recklessly and, at the same time, they should also carry out their role in a manner that recognises operational policies can, on exceptional occasions, be overtaken by events. She summarised the competing priorities that an IC can sometimes face when she said:
- “The answer to this problem seems to lie in the use of judgement, common sense and what the LFB call ‘dynamic risk assessment’...I would hope that employees are reminded that protocols are designed to save lives. Depending on the dynamics of the situation, which may change rapidly, protocols may be approached with a degree of flexibility, without putting fire crews unnecessarily at risk”<sup>41</sup>*
- 3.6.25 When considering the combined implications of these incidents, those responsible for devising and articulating the concept of operational discretion also had regard for guidance that had been published by the Health and Safety Executive<sup>42</sup>.
- 3.6.26 This document had been published to assist FRS to balance risks, addressing the potential tensions between FRS responsibilities to protect life and property whilst also meeting their health and safety duties towards their staff and the public.
- 3.6.27 The principles and expectations set out by the HSE in this document were used to shape and refine operational discretion. These included the following statements:
- “Many incidents firefighters face can develop at speed, some can develop in unexpected ways – and firefighters may, from time to time, be confronted with situations outside their experience”*

*“(FRS) have to prepare individual employees to be able to make decisions in dangerous, fast-moving, emotionally charged and pressured situations, even when there may sometimes be incomplete or inaccurate information about the incident”*

*“(The extent to which FRS) arrangements and policies...were sensible, effective and practical...and to what extent the actions and risks that were taken were reasonable in the circumstances”*

*“Inspectors will not revisit decisions made during operations with the benefit of information that could not have reasonably been known at the time”*

- 3.6.28 In addition, the HSE representative on the GRA working group was a strong advocate for operational discretion. His support played an important part in gaining agreement to this concept forming part of the high rise GRA, even though this was opposed by some members of the working group.
- 3.6.29 The inclusion of operational discretion within the high rise GRA (and subsequently into LFB’s policy) was intended to enable ICs to explicitly adapt or deviate from operational policy. This concept was a positive response to the impossibility of providing definitive guidance in risk assessments and operational policy for all foreseeable situations, if these documents are to remain manageable and be of practical use. Equally it empowers an IC to openly make a calculated decision to increase risk to personnel where this is necessary and justifiable in terms of risk versus benefit.
- 3.6.30 Operational discretion was never intended to be limited to fighting fires in high rise buildings. It was envisaged that it would apply to all incidents, albeit on an exceptional basis.
- 3.6.31 The situations where its use could be appropriate were defined as including rescuing a saveable life on occasions where the implementation of the full policy would lead to unjustifiable delay, tackling a known small fire by a pre-emptive strike where adherence to policy would lead to delay and incidents where, if the FRS takes no action, this may cause the public to act precipitously, thereby causing the incident to escalate and the overall level of risk to increase.
- 3.6.32 In line with FRS’ legal obligations and the ‘lessons identified’ from the incidents outlined above, the definition of operational discretion always included a range of caveats to mitigate the risk of ICs taking excessive, unnecessary or unjustified risks. The appropriate use of operational discretion was qualified by stating that the IC should understand the actions normally carried out as part of the operational procedure, assess risks in advance and limit any deviation from policy to the minimum necessary.
- 3.6.33 The GRA also stated that the ICs level of justification must be proportionate to the degree of deviation from policy undertaken and that the IC should return to compliance with standard operating procedures as soon as practicable. It was acknowledged that there may be rare and extreme situations where it may be necessary to delay operations or take no direct action.

## En-route

- 3.6.34 This was another new sub-section added to Version 3, although Version 2 does state that roles should be assigned to firefighters before they arrive at the incident. In Version 3, the importance of sharing information among attending personnel is emphasised in this part of the document.

## On Arrival

- 3.6.35 This is a relatively long sub-section in Version 2 and covers all the initial actions expected of firefighters before the point in the incident when they establish a bridgehead.
- 3.6.36 Version 3 provides new guidance regarding the need to cross-check the information received from different sources in order to help establish its accuracy. Reference is made to the equipment that can be used for scene reconnaissance purposes<sup>43</sup> and of the need to establish an RVP and logistics area.
- 3.6.37 Version 3 also includes three new sub-headings (‘Securing water supplies for firefighting’, ‘Standard equipment’ and ‘Securing and using the firefighting lift’).

3.6.38 These new sub-headings provide guidance on matters such as:

- the alternate arrangements that can be made if the rising main is defective or otherwise not available
- the finite capacity of rising mains (1500 litres of water per minute)
- that it may be necessary to protect hose lines on the ground from falling debris and that fire sprinklers should **not** normally be switched off to fight the fire with hand-held jets
- the need for FRS to specify in their operational policy a standard list of operational equipment to be taken aloft to the bridgehead
- the fact some lifts may not provide access to all floors

### Establishing a bridgehead

3.6.39 Version 2 includes information about the correct use of the lifts and states the bridgehead should be established 2 or more floors below the floor on which the fire is located.

3.6.40 In Version 3, more detailed guidance is given for siting the bridgehead, taking into account the need to consider the impact of likely smoke spread once doors are opened for firefighting; reference is also made to the possible adverse effects of *downward* fire/smoke spread on maintaining 'safe air' at the bridgehead, noting the possibility smoke could travel in this direction had not previously been acknowledged even though it can have a significant detrimental effect on operations.

3.6.41 The necessity for regular communication between the IC and fire sector commander to ensure 'shared situational awareness' is emphasised, as is the importance of ensuring that the 'seniority'<sup>44</sup> of the fire sector commander appointed should be proportionate to the scale and complexity of the incident.

3.6.42 FRSs are mandated to provide a system to allow information to be recorded at the bridgehead and it is stated this should be able to cope with the possibility that it may be necessary to re-position the bridgehead, if conditions worsen during an incident.

### Committing teams

3.6.43 In Version 2, all fire service operations *after* the implementation of the bridgehead are described under a single heading 'Firefighting, search and rescue'. In Version 3, the control measures for this phase of the incident are broken down and set out under a series of more specific headings, starting with 'committing teams'.

3.6.44 Version 3 specifies that all specific tasking for teams being committed for firefighting and rescue should take place at bridgehead (as opposed to at ground level) and that any information regarding persons requiring rescue should be confirmed with those teams and recorded. All available information sources should be used to determine building layout and the proximity of affected areas to the fire compartment, such as signage, building plans or using unaffected flats to identify floor design. The importance of keeping a record of persons rescued and areas of the building which had been searched was also emphasised.

3.6.45 A significant innovation in Version 3 was the concept that teams could be committed above the bridgehead without breathing apparatus, *provided* that the IC has confirmed that the building's construction and any fire engineered solutions have not been compromised. This change reflected experience at incidents such as Lakanal where there had been a need to commit relatively large numbers of firefighters into parts of the building unaffected by fire or smoke so that they could reassure residents. It also enabled IC to consider using non-FRS personnel (e.g. police officers) for this task, thereby increasing the number of FRS personnel available to work in higher risk areas of the building.

3.6.46 The remainder of the changes made under this heading relate to ensuring crews have 'sufficient weight of attack'<sup>45</sup> available before attacking the fire and that covering hose lines are able to reach beyond the 'attack jet', so that a back-up crew can reliably reach any personnel requiring assistance or rescue.

### Safety cordons

3.6.47 The content under this heading emphasises the importance of establishing, clearly identifying and controlling access to a 'hazard zone' around the building, taking into account the building's height, construction and the risk posed by falling debris. It is stated that consideration should be given to asking the police to manage cordons.

### Evacuation and fire survival guidance calls

3.6.48 Version 2 only makes a passing reference to the effect of 'occupant behaviour' on fire service operations, whereas Version 3 provides more detailed guidance regarding evacuation and the management of fire survival guidance calls.

3.6.49 A distinction is made between the evacuation protocols that apply to residential and commercial high rise buildings, making it clear that under legislation, the 'responsible person' for a residential premises is obliged to devise a suitable evacuation plan as part of their fire risk assessment.<sup>46</sup>

3.6.50 For residential buildings, the IC is directed to follow the evacuation plan in the fire risk assessment, as devised by the 'responsible person' for the premises, unless the prevailing fire situation dictates otherwise.

3.6.51 The limits of a 'Stay Put' policy are stated, insofar as it is made clear that it is only safe for occupants to remain in their property in circumstances where they are *not* being affected by a fire located elsewhere in the building. It also made clear that not all high rise residential buildings are designed or have been maintained to have a 'Stay Put' policy in place.

3.6.52 Detailed guidance is provided for FRS to help them to develop procedures to handle fire survival guidance calls, both in their Control room and at the scene of an incident.

3.6.53 At the time of GRA 3.2's development and publication, most FRS had well established arrangements in place to handle fire survival calls in their control rooms<sup>47</sup>. These are calls where the caller believes that they are unable to leave their premises due to the effects of fire and the control officer remains in contact with the caller to provide appropriate advice.

3.6.54 Far fewer FRS had policy and systems in place to describe how such calls, when passed by radio to the IC, should be managed at the scene; indeed, to the best of the report author's knowledge, LFB was the first FRS to issue such as policy in February 2012.

3.6.55 LFB's FSG policy had been created on the basis of experience from the Lakanal House fire and several other high rise incidents during which multiple fire survival guidance calls had been received; as such, it was used to help shape the guidance that was included within GRA 3.2 Version 3.

3.6.56 Key elements under this heading were the need for ICs to liaise closely with Fire Control; create a clear record of all calls (including information about the callers' location and circumstances); and re-evaluate the advice offered to callers throughout an incident, noting that Control may need to change the advice and ask callers to leave their property, if a worsening fire situation makes this necessary.

### Ventilation

3.6.57 Version 2 makes a number of brief references to ventilation, for example by encouraging FRS to consider providing Positive Pressure Ventilation (PPV) fans and in connection with the conditions that can arise in high rise buildings, causing abnormal fire development such as flashover.



- 3.6.58 Version 3 provides FRS with more systematic and overt guidance on this topic, recognising that any uncontrolled ventilation during a fire in a high rise building can considerably add to the risks posed by the spread of fire, heat and/or smoke, both to occupants and firefighters.
- 3.6.59 In this context, it is made clear that ventilation should only be undertaken on instructions of the IC and after its effects have been assessed and resources are in place to contain the fire. Advice should be sought *before* making any changes to a building's ventilation system<sup>48</sup> and the IC also needs to consider its likely effect on evacuation, utilising any available building systems or PPV fans to minimise smoke logging in parts of the building which are beyond the fire sector.

### Building design and fire safety measures

- 3.6.60 The content under this heading in Version 3 is almost wholly new and some of it relates mainly to commercial and 'mixed use' high rise buildings, where 'fire engineered' solutions are more commonly found.
- 3.6.61 The increased level of risk that can be posed if *any* building design features are compromised is highlighted, with particular emphasis being placed on any failure (or non-existence) of compartmentation, as this can create the risk of a larger fire than normally planned for.
- 3.6.62 Explicit reference is made to the impact that building materials and contents can have on fire growth and spread. The example given describes the fact that some designs of lightweight wall panels and window frames are prone to early failure, but for reasons that are explained in Section 3.7 below, no specific mention is made of cladding systems.

### Anti-social behaviour

- 3.6.63 Version 3 provides less detail in Section 1 than the narrative set out in Version 2<sup>49</sup>, stating that when FRS personnel are subject to verbal or physical threat, defensive tactics should be adopted. Further advice on the potential control measures that FRS could adopt in response to such behaviour is set out in the Section 2 matrix of Version 3.

### Communications

- 3.6.64 Version 2 mentions the need to test communications between key points such as the lobby and bridgehead, but otherwise does not provide any explicit guidance on this topic.
- 3.6.65 In Version 3, FRS are reminded of the technical solutions that are available to overcome any communication 'blind spots' in a high rise building and of the various systems<sup>50</sup> that may be available to communicate with premises occupants.
- 3.6.66 With regard to firefighter safety, it is stated that any loss of communications with firefighters who are committed within the building should *not* be automatically treated as being caused by the building structure; rather, if there is any unexpected or sustained loss of radio communications, the IC should consider the circumstances and whether an emergency team should be deployed.

### Safety officers

- 3.6.67 Safety officers are not covered in Version 2, other than through an oblique reference to 'implementing arrangements to exchange information relevant to safety of FRS personnel and other emergency responders', which could be interpreted as being a reference to this role.
- 3.6.68 Version 3 provides explicit guidance on the use of safety officers to either eliminate or reduce risk. Emphasis is placed on the IC ensuring that those appointed to this role understand their task, have a clear understanding of hazards and the communication arrangements in use. A list of key responsibilities for this role is specified and, where justified by conditions, it is also made clear that safety officers should be appointed to monitor conditions in the staircase and observe all relevant external sides of the building.

3.6.69 It is stated that safety officers working outside the building should check for falling debris, the integrity of any cordons and external fire and smoke spread; it is made clear that this role can be vital in communicating external fire spread to the IC and others attending the incident.

### Personal protective equipment (PPE)

3.6.70 There was direct reference to PPE standards in Version 2, but a short sub-section was added to Version 3 to remind FRS that their PPE must meet national standards and be compatible to their overall approach to the provision of uniform clothing.

3.6.71 The benefits of allowing firefighters to relax their PPE in safe areas in order to minimise the physiological impact of high rise firefighting was stated, as was the importance of all personnel wearing full PPE at or beyond the bridgehead.

### Post incident

3.6.72 In effect, this is a new sub-section in Version 3 because the content provided in Version 2 under the heading 'Post firefighting operations' relates to considerations and actions that are relevant to the latter stages of firefighting, such as 'damping down', 'turning over' and the need to maintain systems to ensure the safety of personnel throughout the duration of the incident.

3.6.73 By contrast, Version 3 provides FRS with a list of measures that need to be taken once firefighting operations are concluded, such as checking the structural integrity of the building; re-instating any fixed installations and building systems; and conducting a de-brief to ensure any 'lessons identified' from the incident are recorded and available to inform any future changes to policy, training or equipment that may be necessary.

3.6.74 This sub-section also covers the need for information systems to be reviewed and if necessary updated with any new premises risk information and for FRS to have occupational health and counselling services in place to monitor staff and support any who experience adverse effects following an incident.

## 3.7 Cladding and Full Height high rise building fires

3.7.1 The external cladding system and the rapid development of a fire that involved almost the full height and all faces of Grenfell Tower are a significant focus for the inquiry. This part of the report provides a rationale for how these matters were treated in GRA 3.2.

3.7.2 Cladding is mentioned in both Version 2 and Version 3 of GRA 3.2 and in both documents, it is mentioned in the 'Planning' section, as an example of a building construction feature that should be included as part of the information a FRS should gather about high rise buildings.

3.7.3 The use of the phrase 'such as' in Version 3 was intentional and is indicative of the fact that the building features listed were not meant to be either definitive or prescriptive, but were offered as a guide to the kind of information FRS should consider gathering about high rise buildings.

3.7.4 Cladding is not identified as a specific hazard in the 'Hazard and risk' section of either version of GRA 3.2. This reflects the fact that no reference was made to cladding in the responses that were made by any of the consultees who offered feedback regarding Version 3 of GRA 3.2, even though the general importance of planning and information-gathering in advance of an incident was emphasised by many in their verbal and written responses to this document.

3.7.5 It is also pertinent to note that whilst various building construction features had been highlighted as playing a significant part in the development of recent major high rise fires in the United Kingdom (UK)<sup>51</sup>, the GRA authors were not aware of any evidence at the time of the GRA review process that cladding, as a material and building system, posed a significant fire hazard.

- 3.7.6 Those building construction features which were identified as ‘new’ significant hazards through the GRA review – such as ‘wall panel failure’, some types of ‘construction technique’ and ‘buildings under construction and refurbishment’ – were added to the GRA, as described elsewhere in this report.
- 3.7.7 Cladding was included within ‘Planning’ because, as an outer layer on one or more faces of a high rise building, it was understood that the use of this material would create a void which had the potential to promote an abnormal degree of external spread of fire or smoke.
- 3.7.8 As such, cladding was noted alongside timber-framing, surface-mounted trunking and voids as an example of a building construction feature that should be recorded within the information to be gathered by FRS in relation to high rise incidents. However, at the time GRA 3.2 was produced, this should not be interpreted to mean that cladding itself was understood as presenting a significant fire hazard and the rationale for this is explained below.
- 3.7.9 In these circumstances, there was no reason to research cladding systems during the review of GRA 3.2, but if these systems had been subject to further examination, it is likely that a report by the Environment, Transport and Regional Affairs Committee would have been found<sup>52</sup>. This report was not known about nor referred to at the time of the GRA review, but it has been found subsequently, as part of the ‘discovery’ activity which has been undertaken to compile this report.
- 3.7.10 The Committee’s report followed a fire which had occurred in a multi-storey block of flats in Irvine, Ayrshire on 11<sup>th</sup> June 1999 and which had drawn attention to the potential risk of fire spread involving external cladding.
- 3.7.11 A large percentage of the report is concerned with the adequacy of fire safety regulations associated with external cladding systems and, as such, would have been beyond the scope of GRA 3.2.
- 3.7.12 Notwithstanding that the main focus of this report is not on matters directly connected to FRS operational response, the Committee’s finding with regard to whether cladding posed a serious risk to life or property in the event of fire is relevant and would have informed the GRA’s development, if its existence had been known about at the time of the review.
- 3.7.13 First among the conclusions that the Committee drew from their inquiries was the following statement:
- The evidence we have received...does **not** suggest that the majority of the external cladding systems currently in use in the UK poses a serious threat to life or property in the event of fire. There have been few recorded incidents involving external cladding, and, although in our view any loss of life in incidents such as these should be prevented if at all possible, neither have there been many deaths (indeed, it is uncertain whether any of the deaths in the fires of which we have been informed can be directly attributed to excessive fire spread via the external cladding). Furthermore, the responsible attitude taken by the major cladding manufacturers towards minimising the risks of excessive fire spread has been impressed upon us throughout this inquiry.*
- 3.7.14 The report goes on to set out further conclusions about changes that were deemed necessary with regard to fire tests and building standards for cladding, but, from the perspective of identifying the significant hazards and associated control measures when attending fires in high rise buildings, it is reasonable to state that these findings would not have resulted in any changes being made to GRA 3.2.
- 3.7.15 The risk of a fire spreading up the full height of a high rise building was not raised by any consultee during the GRA review process and the GRA author was not, at the time, aware of any precedent for a fire of this type and scale in the UK.

- 3.7.16 GRA 3.2 was amended to reflect what had been learned about fire and smoke spread during high rise fires which had occurred in the UK prior to the time period of the review.
- 3.7.17 Version 3 acknowledged the extent to which such spread posed a greater risk than had been previously described in Version 2, highlighting how this could be associated with building construction features such as lightweight wall panels, the presence of combustible material in voids and poor quality construction works leading to breaches in compartmentation within a building.
- 3.7.18 Drawing upon evidence gathered from incidents such as the Lakanal House fire, Version 3 also drew FRS's attention to the fact that during fire and smoke can spread in an upward, downward and horizontal direction during a high rise building fire. It was noted that such spread may be more rapid and less predictable than what firefighters could expect to experience in other building types.
- 3.7.19 This contrasts with Version 2 of GRA 3.2, which was based on a simpler concept of fire behaviour in high rise buildings that was limited to vertical upwards spread to floors above the fire.
- 3.7.20 The enhanced understanding of the hazard posed by fire and smoke spread that was set out in Version 3 was carried through into the 'control measures' section of GRA 3.2, in particular with regard to new sections describing evacuation, fire survival guidance, ventilation and safety officers. These measures - together with other innovations, such as the possibility of firefighters working above the bridgehead without breathing apparatus – all reflected an increased understanding of how a high rise fire might affect occupants and parts of the building, beyond those believed to be involved in the early stages of an incident.
- 3.7.21 These changes acknowledged the possibility that a high rise fire could spread in any direction beyond the room and compartment of origin to other floors and parts of the building, but, in line with the information available at the time, they did not extend to the possibility that a high rise fire would spread to affect most or all floors simultaneously.

## 4 London Fire Brigade's approach to the production and maintenance of operational policy

### 4.1 Introduction

4.1.1 This Part of the report and Appendix 3 describe how London Fire Brigade (LFB) produces and maintains its operational policy portfolio.

4.1.2 This is achieved by outlining how policy forms part of LFB's overall approach to managing risks in the workplace; by setting operational policy within the wider context of the Brigade's overall written guidance; and by explaining the factors that drive the creation and revision of operational policy.

4.1.3 This Part also describes the processes that are used to manage the production and review of these documents and the rationale which underpins policy format and cataloguing.

### 4.2 Operational policy as part of Health and Safety Management

4.2.1 LFB takes a systematic approach to its health and safety responsibilities, particularly with regard to identifying and managing the broad variety of risks that can be encountered during emergency incidents.

4.2.2 Unlike most employers - but in common with other emergency services – the LFB responds to dangerous situations which are almost always not of its own making. This means that it has little or no direct control over the operational 'workplace' when it first attends the scene of an emergency and, throughout the duration of any incident, there may be limits on the extent to which the hazards that may confront personnel can be controlled.

4.2.3 In extreme instances, this can also mean that LFB is called to deal with incidents that exceed what was reasonably foreseeable and these may also prove to be beyond its operational capacity.

4.2.4 Within this context, operational policy forms a core component of what is frequently described as a 'safe system of work'<sup>53</sup> and is an integral part of the Health and Safety Executive's (HSE) model for successful health and safety management<sup>54</sup>.

4.2.5 Operational policy can also be characterised as the top tier of the hierarchy of control measures which are referred to in paragraph 4.2.7 below, insofar as the actions it describes should be used to inform and help specify standards and requirements for training, the resources sent to incidents, appliances and all types of operational equipment.

4.2.6 Based on an assessment of foreseeable hazards and associated risks, operational policies are designed to inform decision-making and provide information to describe *what* operational personnel should do when they attend the emergencies in all but exceptional circumstances. As such, it is relevant to note that operational policies are often used in dynamic, emotionally charged and pressurised situations, where sometimes there may only be incomplete or inaccurate information available.

4.2.7 Other key elements that contribute towards safe and effective operations include:

- **Selection, Training and Development** – a variety of methods are used to ensure that operational personnel possess sufficient skills and knowledge to understand policies and procedures; appreciate *how* they should be implemented in the operational working environment; and to undertake their role to a competent standard
- **Pre-Determined Attendance (PDA)** – ensures sufficient resources are sent to an incident to commence operations, taking into account the type of incident being attended and its location
- **Operational appliances and equipment** - provides the technical capability needed to attend emergencies and enables the control measures and actions that are described in policy and training materials to be put into effect

- **Respiratory and Personal Protective Equipment (RPE and PPE)** – can be characterised as the fire services’ ‘last line of defence’ against hazards that cannot be removed or controlled by other means. This equipment enables firefighters to operate safely within a variety of environments that would otherwise be unsafe too dangerous to work in.
- **Regulations and Standards** – The regulations and standards applied to the design of buildings, which are based upon an understanding of the sources of fire, materials and systems likely to be involved in fire, how people use buildings, and the likely spread of fire<sup>55</sup>.

### 4.3 Factors that affect the creation and revision of operational procedures

4.3.1 LFB has developed its’ operational policy portfolio over the course of many years and all extant policies<sup>56</sup> are subject to a planned programme of review every 3 years.

4.3.2 The Policy Process Flowchart, which is used to ensure consistency of approach when developing LFB Operational Policies, is provided as Appendix 3.

4.3.3 Outside of the three-year cycle, a range of external and internal ‘drivers’ have been identified that have the potential to require either the creation or amendment of operational policy.

4.3.4 The recognised ‘external drivers’ include:

- New or revised national fire service guidance documents
- Significant national safety events that have implications beyond the FRS or agency in which they occurred
- The findings from HM Coroner’s court or Public Inquiries
- The identification of any new or emerging risks identified through the national risk assessment that is produced by the Cabinet Office
- Changes to legislation

4.3.5 The recognised internal drivers include:

- The Dynamic Intelligent Operational Training (DIOT) process, which uses information gathered from performance reviews, debriefs and safety event findings to identify trends to influence and improve risk assessment and policy. This system was in place at the time of the Grenfell Tower fire but has since been replaced by Operational Improvement Plan Oversight Panel (OIPOP).
- Recognition of new hazards and associated risks
- The introduction of new appliances, operational equipment and/or methodologies to deliver ‘safe systems of work’

4.3.6 All of the above are routinely monitored and the occurrence of one or more of the above ‘drivers’ will trigger the need to identify whether LFB has an effective and current risk assessment and policy in place.

4.3.7 In response, it will either be determined that no action is necessary (i.e. that the current risk assessment and policy are suitable and sufficient); that current risk assessment and policy requires amendment; or that a new risk assessment and policy is necessary.

4.3.8 In the period leading up to the Grenfell Tower fire, it should be noted that there were no systematic arrangements in place to either identify or respond to significant fires occurring outside of the UK<sup>57</sup>.

### 4.4 The volume and range of operational policy

4.4.1 As part of the research undertaken for this report, it has been confirmed that LFB has a total of 239 separate policy and procedural notes (hereinafter referred to as ‘PNs’) to guide its operational response to the 49 distinct main ‘incident types’ that are used by Brigade Control to help decide the correct PDA<sup>58</sup>.

4.4.2 These PNs form part of a wider policy portfolio that is held by LFB and amounts to a total of 583 documents. These cover the broad range of areas - such as people services, finance and procurement - that are associated with the management, support and delivery functions of a statutory public emergency service.

4.4.3 The majority of operational policies are the responsibility of LFB's Operational Policy and Assurance (OPA) department, but other departments<sup>59</sup> are also operational policy holders.

4.4.4 For the purposes of this report, an 'operational policy' is defined as the 154 PNs that apply to activities undertaken at emergency incidents. These are supplemented by a further 85 'technical notes', which describe the use and testing of fire appliances and operational equipment.

4.4.5 In total, LFB's operational policies contain approximately one million words and to convey this quantum in practical terms, this equates to approximately 25% more than the combined content of the Complete Works of William Shakespeare.

4.4.6 It is helpful to further sub-divide those operational policies that apply to dealing with incidents as being either:

- 'specific' – i.e. those PNs which are applicable to a single incident type. PN 633 'High rise firefighting' is an example of this policy type and there are 50 PNs that fall into this category.
- 'generic' – i.e. those PNs which are relevant to two or more incident types. PN 466 Respiratory protective equipment is a good example of this kind of policy as it provides overarching guidance that applies to multiple incident types and there are 104 PNs in this category.

4.4.7 Every incident attended by LFB requires the simultaneous application of multiple operational policies and for more complex emergencies, a large number of these policies may need to be considered and implemented during a single incident.

4.4.8 During the Grenfell Tower fire, it is instructive to note that the combined content of LFB's high rise firefighting policy and the other policies which are directly referenced as being relevant to this type of incident amounts to approximately 500 pages of information and guidance. Beyond this, the IC and others could have had to either use or consider a further 20 operational policies that may have been relevant during the course of this incident.

4.4.9 When describing the volume of policy, it is also important to acknowledge the varying expectations that are placed on operational personnel with regard to their understanding of this material. It is beyond the scope of this report to cover this matter in detail, but important to note that no one is required to have a verbatim knowledge of every operational policy.

4.4.10 A level of competence is set for each role (rank) and this is defined by the relevant 'rolemap'. Rolemaps are used to provide a consistent means of determining competence, once an individual has completed their development programme.

4.4.11 Beyond this, individuals will have varying levels of experience, which can be shaped by a variety of factors such as their length of service, career profile and the location of their base posting.

4.4.12 With regard to individuals undertaking station-based roles, there will be variations associated with whether or not there is a specialist appliance attached to an individual's base station and with regard to the prevailing risks in their area. In practise this would mean some firefighters at a station which has an aerial appliance would be required to possess the specialist skills and knowledge required to make safe and effective use of this appliance.

4.4.13 A firefighter's level and type of knowledge will also be shaped by the risk profile of the area in which they serve and this would be a focus for which operational policies they would be expected to understand to a higher level of detail.

4.4.14 A significant challenge - given the wide variety of incidents LFB attends and the fact that an attendance to any incident can, depending on prevailing circumstances, be made from any station - is striking the right balance between quantity and complexity of information provided and an individual's capacity to acquire and maintain the knowledge required for their role.

4.4.15 Recognising this challenge LFB was in the process at the time of the Grenfell Fire and continues to work on the integration of National Operational Guidance (NOG) into the LFB. It is anticipated that the outcome of the work will see a reduction in and streamlining of LFB's current operational policy portfolio.

4.4.16 Part 3 of this report describes in detail the extra hazards that were added to GRA 3.2, which amounted to a 75% increase in the number of foreseeable eventualities that may cause harm to occupants, firefighters and others when a fire occurs in a high rise building. This significant growth in the hazards reflects on-going changes within the built environment and an improving understanding of what can happen when fires occur in such circumstances.

4.4.17 Beyond high rise – which is just one of almost 50 incident types that LFB personnel can be called upon to respond to - there is a range of new and emerging risks and threats that LFB also needs to prepare for. These include complex structures such as very large shopping malls, major transport projects such as Crossrail, the risks associated with developments such as more frequent and severe weather patterns and the evolving threat posed by terrorism.

4.4.18 There is a requirement for all these changes to be considered and reflected in LFB's risk assessments and operational policy. This leads to an ever-increasing amount and complexity of information to be processed.

4.4.19 In 'slow time', this work is undertaken by those responsible for ensuring that operational policy is accurate, current and complete, so that LFB is properly prepared to deal with all foreseeable possibilities. During an incident – and usually in dynamic circumstances - those responding to emergencies, and especially the IC, are required to implement operational policy and use them to support decision-making in a working environment that is frequently characterised by uncertainty and conflicting information.

## 4.5 Operational policy format and development process

4.5.1 A standardised process for producing new operational policy was agreed by LFB's Corporate Management Board (CMB) in July 2011 and implemented shortly thereafter<sup>60</sup>.

4.5.2 Since its introduction, this process has been subject to review and alterations have been made in response to changes such as the introduction of the TCAP process in 2012. A summary of this process has been created as a flowchart and A3-sized laminated copies of this document will be found displayed at most OPA workstations (see Appendix 3).

4.5.3 The process is divided into a number of key steps, starting with one or more of the 'drivers' described above and a period of research to consider legislation, any relevant guidance or 'best practise' and extant policy/equipment. A 'lead manager' is appointed and is responsible for agreeing outcomes, stakeholders<sup>61</sup>, resourcing and whether a formal project approach is required with the responsible department Head.

4.5.4 The next step is to formalise identified hazards, risks and control measures into a risk assessment and then use this to develop the policy. The risk assessment plays a central part in shaping policy, but it is not routinely accessed by those personnel who are engaged in search, rescue and firefighting. As such, its main purpose is enable consideration of what may cause harm to firefighters and others and identification of what steps can be taken to control risks through procedures, preparing personnel through training and the provision of equipment, Respiratory Protective Equipment (RPE) and Personal Protective Equipment (PPE).

4.5.5 All operational policies include impact assessments which cover equalities, sustainable development, health and safety, and training.

4.5.6 To make it easier for personnel to understand and implement operational policies, a template was devised to help ensure that information is presented in a consistent and logical order. For 'incident specific' policies, these are drafted in accordance with a structure that is aligned to and follows the sequence outlined in the 'Decision Making Model'.



4.5.7 Information is set out under the following headings:

- Key Point Summary – a concise summary of policy, which forms part of the policy and is made available on every fire appliance via the Mobile Data Terminal (MDT)
- Introduction – this defines the scope of the policy
- Hazards – a list of the significant hazards, based on the underpinning risk assessment
- Planning – the specific considerations and activities necessary to help prepare for the incident type
- On arrival - a description of initial actions and considerations
- Operational procedure – this describes the procedural responses (actions) and is based upon the control measures that are appropriate to deal with the identified hazards and to help the Incident Commander (IC) to develop and implement their operational plan
- Appendices – these provide additional information to explain any key concepts/features

4.5.8 Some of the actions or tasks in an operational policy will be mandatory and others will be offered as guidance and should be applied subject to prevailing circumstances and the ICs judgements made at the time.

4.5.9 As already described in Part 3 LFB has developed and implemented a concept of ‘operational discretion’ and this explicitly empowers an IC to adapt or move away from an operational policy, providing this is justifiable in terms of risk vs benefit and that the rules which govern its proper use are followed<sup>62</sup>.

4.5.10 Once drafted, all operational policies are subject to comprehensive consultation within LFB.

4.5.11 This starts with a ‘peer’ review within the ‘owning’ department and can, where appropriate, include procedural testing arrangements such as an operational exercise based on the draft policy. This option was utilised in the course of developing PN 633.

4.5.12 This is followed by a period of formal ‘Heads of Service’ consultation across all LFB departments, after which the policy is sent via the ‘owning’ Head of Service to the relevant Director for their agreement via the appropriate Directorate Board(s).

4.5.13 Following managerial agreement, policies and supporting documents<sup>63</sup> are presented to the representative bodies through the Brigade Joint Committee for Health Safety and Welfare (BJCHSW) for formal consultation, noting that ‘staffside’ representatives are invited and usually become involved at the beginning of the process.

4.5.14 If a policy affects firefighter’s conditions of service (e.g. the operational deployment of LFB personnel outside the London area), it will also be subject to additional consultation through the Industrial Relations machinery.

4.5.15 To help ensure new and amended operational policy benefitted from the involvement of station-based staff, the report author established a group referred to as “Operational Sounding Board” (OSB) in 2013.

4.5.16 The aim of OSB is to provide nominated operational personnel with a direct opportunity to offer feedback and shape policy, to help ensure that its development has regard to current ‘frontline’ experience and that it is articulated in ways that are easy to understand and to implement in practise. Since its creation, OSB has also been used to receive staff views on a range of proposed initiatives and change projects, so that these can benefit from early staff engagement and the collective experience of the group.

4.5.17 This consultation is additional to - and designed to complement - the more formal consultation arrangements which are described in paragraph 4.5.10.

4.5.18 The final stage of the process relates to delivery and involves liaison with LFB’s communications team to agree an appropriate communications strategy and with stakeholder departments, to help ensure that implementation is compatible with overall organisational capacity to make whatever changes are necessary, for example with regard to training affected personnel in a new procedure.

## 4.6 Monitoring and review

4.6.1 The level of evaluation applied to each policy will be proportionate to the risk and complexity of the policy.

4.6.2 The 'DIOT' process was one of the more significant means by which the adequacy of policy is assessed, as it enables the operational intelligence gathered by the incident review, de-briefing and safety event reporting systems to be scrutinised to identify if any policy or training change is necessary.

4.6.3 Any trends identified were reported to the Operations Directorate Coordination Board (ODCB), where a decision would be made regarding what changes were needed; where more significant issues were identified, ODCB could refer them to CMB for resolution.

4.6.4 The other sources of information used for policy monitoring include Authority performance indicators, thematic audits and operational readiness checks.

## 4.7 Policy cataloguing

4.7.1 Operational policies are stored and accessed electronically via LFB's 'Hotwire' intranet site and referenced by a numbering system that reflects their date of publication i.e. the lower PNs were published earlier than those with higher numbers.

4.7.2 LFB does not differentiate between 'policy' and 'procedure' with regard to how these documents are structured, formatted or catalogued, although these terms have a distinct and separate meaning in many organisations. One consequence of this is that personnel use both descriptors to refer to the same documents and the overall series is titled 'Policy/Procedure' on LFB systems.

4.7.3 To assist with referencing and the location of policies, each PN includes a 'subject list' which enables the policy author to link the policy to a series of 'keywords' and these are used by Hotwire's search engine to group or filter search results. As an example, for high rise firefighting, the terms 'high rise', 'tower blocks', 'firefighting buildings' and 'rising main' are among the terms used as a 'taxonomy' to classify the terms and concepts that are firefighters are likely to use when searching for information regarding firefighting in high rise buildings.

4.7.4 Within OPA, various departmental catalogues have been created and used in order to align policies to GRAs, other national guidance and incident types and these matrices have been used to help identify gaps in policy provision.



## 5 Comparison of GRA 3.2 - Fighting fires in high rise buildings (published in February 2014) with LFB operational policy PN 633 – High rise firefighting (issued in June 2015)

### 5.1 Introduction

- 5.1.1 This Part of the report compares the content of GRA 3.2 with PN 633. The version of PN633 referred to here is that which was the extant version at the time of the Grenfell Tower Fire, noting that since the incident a revised version of this policy has been issued.
- 5.1.2 For clarity and ease of reference to source materials, this Part of the report uses the headings and follows the order in which information is provided in GRA 3.2. PN 633 sets out some information in a different order and/or makes some points under a different heading to that used in the GRA and where appropriate, this is referenced in the narrative below.
- 5.1.3 Reference is also made to operational policies other than PN 633, where these detail the LFB's approach to managing those aspects of high rise firefighting which fall outside the scope of PN 633.
- 5.1.4 In this context – and as explained elsewhere in this report –PN 633 is not the only LFB operational policy that is relevant to fighting fires in high rise buildings and this means, in some instances, that the guidance provided in GRA 3.2 is to be found elsewhere.

### 5.2 Comparison methodology

- 5.2.1 To systematically identify the differences between GRA 3.2 and LFB's operational policy, a 'line-by-line' analysis has been undertaken and this is provided in Appendix 4. In order to understand all aspects of the differences between these documents, it is suggested that the reader refers to Appendix 4 before reading this section of the main report.
- 5.2.2 This appendix sets out the differences between the two documents in detail, but in cases where these only amount to a difference in phrasing, such variances have not been identified as an omission or discrepancy.
- 5.2.3 This Part of the report sets out a narrative to explain the main differences between these two documents and, where appropriate, also provides information regarding matters which are known (or anticipated to be) of particular interest to the inquiry.
- 5.2.4 The structure of this Part of the report follows the headings that are used in GRA 3.2, although for reasons that are explained below, not all of these appear in PN 633.

### 5.3 Layout and format

- 5.3.1 Whilst not identical, the layout and format of GRA 3.2 and PN 633 are broadly similar.
- 5.3.2 This reflects the fact both documents aim to present information in a logical order, aligned to the Decision-Making Model and the sequence in which actions are likely to be taken during an incident.
- 5.3.3 A number of the identified differences reflect the fact GRA 3.2 is Government-issued national guidance for all Fire Rescue Services (FRS) in England and Wales, whereas PN 633 is a statement of specifically what LFB does in order to plan for - and respond to - fires in high rise buildings. This means that the GRA contains direction for FRS regarding matters such as the strategic elements of planning, training and the provision of PPE which would not form part of an operational policy.

### 5.4 Scope and Introduction

- 5.4.1 LFB policy format does not include a 'Scope' section, but as the content is relevant to FRS policy writers, this difference does not constitute a gap with regard to the information provided in PN 633.

5.4.2 The content of the 'Introduction' sections of both documents are broadly similar and both documents provide the same definition of what constitutes a 'high rise' building. Some of the points contained within GRA 3.2's Introduction are covered in Section 3 of PN 633<sup>64</sup>, but a failure to acknowledge that some older high rise buildings may have deficient or inferior firefighting systems or provision is an omission from LFB's operational policy.

## 5.5 Hazard comparison

5.5.1 PN 633 adopts the same approach as GRA 3.2 by grouping hazards under 3 headings<sup>65</sup> and both documents state that whilst some of the hazards described are not unique to high rise buildings, they are relevant because they are likely to occur during high rise incidents and/or because the characteristics of a high rise building are likely to intensify their effect.

5.5.2 PN 633 does not explicitly state that high rise buildings can create an extremely hazardous environment for firefighters, but it does state that fires in high rise buildings present a range of logistical and physical challenges that should not be under-estimated.

5.5.3 Given that, in extreme circumstances, almost any type of emergency has the potential to create a life-threatening environment for firefighters, it can be argued that, in the context of operational policy, this point is best made in documents such as PN 342 – Dynamic risk assessment, as these provide overarching health and safety guidance and apply to all incidents. Paragraph 1.5 of this policy includes a statement regarding hazardous situations that may be encountered by firefighters and the need to balance risk against benefits in these situations.

5.5.4 With regard to first category of hazards - 'Building height and design' – there is a high degree of correlation between the two documents, but there are two omissions from PN 633.

5.5.5 The first of these relates to information gathering and the fact information received from building occupants, premises staff and Brigade Control may be inconsistent and/or inaccurate. This issue is not covered in the hazard definitions provided as part of PN 633, but it is addressed in a later section of the policy (see page 8 paragraph 6.3 (b)), which provides guidance for the IC to confirm the accuracy of information by cross-checking different sources and clearly conveying to others what information is required.

5.5.6 The second omission is associated with circumstances where a building is under construction or refurbishment. PN 633 states that this can lead to additional hazards being present - leading to unpredictable fire development and an unexpected spread of fire or smoke – but it does not fully describe the hazards that this can create. In particular, PN 633 does not state that when under construction or significant refurbishment, there is a greater risk of structural collapse and of spread to adjacent buildings or areas.

5.5.7 The second category of hazards – 'Fire behaviour and development' – contains seven hazards and there are three noteworthy differences between the way these are articulated in GRA 3.2 and PN 633.

5.5.8 PN 633 does not make explicit reference to the phenomena known as the 'Coanda effect'<sup>66</sup>, which is used in GRA 3.2 to describe the tendency of air streams to deflect to nearby surfaces and to cause fire and smoke to appear to 'hug' the external surface of a high rise building.

5.5.9 The rationale for this difference is that PN 633's author considered the term 'Coanda' could be potentially confusing for firefighters, noting that it is subject to a number of varying definitions and it is frequently referred to in scientific literature as applying to fluids.

5.5.10 Reference is, however, made in PN 633 to the fact fire and smoke can spread in all directions during a high rise fire and, in particular, that the downward spread of smoke can have an adverse impact on fire service operations.

- 5.5.11 PN 633 also does not include the term ‘stack effect’ – which is used in GRA 3.2 to help describe how fire and smoke can spread in a high rise building – but it does describe the effects of the risk of vertical spread via undivided stairways and lateral spread, as smoke cools, loses buoyancy and the tends to spread horizontally.
- 5.5.12 The third omission in PN 633 relates to the fact it does not make reference to how fires in communal refuse containers (which are often found in high rise buildings) can sometimes cause large volumes of smoke and that this has the potential to create a false impression of a more serious and extensive fire than is actually the case.
- 5.5.13 Additional information that provided by GRA 3.2 is included within PN633, which identifies the risk of concealed heat and smoke travel associated with the spread of unburnt fire gases and/or gas supplies through ducting, false ceilings or voids. LFB’s policy also refers to the fact that some older high rise buildings with a single staircase may not have a top level stair vent and explains that this may create a risk of downward smoke spread.
- 5.5.14 With regard to the third category of hazards – ‘Firefighting and rescue operations’ – three differences have been identified between GRA 3.2 and PN 633.
- 5.5.15 The first of these relates to the challenges that can arise when firefighters are attempting to locate the ‘fire floor’ and, in particular, PN 633 does not state that if a high rise building’s Automatic Fire Detection (AFD) system is not working correctly, this can lead to firefighters receiving incorrect information about the fire’s location. This point is, however, partially covered in paragraph 6.3 of PN 633, particularly sub-paragraphs (b), (c) and (f), which emphasise the importance of the IC using all available sources of information to identify which floor the fire is located on. PN 633 also makes explicit reference to ‘fire control, fire engineering and/or fixed installation systems’ which would include AFD systems, if installed.
- 5.5.16 A second discrepancy is in the paragraph that describes ‘casualty retrieval’, as PN 633 does not acknowledge the adverse impact that transporting casualties over a considerable distance can have on their potential for survival and recovery<sup>67</sup>.
- 5.5.17 A third omission is that PN 633 does not differentiate between commercial and residential premises with regard to evacuation of buildings. PN 633 does, however, use the term ‘multiple use high rise buildings’ on page 5 in paragraph 2.32 and this can be viewed as an example of the policy and GRA author’s using different terms to describe similar points, noting that this paragraph also goes on to state that the type of high rise building can lead to differing evacuation policies being in place.

## 5.6 Control measure comparison

### Planning

- 5.6.1 Both GRA 3.2 and PN 633 have extensive sections which relate to ‘planning’.
- 5.6.2 Drawing comparisons between the two documents is made more complex by the fact PN 633 sets out this information in both the main policy and an appendix and because LFB also has a number of separate policies<sup>68</sup> that are relevant to planning for fires in high rise buildings. These cover the management of operational risk information, mobilising policy and fire survival guidance calls.
- 5.6.3 This means that some of the guidance in GRA 3.2 is not included within PN 633 because it is covered in other policy notes and where this is the case, further information and references to other policies is set out below and in Appendix 4.
- 5.6.4 In this context, the differences between the planning sections of GRA 3.2 and PN 633 are as follows:
- Check the compatibility of the firefighting facilities provided with LFB equipment (this is not explicitly stated, but paragraph 4.6 does set out some planning considerations relating to fixed installations)

- Incorporate alternative evacuation planning when considering contingencies for a situation where the 'stay put' policy becomes untenable<sup>69</sup>
- Gather information relating to the presence and location of cladding systems as a building construction feature. Cladding is included in GRA 3.2 as one of 8 examples of building construction features, but it is not included within the four examples that are provided in Appendix 1 of PN 633 (see bullet point 12).

It should be noted that neither the GRA nor PN 633 purport to list all of the building construction features that may be found in a high rise building and may be relevant to high rise fires. The use of the term 'such as' in the GRA and 'any' in PN 633 makes it clear that the examples provided are not definitive.

- 5.6.5 An explanation of how cladding systems were treated during the review and amendment of GRA 3.2 has already been provided in Part 3 of this report and the same rationale applies to PN 633.
- 5.6.6 With particular regard to what LFB specifies as information sources *other* than 'familiarisation' visits (often referred to as '7(2)d visits'), it is noted that PN 800 includes all those that are set out in GRA 3.2 *except* making use of the findings from the investigation of health and safety events.
- 5.6.7 As well as omissions, there are also several additional points included within PN 633 that are associated with 7(2)d visits conducted as part of the planning process for high rise fires.
- 5.6.8 One of these describes the need to check the accuracy and completeness of the information contained within Premises Information Boxes and the second is the need to identify the presence and location of any radio antennas which are fitted to high rise buildings<sup>70</sup>.
- 5.6.9 With regard to planning, the requirement for 'site specific' and 'contingency planning' in the GRA is linked to locations where the identified hazards and risks are 'significant'. This makes it clear that the amount of planning required for any given high rise building should be commensurate with the extent to which the premises varies from 'normal' operational expectations.
- 5.6.10 This is measured through an assessment of the degree to which it is foreseeable that a high rise building would require a 'tailored' response arrangements, beyond what is 'typical' in terms of the number and type of personnel, appliances and/or equipment deployed.
- 5.6.11 Within LFB, the methodology for assessing premises during the operational planning phase is set out in PN 800 and a scoring system enables the level of risk to be categorised as 'low', 'medium to low', 'medium' or 'high'.

### Competence and training

- 5.6.12 As an operational policy, there is no expectation that PN 633 would contain training material and much of the guidance provided in GRA 3.2 under this heading relates to the specification of what should be included within the training that is provided for personnel liable to attend high rise fires<sup>71</sup>.
- 5.6.13 PN 633 does however make reference to the further information that is available on high rise firefighting via LFB's 'training support icon'<sup>72</sup>.
- 5.6.14 It also highlights the need for Borough training plans to take into account the quantity and nature of high rise premises when determining exercise schedules, stating that training should include scenarios designed to test the operational tactics which would be necessary to overcome any failure or non-availability of fixed installations.

### Command and control at incidents

- 5.6.15 GRA 3.2 provides an introductory set of statements to describe some of the key command and control issues that are likely to arise at high rise fires.

- 5.6.16 This statement does not form part of PN 633, as LFB provides guidance relating to command roles, briefing personnel, sectorisation and maintaining situational awareness in a range of separate operational policies.
- 5.6.17 In line with GRA 3.2, all these policies are compliant with the National Incident Command System (NICS), but it should be noted that not all the command-related operational policies which are relevant to high rise firefighting are listed to in PN 633's 'Reference' section<sup>73</sup>.

### Operational discretion

- 5.6.18 Operational discretion has been described in detail in Part 3 and does not form part of PN 633 because it is a 'generic' command concept that is applicable to all incident types. On this basis, it was implemented within LFB as part of the review and amendment of PN 342 – Dynamic risk assessment policy.
- 5.6.19 PN 342 is one of the policies relevant to high rise firefighting that is omitted from PN 633's 'Reference' section, although it should be noted that the version of PN 342 that was current at the time the version of PN 633, which was in place at the time of the Grenfell Tower fire was issued, did not include operational discretion. As a 'generic' policy that is applicable to all incident types, the policy author's decision not to unduly lengthen the list of references helps to explain why PN 342 is not listed in PN 633's 'Reference' section.
- 5.6.20 LFB's articulation of this concept in its operational policy covers all the points that are used to describe operational discretion in GRA 3.2, but also includes some additional safeguards<sup>74</sup>.
- 5.6.21 A difference is an acknowledgement that this concept cannot be used equally by all personnel. This is because varying levels of experience mean that an individual IC may not possess sufficient skill, understanding and/or experience to recognise the additional risk being taken and the control measures that are necessary to deviate from operational policy.
- 5.6.22 PN 342 also emphasises the need to comply with breathing apparatus entry control procedures and to only attempt to fight a fire when a suitable water supply and a sufficient 'weight of attack'<sup>75</sup> is in place. Other additional control measures linked to the use of operational discretion in LFB include the need to declare its use in a priority message and complete a 'key decision log' in order to record the situation and an IC's reasons for deviating from operational policy<sup>76</sup>.

### En-route and on arrival

- 5.6.23 The 'en-route' sub-section of PN 633 does not list examples of the kind of risk critical information that could be shared between appliances attending an incident, but is otherwise consistent with GRA 3.2. This is a discrepancy between the two documents, but the examples in GRA 3.2 are not exclusive to high rise fires and can apply to any incident type.
- 5.6.24 As such, it is appropriate for these points to be detailed in the policy that covers generic operational response considerations and they are covered in Section 3 of PN 872 – Operational professionalism at emergency incidents.
- 5.6.25 There are a considerable number of variations – both omissions and additions – between the 'on arrival' sub-sections of GRA 3.2 and PN 633.
- 5.6.26 The following points are omitted from this sub-section of PN 633 with regard to an ICs initial actions and considerations:
- check systems such as AFD and CCTV to help confirm the location of the fire (although premises information plates are referred to)
  - formulate objectives, devise an initial plan, establish a suitable command structure and declare a rendezvous point (although these actions are common to all incidents and covered in other LFB policies)



- follow the building's evacuation strategy (although this is covered later in PN 633 under the heading 'Evacuation' and it is also covered in the Key Point Summary)
- use equipment such as aerial appliances and thermal image cameras to assist with scene reconnaissance
- establish a logistics area for equipment
- request ambulance and police services to assist with casualties, building evacuation and cordons

5.6.27 As with the 'en route' considerations referred to in 5.6.20, the bullet points are largely 'generic' and can apply to variety of incident types. As such, points 1, 2, 4, 5 and 6 are covered in other operational policies<sup>77</sup>.

5.6.28 The following points relating to 'on arrival' are listed in PN 633 and are additional to the guidance provided in this sub-section in GRA 3.2:

- An explicit requirement for the IC to remain at ground floor level unless planning has identified a more suitable location, such as a building's 'Fire Control Centre'
- Complete a '360 degree' visual check of the building to identify affected areas and fire spread
- Determine the status of any Heating, Ventilating and Air Conditioning (HVAC) systems in the building
- Establish communications between the bridgehead, pump operator and other sectors
- Identify the effect of wind, noting this may be affected and made less predictable by the building's height and proximity to other buildings
- Deploy jets to control any fires caused by falling debris and deploy ground monitors to prevent external fire spread
- Consider establishing separate 'attack' and 'evacuation' stairwells, if the building has been built with more than one staircase.

### Securing water supplies for firefighting

5.6.29 This sub-section has a high level of consistency between GRA 3.2 and PN 633, although there are variations between documents with regard to the order in which the information is presented.

5.6.30 A failure to mention the need to consider the high pressures that can be generated by long vertical lengths and its safe release is the only omission in PN 633.

5.6.31 With reference to resources that are specific to LFB, PN 633 provides additional guidance covering the use of Mobile Data Terminals to help locate suitable water supplies and Bulk Media Advisors<sup>78</sup> to advise on making best use of the water supply.

### Standard equipment

5.6.32 GRA 3.2 stipulates that FRS must have a specified list of equipment to be 'taken aloft' to the bridgehead during a high rise fire. This is fully covered in PN 633, which describes its equipment list as a 'minimum' and also acknowledges that other items may be included, if the nature of the incident makes this appropriate<sup>79</sup>.

### Securing and using the firefighting lift

5.6.33 All the points set out in this sub-section of GRA 3.2 are covered in PN 633, with the exception of the need to access floor plans and information regarding building construction from a 'responsible person' and the FRS's planning records<sup>80</sup>. It should, however, be noted that reference is made in PN 633 to mobile data terminals, premises information plates and premises information boxes<sup>81</sup> and that these systems/facilities would generally provide access to floor plans and other information that had been gathered during the planning process.

5.6.34 It should however be noted that reference is made to a generic requirement that is placed upon the IC in the 'on arrival' sub-section of PN 633 to gather all available relevant information from a variety of sources<sup>82</sup>.

### Establishing a bridgehead

5.6.35 The only inconsistency in this sub-section relates to the need to consider a means to identify the 'pathway' between the initial and subsequent bridgehead locations. In GRA 3.2 it is suggested that breathing apparatus guidelines or self-adhesive signage could be used for this purpose, but PN 633 does not include this consideration when setting out the measures that may need be taken if worsening conditions make it necessary to re-position the bridgehead.

5.6.36 In addition to the information provided in GRA 3.2, this sub-section of PN 633 makes explicit reference to the need to provide all available information on persons requiring rescue at the bridgehead, in order to prioritise rescues and avoid the risk of repeated searches of the same area. It refers to LFB-specific systems such as the Forward Information Board (see Part 6), the need to establish an emergency breathing apparatus team and to consider implementing Stage 2 breathing apparatus control.

5.6.37 PN 633 also highlights the possibility that any 'hoarding' of materials in a high rise building may require additional resources, require a greater 'weight of attack' and have an adverse impact on rescue and damage control operations<sup>83</sup>.

### Committing teams

5.6.38 The following points are omitted from PN 633 in relation to this sub-section:

- An explicit reference of the need to ensure breathing apparatus teams are only committed when they have appropriate extinguishing equipment, noting that GRA 3.2 states that what constitutes a sufficient 'weight of attack' should take into account factors such as a building's construction and its fire-loading.

Whilst not covered in PN 633, extensive and detailed guidance for both breathing apparatus teams and ICs in relation to conducting safe and effective firefighting and rescue operations in compartments is provided with PN 793 – Compartment firefighting. This policy applies to all building structures and is explicitly referred to in PN 633, both in the Reference section and in paragraph 7.37.

- Where practicable and it is confirmed that persons are not involved, the option to fight the fire externally from an aerial appliance can be considered
- The need for lighting to assist with safe movement within and around the building, where conditions make this necessary.

5.6.39 PN 633 includes an additional sub-heading 'Search and rescue' that does not form part of GRA 3.2. This specifically highlights the significant logistical and physical challenges posed to firefighters when undertaking this activity in high rise buildings. PN 633 also notes that search operations can be very resource intensive and that it is good practise to nominate a 'search coordinator' at an early stage in the incident in order to facilitate a systematic search process<sup>84</sup>

### Safety cordons

5.6.40 There is complete consistency between GRA 3.2 and PN 633 with regard to the considerations and actions associated with the implementation of safety cordons during high rise fires.

### Evacuation and fire survival guidance calls

5.6.41 There are a number of variations – both omissions and additions – between the 'Evacuation and fire survival guidance' sub-sections of GRA 3.2 and PN 633.

- 5.6.42 It should also be noted that LFB has a specific operational policy covering fire survival guidance calls<sup>85</sup> and this provides additional information and guidance on this topic to that contained within either GRA 3.2 or PN 633.
- 5.6.43 The following points are not included within these sub-sections of PN 633, namely that:
- residential buildings are built to the standards that are applicable at the time of construction, which means that older buildings may only be compliant with older guidance or earlier versions of Approved Document B
  - the 'responsible person' for a high rise building to comply with the Regulatory Reform (Fire Safety) Order 2005 is required (if necessary) to have an evacuation plan, management strategy and maintenance procedures in place to meet their fire risk assessment for the premises
  - a casualty receiving area may need to be established to deal with injured persons evacuating the building
  - acknowledgement that Control may obtain more accurate information regarding the location of the fire and/or any persons requiring rescue or reassurance than that which can be gathered on scene by the IC
  - there will be a need to make use of all available systems within the building to communicate with occupants, if the IC decides to advise callers to leave their property or they require rescue by firefighters<sup>86</sup>. This topic is, however, covered in Section 7 – 'Communication difficulties' of PN 633 as part of paragraph 7.72.
- 5.6.44 The topics covered by bullet points 1 and 2 above can reasonably be considered as background information and as such would not form part of operational policy. It should also be noted that bullet point 3 forms part of the LESLP 'Major Incident Procedure', the principles and practice of which are applied by LFB at larger incidents.
- 5.6.45 A further difference relates to terminology, as PN 633 states that the IC should 'consider' following the evacuation plan, whereas GRA 3.2 provides more definite guidance and states that the IC 'should' follow the premises' evacuation plan, unless the fire situation dictates otherwise.
- 5.6.46 With regard to the fourth bullet point above, the fact Control may gather more comprehensive information through the emergency call taking process can reasonably be inferred from the content of PNs 633 and 790, but this is not explicitly stated.
- 5.6.47 PN 633 makes reference to the national policy for Control room staff on managing fire survival calls; this policy - and the fact any decision made by the IC at the incident to change the advice being given to callers may be in conflict with this policy – does not form part of GRA 3.2.

## Ventilation

- 5.6.48 There is a high degree of consistency between GRA 3.2 and PN 633 with regard to this sub-section.
- 5.6.49 The only variation relates to the reference in GRA 3.2 to the use of Positive Pressure Ventilation (PPV) fans to improve conditions within the building for occupants and firefighters. The GRA also notes that some mechanical ventilation systems may provide a variable speed capability. It should also be noted that PPV was not an operational capability that LFB possessed at the time PN 633 was published i.e. in June 2015.
- 5.6.50 PPV is not mentioned in PN 633, but is referred to in LFB's Tactical ventilation policy<sup>87</sup>. It is noted that this document provides considerably more information and guidance on the implementation of tactical ventilation at fires than is contained in either GRA 3.2 or PN 633.
- 5.6.51 It should also be noted that although PN 883 is directly relevant to tackling fires in high rise buildings, it is not referred to in PN 633 (either in this sub-section or under 'References').

5.6.52 The following points relating to ventilation are made in PN 633 and are additional to the guidance provided in this sub-section in GRA 3.2:

- Whether it is necessary to communicate with occupants and firefighters still within the building before operating ventilation systems or undertaking ventilation
- That the proper operation of some ventilation shaft systems require air that is obtained from doors within the building being held in the 'open' position.

5.6.53 This second bullet point represents a caveat to the general guidance provided in GRA 3.2, which states that all doors should be kept closed except when it is necessary for them to be opened to allow for the movement of personnel and equipment. PN 633 also advises that these doors can be identified by the fact they will open inwards rather than outwards.

### Building design and fire safety measures

5.6.54 There are two notable differences between GRA 3.2 and PN 633 in this sub-section, namely that:

- the impact any early unexpected failure, or non-existence, of internal compartmentation within a flat can cause a fire to be far bigger than normally planned for is not explicitly stated – although the risk of an escalating fire can be reasonably inferred from other statements in PN 633<sup>88</sup>.
- Some automatic fire curtain installations may be provided with manual override controls for use by firefighters.

5.6.55 With regard to additional information, it is noted that PN 633 advises on the potential hazards that need to be considered when firefighters are working in the vicinity of radio antennas and refers to the policy that describes this risk in more detail<sup>89</sup>.

### Anti-social behaviour

5.6.56 GRA 3.2 and PN 633 offer the same guidance if this behaviour arises during an incident, with the minor exception that PN 633 does not explicitly state that the IC should consider withdrawing personnel and adopting defensive firefighting tactics<sup>90</sup>. This point is, however, covered in PN 261 – Public order and civil disturbance procedure.

### Communications

5.6.57 There is almost complete consistency between GRA 3.2 and PN 633 with regard to this topic, with the only variations reflecting LFB operational policy with regard the actions to be taken by any breathing apparatus crew experiencing a simultaneous loss of their telemetry and radio signals.

5.6.58 It is also noted that LFB has a dedicated policy providing information and more detailed guidance on how communications should be managed at incidents<sup>91</sup>.

### Safety officers

5.6.59 There are differences between this sub-section in GRA 3.2 and PN 633, some of which reflect the fact that a more detailed description of this role is provided in a separate operational policy<sup>92</sup>.

5.6.60 The following points are omitted from this sub-section of PN 633 and also do not form part of PN 162, specifically the need:

- for the IC to confirm that those undertaking this role understand their area of responsibility, allocated tasks, lines of communication and possess accurate, current and complete awareness of the situation
- to ensure personnel acting as safety officers are competent and understand their responsibility to ensure personnel are wearing appropriate respiratory protective equipment and take any urgent corrective action necessary to ensure the safety of personnel
- for an IC to consider the complexity of the task, size of the incident and scope of responsibility when deciding the 'competency level' required<sup>93</sup>

- 5.6.61 PN 162 does include several vague points that refer to ‘initiating corrective action’ and ‘maintaining safe systems of work’ but these cannot reasonably be considered to adequately cover the points outlined above.
- 5.6.62 There is also several additional points included within PN 162, insofar as it provides information regarding the structural integrity of buildings and lists those elements of a building to be checked when assessing the risk of collapse. It also states safety officers can be formed into teams, under a designated ‘sector commander safety’, where more than one safety officer is appointed during an incident.

### Personal protective equipment (PPE)

- 5.6.63 There is no PPE sub-section in PN 633. Much of the content under this heading in GRA 3.2 relates to the standards Fire and Rescue Services’ need to observe when procuring this equipment and, as such, would not form part of operational policy.
- 5.6.64 The guidance in GRA 3.2 which relates to the physiological impact of PPE during high rise firefighting and the need to consider relaxing standards of dress where it is safe to do so in order to reduce firefighter’s body temperature is omitted from PN 633.
- 5.6.65 This control measure is, however, stated in the operational policy that covers metabolic heat stress and this document is referenced in PN 633<sup>94</sup>.

### Post incident

- 5.6.66 There are a number of variations between GRA 3.2 and PN 633 with regard to the guidance that is provided in relation to the measures that need to be considered after an incident.
- 5.6.67 This reflects the fact that five of the points made under this heading in GRA 3.2 are covered by LFB in separate policies and these are set out in the references below<sup>95</sup>.
- 5.6.68 An omission under this heading in PN 633 is the recommendation in GRA 3.2 to make use of any community groups that are either specific to an individual high rise building or estates as a means of contacting and communicating with residents.

### Damage control and messages

- 5.6.69 These are two additional sub-sections in PN 633 that do not form part of GRA 3.2.
- 5.6.70 The information under ‘damage control’ encourages the IC to give early consideration to undertaking damage control activities, noting that a high rise buildings shafts and voids create a potential for damage from fire, smoke and/or water to spread.
- 5.6.71 It is also pointed out that the high occupancy levels in some high rise buildings may mean that the IC will need to request additional resources to attend an incident in order to adequately complete this task.
- 5.6.72 The ‘messages’ sub-section could be viewed as an omission from GRA 3.2, but as content wholly relates to an LFB-specific protocol to send radio messages when attending certain high risk incident types (such as high rise fires) its inclusion in GRA 3.2 would not have been appropriate.

## 5.7 Appendices

- 5.7.1 Both GRA 3.2 and PN 633 provided a range of extra information in appendices, most of which relates to building construction features and the firefighting facilities (such as rising mains) which are found in high rise buildings.

### Appendix 1 - Sprinklers

- 5.7.2 PN 633 covers all the information provided by GRA 3.2 under the heading ‘water suppression systems’ and this covers a wider and more modern range of installations than conventional sprinkler systems.

5.7.3 The additional information provided in PN 633 includes the following points:

- Sprinklers have been a requirement for all residential buildings built since 2006 that exceed 30 m in height
- Sprinklers can enable larger compartments, with potentially significant fire loadings, to be constructed within a high rise building
- Sprinkler systems should not be switched off to fight fires with hand-controlled jets
- It may not be necessary to send a firefighter to the main sprinkler stop valve if the sprinklers can be controlled from a buildings 'fire control centre'.
- Some modern systems may be 'water mist' and these have different features/capabilities to a traditional sprinkler system

## Appendix 2 – Firefighting lifts

5.7.4 There is one omission in PN 633 when this appendix is compared to the information provided in GRA 3.2, namely it is not stated that the IC may need to take a firefighting lift out of service if the fire starts to spread towards either the lift car or the lift motor room.

5.7.5 As with sprinklers, PN 633 provides some additional information on this topic when compared to GRA 3.2. by describing the features that will be found in a firefighting lift in compliance with the British Standard (BS). The extra facilities provided in firefighting lifts are listed as being a secondary power supply; water protection for electrical systems; and firefighter controls and communications systems.

## Appendix 3 – Dry rising mains (DRM)

5.7.6 PN 633 covers all the information provided by GRA 3.2 under this heading and provides additional guidance that would assist in planning for high rise fires and help an IC to make the best use of available water supplies during an incident, if two or more water jets are in use.

5.7.7 The additional information provided in PN 633 includes the following points:

- DRMs may be found in buildings other than high rise to compensate for poor water supplies or poor perimeter access
- Advice to improve water distribution between branches when 2 or more water jets are in use by using the facility on LFB branches to reduce water flow rates. It is also stated that it may not be possible to achieve maximum flow rates or optimum branch operating pressures in these circumstances
- British Standard for DRM isolating valves

## Appendix 4 – Wet rising mains (WRM)

5.7.8 PN 633 covers all the points provided by GRA 3.2 on WRMs and, in addition, also offers guidance on how an IC can use the isolation valves which are fitted to these mains in order to optimise water supply, should a WRM fail.

## Appendix 5 – Firefighting shafts

5.7.9 There are no variations between the appendices that cover this topic in GRA 3.2 and PN 633.

## Appendix – 7(2)d

5.7.10 No information is provided in GRA 3.2's appendices relating to 7(2)d visits.

5.7.11 The information provided in PN 633 (as Appendix 1) largely repeats the information provided under the heading 'Planning' in both GRA 3.2 and PN 633.

5.7.12 Within this appendix, there are specific references to the location and accuracy of the information that may be available on site; the possibility that a high rise building may provide a 'fire control room'; and gathering information with regard to the length of hose runs from rising main outlets which are not made in GRA 3.2.

## 5.8 An explanation of the differences between GRA 3.2 and PN 633

- 5.8.1 As already noted, some of the variations between these documents are explained by the fact that they have different purposes and are written for different audiences.
- 5.8.2 The role of GRAs in supporting individual FRS has already been described in Part 2 of this report<sup>96</sup> and this means that it is not intended for GRAs to play any *direct* part in guiding the response of operational personnel to fires in high rise buildings.
- 5.8.3 This helps to explain why GRA 3.2 includes information and levels of detail that are provided to assist those writing service policy and procedures, but which are not relevant to those liable to undertake search, rescue and firefighting operations at emergency incidents. Good examples of this include but are not limited to the sections which relate to the formulation of a competence and training strategy for high rise firefighting and for PPE.
- 5.8.4 Some variations can also be explained in terms of what might be expected to be covered within training materials for high rise firefighting and an example of this could be the first two bullet points set out in 5.6.39.
- 5.8.5 Another key difference is that although LFB was responsible for producing both documents, they had different authors and were therefore subject to different personal writing styles and phrasing. This partly explains the varying levels of detail provided, insofar as individuals can adopt a differing approach when determining how much information is necessary to convey a particular point or concept.
- 5.8.6 A further source of variation arises from the management and staffside (union) consultation processes that are undertaken with regard to all LFB policies, whilst they are being drafted and before publication. These are described in Part 4 and Appendix 3 of this report and can result in service-specific changes being made in variation to national guidance.
- 5.8.7 In the case of PN 633, the policy was subject to consultation through the Brigade Joint Committee for Health Safety and Welfare (BJCHSW) between March and May 2015. The records from this forum state that changes were made to PN 633, but do not specify what these were in any detail<sup>97</sup>.
- 5.8.8 As part of the 'discovery' process for this report, efforts have been made to understand what changes were made in BJCHSW, but due to the retirement of the personnel who were involved in this consultation it has so far not proved possible to gather any further information reference this matter. LFB will continue to make efforts in this regard and if further information becomes available, it will be provided as an addendum to this report.
- 5.8.9 To be effective, operational policy is required to be as concise as possible and one impact of this can be seen in the fact GRA 3.2 is 29 pages long, whereas PN 633 is 17 pages (excluding appendices for both documents).
- 5.8.10 The above points account for some of the variations between GRA 3.2 and PN 633, but they do not provide a full explanation for all the differences that have been identified in this report.
- 5.8.11 Some variations can only be explained as an omission on the part of the operational policy authors to fully reflect the guidance that is provided in GRA 3.2 within PN 633. Examples of this include the failure to explicitly:
- differentiate between commercial and residential high rise buildings with regard to evacuation (see paragraph 5.5.11);
  - identify the need to consider contingencies for evacuation planning, if the responsible person's 'stay put policy' for the building should become untenable (see paragraph 5.6.4); and
  - state that the non-existence or unexpected failure of internal compartmentation can cause a fire to become larger than normally planned for (see paragraph 5.6.48).

5.8.12 PN 633 was subject to the various review and quality assurance processes which are described in Part 4 and Appendix 3, but these do not provide the very detailed level of scrutiny that has been conducted in order to complete this report.



## 6 Mobilising and operational equipment changes associated with fighting fires in high rise buildings

### 6.1 Introduction

- 6.1.1 This Part of the report describes a number of changes, beyond those already described in relation to operational policy, which were made by LFB during the period 2011 – 2016. These were made in response to a developing understanding of the risks posed by fighting fires in high rise building and demonstrate LFB's capacity to learn from experiences that have been gained from previous incidents.
- 6.1.2 As set out in Part 2 and 5 of this report, the GRA review had identified a number of 'new' hazards and these required LFB to devise a range of additional control measures in order to reduce risk, both to members of the public and to firefighters.
- 6.1.3 In addition, the DIOT process<sup>98</sup> had identified the need for additional operational equipment when tackling fires in high rise buildings and the consultation programme for LFB's integrated risk management plan<sup>99</sup> had identified LFB's attendance at high rise residential buildings as a matter of public concern.
- 6.1.4 In all cases, the changes and new equipment outlined in this part of the report were designed to improve the response to fires in high rise buildings, although, as noted against individual items, many of these changes also enhanced LFB response to other incident types.

### 6.2 Mobilising changes

- 6.2.1 An assessment of the changes made to GRA 3.2 (and subsequently assimilated into LFB's own high rise risk assessment and operational policy) made it clear that a combination of identified hazards is reasonably foreseeable and that this could increase the severity and complexity of a high rise fire.
- 6.2.2 At the same time, it was recognised that it was likely that extra resources would be required in the initial stages of any fire in a high rise building in order to effect the timely implementation of all the control measures that could be necessary.
- 6.2.3 LFB's Pre-Determined Attendance (PDA) of three pumping appliances, which delivers a minimum of 12 firefighters, had been based on the hazards and control measures that had been set out in Version 2 of GRA 3.2. This was now recognised as insufficient to reliably make a safe and effective initial response and LFB's Corporate Management Board accordingly agreed to increase the PDA for high rise fires to four pumping appliances<sup>100</sup>.
- 6.2.4 This increase meant that a minimum of 16 firefighters would be mobilised in response to a call to fire in a known high rise building.
- 6.2.5 The availability of these additional resources from an early stage in the incident would enhance LFB's response in a number of different ways. For example, the availability of more firefighters would make it easier to overcome the difficulties created by any failure of firefighting facilities such as rising mains or firefighting lifts and it would also enable the earlier appointment of safety officers and designation of emergency breathing apparatus crews.
- 6.2.6 As well as delivering sufficient resources to meet the range of reasonably foreseeable scenarios - as these were understood at this time - this change was also a positive response to the concerns that had been raised during the LSP 5 consultation.

## 6.3 Branches

- 6.3.1 In 2012, LFB brought two new branches into operational service. Branches are the equipment used by firefighters to control the flow of water from the end of firefighting hose and they allow water to be applied to a fire either as a 'solid' jet or in various spray patterns.
- 6.3.2 The 'Project 2' and 'Rosenbauer Selectflow RB 101' branches offered an improved range of control facilities when compared with the equipment which they replaced and, crucially from the perspective of fighting fires in high rise buildings, they were able to provide an effective jet of water whilst working at a relatively low operating pressure i.e. approximately 3 bars.
- 6.3.3 LFB's previous branches had been designed to operate at higher pressures (around 6 – 7 bars) and this had the potential to impair effectiveness when firefighters were tackling a fire on the upper floors of a tall building.
- 6.3.4 This is because, when a fire is above ground-floor level, a significant proportion of the overall water pressure necessary to fight a fire is used to get the water from the fire engine to the end of a firefighting hoseline, at which point the remaining pressure is used by the branch to deliver a steady flow of water on to a fire.
- 6.3.5 As the fire pumps fitted to fire engines, firefighting hose and rising mains all have upper limits on the pressures which they can safely deliver, it is advantageous to use branches that operate at lower working pressure, as this is easier to achieve on the upper floors of a high rise building.

## 6.4 Cable cutters and modified breathing apparatus cylinder covers

- 6.4.1 The deaths of firefighters at previous high rise fires<sup>101</sup> had highlighted the hazard that can be posed by electric and telecommunications cables when these are displaced from surface-mounted trunking in the course of a fire.
- 6.4.2 This hazard had been incorporated into GRA 3.2 and led to LFB making several key changes to its breathing apparatus (BA) equipment to mitigate against this risk.
- 6.4.3 The first of these was the incorporation of two 'anti-entanglement' straps into the design of the breathing apparatus cylinder cover. This simple, but highly effective modification significantly reduces the risk that a firefighter wearing BA becomes trapped by displaced cables, which might otherwise fall between the BA cylinder and the backplate.
- 6.4.4 The second new control measure was the provision of a fully insulated set of cable cutters, carried as part of every BA set and secured by a lanyard. The cable cutters are stored in a pouch that forms part of the BA waist belt and their electrical insulation is rated to withstand live cables carrying up to 1,000 volts.
- 6.4.5 The safe use of these cutters has been incorporated into BA procedures and training, based on the protocol that whenever possible the cutters are used by a BA wearer who is not trapped and the trapped wearer adopting a position with arms across their chest to protect the BA hoselines leading up to the facemask.

## 6.5 Premises information plates

- 6.5.1 In order to overcome the challenge of providing reliable information about a high rise building, Premises Information Plates (PIPs) were devised to ensure key facts are available at the scene to assist firefighters make a rapid and informed response.
- 6.5.2 The information provided by these plates includes:
- The name of the building and the number of floors.
  - The number and location of firefighting lifts and staircases within the building.

- The number and location of fire hydrants and rising mains, with an indication of the number of hose lengths required to make the connections necessary to ensure a continuous water supply can be made available to fight the fire.

6.5.3 These plates were trialled as physical metal plates attached to 160 high rise buildings during 2014 and following this successful pilot, a decision was taken to implement this system electronically as 'ePIPs'. This means is now provided Brigade-wide to all fire engines via their Mobile Data Terminal. By taking this approach, it is easier to ensure that this risk-critical information is made readily available to all personnel responding to an incident and to keep building records current, whenever alterations are made to buildings as a result of refurbishment works or other changes.

## 6.6 Forward Information Boards

6.6.1 Forward Information Boards (FIBs) were introduced in January 2013 as a portable and easy-to-use means to record information at locations that are remote from a fire engine or Command Unit.

6.6.2 FIBs can be used at any incident where a 'forward command point' needs to be established, but their genesis was the experience gained at incidents such as Lakanal and Shirley Towers, where it had been necessary to record information at the bridgehead.

6.6.3 Prior to the introduction of FIBs, information such as the locations of persons requiring rescue had been written on walls within the lobby or staircase. This was a necessary expediency at the time, but it proved an unreliable way to record frequently life-critical information and meant - if it became necessary to re-position the bridgehead - that there was a high likelihood vital information could be lost to those coordinating the rescue effort.

6.6.4 FIBs were designed as a simple and portable solution to this problem. Consisting of a Perspex backboard and two doubled-sided laminated sheets, FIBs enable information to be recorded without any reliance on a power supply or radio signal, which would likely form part of a higher technology solution.

6.6.5 To help firefighters record and present the information gathered in a logical and consistent format, four A1-sized templates are provided, one of which is specifically designed to support operations at a high rise incident.

6.6.6 Further details regarding the design and use of FIBs is available elsewhere<sup>102</sup>, but with particular regard to high rise, the following points are relevant:

- The template can be used in either portrait or landscape orientation, to accommodate buildings of varying designs and layouts
- In portrait layout, a template can record information for up to 20 floors and 9 flats per floor, which each flat represented by a square divided diagonally to confirm whether it is being searched (S) or has been confirmed clear of people (C).
- If a premise is greater than 20 floors in height, then a second (and if necessary, additional) FIBs can be used and the floor numbering scheme amended accordingly. Equally, if there are more than 9 flats per floor, then the comments box can be adapted and used to record the search status of additional flats.

## 6.7 Fire Initial Response Equipment

6.7.1 The Fire Initial Response Equipment (or 'FIRE' system) was developed to enhance the way in which the items of equipment specified in PN 633<sup>103</sup> are moved by firefighters from fire engines up to the bridgehead.

6.7.2 This equipment was on trial at a number of strategically selected fire stations at the time of the Grenfell Tower fire and it was placed into operational service in July 2017.

- 6.7.3 Work to introduce a means of gathering together and carrying the list of operational equipment required to commence firefighting at a high rise fire had been on-going for a number of years, but it had been slowed by a number of issues, not least of which had been the aspiration of using one bag/holdall for this equipment and the manual handling implications of transporting bulky and relatively heavy items as a single load.
- 6.7.4 The FIRE system took a fresh approach by dividing the equipment evenly between four firefighters. This reduced the physiological burden on individuals and also created an opportunity to supplement the standard equipment list with additional items of equipment.
- 6.7.5 Development of the FIRE system greatly benefitted from feedback provided by the Operational Sounding Board<sup>104</sup>, which enabled improvements to be made to both its design and construction.
- 6.7.6 The additional items of equipment introduced as part of the FIRE system included:
- A hand controllable dividing breeching (to allow a second jet to be deployed more quickly and enabling a burst hose line to be shut down without shutting down the water supply to the second hose line)
  - A variety of hand tools to assist with operating rising mains in circumstances where vandalism or lack of proper maintenance could prevent normal operation using the installed hand-winding wheel.
  - Search tags and a door marking crayon
  - Hose identification tallies (to help avoid confusion when multiple hose lines are in use)

## References

All the references for this report are available on request and have been brought together in a single data source held by LFB.

---

<sup>1</sup> BSI Standards Publication BSI9991:2015 Fire safety in the design, management and use of residential buildings – Code of practice, BSI Standards Institute 2016

<https://shop.bsigroup.com/ProductDetail?pid=00000000030351309>

<sup>2</sup> Operational Guidance Programme (H & S guidance review) Project Initiation Document – 1<sup>st</sup> July 2009

<sup>3</sup> Management of Health and Safety at Work Regulations 1999 (MHSWR)

<sup>4</sup> GRA Introduction – guidance for fire services – published by DCLG in August 2009

<sup>5</sup> The GRA review process – this guidance was produced by the programme manager to assist with the management of the review process; this sets out the governance arrangements and lists the members of the review board and committee. See Appendix 1.

<sup>6</sup> The report author (DAC Peter Cowup) was LFB's principal representative on the GRA review committee, but a significant contribution towards developing GRA 3.2 was also made by SM Phil Morton. Both DAC Cowup and SM Morton were part of LFB's operational procedures department during the period that GRA 3.2 was developed and were responsible for its review.

<sup>7</sup> Lakanal House fire – 3<sup>rd</sup> July 2009

<sup>8</sup> This is a reference to the Shirley Towers and Lakanal House fires.

<sup>9</sup> All those providing comments that had **not** been accepted as part of Stage 3 of the consultation process for GRA 3.2 were emailed to explain the reason(s) why their comments had not been accepted. Copies of these emails and the responses provided are attached.

<sup>10</sup> See email from Paul Woolstenholmes (National FBU officer for Legal, Health, Safety and Welfare) to DAC Cowup dated 2<sup>nd</sup> April 2012

<sup>11</sup> See email from Paul Woolstenholmes to ACFO Clough dated 29<sup>th</sup> November 2012. This had a 'tracked changed' version of GRA 3.2 attached, setting out the FBUs comments. Paul was a FBU national officer for legal, health, safety and welfare at this time.

<sup>12</sup> These meetings were held at the FBU's Kingston headquarters and were attended by Paul Woolstenholmes (FBU national officer), Jim Parrott (FBU national officer), ACFO Derek Clough (GRA programme review manager), DAC Peter Cowup (LFB and GRA 3.2 author) and SM Phil Morton (LFB and GRA 3.2 author).

<sup>13</sup> See emails exchanged between Paul Woolstenholmes, Leigh Brinton and DAC Cowup dated 5<sup>th</sup> – 8<sup>th</sup> February 2013

<sup>14</sup> See email from DAC Cowup to various LFB personnel dated 1<sup>st</sup> February 2013

<sup>15</sup> GM Stephen Dudeney email to DAC Cowup dated 6<sup>th</sup> February 2013

<sup>16</sup> See 'Construction technique' page 8 of GRA 3.2 – Fighting fires in high rise buildings. This covers the possibility that poor standards of construction causing gaps or voids can enable fire, heat and smoke to pass through building compartments.

<sup>17</sup> 'High Rise GRA Abstract' - this document was produced on or about April 2013 to assure both DCLG and LFB management that GRA 3.2 addressed all the 'guidance' and 'policy' related recommendations that were made by the Coroner.

<sup>18</sup> This email included 'track change' and clean versions of the GRA and a copy of the High Rise GRA Abstract. Peter Tomas Grey was contracted by DCLG to format and typeset the GRA series prior to their publication by the Stationary Office

<sup>19</sup> See email exchange between Les Britzman and DAC Cowup dated 11<sup>th</sup> December 2013

<sup>20</sup> See email from Les Britzman dated 6<sup>th</sup> December 2013.

<sup>21</sup> Letter dated 26<sup>th</sup> February from Peter Holland to all Chief Fire Officer's in England, the Chief Executive Fire Service College, HM Chief Inspector of the Scottish Fire and Rescue Service, the Chief Fire and Rescue Adviser Wales and Chief Fire Officer Northern Ireland

<sup>22</sup> Version 2 of GRA 3.2 was published under the title 'High Rise Firefighting' by The Stationary Office (TSO) on behalf of the Department for Communities and Local Government (DCLG) in September 2008. Version 3 was re-titled 'Fighting fires – in high rise buildings' and published in February 2014.

---

<sup>23</sup> Section 1 – Responding to emergencies; Section 2 - Carrying out rescues; Section 3 – Fighting fires; Section 4 – Incidents involving transport; and Section 5 – Generic hazards

<sup>24</sup> Version 2 (2008) Section 1 – Key operational factors (including hazards); Section 2 – Key control measures; and Section 3 – Aide memoires

<sup>25</sup> Version 3 (2014) Section 1 – Introduction, Significant hazards and risks and Key Control Measures; Section 2 – A matrix summarising the hazards and their associated control measures; and 5 appendices to provide FRS with detailed information regarding systems and facilities found in high rise buildings, such as automatic sprinklers and firefighting lifts.

<sup>26</sup> Some of the consultation responses stated that Version 3 of GRA 3.2 had taken on the layout and content of a ‘Standard Operating Procedure – SOP’. SOP is a term commonly used in FRS to describe operational policies and procedures.

<sup>27</sup> See Reference 17 on page 45 of ‘GRA 3.2 Fighting fires – in high rise buildings’ Version 3 February 2014

<sup>28</sup> See ‘Anti-social behaviour, vandalism and unlawful activities’ on page 13 of GRA 3.2; this was amended from Version 2 to include the possibility of firefighting operations being adversely affected by a broader range of anti-social and unlawful behaviour, rather than just referring to illicit drug production.

<sup>29</sup> See paragraphs 2.6 of this report.

<sup>30</sup> The fires at Lakanal House (2009) and Shirley Towers (2010) had included many of the new hazards described in Version 3 of GRA 3.2

<sup>31</sup> Sources of planning information for high rise buildings include home fire safety visits; incident de-brief; health and safety events; and information available from local authorities and local resilience fora.

<sup>32</sup> Training is mentioned on pages 12, 15 and 16 of Version 2 of GRA 3.2

<sup>33</sup> Guidance on operational training includes the competency framework and national occupancy standards

<sup>34</sup> See paragraph 2.2.1 of this report.

<sup>35</sup> The Fire and Rescue Service Manual Volume 2 – Fire Service Operations Incident Command

<sup>36</sup> Fatal accident inquiry conducted by Sheriff Desmond Leslie. See <http://www.scotland-judiciary.org.uk/10/822/Fatal-Accident-Inquiry-into-the-death-of-Margaret-Allison-Hume>

<sup>37</sup> See Hampshire Fire and Rescue Service’s response to the inquest findings set out by HM Coroner Mr David Horsley LLB dated 18<sup>th</sup> September 2012.

<sup>38</sup> ‘Coroner’s Inquest into the London bombings of 7<sup>th</sup> July 2005; Report under Rule 43 of the Coroner’s Rules 1984’ Lady Justice Hallet 6<sup>th</sup> May 2011

<sup>39</sup> Ibid paragraphs 218 – 228 on pages 48 – 50.

<sup>40</sup> Ibid paragraphs 220 and 221 on page 49

<sup>41</sup> Ibid paragraphs 222 and 227 on page 50.

<sup>42</sup> ‘Striking the balance between operational and health and safety duties in the Fire and Rescue Service’ HSE March 2010 :

[http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwizybqRspDgAhVTBGMBHe\\_ZAF0QFjAAegQIChAC&url=http%3A%2F%2Fwww.hse.gov.uk%2Fservices%2Ffire%2Fduties.pdf&usg=AOvVaw0KJo9fahEuYvcXMqErJbAA](http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwizybqRspDgAhVTBGMBHe_ZAF0QFjAAegQIChAC&url=http%3A%2F%2Fwww.hse.gov.uk%2Fservices%2Ffire%2Fduties.pdf&usg=AOvVaw0KJo9fahEuYvcXMqErJbAA)

<sup>43</sup> This includes aerial appliances and Thermal Image Cameras

<sup>44</sup> The term ‘seniority’ is generally used in the fire service in the context of an individual’s rank and their experience.

<sup>45</sup> The term ‘weight of attack’ refers to the type and amount of water, hose lines and branches deployed to fight a fire. For this to be ‘sufficient’, it must be possible for a crew to apply enough water to the fire to first bring it under control and then extinguish it.

<sup>46</sup> Reference is made to the provisions of the Regulatory Reform (Fire Safety) Order 2005

<sup>47</sup> See relevant national guidance for fire service control rooms i.e. Fire Service Circular 10/93

<sup>48</sup> This advice may be available on site from the premises management or can be sought from appropriately trained FRS officers, who have specialist knowledge of building and ventilation systems.

<sup>49</sup> See ‘Issues which could impact upon a response, exacerbate a fire situation and/or augment risk to firefighters’ on Page 17 GRA 3.2 High Rise Firefighting (Version 2 2008)

<sup>50</sup> The communication systems referred to are internal/mobile phones, public address systems and loudhailers as potential means of communication with building occupants.

<sup>51</sup> See reference 8.

---

<sup>52</sup> The Environment, Transport and Regional Affairs Committee report titled ‘Potential risk of fire spread in buildings via external cladding systems’ – July 1999

<sup>53</sup> A safe system of work is usually defined as a formal procedure which results from systematic examination of a task in order to identify all the hazards. It defines safe methods to ensure that hazards are eliminated or risks minimised.

<sup>54</sup> ‘Managing for health and safety (HSG 65)’ published by the Health & Safety Executive:  
<http://www.hse.gov.uk/pubns/books/hsg65.htm>

<sup>55</sup> BSI Standards Publication BSI9991:2015 Fire safety in the design, management and use of residential buildings – Code of practice, BSI Standards Institute 2016 (see reference 1).

<sup>56</sup> And their associated risk assessments.

<sup>57</sup> For further information see Part 3 paragraph 3.7.17 of this report.

<sup>58</sup> The incident types and associated actions that a Control Officer may take to make the necessary notifications, mobilise additional resources to any incident escalation and refine the response to more complex incidents are described in PN 412 Mobilising policy

<sup>59</sup> The departments that are responsible for LFB operational policy (with the number of policies held in brackets) are: Health and Safety (14); Operational Resilience (13); Central Operations (4); Control and Mobilising (2); Regulatory Fire Safety (2); and Strategy and Performance (2).

<sup>60</sup> LFB Corporate Management Board report number 132/11 titled ‘Operational Procedures’ and dated July 2011.

<sup>61</sup> Stakeholders will always include the LFB departments involved in or affected by the policy; representative bodies; and may, on occasions, also include other agencies/organisations, such as other emergency services and local authorities.

<sup>62</sup> See PN 342 – Dynamic risk assessment

<sup>63</sup> These include the risk assessment, training specification and impact assessments

<sup>64</sup> This detail is set out in Appendix 4 of this report.

<sup>65</sup> These headings are: ‘Building height and design’; ‘Fire behaviour and development’; and ‘Firefighting and rescue operations’.

<sup>66</sup> The ‘Coanda effect’ describes the tendency for fast streams of air to deflect to nearby surfaces and helps to explain why external flames are often observed to ‘hug’ the outside of high rise buildings.

<sup>67</sup> See paragraph 2.39 of PN 633.

<sup>68</sup> PN 800 – Management of operational risk information, PN 412 Mobilising policy and PN 790 Fire Survival Guidance calls

<sup>69</sup> It should be noted that there is reference to premises evacuation procedures in PN 633’s paragraphs 4.10, 7.46 and in Appendix 1 of this report. There is also further planning information associated with evacuation in PN 800.)

<sup>70</sup> Guidance for firefighters working in the vicinity of radio antennas is provided in PN 298 – Operations at radio transmitter sites

<sup>71</sup> It is understood by the report author that the matter of training for personnel who are liable to engage in search, rescue and firefighting in high rise buildings is the subject of a separate report to the inquiry.

<sup>72</sup> This is a reference to the ‘high rise’ training materials that are available on LFB’s intranet.

<sup>73</sup> PN 633 refers to PN 238 – incident command procedures, PN 434 – Sectorisation at incidents and PN 828 – Recording decisions at incidents

<sup>74</sup> For further detail please see Section 6 of PN 342 – Dynamic risk assessment.

<sup>75</sup> The term ‘weight of attack’ is defined in Part 3 of this report

<sup>76</sup> For further details please see PN 518 – Messages from incidents and PN 828 – Recording decisions at incidents.

<sup>77</sup> See PN 793 – Compartment firefighting, PN 408 – Incident command and PN 872 – Operational professionalism at emergency incidents.

<sup>78</sup> Bulk Media Advisors are a cadre of specially trained Group and Station Managers who able to offer ICs advice on obtaining, pumping and applying water and other bulk firefighting media such as foam during larger and/or protracted incidents.

<sup>79</sup> See paragraphs 7.24 and 7.25 of PN 633

<sup>80</sup> GRA 3.2 refers to regulatory fire safety plans and 7(2)d visit records.

---

<sup>8181</sup> See paragraphs 4.10 and 6.3 (b) of PN 633

<sup>82</sup> See paragraph 6.3 (b) of PN 633

<sup>83</sup> LFB has a specific policy relating to 'hoarding' (i.e. the storage of abnormally high amounts of property and materials in a building) – PN 829 - Hoarding

<sup>84</sup> Reference is made to PN 803 – Search and rescue procedures within structures

<sup>85</sup> PN 790 – Fire survival guidance calls

<sup>86</sup> The methods that can be used to communicate with building occupants is stated in PN 633 under the heading 'Communication difficulties' – see paragraph 7.72

<sup>87</sup> See Appendix 1 of PN 883 – Tactical ventilation. This document, which was issued in January 2016, states that PPV is under evaluation within LFB and carried on 'Special All Wheel Drive' vehicles. Noting this policy was published 1 year *after* the version of PN 633 that was current at the time of the Grenfell Tower fire, this explains why there is no reference to PPV in high rise policy, as this capability had not been implemented in LFB at this time.

<sup>88</sup> See paragraph 7.58 of PN 633, which states 'During a fire, the level of risk can be significantly increased if any of the building's design measures are compromised'.

<sup>89</sup> See PN 298 – Operations at radio transmitter sites

<sup>90</sup> Although not referenced in PN 633, the need to consider withdrawal of personnel and adopting defensive firefighting tactics is stated in PN 261 – Public order and civil disturbance procedure – Appendix 1 and 2 refer

<sup>91</sup> See PN 488 – Incident communications

<sup>92</sup> See PN 162 – Officer responsibilities at incidents includes a description of the safety officer role in paragraph 13.4

<sup>93</sup> The reference to 'competency level' in GRA 3.2 is a reference to the rank (role) of the individual undertaking this role, with a clear inference that more senior personnel need to be chosen for this role at larger and more complex incidents.

<sup>94</sup> See PN 284 – Metabolic heat stress

<sup>95</sup> PN 368 – Health, safety and environmental event investigation covers safety event investigation and reporting; PN 617 – Personal protective equipment at work and PN 693 – Structural firefighting personal protective equipment describe procedures for dealing with contaminated PPE; PN 285 – Dynamic Intelligent Operational Training explains how LFB identifies lessons and good practise from operational incidents and links this to training requirements (with PN 427 DaMOP also covering this topic); and LFB's intranet site offers extensive guidance, support and 'signposting' to the professional occupational health and counselling services that are available to all staff.

<sup>96</sup> See paragraphs 2.1.3 and 2.1.4 of this report.

<sup>97</sup> See Note 3.625 from BJCHSW meeting notes dated 19/3/2015, 16/4/2015 and 28/5/2015.

<sup>98</sup> The Dynamic and Intelligent Operational Training (DIOT) process is explained in Part 4 of this report

<sup>99</sup> Each fire and rescue authority must produce and maintain an integrated risk management plan. In LFB, these plans are called London Safety Plan (LSP) and are sequentially numbered; the importance of a third appliance attending high rise fires and the speed of their attendance emerged from the consultation process for LSP 5.

<sup>100</sup> See report 022/15 to LFB's Corporate Management Board dated 18<sup>th</sup> February 2015

<sup>101</sup> Harrow Court, Stevenage in 2005 and Shirley Towers, Southampton in 2010

<sup>102</sup> See PN 820 – Forward information boards

<sup>103</sup> See paragraph 7.25 of PN 633 – High rise firefighting

<sup>104</sup> Operational Sounding Board (OSB) is described in paragraphs 4.5.15 to 4.5.17 of Part 4 of this report and is a group of fire station-based operational personnel.



# Appendix 1

## A copy of the GRA review process

This document was produced by the GRA review programme manager and provided to all members of the GRA review board and committee members as an explanation of how the review process would be undertaken.

# The GRA review process

## Getting started

GRA review committee identifies GRA's to be reviewed.

GRA review committee agrees which region will carry out a specific GRA review.

Health and Safety review project manager consults with CFOA H&S Regional Chair to agree the review start date

The Regional GRA Review Committee Member informs Rep bodies that they are starting the review.

Rep bodies assign a representative to the review.

## The review

### Stage 1 (35 working days)

The initial review period is 20 working days as set down in the project plan.

The region carrying out the review should ensure that the representative bodies are included in the review process from the early stages. And where possible they should also involve any other appropriate organisation at this point. (20 days)

At the end of the 20 days period the author forwards the reviewed GRA via their GRA national committee member to the H&S review project manager.

The H&S review project manager who holds the current GRA Committee mailing list forwards the draft GRA to the other GRA committee members for an initial short consultation period. (10 working days.)

The GRA committee member replies directly to the original author of the GRA, using track changes, with any recommendations.

The GRA is amended as appropriate by the original author and forwarded via their GRA national committee member to the H&S review project manager. (5 working days)

### Stage 2 (25 working days)

H&S review project manager will then send the draft GRA for consultation to English Regions, Devolved Administrations, Ops Guidance Group members

FBU ( ) other rep bodies and any other identified key stakeholders, for comments.

Reviewing Regions/Persons/organisation recommend any changes to the original document that they deem necessary, using track changes where ever possible. The draft copy with track changes is then returned to the original author via their GRA national committee member. (20 working days)

Original author amends Draft GRA and forwards via their GRA national committee member to the H&S review project manager. (5 working Days)

### Stage 3 (30 working days)

The H&S review project manager sends the draft GRA for consultation with each FRS in England and the Devolved Administrations through the CFO of each organisation. This consultation phase also includes consultation with the representative bodies, Operational Guidance Group and other key stakeholders. (5 days)

Consultees return GRA with recommended changes using track changes to original author as advised by the H&S review project manager. (20 days)

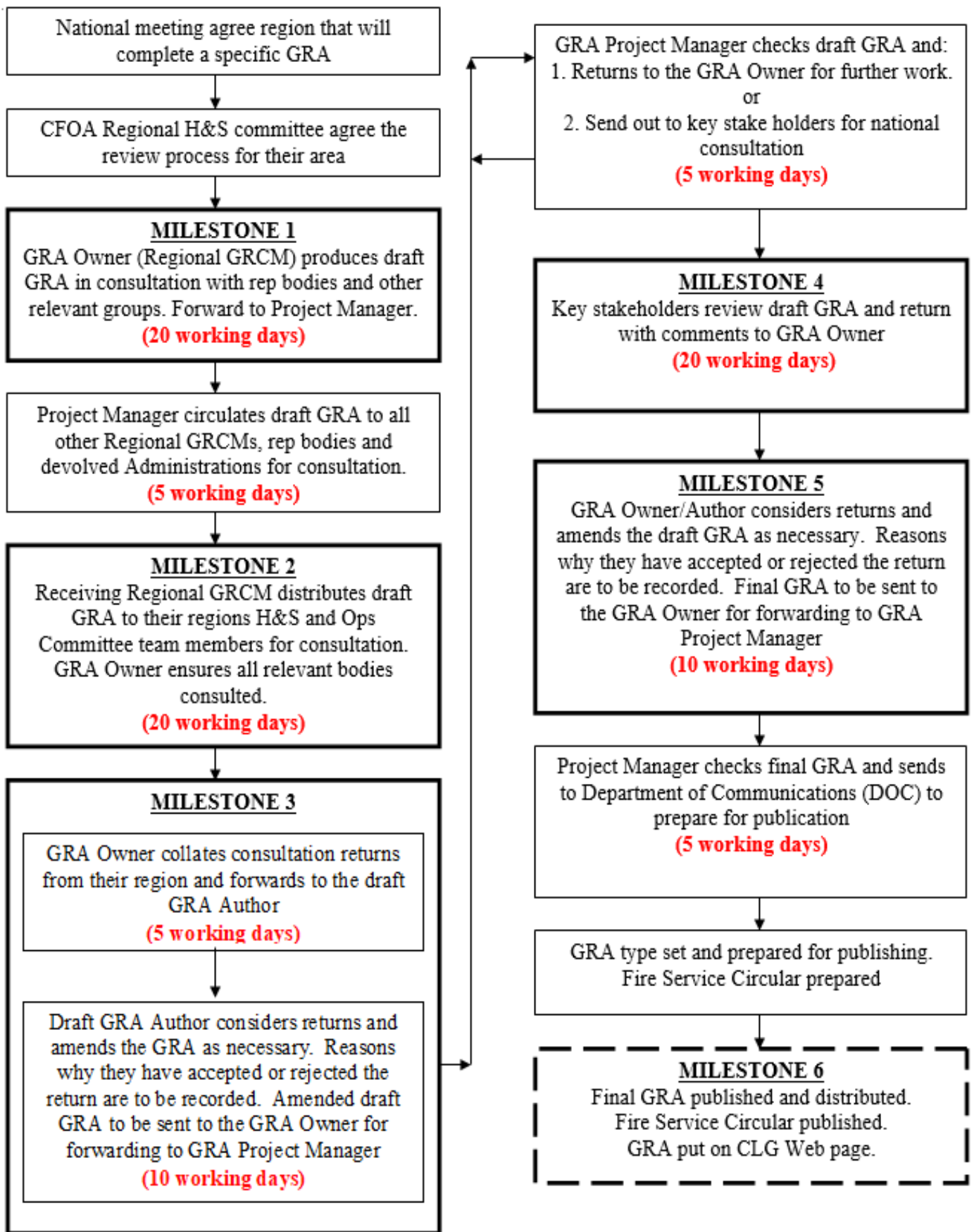
Original author amends GRA as appropriate and forwards via their GRA national committee member to the H&S review project manager (5 days)

H&S review project manager forward GRA to Department of Communications to begin the publication phase.

GRA Publishing process through Department of Communications

Fire Service Circular prepared and published along with GRA

**Flowchart for GRA review process**



## GRA Review Governance Arrangements

Project Manager			
-----------------	--	--	--

### GRA Review Project Board

Organisation	Representative	Email	Telephone
OCFRA			
CFOA			
HSE			
FBU			
FOA			
CFOA West Mids			

## GRA Review Committee Regional Representatives

Organisation	Representative	Email	Telephone
CFOA East	[REDACTED]	[REDACTED]	[REDACTED]
CFOA East Midlands	[REDACTED]	[REDACTED]	[REDACTED]
CFOA London	[REDACTED]	[REDACTED]	[REDACTED]
CFOA London	[REDACTED]	[REDACTED]	[REDACTED]
CFOA North East	[REDACTED]	[REDACTED]	[REDACTED]
CFOA North West	[REDACTED]	[REDACTED]	[REDACTED]
CFOA South West	[REDACTED]	[REDACTED]	[REDACTED]
CFOA South East	[REDACTED]	[REDACTED]	[REDACTED]
CFOA West Mids	[REDACTED]	[REDACTED]	[REDACTED]
CFOA York & Humb	[REDACTED]	[REDACTED]	[REDACTED]
Wales	[REDACTED]	[REDACTED]	[REDACTED]
Scotland	[REDACTED]	[REDACTED]	[REDACTED]
Northern Ireland	[REDACTED]	[REDACTED]	[REDACTED]
Northern Ireland	[REDACTED]	[REDACTED]	[REDACTED]
CFOA	[REDACTED]	[REDACTED]	[REDACTED]
FBU	[REDACTED]	[REDACTED]	[REDACTED]
FBU	[REDACTED]	[REDACTED]	[REDACTED]
RFBU	[REDACTED]	[REDACTED]	[REDACTED]
HSE	[REDACTED]	[REDACTED]	[REDACTED]

## Appendix 2

A comparison of

Generic Risk Assessment 3.2 High Rise Firefighting Version 2 (published September 2008) with

Generic Risk Assessment 3.2 High Rise Firefighting Version 3 (published February 2014)

Authors [REDACTED] & [REDACTED]

Date: 25<sup>th</sup> January 2019

Section heading	Generic Risk Assessment 3.2-High rise Firefighting V2 September 2008	Generic Risk Assessment 3.2 High Rise Firefighting V3 February 2014	Comment and source of amendment
Scope  Page 1070	<ul style="list-style-type: none"> <li>Covers hazards, risks and control measures within High Rise (HR) buildings but not all building types</li> <li>Provides a starting point for Fire &amp; Rescue Services (FRS) to conduct their own risk assessment (RA) to take account of local conditions and arrangements</li> </ul> <p>[Page 5]</p>	Covers all points from V2 and additionally states: <ul style="list-style-type: none"> <li>Relevance of GRA to personnel from other agencies and members of public</li> <li>Hazards maybe encountered in other (non HR) buildings where firefighters are reliant on internal access and/or firefighting facilities (fixed installations) are provided</li> <li>References other GRAs which should also be considered (i.e. GRAs 2.3, 3.3, 3.6, 3.7, 3.9, 5.1, 5.8, 5.9, 5.10)</li> <li>Starting point for FRSs to generate safe system of work underpinned by its own RA</li> </ul> <p>[Page 5]</p>	
Introduction  Page 1070	<ul style="list-style-type: none"> <li>Defines HR building as containing floors at a height or position where external firefighting is not possible</li> <li>May apply to building that would not conventionally be considered HR but where the design may place a reliance on internal access and facilities for firefighting</li> <li>Definition of basic facilities provided within what is required for all buildings 18m in height i.e. firefighting shaft, fire main and firefighting lift</li> <li>Shafts and lifts may be found in buildings exceeding 7.5 metres in height</li> </ul> <p>[Page 5]</p>	Covers all points from V2 and additionally states: <ul style="list-style-type: none"> <li>Recognises fires in HR buildings have led to fatalities and that HR firefighting can be a high-risk activity; it is also that the HSE have issued improvement notices in relation to HR fires</li> <li>Outlines that HR buildings will include a range of different types, such as conventional residential 'tower blocks', commercial and mixed-use buildings</li> <li>Some older buildings may have deficient or inferior systems</li> <li>Buildings over 50m in height will have a wet rising main (WRM)</li> <li>Recognises the potential inclusion of sprinklers and other fire engineered systems and the need to identify these as part of the 72(d) process</li> </ul> <p>[Page 6]</p>	



Section heading	Generic Risk Assessment 3.2-High rise Firefighting V2 September 2008	Generic Risk Assessment 3.2 High Rise Firefighting V3 February 2014	Comment and source of amendment
Significant hazards and risks	<ul style="list-style-type: none"> <li>Hazards are grouped under 3 headings</li> <li>Some hazards may be considered generic but included due to their likely presence at HR fires</li> </ul> <p>[Page 6]</p>	<p>Covers all points from V2 and additionally states HR buildings can create an extremely hazardous environment for firefighters</p> <p>[Page 7]</p>	
Significant hazards and risks – building height & design	<p><b>Height of building</b></p> <ul style="list-style-type: none"> <li>May be beyond limitations of FRS equipment</li> <li>Facilities provided within building to support FRS response</li> </ul> <p>[Page 6]</p>	<p>Covers all points from V2 and also states that additional time and resources may be required to implement a safe system of work</p> <p>[Page 7]</p>	
Significant hazards and risks – building height & design	<p><b>Falling objects and burning debris</b></p> <ul style="list-style-type: none"> <li>Hazardous to personnel working at ground floor level</li> <li>Falling objects can travel a considerable distance (i.e. ‘planing’)</li> <li>Burning debris may start secondary fires</li> </ul> <p>[Page 6]</p>	<p>Covers similar points to V2 but does not include burning debris, as this is defined as a separate hazard and covered under the heading ‘burning debris falling from height’.</p> <p>Additional hazards identified as water supplies being affected by debris damaging firefighting hose and the risk of fire spread via balconies or windows</p> <p>[Page 7]</p>	<p>Falling objects identified as a separate hazard and included on Page 10 of V3</p>
Significant hazards and risks – building height & design	<p><b>Extended lines of communication</b></p> <ul style="list-style-type: none"> <li>Location of operations and distance from access point may impede communication</li> <li>HR buildings may present radio ‘blind spots’ &amp; any communications difficulties may place additional demand on resources</li> </ul> <p>[Page 6]</p>	<p>Covers all points from V2 and states possible adverse impact on Respiratory Protective Equipment (RPE) telemetry systems</p> <p>[Page 7]</p>	

Section heading	Generic Risk Assessment 3.2-High rise Firefighting V2 September 2008	Generic Risk Assessment 3.2 High Rise Firefighting V3 February 2014	Comment and source of amendment
Significant hazards and risks – building height & design	<b>Premises security</b> <ul style="list-style-type: none"> <li>• Access to firefighters may be hindered by security systems</li> <li>• Additional delays may be created by multiple security systems being installed within the same building</li> </ul> <p>Page 6</p>	No significant change in content - changes limited to hazard title and/or phraseology  Page 7	
Significant hazards and risks – building height & design Page 1072	<b>Complexity of internal layout</b> <ul style="list-style-type: none"> <li>• Large or complex floor layouts may make access/egress difficult</li> <li>• Complex layout may increase the risk of crews becoming disorientated</li> </ul> <p>[Page 6]</p>	Covers all points from V2 and additionally states: <ul style="list-style-type: none"> <li>• ‘Scissor style’ staircases in may be found in ‘maisonette’-style premises, causing disorientation and affecting the decision for where the bridgehead should be cited</li> <li>• Conditions may be made worse by the actuation of fire engineered systems</li> </ul> <p>[Page 7 - 8]</p>	Additional hazard identified through learning from Shirley Towers incident
Significant hazards and risks – building height & design	This hazard is not identified in V2	<b>Floor and Ceiling collapse</b> <ul style="list-style-type: none"> <li>• Risk of floor and ceiling collapse identified in HR with premises which have more than one floor i.e. maisonette-style construction</li> </ul> <p>[Page 8]</p>	Additional hazard identified through learning from Shirley Towers incident and national consultation process
Significant hazards and risks – building height & design	This hazard is not identified in V2	<b>Wall panel failure</b> <ul style="list-style-type: none"> <li>• Risk of falling from height due to wall panel failure</li> </ul> <p>[Page 8]</p>	Additional hazard identified through learning from Lakanal and Madingley House incidents
Significant hazards and risks – building height	This hazard is not identified in V2	<b>Construction technique</b> <ul style="list-style-type: none"> <li>• Additional hazards associated with rapid fire spread and/or collapse for buildings under construction</li> <li>• Spread of fire and smoke from compartment of origin</li> </ul>	Additional hazard identified through learning from Lakanal House incident

Section heading	Generic Risk Assessment 3.2-High rise Firefighting V2 September 2008	Generic Risk Assessment 3.2 High Rise Firefighting V3 February 2014	Comment and source of amendment
& design		due to combustible materials being located in any voids or cavities and/or poor-quality construction  [Page 8]	
Significant hazards and risks – building height & design	This hazard is not identified in V2	<b>Information gathering</b> <ul style="list-style-type: none"> <li>• Difficulties of Incident Commander (IC) identifying incident location and the extent of fire and smoke spread</li> <li>• External fire and smoke may be difficult to see or be misleading when seen from ground floor level</li> <li>• Information received from occupants, premises staff and Control may be inaccurate</li> </ul> [Page 8]	Additional hazards identified from GRA authors experience and national consultation process
Significant hazards and risks – building height & design	This hazard is not identified in V2	<b>Cable entanglement</b> <ul style="list-style-type: none"> <li>• Risk of firefighters becoming entangled in displaced electric and/or communications cables from surface mounted trunking</li> </ul> [Page 8]	Additional hazard identified through learning from Shirley Towers and Lakanal House incidents
Significant hazards and risks – building height & design	This hazard is not identified in V2	<b>Unavailability/malfunction of fixed installations</b> <ul style="list-style-type: none"> <li>• Some of facilities provided in HR buildings for firefighting may be subject to poor maintenance or vandalism and hence be unavailable during the incident</li> </ul> [Page 8]	Additional hazards identified from GRA authors experience and a test exercise that was held in LB Southwark (organised in June 2011 by AC [REDACTED], LFB when he was the Station Manager @ Southwark Fire Station)
Significant hazards and risks – building height & design	This hazard is not identified in V2	<b>Oxygen deficient or toxic atmosphere</b> <ul style="list-style-type: none"> <li>• Hazardous atmosphere created by fire suppression systems</li> </ul> [Page 9]	

Page 5 of 23

Section heading	Generic Risk Assessment 3.2-High rise Firefighting V2 September 2008	Generic Risk Assessment 3.2 High Rise Firefighting V3 February 2014	Comment and source of amendment
Significant hazards and risks – building height & design  <span style="writing-mode: vertical-rl; transform: rotate(180deg);">Page 1074</span>	This hazard is not identified in V2	<b>Buildings under construction and refurbishment</b> Additional hazards associated with buildings under construction/refurbishment identified as: <ul style="list-style-type: none"> <li>• Firefighting facilities incomplete or absent</li> <li>• Reduction in buildings' fire safety measures due to the introduction of modern material or services compromising building compartmentation</li> <li>• Specific reference made to the lower fire protection standards offered by some replacement doors installed by individual flat owners</li> <li>• Construction or refurbishment leading to risk of more rapid fire or smoke spread, collapse or spread of fire/smoke to adjacent buildings</li> </ul> [Page 9]	Additional hazard identified through learning from Lakanal House, national consultation process and a significant fires that occurred in Colindale during July 2006 and in Peckham during November 2009.
Significant hazards and risks – building height & design	This hazard is not identified in V2	<b>Heating, ventilation and air conditioning systems</b> <ul style="list-style-type: none"> <li>• Operation of such systems can cause unpredictable and rapid spread of fire and smoke</li> </ul> [Page 9]	
Significant hazards and risks – fire behaviour and development	<b>Vertical fire spread</b> <ul style="list-style-type: none"> <li>• Risk of extensive and rapid fire spread</li> <li>• Acknowledgement of internal fire/smoke spread but emphasis placed on external spread when fire breaks out of windows e.g. the 'Coanda' effect</li> </ul> [Page 7]	Covers all points from V2 and additionally states: <ul style="list-style-type: none"> <li>• Fire and smoke spread can be in an upward, downward and/or horizontal direction</li> <li>• Internal spread via shafts and ducting</li> <li>• External spread via failed wall panels</li> <li>• Impact of thermals, hot gases and wind speed, acting to spread smoke upwards or downwards</li> <li>• Downward smoke spread in staircases adversely impacting firefighting operations</li> </ul> [Page 9]	Renamed 'Fire and Smoke Spread'  Additional hazard identified through learning from Lakanal House and national consultation process

Section heading	Generic Risk Assessment 3.2-High rise Firefighting V2 September 2008	Generic Risk Assessment 3.2 High Rise Firefighting V3 February 2014	Comment and source of amendment
<p>Significant hazards and risks – fire behaviour and development</p>	<p><b>Stack effect</b></p> <ul style="list-style-type: none"> <li>• Spread of fire through stairways and/or shafts</li> </ul> <p>[Page 7]</p>	<p>Covers all points from V2 and additionally states:</p> <ul style="list-style-type: none"> <li>• Smoke travel can be misleading and result in the location and size of fire being incorrectly identified</li> <li>• Where smoke cools it may spread laterally</li> <li>• Fire in refuse containers can result in extensive smoke spread and have the potential to create the (false) impression of a more serious fire, due to the large volume of smoke that can sometimes be created</li> </ul> <p>[Pages 9 &amp; 10]</p>	<p>Renamed ‘Smoke travel and stack effect’. Enhanced definition of this hazard</p>
<p>Significant hazards and risks – fire behaviour and development</p> <p>Page 1075</p>	<p><b>Wind patterns and velocity</b></p> <ul style="list-style-type: none"> <li>• Fire spread exacerbated by strong winds</li> <li>• Height of building may magnify and create complicated wind patterns</li> <li>• Wind entering a building can create a ‘blow torch’ effect and increase the risk of abnormal fire development e.g. a ‘flash over’.</li> </ul> <p>[Page 7]</p>	<p>Covers all points from V2 and additionally states:</p> <ul style="list-style-type: none"> <li>• Wind speed can be influenced by other nearby buildings</li> <li>• Rapid fire spread caused by wind can lead to premature failure of features such as fire doors</li> </ul> <p>[Page 10]</p>	
<p>Significant hazards and risks – fire behaviour and development</p>	<p><b>Firefighting lobbies</b></p> <ul style="list-style-type: none"> <li>• Firefighting operations may breach lobbies</li> <li>• Lobby capacity may be insufficient space for resources (equipment &amp; personnel)</li> <li>• Hose lines may create obstacles/trip hazards</li> <li>• May allow products of combustion to spread to other parts of the building</li> </ul> <p>[Page 7]</p>	<p>No significant change in content - changes limited to hazard title or phraseology</p> <p>[Page 13]</p>	<p>Renamed ‘Breach of Firefighting Lobbies’. Hazard moved into Firefighting and Rescue operations Page 13</p>

Section heading	Generic Risk Assessment 3.2-High rise Firefighting V2 September 2008	Generic Risk Assessment 3.2 High Rise Firefighting V3 February 2014	Comment and source of amendment
Significant hazards and risks – fire behaviour and development	<b>Cold smoke</b> <ul style="list-style-type: none"> <li>Cooling smoke may spread laterally and eventually sink to lower levels of the building</li> </ul> [Page 7]	No significant change in content - changes limited to hazard title or amendments to phraseology  [Page 10]	Renamed 'Smoke travel and stack effect'. Hazard moved to Fire Spread and Smoke and Stack effect Pages 9 and 10
Significant hazards and risks – fire behaviour and development	<b>Flashover</b> <ul style="list-style-type: none"> <li>Defines the conditions that may create the production of flammable gases and result in sudden and rapid fire growth</li> </ul> [Page7]	The hazard of flashover and backdraught is referred to under the headings 'effect of wind' and 'limited ventilation in compartments'  [Page 10]	A detailed description of flashover and backdraft conditions is provided within GRA 5.8, which was published within September 2009. As a result, it was decided that a detailed description of these phenomena should be removed from this GRA and a cross-reference provided instead (see Page 5 of Version 3)
Significant hazards and risks – fire behaviour and development	<b>Backdraft</b> <ul style="list-style-type: none"> <li>Limited ventilation leading to partial combustion and accumulated unburnt pyrolysis products</li> </ul> [Page7]	The hazard of backdraft is described within the heading of 'limited ventilation in compartments'  [Page 10]	See comments for 'Flashover' above
Significant hazards and risks – fire behaviour and development	This hazard is not identified in V2	<b>Fires on multiple floors</b> <ul style="list-style-type: none"> <li>Hazard of fires on more than one floor, created as a result of fire and smoke spread mechanisms already described or by deliberate fire setting</li> </ul> [Page 9]	Additional hazard identified through learning from Lakanal and Madingley House incidents

Section heading	Generic Risk Assessment 3.2-High rise Firefighting V2 September 2008	Generic Risk Assessment 3.2 High Rise Firefighting V3 February 2014	Comment and source of amendment
Significant hazards and risks – fire behaviour and development	This hazard is not identified in V2	<p><b>Poor housekeeping and high fire loads</b></p> <ul style="list-style-type: none"> <li>• Combustible materials stored in HR buildings may obstruct balconies, doors and escape routes</li> <li>• Combustible materials may hinder evacuation or impede firefighting operations</li> <li>• ‘Hoarding’ may increase fire load and/or result in hazards such as cylinders being in the building</li> </ul> <p>[Page 10]</p>	This hazard was informed by work undertaken by LFB community safety policy in relation to hoarding. This resulted in the publication of PN 829 – Hoarding in July 2013.
Significant hazards and risks – fire behaviour and development Page 1077	This hazard is not identified in V2	<p><b>Limited ventilation in compartments</b></p> <ul style="list-style-type: none"> <li>• Some buildings will have compartments with few or no openings, creating a risk that toxic gases will build up and reduced visibility</li> <li>• This hazard may also lead to abnormal fire development and promote horizontal and vertical spread of fire and smoke</li> </ul> <p>[Page 10]</p>	This hazard was informed by work undertaken by LFB operational policy to develop it’s Compartment Firefighting (PN 793) and Tactical Ventilation (PN 883) policies.
Significant hazards and risks – firefighting and rescue operations	<p><b>Locating the fire floor</b></p> <ul style="list-style-type: none"> <li>• Hazard associated with firefighters proceeding direct to the fire floor via firefighting lift</li> </ul> <p>[Page 8]</p>	<p>Covers same point from V2 and additionally states:</p> <ul style="list-style-type: none"> <li>• Building size and layout may make it difficult to determine the location of the fire floor and number of floors within the building</li> <li>• Any Automatic Fire Detection system failure may lead to incorrect information regarding fire location</li> </ul> <p>[Page 11]</p>	Additional points informed by national consultation process.

Section heading	Generic Risk Assessment 3.2-High rise Firefighting V2 September 2008	Generic Risk Assessment 3.2 High Rise Firefighting V3 February 2014	Comment and source of amendment
Significant hazards and risks – firefighting and rescue operations	<p><b>Gathering resources</b></p> <ul style="list-style-type: none"> <li>• Risks associated with commencing operations before resources are available</li> <li>• Moral pressure to act prematurely</li> <li>• Time taken to assemble resources may cause a deterioration in fire conditions</li> </ul> <p>[Page 8]</p>	<p>Covers same point from V2 and additionally states:</p> <ul style="list-style-type: none"> <li>• FRS must ensure that their Pre-Determined Attendance (PDA) for HR premises is sufficient to implement FRS' HR procedure</li> <li>• Unexpected fire spread or defective fixed installations can increase the risk to firefighters and occupants</li> </ul> <p>[Page 12]</p>	<p>Recognising the risks that can be associated with commencing operations without sufficient resources, V3 includes a separate hazard titled 'moral pressure and human factors'. Issues associated with FRS ensuring they provide a suitable PDA for high rise fires were raised during the national consultation process.</p>
Significant hazards and risks – firefighting and rescue operations Page 1078	<p><b>Availability of water</b></p> <ul style="list-style-type: none"> <li>• Inadequate pressure and water flow to support effective firefighting jets</li> <li>• Fire loading and fire development may exceed the finite capacity of FRS personnel and resources</li> <li>• Lack of compatibility between fixed installations and fire service equipment (i.e. branches and hose with reference to water pressure and flow rates)</li> </ul> <p>[Page 8]</p>	<p>No significant change in content - changes limited to hazard title or phraseology</p> <p>[Page 12]</p>	
Significant hazards and risks – firefighting and rescue operations	<p><b>Physiological demands and physical workload</b></p> <ul style="list-style-type: none"> <li>• High work rate leads to dangerous increase to firefighter's body temperature</li> <li>• Physiological demands may be increased by inability to ventilate premises</li> <li>• Building design may make it impossible to avoid hostile conditions</li> <li>• Height of fire may lead to exhaustion</li> </ul> <p>[Page 8]</p>	<p>No significant change in content - changes limited to hazard title or phraseology</p> <p>[Page 12]</p>	



Section heading	Generic Risk Assessment 3.2-High rise Firefighting V2 September 2008	Generic Risk Assessment 3.2 High Rise Firefighting V3 February 2014	Comment and source of amendment
Significant hazards and risks – firefighting and rescue operations	<b>Congestion of access and egress routes</b> <ul style="list-style-type: none"> <li>Occupant evacuation may impede both the evacuation itself and also hinder firefighting operations</li> </ul> <p>[Page 9]</p>	Covers same point from V2 and additionally states that fire service equipment may create significant slip and trip hazards (for firefighters and any occupants evacuating from the premises), with this risk being intensified in buildings that only have a single staircase <p>[Page 12]</p>	The potential to create slip and trip hazards through deployment of fire service equipment was raised during the regional consultation process.
Significant hazards and risks – firefighting and rescue operations Page 1079	<b>Casualty retrieval</b> Casualties may need to be transported over long distance, leading to <ul style="list-style-type: none"> <li>Increased risk of manual handling injury</li> <li>Adverse impact on casualty survival and recovery</li> </ul> <p>[Page 9]</p>	No significant change in content - changes limited to hazard title or phraseology <p>[Page13]</p>	
Significant hazards and risks – firefighting and rescue operations Page 1079	<b>Anti-social behaviour</b> <ul style="list-style-type: none"> <li>Risk of verbal and physical attacks</li> <li>Fire setting</li> <li>Vandalism of firefighting facilities</li> <li>Unexpected high fire loading associated with combustible materials or unlawful activities</li> </ul> <p>[Page 9]</p>	No significant change in content - changes limited to hazard title or phraseology <p>[Page 13]</p>	Hazard renamed 'Antisocial behaviour, vandalism and unlawful activities'
Significant hazards and risks – firefighting and rescue operations	This hazard is not identified in V2	<b>Unknown premises</b> <ul style="list-style-type: none"> <li>Any lack of familiarity with building or un-notified refurbishment can lead to insufficient resources being mobilised</li> <li>Firefighters may have limited - or no - knowledge of premises</li> </ul> <p>[Page 11]</p>	Additional hazard identified through learning from Lakanal House and Shirley Towers incidents. This point was also raised by LFB regulatory fire safety department during internal consultation on this GRA.

Section heading	Generic Risk Assessment 3.2-High rise Firefighting V2 September 2008	Generic Risk Assessment 3.2 High Rise Firefighting V3 February 2014	Comment and source of amendment
Significant hazards and risks – firefighting and rescue operations	This hazard is not identified in V2	<p><b>Evacuation of buildings</b></p> <ul style="list-style-type: none"> <li>• The building evacuation may adversely affect the evacuation itself and/or firefighting operations</li> <li>• Differentiates between commercial and residential buildings</li> <li>• References the Stay Put policy</li> <li>• Evacuation plan (e.g. if this includes use of lifts by occupants) may impact on fire service resources or the availability of building facilities</li> </ul> <p>[Page 11]</p>	Additional hazard identified through learning from Lakanal House and Shirley Towers incidents. This point was also raised by LFB regulatory fire safety department during internal consultation on this GRA.
Significant hazards and risks – firefighting and rescue operations	This hazard is not identified in V2	<p><b>Persons shut in lift</b></p> <ul style="list-style-type: none"> <li>• Any failure of lift equipment or use of non-designated lifts may result in firefighters or evacuees becoming trapped in lift car</li> <li>• Diverts resources from firefighting operations</li> </ul> <p>[Page 13]</p>	Additional hazard identified through learning from Salamanca Place – check date and detail. LFB Senior Accident Investigation number???
Significant hazards and risks – firefighting and rescue operations	This hazard is not identified in V2	<p><b>Failure of electrical systems</b></p> <ul style="list-style-type: none"> <li>• Risk of electric shock or electrocution associated with any damaged electrical systems</li> </ul> <p>[Page 13]</p>	This hazard was raised during the national consultation process.
Significant hazards and risks – firefighting and rescue operations	This hazard is not identified in V2	<p><b>Moral pressure and human factors</b></p> <ul style="list-style-type: none"> <li>• Firefighters feeling compelled to act immediately and beyond the capacity of resources available</li> <li>• This risk is likely to be increased where saveable life reported to be involved</li> </ul> <p>[Page 13]</p>	This hazard is mentioned within V2 but is not explained in detail. It was raised and further defined as a significant hazard during both the regional and national consultation processes.

Section heading	Generic Risk Assessment 3.2-High rise Firefighting V2 September 2008	Generic Risk Assessment 3.2 High Rise Firefighting V3 February 2014	Comment and source of amendment
Key Control Measures			
Operational pre-planning and information gathering	<p><b>Operational pre-planning and information gathering</b></p> <ul style="list-style-type: none"> <li>• Strategic and tactical planning should be based on information gathering that is obtained via visits such as 7(2)d to HR buildings</li> <li>• Information should be gathered in relation to: <ul style="list-style-type: none"> <li>○ Building facilities for FRS use <ul style="list-style-type: none"> <li>▪ Firefighting lifts/staircases</li> <li>▪ FRS access points</li> <li>▪ Rising main inlets/water supplies</li> <li>▪ Rising main type/BS compliance</li> <li>▪ Type/Operation smoke control system</li> <li>▪ Impacts/Control measures linked to vandalism</li> <li>▪ Effectiveness of radiocommunications</li> </ul> </li> <li>○ Type of evacuation and automatic fire detection systems</li> <li>○ Sprinkler systems</li> <li>○ Occupancy profile</li> <li>○ Compartmentation and building features</li> <li>○ Building construction that may promote rapid fire spread, such as sandwich panels and cladding systems</li> <li>○ Inherent hazards associated with building type (processes, asbestos)</li> </ul> </li> <li>• Obligation on building occupiers to inform FRS of hazards and any failure of any</li> </ul>	<p>Covers same points from V2 and additionally states:</p> <ul style="list-style-type: none"> <li>• Planning response to HR explicitly linked to Integrated Risk Management Plan (IRMP) for each FRS</li> <li>• Site specific plans should be considered where risks are deemed <i>significant</i> – the plans must consider variations from the standard operational response (content as per page 14 GRA 3.2 V3)</li> <li>• In addition to 7(2)d visits other sources of information must be used, such as audits, Home Fire Safety Visits (HFSV), incident de-briefs, safety events, local authorities and local resilience forums</li> <li>• Emphasises the importance of involving partner agencies in planning for fires in HR buildings</li> <li>• Need for a systematic approach to identifying and recording new risks</li> <li>• Treating all information as confidential unless disclosure is legally required</li> <li>• Explicit reference for building occupiers to inform FRS of any changes to hazards and/or failures of firefighting facilities</li> <li>• Expanded list of building construction features including sandwich panels, cladding, timber framing, surface mounted trunking and ducting and voids</li> <li>• Specifically mentions occupancy profile and hoarding (i.e. impact of socio-economic factors)</li> <li>• Explicit reference to planning assumptions around firefighting equipment and fixed installations</li> <li>• Requirement for FRSs to identify operational equipment to be taken aloft as part of their operational response</li> </ul>	<p>Section title renamed 'Planning' in V3</p> <p>The importance of planning and including high rise buildings in 7(2)d visit programmes was highlighted during all consultation phases.</p>

Page 1081

Section heading	Generic Risk Assessment 3.2-High rise Firefighting V2 September 2008	Generic Risk Assessment 3.2 High Rise Firefighting V3 February 2014	Comment and source of amendment
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Page 1082</p>	<p>firefighting facilities</p> <ul style="list-style-type: none"> <li>• FRS responsibilities include: <ul style="list-style-type: none"> <li>○Generate a Pre Determined Attendance (PDA) which reflects HR building access and facilities and amend PDA on receipt of new information</li> <li>○Ensure all relevant staff are aware of current HR information</li> <li>○Procure appropriate firefighting equipment, ensuring compatibility with building facilities</li> <li>○Develop contingency plans for reasonably foreseeable events such as loss of water, fire spread beyond compartment of origin</li> <li>○Assess time required to gain access assemble resources and implement procedures</li> <li>○Consider size of building, occupation type and socioeconomic factors which may affect firefighting operations</li> <li>○Develop and adopt systems to provide information to FRS personnel (proportional to individual roles such as call handlers, first responders and supervisory managers)</li> <li>○Ensure FRS Control rooms have emergency call handling procedures to gather appropriate information from the caller, provide reassurance and minimise the risk of injury</li> <li>○Undertake and monitor training for HR incidents including neighbouring FRSs</li> </ul> </li> </ul>	<p>arrangements.</p> <p>A generic list of equipment considerations provided on pages 16-17</p> <ul style="list-style-type: none"> <li>• Explicit reference for need to have an evacuation plan in the event 'Stay Put policy becomes untenable</li> <li>• Explicit need for FRS to consider logistical demands of fighting fires on multiple floors simultaneously</li> <li>• Consider alternative options if conditions worsen and there is a need to re-locate the bridgehead</li> <li>• Impact of dealing with any floor and/or flat numbering systems that have the potential to be confusing. Plus, consider concealed entrances and how the gradient of ground may lead to different floor counts when viewed from the front and rear elevations of the building</li> <li>• Expanded and more explicit advice on the need for FRS to make arrangements to handle and communicate fire survival guidance calls, both in Control <i>and</i> at incident</li> <li>• Explicit advice on considering water flow rates and branch operating procedures</li> <li>• Implications of working with multiple jets simultaneously and explicit advice on making best use of available water supplies</li> </ul> <p>[Pages 14 – 18]</p>	

Section heading	Generic Risk Assessment 3.2-High rise Firefighting V2 September 2008	Generic Risk Assessment 3.2 High Rise Firefighting V3 February 2014	Comment and source of amendment
	<p>where mutual assistance arrangements are in place</p> <p>[Pages 10 – 12]</p>		
<p>Training</p> <p>Page 1083</p>	<ul style="list-style-type: none"> <li>• No explicit 'training' section is provided in V2.</li> <li>• Basic advice is offered stating there is a need for regular training and for this to include neighbouring FRS</li> </ul> <p>[Page 12]</p>	<p>Expanded section relating to competence and training.</p> <p>Explicit guidance for FRS to consider when training staff who are liable to attend HR incidents:</p> <ul style="list-style-type: none"> <li>○ Staff who conduct risk assessments must be competent to do so</li> <li>○ Need for training needs analysis and to take account of guidance from national occupational standards and competency frameworks</li> <li>○ Explicit guidance provided to support FRSs to structure their training and development programs</li> <li>○ Consider the need for appropriate levels of assessment and arrangements to enable personnel to maintain their skills</li> <li>○ Develop staff understanding of the impact of fire on HR building's construction, layout and occupancy</li> <li>○ Management of fire survival guidance calls</li> <li>○ Sectorisation of HR incidents</li> <li>○ Abnormal fire development (e.g. backdraft) and the effects of wind</li> <li>○ Command and Control at HR incidents</li> <li>○ Tactics to overcome any failure of fixed installations</li> <li>○ Tactics to recognise and mitigate physiological effects to firefighters that associated with operations</li> <li>○ Making effective use of building systems and fire engineered solutions</li> </ul>	<p>Training was raised as an important component of delivering a 'safe system of work' by a number of consultees during the national consultation process, notably the FBU.</p>

Section heading	Generic Risk Assessment 3.2-High rise Firefighting V2 September 2008	Generic Risk Assessment 3.2 High Rise Firefighting V3 February 2014	Comment and source of amendment
		<ul style="list-style-type: none"> <li>○ Effective use thermal imaging equipment</li> <li>○ Evacuation and casualty removal tactics, including the need to move to full evacuation if required</li> <li>○ Dealing with occupant behaviour (ranging from anxiety to verbal/physical abuse)</li> <li>○ Overcoming security measures</li> <li>○ Availability and use of water supply</li> </ul> <p>[Pages 18 – 20]</p>	
<p>Command and Control</p> <p>Page 1084</p>	<p>Command and Control is explicitly covered within Aide memoir 1 in GRA 3.2 V2</p> <ul style="list-style-type: none"> <li>● Information gathering to include: <ul style="list-style-type: none"> <li>○ Reference to any site specific information</li> <li>○ Understand building evacuation protocols</li> <li>○ Establish firefighting facilities available and access</li> <li>○ Security measures</li> </ul> </li> <li>● Ensure compliance with Standard Operating Procedure (SOP)</li> <li>● The need to comply with the National Incident Command System (NICS)</li> <li>● Assess the need for further resources</li> <li>● Consider possibility of access being obstructed or acts of aggression</li> <li>● Appliance positioning</li> <li>● Intelligence relating to illegal drug manufacture</li> <li>● Need for Police/LAS attendance?</li> </ul> <p>[Pages 18 – 21]</p>	<p>Covers same points from V2 and additionally states:</p> <ul style="list-style-type: none"> <li>● Explicit reference made to the possibility that inaccurate information may be provided</li> <li>● The incident commander should review and change their plan when new information becomes available</li> <li>● Changing priorities for rescue or risks must be communicated to all attending personnel</li> <li>● Operational Discretion section added to GRA 3.2 V3. This concept is not included within V2 and a detailed rationale for it's inclusion in the GRA is provided in Section 2 of the main report.</li> </ul> <p>[Pages 20 – 22]</p>	<p>V2 and V3 are structured differently.</p> <p>In V2, some information covered in Section 2 is also repeated and/or covered in greater detail in Section 3 – Aide Memoires.</p> <p>A modified GRA format was agreed when V3 was produced.</p> <p>This did not include Aide Memoires but did include a summary matrix as Section 2, to assist FRS with the creation of their own risk assessments.</p>

Section heading	Generic Risk Assessment 3.2-High rise Firefighting V2 September 2008	Generic Risk Assessment 3.2 High Rise Firefighting V3 February 2014	Comment and source of amendment
En route	<ul style="list-style-type: none"> <li>• There is no explicit 'en-route' section however GRA 3.2 V2 does state that roles should be assigned before arrival</li> </ul> <p>[Page 12]</p>	<ul style="list-style-type: none"> <li>• Any planning information should be shared with personnel en-route</li> <li>• Any significant information should be shared with all attending appliances</li> <li>• All available information systems should be utilised</li> </ul> <p>[Page 22]</p>	
On Arrival	<p>This section covers material from both Section 2 and aide memoires; where the information is in the aide memoire, this is stated in brackets</p> <ul style="list-style-type: none"> <li>• Establish command and control</li> <li>• Develop a plan based on FRS SOP</li> <li>• Consider the need for further resources (aide memoir)</li> <li>• Consider wind direction and velocity (in aide memoir)</li> <li>• IC to utilise building plans; or premises information box (aide memoir)</li> <li>• Identify rising main inlet and water supply (aide memoir)</li> <li>• Check rising main landing valves are closed (aide memoir)</li> <li>• Charge the rising main (aide memoir)</li> <li>• Secure fire lift and nominate an operator (aide memoir)</li> <li>• Plan for marshalling of oncoming appliances (aide memoir)</li> <li>• Consider deployment sites for aerials (aide memoir)</li> <li>• Arrangements in place to exchange information with other Agencies</li> </ul>	<p>Covers same points from V2 except wind direction and velocity. Additionally, this section states:</p> <ul style="list-style-type: none"> <li>• Attend to main entrance unless alternative RVP agreed in planning</li> <li>• Explicit guidance to cross check information from different sources to help confirm its accuracy</li> <li>• Declare an RVP</li> <li>• Use of equipment to assist with reconnaissance e.g. aerial appliances and Thermal Imaging Cameras (TIC)</li> <li>• IC to consider setting up a logistics area</li> </ul> <p>Water supplies, risers and sprinklers covered within V3 in section entitled Securing water supplies, this section also includes:</p> <ul style="list-style-type: none"> <li>• Alternate arrangements if riser is not available</li> <li>• Explicit guidance around the finite capacity of rising mains and the possible need to augment supplies via other means, such as by using aerial appliances</li> <li>• Need to consider premises layout, fire loading to plan hose lines and size</li> <li>• Protect hose lines entering building from falling debris</li> <li>• Explicit statement that sprinklers should not be switched off, unless directed by IC and after the fire has</li> </ul>	<p>Although covered in Section 1 (Hazards), an explicit reference to wind direction and velocity was omitted from the Control Measures section in V3</p> <p>The changes in this part of the GRA came from the GRA authors experience and the national consultation process.</p> <p>Lessons identified during the Shirley Towers incident also informed this section.</p>

Page 1085

Section heading	Generic Risk Assessment 3.2-High rise Firefighting V2 September 2008	Generic Risk Assessment 3.2 High Rise Firefighting V3 February 2014	Comment and source of amendment
Page 1086	<ul style="list-style-type: none"> <li>• Gather equipment for deployment aloft (aide memoir)</li> <li>• Locate sprinklers and command centres (aide memoir)</li> <li>• Identify presence of pressurised staircases (aide memoir)</li> <li>• Establish location of fire, life risk, evacuation and lift system status</li> <li>• Visually check structure and gather information from occupants</li> <li>• Correctly identify the fire floor and odd configurations</li> <li>• Restrict access through cordons and set hazard zone (utilise Police). Consider the large distances falling objects can travel</li> <li>• Importance of teams communicating and remaining together is emphasised</li> <li>• Manage access/egress routes</li> <li>• Establish attack and evacuation stairwells, where there is more than one staircase</li> <li>• Conduct evacuation with regard for buildings fire safety design and strategy</li> <li>• Consider delaying firefighting to enable evacuation to be completed</li> <li>• Determine status of building heating and ventilation systems (HVAC)</li> <li>• IC to consider using HVAC to pressurise unaffected areas of building to minimise smoke spread</li> <li>• Consider use of ventilation systems to minimise smoke logging or use PPV to minimise smoke spread</li> <li>• Only utilise ventilation systems considering</li> </ul>	<p>been extinguished</p> <p>[Pages 22 and 23]</p>	



Section heading	Generic Risk Assessment 3.2-High rise Firefighting V2 September 2008	Generic Risk Assessment 3.2 High Rise Firefighting V3 February 2014	Comment and source of amendment
Page 1087	<p>adverse effect on fire and having updated personnel on their likely effects</p> <ul style="list-style-type: none"> <li>• Reactivate HVAC systems in areas not affected by fire</li> </ul> <p>GRA 3.2 V2 Aide memoir 2: Key considerations for all personnel sets out the following points:</p> <ul style="list-style-type: none"> <li>• Need to maintain contact between all personnel</li> <li>• All personnel to be aware of signs and symptoms of flashover and backdraft as well as other abnormal fire developments as per list on Page 22</li> <li>• Ventilation should only be undertaken after Sector Commanders (SC) and Safety Officer (SO) informed</li> <li>• Be aware of physiological demands on personnel and the need for appropriate rest and recovery</li> <li>• Restrict access to personnel in appropriate RPE and PPE</li> <li>• Maintain dialogue with affected members of public</li> </ul> <p>[Pages 12, 13, 18, 19, 22 and 23]</p>		
<p><b>Proceeding to and establishing a bridgehead</b></p>	<ul style="list-style-type: none"> <li>• Having procedures to identify the fire floor</li> <li>• Use of lifts to reduce physiological stress</li> <li>• Ensure only designated firefighting lifts are used</li> <li>• Lift usage must terminate at the bridgehead</li> <li>• If uncertain of the location of the fire floor,</li> </ul>	<p>Covers same points from V2 and additionally states:</p> <ul style="list-style-type: none"> <li>• Some lifts may not reach all floors</li> <li>• Utilise floor plans and any information regarding building construction that is available from occupier</li> <li>• Bridgehead should be set up in a firefighting lobby and not a corridor</li> </ul>	<p>Within GRA 3.2 V3 this section spans the following headings:</p> <ul style="list-style-type: none"> <li>• Securing the firefighting lift</li> <li>• Establishing the bridgehead</li> </ul> <p>A number of the new actions and</p>

Section heading	Generic Risk Assessment 3.2-High rise Firefighting V2 September 2008	Generic Risk Assessment 3.2 High Rise Firefighting V3 February 2014	Comment and source of amendment
Page 1088	<p>personnel should proceed on foot from highest confirmed unaffected floor</p> <ul style="list-style-type: none"> <li>• Check that the lift shaft clear of smoke before use</li> <li>• Detail provided on control of firefighting lifts</li> <li>• Do not leave lift unattended</li> <li>• Awareness of water affecting lift shaft</li> <li>• Extra resources required where firefighting lift fails or is unavailable</li> <li>• Relaxing PPE to reduce physiological impact</li> <li>• Hydration regime for firefighters</li> <li>• IC establish the Bridgehead 2 or more floors below fire floor in line with NICS and Approved Document B</li> <li>• Use of any air inlets at ground level if staircases are being affected by smoke. Consider the use of PPV</li> </ul> <p>[Pages 14, 15, 19, 20 and 22]</p>	<ul style="list-style-type: none"> <li>• Deploy the required number of personnel to the bridgehead</li> <li>• Bridgehead location should take into account likely smoke spread once doors are held open for firefighting</li> <li>• Seniority of fire sector commander should be proportionate to the scale of incident and potential for it to escalate</li> <li>• Need for a system to record information at the bridgehead; this system must be able to be re-located, should it become necessary to re-position the bridgehead</li> <li>• Need for regular communication between fire sector commander and IC to ensure shared situational awareness is established and maintained</li> <li>• Consider effect of downward fire/smoke spread resulting from firefighting operations – if necessary to reposition bridgehead, this change must be communicated to all personnel, including BA teams</li> <li>• If bridgehead relocated need to identify pathway from old to new position e.g. by use of a BA guideline</li> </ul> <p>[Pages 24 and 25]</p>	<p>considerations in this section came from the national consultation process and through the learning arising from the Lakanal and Shirley Towers incidents</p>
Firefighting search and rescue	<ul style="list-style-type: none"> <li>• Dynamic Risk Assessment to be carried out by personnel prior to entering a fire compartment</li> <li>• Only enter fire compartment with a charged hose line</li> <li>• Providing no signs of abnormal fire development, deploy hose line from highest floor not affected by fire (as attack jet) and provide a cover jet as soon as practicable</li> <li>• If abnormal signs of fire development</li> </ul>	<p>Covers same points from V2 and additionally states:</p> <ul style="list-style-type: none"> <li>• Specific tasking of teams must take place at bridgehead after the IC has decided to commit to internal firefighting</li> <li>• Teams to be briefed on any specific information on persons needing rescue</li> <li>• Use of all available information to determine, floors, flats and proximity to fire compartment e.g. building</li> </ul>	<p>Within GRA 3.2 V3 this section spans the following headings:</p> <p>Committing teams</p> <p>A number of the new actions and considerations in this section came from the national consultation process and through the learning arising from the Lakanal and Shirley</p>

Section heading	Generic Risk Assessment 3.2-High rise Firefighting V2 September 2008	Generic Risk Assessment 3.2 High Rise Firefighting V3 February 2014	Comment and source of amendment
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Page 1089</p>	<p>present, covering jet must be present before firefighters enter compartment</p> <ul style="list-style-type: none"> <li>• Hose lines must be laid and charged in areas unaffected by fire/smoke and behind fire protecting structure or doors</li> <li>• Covering jet must be longer than attack jet</li> <li>• Apply door entry procedures and compartment entry tactics</li> <li>• Consider risk of backdraft when opening doors and ventilating compartment</li> <li>• Reference made to need for training to include effect of wind pressure on fire development and risks of uncontrolled ventilation</li> <li>• Consider risk of fire development before ventilating</li> <li>• Consider risk of fire spread beyond original fire compartment – horizontal and vertical</li> <li>• Mitigate above by providing additional resources at bridgehead</li> <li>• Consider physiological impact of operations on firefighters</li> <li>• Review tactics and set achievable targets for crews</li> <li>• Consider additional risk of scalds/burns that can be created by wet PPE</li> <li>• Reduce physiological stress by using firefighting facilities, such as fire lifts</li> <li>• Stresses the importance of occupiers maintaining firefighting facilities in usable condition</li> <li>• Need for equipment and training to overcome security measures</li> </ul>	<p>signage, plans and use of unaffected flats to understand layout of flat(s) affected by fire</p> <ul style="list-style-type: none"> <li>• Records to be kept of persons rescued and areas searched</li> <li>• Delays in committing crews can increase the risk of fire growth and spread – IC to consider the need for additional resources</li> <li>• Sufficient weight of attack must be available before BA teams committed considering what is known regarding layout, fire load, risk of window or wall panel failure</li> <li>• Covering jet must be at least one length longer than attack jet</li> <li>• Crews working without RPE is permissible when: <ul style="list-style-type: none"> <li>• RPE must be worn by all personnel going above the bridgehead except where the IC is confident the buildings construction has not be compromised and safe air is present</li> <li>• Teams must maintain communication and safety officers must be deployed in stairwell</li> <li>• Crews should be withdrawn to a safe position as soon as any smoke or fire spread identified</li> </ul> </li> <li>• Where no persons are involved attack from external aerial appliance can be considered</li> <li>• Consider need for lighting to assist with safe movement around building</li> <li>• Establish a hazard zone considering building height and construction</li> <li>• Hazard zone is to protect scene and prevent unauthorised access and separate those at risk from the hazard of falling debris</li> <li>• Consider use of Police to manage cordons</li> </ul>	<p>Towers incidents</p> <p>V3 heading 'Cordons'</p>

Section heading	Generic Risk Assessment 3.2-High rise Firefighting V2 September 2008	Generic Risk Assessment 3.2 High Rise Firefighting V3 February 2014	Comment and source of amendment
Page 1090	<ul style="list-style-type: none"> <li>• Provision of knowledge and skills for firefighter to understand how fire will impact on the building fabric, fixtures, fittings and behaviour</li> </ul> <p>[Pages 15, 16, 20, 21, 22 and 23]</p>	<ul style="list-style-type: none"> <li>• Explicit guidance provided for evacuation, split into residential and commercial buildings</li> <li>• Residential buildings – occupiers responsibility for evacuation planning and maintenance through fire risk assessment process</li> <li>• IC to follow evacuation plan in fire risk assessment unless fire situation dictates otherwise</li> <li>• Where 'Stay Put' policy is in place occupants should remain in property unless they are being affected by fire, heat or smoke</li> <li>• Not all HR residential buildings are designed for 'Stay Put' policy</li> <li>• Commercial buildings can have a variety of evacuation strategies. IC should obtain strategy on arrival and recognise effect of evacuation on firefighting (and vice versa)</li> <li>• Building occupants may not react as expected during a fire and they may not follow the planned evacuation strategy</li> <li>• Some occupants may not be familiar with the building</li> <li>• Vulnerable occupants may require the IC to provide additional resources for evacuation</li> <li>• IC to consider additional resources to cover personnel diverted from original tasks, using other emergency personnel to assist with evacuation and set up a casualty receiving area</li> <li>• ICs to use FSG information to locate and prioritise persons requiring rescue</li> <li>• Control may have more accurate information regarding fire and casualty location than those on scene</li> <li>• All FSGs must be recorded in Control and at the incident ground</li> </ul>	<p>V3 heading 'Evacuation'</p> <p>Much of the additional information relating to 'Stay Put' was provided by DCLG during the period of consultation described in Section 1.6 of the main report.</p> <p>V3 heading 'Fire survival guidance calls'</p>



Section heading	Generic Risk Assessment 3.2-High rise Firefighting V2 September 2008	Generic Risk Assessment 3.2 High Rise Firefighting V3 February 2014	Comment and source of amendment
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Page 1092</p>	<ul style="list-style-type: none"> <li>• Test communications between Lobby, Bridgehead, BA Control, Entry Control Officer and BA teams</li> <li>• No explicit guidance on Safety Officers (SO) within GRA 3.2 V2</li> </ul>	<p>this creates of firefighters falling from height</p> <ul style="list-style-type: none"> <li>• IC to consider using any automatic fire curtain systems provided</li> <li>• As per GRA 3.2 V2</li> <li>• Consider use of alternative radio channels to manage volume of radio traffic</li> <li>• Use of leaky feeders to overcome communications difficulties</li> <li>• Use of phones, PA systems and loud hailer to communicate with occupants</li> <li>• If radio communications are lost do not assume this is a transmission problem and consider implementing BA emergency procedures</li> <li>• Explicit guidance provided on the use of Safety Officers (SO) to eliminate or reduce risk</li> <li>• Importance of IC checking SO understands their role, allocated tasks, hazard information and lines of communication</li> <li>• SOs must be trained and competent wearing appropriate REP/PPE. Aide memoir should be provided to support staff undertaking SO role</li> <li>• Rank of SO should be appropriate to size of incident and scope of responsibility</li> <li>• SO must be recognisable e.g. by tabard</li> <li>• SO should be deployed in staircase and to observe all relevant faces of building</li> <li>• When outside safety officers are responsible for</li> </ul>	<p>V3 heading 'Anti-social behaviour'</p> <p>V3 heading 'Communications'</p> <p>V3 heading 'Safety Officers'</p>

Section heading	Generic Risk Assessment 3.2-High rise Firefighting V2 September 2008	Generic Risk Assessment 3.2 High Rise Firefighting V3 February 2014	Comment and source of amendment
	<ul style="list-style-type: none"> <li>No explicit guidance on PPE within GRA 3.2 V2</li> </ul>	<p>checking for falling debris, the integrity of cordons and external spread of fire and smoke</p> <ul style="list-style-type: none"> <li>Required to meet relevant standards and should be designed/procured as part of an overall approach to firefighter clothing provision</li> <li>Should include visibility for night working</li> </ul> <p>[Page 26 – 33]</p>	V3 heading 'PPE'
<p>Post incident</p> <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Page 1093</p>	<p>V2 has a 'Post firefighting operations' section, which describes the control measures and issues likely to arise during the latter stages of a high rise building fire.</p> <p>The following points are covered</p> <ul style="list-style-type: none"> <li>Ongoing risk of backdraft during 'turning over' operations</li> <li>Monitor FRS personnel post fire</li> <li>Consider reliefs and refreshments</li> <li>Refer any fire safety contraventions to Regulatory enforcement team, Local Authority or HSE</li> <li>Conduct de-brief and record any lessons identified</li> </ul> <p>[Pages 16, 17, 21 and 22]</p>	<p>In V3, this section is focussed on the actions and considerations after firefighting operations have been concluded and states:</p> <ul style="list-style-type: none"> <li>Assess the building's fire protection and structural safety prior to handing back to occupier</li> <li>Liaise with occupier to reinstate fixed installations</li> <li>Report and manage any safety events e.g. RIDDOR</li> <li>Need for a procedure to deal with contaminated PPE</li> <li>Occupational health support and counselling services</li> <li>Consider any changes required to policy or equipment necessary to address any 'lessons identified' from incident</li> <li>Consider need to review information held on premises and/or to add premises to inspection regime</li> <li>For any more significant incidents arrange for personnel to make contemporaneous note as to their actions</li> <li>Consider need for community safety interventions e.g. to promote smoke alarm ownership among occupants</li> <li>Utilise community groups specific to premises or estate as a means of contacting and informing occupants</li> </ul> <p>[Page 33]</p>	<p>V2 uses the heading 'Post firefighting considerations' and the content of this sub-section relates to actions and considerations for the latter stages of an incident.</p> <p>V3 sub-section 'Post incident' commences with building handover back to owner/occupant and outlines on-going actions and considerations, in the period following a HR building fire i.e. after firefighting operations have been concluded.</p>

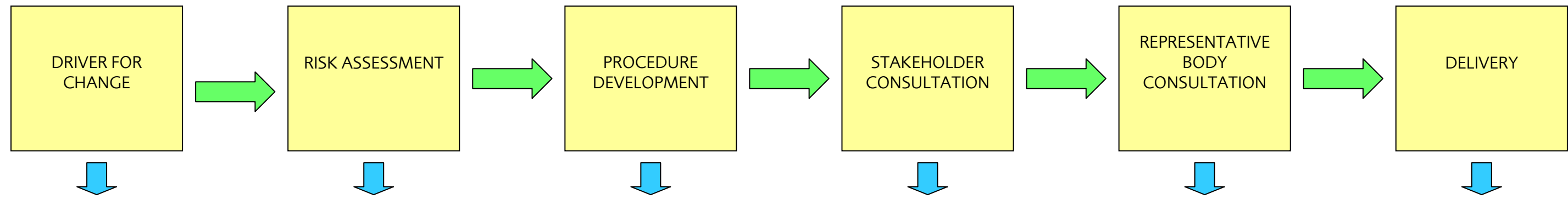




## Appendix 3

# LFB Operational Policy Process Flowchart

This document is used by policy writers to guide their actions when amending or creating operational policy



**External drivers**

- Legislative change
- National directive
- Improvement notice
- Accident Investigation
- User requirement
- Business case
- Risk Assessment

**Internal drivers**

- DIOT process
- Introduction of new equipment/procedure

**Research**

- Identify relevant legislation
- Guidance
- Best practice
- Extant policy
- National Generic Risk Assessment
- Procedures & Equipment

**Propose & agree approach**

**Consider:**

- Lead Manager
- Required outcome Stakeholders i.e. Equalities, Sustainable development team etc.
- Finance & Resources
- Timescales
- Key stakeholder and end users

**Is a project required?**

- Refer to programme management team

**Risk Assessment**

Identification of hazards, risks and control measures to be implemented within policy.

Health & Safety (HS) and Environmental Services can assist in review of relevant legislation and risk assessment process.

*A risk assessment may be reviewed at various stages throughout the process.*

**Only significant hazards, risks & control measures should be included and the recognised document attached.**

[Activity Risk Assessment](#)

**Policy/Procedure**

Refer to instruction guidance management notes [Policy Note 370](#).

Develop the Operational Policy and re draft/format etc. Using Policy template attached:

[Policy template](#)

Ensure Key point summary (KPS) is completed either in the standard DMM format or bullet point dependent on the policy type:

[KPS Template](#)

**Complete:**

**Equalities Impact Assessment**

[Policy Note 385 - EIA](#)

Guidance should be sought from Equalities section.

**Sustainable development Impact Assessment**

[SDAI template](#)

Guidance should be sought from Sustainability Development team.

*Send documents to Policies & procedures department for formatting prior to forwarding for review and consultation.*

**Peer group review (MANDATORY)**

Peer group review - review period usually 14 days (This may include end user as a key stakeholder and involve procedural testing arrangements such as operational exercises and use of the operational sounding board. The involvement of Central Operations (COs) to identify suitable personnel and venue.

**Training Impact Assessment**

Complete required sections of TCAP and forward to Training & Professional Development (T&PD) for review and comment.

**COs impact assessment**

Policy/Procedure sent to COs for them to consider and comment on training & service delivery impact.

**Operational Policy & Assurance (OP&A) AC/DAC review**

Review and sign off.

**Formal Heads of service/AC consultation**

Review period usually 14 days. Policy/Procedure sent to AC OP&A and the Deputy Commissioner, Safety and Assurance (S&A) for comment prior to sending to Brigade Joint Committee for Health & Safety at Work (BJCHSW).

**Consultation impact assessment.**

This will be completed by the policy author and will provide a recommendation with regard to whether consultation through BJCHSW, IR or both is necessary.

Assistant Director of People Services (ADoPS) and Assistant Director of Health and Safety(ADoHS) will then consider and agree what consultation is required.

**BJCHSW consultation:**

Once agreed by AC OP&A Deputy Commissioner, S&A the complete package of proposals is presented to the representative bodies through the BJCHSW including:

- Risk Assessment
- Policy Note/Procedure
- Equalities Impact Assessment
- Sustainability Impact Assessment
- TCAP

Guidance may be sought from BJCHSW administration team within HS.

All documentation sent to [BJCHSW Administrator](#) mailbox

**Industrial Relations consultation**

If required, Policy and Risk Assessment to be sent to IR manager, PS department.

**Training strategy**

Liaise with Training and Professional Development department (T&PD) and Babcock (through T&PD) to review/agree training options.

**Delivery/Communications strategy**

**Policy/Procedure:**

Liaise with Communications team and agree communications plan considering: Shout, Ops News, Operationally urgent message etc.

Agree publication date (forward to Policies & Procedures department for publication).

Prepare questions relating policy for question mark database following agreed template.

**Planning for review and evaluation**

- Agree procedure for review and evaluation
- Establish timescales (usually 3 year period unless circumstances dictate otherwise)
- Arrangements for user feedback
- Implementation of Policy or amendments

## Appendix 4

**A comparison of  
Generic Risk Assessment 3.2 High Rise Firefighting (V3 February 2014)  
and LFB Policy 633 High rise firefighting (issued 1/6/2015)**

**Authors** [REDACTED] **&** [REDACTED]

**Date 23 January 2019**

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
<p>Scope</p>	<ol style="list-style-type: none"> <li>1) Covers hazards, risks and control measures within High Rise (HR) buildings but not all building types.</li> <li>2) Provides a starting point for Fire &amp; Rescue Services (FRS) to conduct their own risk assessment (RA) to take account of local conditions and arrangements</li> <li>3) Relevance to personnel from other agencies and members of public</li> <li>4) Hazards maybe encountered in other (non HR) buildings where firefighters are reliant on internal access and/or firefighting facilities (fixed installations) are provided</li> <li>5) References other GRAs which should also be considered (GRAs 2.3, 3.3, 3.6, 3.7, 3.9, 5.1, 5.8, 5.9, 5.10)</li> <li>6) Starting point for FRSs to generate safe system of work underpinned by its own RA</li> </ol>	<ul style="list-style-type: none"> <li>• LFB policy does not include a 'Scope' section, as this is not part of LFB's policy format.</li> </ul>	
<p>Introduction</p>	<ol style="list-style-type: none"> <li>7) Defines HR building as containing floors at a height or position where external firefighting is not possible</li> <li>8) May apply to building that would not conventionally be considered HR but where the design may place a reliance on internal access and facilities for firefighting</li> <li>9) Definition of basic facilities provided within 18 meters in height i.e.</li> </ol>	<ul style="list-style-type: none"> <li>• States that document provides guidance for personnel who are engaged in firefighting, search and rescue</li> <li>• References further information as part of training for high rise firefighting</li> <li>• Uses the same definition as GRA 3.2 to define a HR building</li> <li>• The term 'HR' encompasses a wide variety of structures</li> </ul>	<p>The detail within the introduction of GRA 3.2 is set out within Section 3 within PN 633</p> <p>9) Covered within Paragraph 3.2 PN 633</p> <p>10) Covered within Paragraph 3.3 PN 633</p>

Page 1098

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
Page 1099	<p>firefighting shaft, fire main and firefighting lift</p> <p>10) Shafts and lifts may be found in buildings exceeding 7.5 metres in height</p> <p>11) Recognises fires in HR buildings have led to fatalities and that HR firefighting can be a high-risk activity, recognises HSE improvement notices</p> <p>12) Outlines that HR buildings will include a range of different types, such as conventional residential ‘tower blocks’, commercial and mixed-use buildings</p> <p>13) Some older buildings may have deficient or inferior systems</p> <p>14) Buildings over 50metres will have a wet rising main (WRM)</p> <p>15) Recognises the potential inclusion of sprinklers and other fire engineered systems and the need to identify these as part of the 72(d) process</p>		<p>11) Not stated within PN633 as statement is relevant to policy writers within FRSs and was not deemed relevant for inclusion within operational policy used by responders</p> <p>13) This point was omitted from PN 633 and as such is a difference between GRA 3.2 and LFB policy</p> <p>14) Covered within Paragraph 3.2 PN 633</p> <p>15) Covered within Paragraph 3.4 &amp; 3.5 PN 633</p>
Significant hazards and risks	<p>16) Hazards are grouped under 3 headings</p> <p>17) Some hazards may be considered generic but are included due to their likely presence at HR fires</p> <p>18) states HR buildings can create an extremely hazardous environment for firefighters</p>		<p>18) PN633 states in paragraph 2.1 that high rise building fires present a range of challenges that should not be underestimated. PN633 does not state, as per GRA 3.2, that these buildings can present an extremely high risk environment for firefighters.</p>

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
Significant hazards and risks – building height & design	<b>Height of building</b> 19) May be beyond limitations of FRS equipment 20) additional time and resources may be required to implement a safe system of work	<ul style="list-style-type: none"> <li>Covered within Paragraphs 2.36 &amp; 2.4 of PN 633</li> </ul>	
Significant hazards and risks – building height & design	<b>Falling objects and burning debris</b> 21) Hazardous to personnel working at ground level 22) Falling objects can travel a considerable distance ('planing') 23) Burning debris may start secondary fires 24) water supplies affected by falling debris damaging firefighting hose 25) fire spread via balconies or windows	<ul style="list-style-type: none"> <li>Covered within Paragraph 2.22 of PN 633</li> </ul>	
Significant hazards and risks – building height & design	<b>Extended lines of communication</b> 26) Location of operations and distance from access point may impede communication 27) HR buildings may present radio 'blind spots' & any communications difficulties may place additional demand on resources 28) possible adverse impact on RPE telemetry systems	<ul style="list-style-type: none"> <li>Covered within Paragraphs 2.9 &amp; 7.73 of PN 633</li> </ul>	
Significant hazards and risks – building height & design	<b>Premises security</b> 29) Access to building for firefighters may be hindered by security systems 30) Additional delays may be created by	<ul style="list-style-type: none"> <li>Covered within Paragraph 2.6 of PN 633</li> </ul>	

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
	multiple security systems within the same building		
Significant hazards and risks – building height & design	<b>Complexity of internal layout</b> 31) Large or complex floor layouts may make access/egress difficult 32) Complex layout may increase risk of crews becoming disorientated 33) 'Scissor style' staircases may be found in 'maisonette'-style premises, causing disorientation and affecting the decision for where the bridgehead should be cited 34) Conditions may be made worse by the actuation of fire engineered systems	<ul style="list-style-type: none"> <li>• Covered within Paragraphs 2.7 &amp; 2.8 of PN 633</li> </ul>	
Significant hazards and risks – building height & design	<b>Floor and Ceiling collapse</b> 35) Risk of floor and ceiling collapse identified in HR with premises which have more than one floor i.e. where there is maisonette-style construction	<ul style="list-style-type: none"> <li>• Covered within Paragraph 2.10 of PN 633</li> </ul>	
Significant hazards and risks – building height & design	<b>Wall panel failure</b> 36) Risk of falling from height due to wall panel failure	<ul style="list-style-type: none"> <li>• Covered within Paragraph 2.11 of PN 633</li> </ul>	
Significant hazards and risks – building height & design	<b>Construction technique</b> 37) Additional hazards associated with rapid fire spread and/or collapse for buildings under construction 38) Spread of fire and smoke from compartment of origin due to combustible materials in voids or cavities and/or poor-quality construction	<ul style="list-style-type: none"> <li>• Covered within Paragraphs 2.15, 2.16 &amp; 2.23 of PN 633</li> </ul>	

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
Significant hazards and risks – building height & design	<b>Information gathering</b> 39) Difficulties of Incident Commander (IC) identifying incident location and the extent of fire and smoke spread 40) External fire and smoke may be difficult to see or misleading from ground floor level 41) Information received from occupants, premises staff and Control may be contradictory and/or inaccurate	<ul style="list-style-type: none"> <li>• Covered within Paragraphs 2.35 and 6.3(b) of PN 633</li> </ul>	
Significant hazards and risks – building height & design	<b>Cable entanglement</b> 42) Risk of firefighters becoming entangled in displaced electric and/or communications cables from surface mounted trunking	<ul style="list-style-type: none"> <li>• Covered within Paragraphs 2.12 of PN 633</li> </ul>	
Significant hazards and risks – building height & design	<b>Unavailability/malfunction of fixed installations</b> 43) Some of facilities provided in HR buildings for firefighting may be subject to poor maintenance or vandalism and hence be unavailable during the incident	<ul style="list-style-type: none"> <li>• Covered within Paragraphs 2.13 of PN 633</li> </ul>	
Significant hazards and risks – building height & design	<b>Oxygen deficient or toxic atmosphere</b> 44) Hazardous atmosphere created by fire suppression systems	<ul style="list-style-type: none"> <li>• Covered within Paragraph 2.14 of PN 633</li> </ul>	



Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
Significant hazards and risks – building height & design	<b>Buildings under construction and refurbishment</b> 45) Firefighting facilities are incomplete or absent 46) Reduction in buildings' fire safety measures due to the introduction of modern material or services compromising building compartmentation 47) Specific reference made to the lower fire protection standards offered by replacement doors 48) Construction or refurbishment leading to risk of more rapid fire or smoke spread, collapse or spread of fire/smoke to adjacent buildings	<ul style="list-style-type: none"> <li>All covered except risk of collapse or spread of fire to adjacent buildings or areas is covered within Paragraph 2.16 of PN 633</li> </ul>	48) This point was omitted from PN 633 and as such is a difference between GRA 3.2 and LFB policy.
Significant hazards and risks – building height & design	<b>Heating, ventilation and air conditioning systems</b> 48) Operation of systems can cause unpredictable and rapid spread of fire and smoke	<ul style="list-style-type: none"> <li>Covered within Paragraph 2.28 of PN 633</li> </ul>	
Significant hazards and risks – fire behaviour and development	<b>Fire and Smoke Spread</b> 49) Risk of extensive and rapid fire spread 50) Acknowledgement of internal fire/smoke spread but emphasis placed on external spread when fire breaks out of windows e.g. via the 'Coanda' effect 51) Fire and smoke spread can be in an upward, downward and/or horizontal direction 52) Internal spread via shafts and ducting	<ul style="list-style-type: none"> <li>Covered within Paragraphs 2.18 of PN 633 except the 'Coanda effect'</li> <li>Additional hazards identified in paragraph 2.19 with regard to unburnt fire gases or commercial gas supplies spreading through ducting, false ceilings or other voids</li> </ul>	50) Explicit reference to the 'Coanda effect' was omitted from PN 633 and as such is a difference between GRA 3.2 and LFB policy.  PN633 does include reference to external fire spread but did not use the term 'Coanda effect' for reasons that are explained in paragraphs 5.5.8-5.5.10 of the main report.

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
	53) External spread via failed wall panels 54) Impact of thermals, hot gases and wind speed, acting to spread smoke upwards or downwards 55) Downward smoke spread in staircases adversely impacting firefighting operations		
Significant hazards and risks – fire behaviour and development	<b>Fires on multiple floors</b> 56) Hazard of fires on more than one floor, created by fire and smoke spread mechanisms already described or by deliberate fire setting	<ul style="list-style-type: none"> <li>• Covered within Paragraph 2.26 of PN 633</li> </ul>	
Significant hazards and risks – fire behaviour and development	<b>Effect of wind</b> 57) Fire spread can be exacerbated by strong winds 58) Height of building may magnify and create complicated wind patterns 59) Wind entering a building can create a 'blow torch' effect and increase the risk of flash over 60) Wind speed can be influenced by other nearby buildings 61) Rapid fire spread caused by wind can lead to premature failure of features such as fire doors	<ul style="list-style-type: none"> <li>• Covered within Paragraph 2.21 of PN 633</li> </ul>	
Significant hazards and risks – fire behaviour and development	<b>Burning debris falling from height</b> 62) Burning debris may start secondary fires 63) Burning debris may cause fire spread and start secondary fires 64) water supplies affected by falling	<ul style="list-style-type: none"> <li>• Covered within Paragraph 2.22 of PN 633</li> </ul>	

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
	debris damaging firefighting hose		
Significant hazards and risks – fire behaviour and development  Page 105	<b>Poor housekeeping and high fire loads</b> 65) Combustible materials stored in HR buildings may obstruct balconies, doors and escape routes 66) Combustible materials may hinder evacuation or impede firefighting 67) 'Hoarding' may increase fire load and/or result in hazards such as cylinders being in the building	<ul style="list-style-type: none"> <li>• Covered within Paragraphs 2.23 and 2.42 of PN 633</li> </ul>	
Significant hazards and risks – fire behaviour and development	<b>Smoke travel and stack effect</b> 68) Spread of fire through stairways and/or shafts 69) Smoke travel can be misleading and result in the location and size of fire being incorrectly identified 70) Where smoke cools it may spread laterally 71) Fire in refuse containers can result in extensive smoke spread and have the potential to create the impression of a more serious fire, due to the large volume of smoke that can sometimes be created.	<ul style="list-style-type: none"> <li>• Covered within Paragraph 2.24 of PN 633 with the addition of the risk of downward smoke spread due to any single staircase building not having a top level stair vent.</li> <li>• PN 633 includes additional information to GRA 3.2 regarding concealed heat and smoke travel through ducting, false ceilings and voids. See paragraph 2.19 of PN 633.</li> </ul>	71) This point was omitted from PN 633 and as such is a difference between GRA 3.2 and LFB policy.

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
Significant hazards and risks – fire behaviour and development	<b>Limited ventilation in compartments</b> 72) Risk of build up of toxic gases and reduced visibility in compartments with few or no openings 73) Increased risk of Backdraft, Flashover and fire and smoke spread	<ul style="list-style-type: none"> <li>• Covered within Paragraphs 2.27 of PN 633</li> </ul>	
Significant hazards and risks – firefighting and rescue operations	<b>Unknown premises</b> 74) Any lack of familiarity with building or un notified refurbishment can lead to insufficient resources being mobilised 75) Firefighters may have no - or limited - knowledge of premises	<ul style="list-style-type: none"> <li>• Covered within Paragraph 2.29 of PN 633</li> </ul>	
Significant hazards and risks – firefighting and rescue operations	<b>Evacuation of buildings</b> 76) The building evacuation may adversely affect the evacuation itself and/or firefighting operations 77) Differentiates between commercial and residential buildings 78) References the Stay Put policy 79) Evacuation plan (e.g. if this includes use of lifts by occupants) may impact on fire service resources or the availability of building facilities	<ul style="list-style-type: none"> <li>• Covered within Paragraph 2.31, 2.32 &amp; 2.33 of PN 633 except no.77</li> </ul>	77)This point was omitted from PN 633 and as such is a difference between GRA 3.2 and LFB policy.  The variation between the types of high rise buildings is however partially covered in PN633 by the reference to 'multiple use high rise buildings' in paragraph 2.32 on PN 633.

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
Significant hazards and risks – firefighting and rescue operations	<b>Unavailability of Firefighting facilities</b> 80) Highlights the increased levels of risk that can be created when firefighting facilities (rising mains, lifts, ventilations systems and compartmentation) are not available or correctly maintained	<ul style="list-style-type: none"> <li>• Covered within Paragraph 2.34 of PN 633</li> </ul>	
Significant hazards and risks – firefighting and rescue operations Page 1107	<b>Locating the fire floor</b> 81) Hazard associated with firefighters proceeding direct to the fire floor via firefighting lift 82) Building size and layout may make it difficult to determine the location of the fire floor and number of floors within the building 83) Any Automatic Fire Detection system failure may lead to incorrect information regarding fire location	<ul style="list-style-type: none"> <li>• Covered within Paragraph 2.35 of PN 633 except no.83</li> </ul>	83) This point was omitted from the hazards within PN 633 but the possibility of an Incident Commander being faced with incorrect information is covered in a general sense in paragraph 6.3(b) of PN 633.
Significant hazards and risks – firefighting and rescue operations	<b>Gathering resources</b> 84) Risks associated with commencing operations before resources are available 85) Moral pressure to act prematurely 86) Time taken to assemble resources may risk a deterioration in fire conditions 87) FRS must ensure that their Pre-Determined Attendance (PDA) for HR premises is sufficient to implement HR procedure	<ul style="list-style-type: none"> <li>• No.84 is covered within Paragraph 2.46 of PN 633</li> <li>• No.85 is covered within Paragraph 2.46 of PN 633</li> <li>• No.86 is covered within Paragraph 2.30 of PN 633</li> <li>• No.88 is covered within Paragraph 2.34 of PN 633</li> </ul>	84) This point was omitted from this hazard in PN 633 but it is covered in the hazard titled 'moral pressure and human factors'.  87) LFB's PDA for HR incidents is covered in PN 412 - Mobilising policy

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
	88) Unexpected fire spread or defective fixed installations can increase the risk to firefighters and occupants		
Significant hazards and risks – firefighting and rescue operations Page 1108	<b>Water Supplies</b> 89) Inadequate pressure and water flow to support effective firefighting jets 90) Fire loading and fire development may exceed the finite capacity of FRS resources	<ul style="list-style-type: none"> <li>• Covered within Paragraph 2.36 of PN 633</li> </ul>	
Significant hazards and risks – firefighting and rescue operations	<b>Physiological demands and physical workload</b> 91) High work rate and carrying equipment leads to dangerous increase to firefighter’s body temperature 92) Building design may make it impossible to avoid hostile conditions 93) Height of fire may lead to exhaustion and high ambient temperatures	<ul style="list-style-type: none"> <li>• Covered within Paragraph 2.37 of PN 633</li> </ul>	

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
Significant hazards and risks – firefighting and rescue operations	<p><b>Congestion of access and egress routes</b></p> <p>94) Occupant evacuation may impede both the evacuation itself and also hinder firefighting operations</p> <p>95) Fire service equipment may create significant slip and trip hazards (for firefighters and any occupants evacuating from the premises), with this risk being intensified in buildings that only have a single staircase</p>	<ul style="list-style-type: none"> <li>• Covered within Paragraph 2.31 &amp; 2.38 of PN 633</li> </ul>	
Significant hazards and risks – firefighting and rescue operations	<p><b>Persons shut in lift</b></p> <p>96) Any failure of lift equipment or use of non-designated lifts may result in firefighters or evacuees becoming trapped in lift car</p> <p>97) Diverts resources from firefighting operations</p> <p>98) Lift shaft or machine room may become affected by fire, heat smoke or water used for fire fighting</p>	<ul style="list-style-type: none"> <li>• Covered within Paragraph 2.45 of PN 633</li> </ul>	
Significant hazards and risks – fire behaviour and development	<p><b>Breach of Firefighting lobbies</b></p> <p>99) Firefighting operations may breach lobbies</p> <p>100) Lobby capacity may be insufficient space for resources (equipment &amp; personnel)</p> <p>101) Hose lines may create obstacles/trip hazards</p> <p>102) May allow products of combustion to spread to other parts of the building</p>	<ul style="list-style-type: none"> <li>• Covered within Paragraph 2.38 &amp; 2.43 of PN 633</li> </ul>	
Significant hazards	Failure of electrical systems	<ul style="list-style-type: none"> <li>• Covered within Paragraph 2.44 of PN 633</li> </ul>	

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
and risks – firefighting and rescue operations	103) Risk of electric shock or electrocution associated with damaged electrical systems		
Significant hazards and risks – firefighting and rescue operations	<b>Casualty retrieval</b> 104) Casualties may need to be transported over long distance, leading to 105) Increased risk of manual handling injury 106) Adverse impact on casualty survival and recovery	<ul style="list-style-type: none"> <li>Partially covered within Paragraph 2.39 of PN 633</li> </ul>	106) This point was omitted from PN 633 and as such is a difference between GRA 3.2 and PN633.
Significant hazards and risks – firefighting and rescue operations Page 1110	<b>Antisocial behaviour, vandalism and unlawful activities</b> 107) Risk of verbal and physical attacks 108) Fire setting 109) Vandalism of firefighting facilities 110) Unexpected high fire loading associated with combustible materials or unlawful activities 111) Hazards associated with illegal drug manufacture or pirate radio e.g. electrical hazards	<ul style="list-style-type: none"> <li>Covered within Paragraphs 2.40 &amp; 241 of PN 633</li> </ul>	
Significant hazards and risks – firefighting and rescue operations	<b>Moral pressure and human factors</b> 112) Firefighters feeling compelled to act immediately and beyond the capacity of resources available 113) Risk increased where saveable life reported to be involved	<ul style="list-style-type: none"> <li>Covered within Paragraph 2.46 of PN 633</li> </ul>	



Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
<b>Key Control Measures</b>			
<b>Planning</b>	<p>114) Planning response to HR explicitly linked to Integrated Risk Management Plan for each FRS</p> <p>115) Requirement for each FRS to carry out their own risk assessment</p> <p>116) Site specific plans should be considered where risks are deemed <i>significant</i> – the plans must consider variations from the standard operational response (content as per page 14 GRA 3.2 V3)</p> <p>117) Planning should be based on information gathering made via visits such as 72(d) to HR buildings</p> <p>118) In addition to 72(d) visits other sources of information must be used, such as audits, Home Fire Safety Visit (HFSV), incident de-briefs, safety events, local authorities and local resilience forums</p> <p>119) Emphasises importance of involving partner agencies in the planning</p> <p>120) Need for a systematic approach to identifying and recording new risks</p> <p>121) Treating all information as confidential unless disclosure is legally required</p> <p>122) Systems in place to record information from all sources</p> <p>123) Develop and adopt systems to provide information to FRS personnel (proportional to individual roles such as call handlers, first responders and</p>	<ul style="list-style-type: none"> <li>• Planning information in PN 633 is provided in Section 4 and Appendix 1 of the policy</li> <li>• Appendix 1 of PN633 refers to the need for 7(2)(d) visits to HR premises</li> <li>• 114) Reference to IRMP is a corporate task and, as such, would not form part of operational policy relating to a specific incident type, such as high rise firefighting</li> <li>• 116) LFBs operational intelligence gathering and recording is specified in a PN 800 – Management of operational risk information</li> <li>• 123) Key Point summary PN 633 (Appendix 7) to summarise HR firefighting tactics. Site specific information is available from the Operational Risk Database and this can be accessed via Mobile Data Terminals on fire appliances.</li> <li>• 124 &amp; 125) PN633 provides information within Paragraphs 4.4 &amp; 4.5</li> <li>• 127) List of equipment provided within Paragraph 7.25</li> <li>• 129) Is included at paragraph 3 of Appendix 1 PN 633</li> <li>• 130) Is included at paragraph 2 of Appendix 1 PN 633</li> <li>• 131) LFB has a dedicated FSG policy for managing these calls at the scene of a HR fire. See PN 790 Fire Survival Guidance calls for more detail</li> <li>• 132) See paragraph 5.6.4 of main report for further information.</li> <li>• 133) Covered within appendices 4 &amp; 5 of PN633</li> </ul>	<p>118) This point is not included in PN 633 but PN 800 includes all the information sources that are listed in GRA 3.2 except safety events</p> <p>120) Covered within Section 3 of PN 800</p> <p>121) Confidentiality of information covered within Section 15 of PN 800</p> <p>122) Recording systems and methodology is covered within PN 800</p> <p>124) PN633 also refers to PN 412 - Mobilising Policy</p> <p>126) With regard this list in GRA 3.2, the following differences have been identified with regard to the information in Appendix 1 of PN 633</p> <p>(1) compatibility of equipment with fixed installations</p> <p>(2) the need for contingency evacuation planning, in the event that 'stay put' policy becomes untenable</p> <p>(3) cladding, maisonette-style construction, surface mounted trunking and ducting.</p>

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
Page 1112	<p>supervisory managers)</p> <p>124) Provision of a Pre Determined Attendance (PDA) which reflects the risks identified on Page 15 of GRA 3.2</p> <p>125) Facility to temporarily or permanently amend PDA to mitigate risk of absent fixed installations</p> <p>126) Information should be gathered during 7(2)(d) familiarisation visits as per the list provided on page 16 of GRA 3.2. This includes an expanded list of building construction features including sandwich panels, cladding, timber framing, surface mounted trunking, ducting and voids</p> <p>127) Requirement for FRSs to identify operational equipment to be taken aloft as part of their operational response arrangements. Generic list of equipment considerations is provided on pages 16-17</p> <p>128) List of points to be included within contingency plans as per page 17 of GRA 3.2. This includes:</p> <ul style="list-style-type: none"> <li>• Occupancy and hoarding (i.e. impact of socio-economic factors)</li> <li>• Explicit reference to planning assumptions around firefighting equipment and fixed installations</li> <li>• Explicit need for FRS to consider logistical demands of fighting fires on multiple floors simultaneously</li> </ul>		<p>PN 633 does, however, reference 'atria' as a relevant building construction feature and this example is not included within GRA 3.2</p>

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
Page 1113	<ul style="list-style-type: none"> <li>• Consider alternative options if conditions worsen and there is a need to re-locate the bridgehead</li> <li>• Impact of dealing with any floor and/or flat numbering systems that have the potential to be confusing. Plus, consider concealed entrances and how the gradient of ground may lead to different floor counts on front and rear elevations</li> </ul> <p>129) Obligation on building occupiers to inform FRS of hazards, any failure of any firefighting facilities and changes to hazards or facilities</p> <p>130) More complicated changes should be made under an Alterations Notice under the Regulatory Reform Fire Safety Order</p> <p>131) Explicit advice on the need for FRS to make arrangements to handle and communicate fire survival guidance calls, both in Control and at incidents</p> <p>132) Explicit reference for evacuation plan in the event Stay Put policy becomes untenable</p> <p>133) Explicit advice on considering water flow rates and branch operating procedures</p> <p>134) Implications of working with multiple jets simultaneously and explicit advice on making best use of available water supplies</p>		

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
<b>Competence and training</b>	<p>135) Explicit guidance for FRS to consider when training staff who are liable to attend HR incidents:</p> <ul style="list-style-type: none"> <li>• Staff competency to conduct risk assessments</li> <li>• Need for training needs analysis and to take account of guidance from national occupational standards and competency frameworks</li> <li>• Explicit guidance provided to support FRSs to structure their training and development programs</li> <li>• Consider the need for appropriate levels of assessment and arrangements to enable personnel to maintain their skills</li> <li>• Develop staff understanding of the impact of fire on HR building's construction, layout and occupancy</li> <li>• Management of fire survival guidance calls</li> <li>• Sectorisation of HR incidents</li> <li>• Backdraft and the effects of wind</li> <li>• Command and Control at HR incidents</li> <li>• Tactics to overcome any failure of fixed installations</li> <li>• Tactics to recognise and mitigate physiological effects associated with operations</li> <li>• Making effective use of systems and fire engineered solutions</li> </ul>	<p>PN 633 makes reference to supporting training information within the following paragraphs:</p> <p>Paragraph 1.2 refers to the location of electronic training materials</p> <p>Paragraphs 4.8 and 4.9 refer to the need for training and exercising as part of station and Borough training plans. Particular reference is made to the need to include tactics for overcoming any failure of fixed installations and to make best use of Fire Initial Response Equipment (FIRE)</p>	<p>135) It is not appropriate to include training material within an operational policy. This section of GRA 3.2 would however have been used to inform LFB's training commissioning and specification process.</p>

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
	<ul style="list-style-type: none"> <li>• Effective use thermal imaging equipment</li> <li>• Evacuation and casualty removal tactics, including the need to move to full evacuation if required</li> <li>• Dealing with occupant behaviour (anxiety – to abuse)</li> <li>• Overcoming security measures</li> <li>• Utilising any water supply difficulties</li> </ul>		
<b>Command and Control</b>  Page 1115	<p>This section begins with an introductory statement of key command and control issues at HR fires, including:</p> <p>136) The need to comply with the National Incident Command System (NICS)</p> <p>137) Before committing personnel IC must make sure they have accurate and current situational awareness</p> <p>138) Police liaison</p> <p>139) Explicit reference made to the possibility that inaccurate information may be provided</p> <p>140) All personnel should be briefed on safety before entering the hazard zone</p> <p>141) The incident commander should review and change their plan when new information becomes available at the incident or from fire Control</p> <p>142) Changing priorities for rescue or risks must be communicated to all attending personnel</p> <p>143) IC to make use of sector and functional</p>	<p>The introductory statement is not reflected in PN 633. A summary of the key elements of command and control for HR firefighting is provided within Appendix 7 of PN 633</p>	<p>LFB's operational policies with regard to briefing, sectorisation and maintaining situational awareness are detailed in separate policies relating to incident command, specifically PN 238 - Incident Command procedure; PN 434 - Sectorisation at incidents; and PN 828 Recording decisions at incidents. These are all referenced in Section 8 of PN 633.</p> <p>Section 8 of PN 633 'References' should not be regarded as a definitive list of all of the LFB operational policies that those responding to a fire in a high rise building should use and/or consider.</p>

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
	commanders to implement their plan and prevent information overload		
Operational discretion	144) Operational Discretion was included in the GRA 3.2 Version 3 as a wholly new concept. It is described in detail in part 3 of this report.	Operational discretion is not referred to in PN 633 as it forms part of another operational policy.	Operational discretion was not included in PN 633 and as such is technically a difference between GRA 3.2 and LFB policy.  This concept was included within PN342- Dynamic Risk Assessment, but the version of this policy that included operational discretion was not published until after the version of PN633 which was current at the time of the Grenfell Tower fire was issued i.e. in June 2015.  The concept of operational discretion did form part of the version of PN342 that was current at the time of the Grenfell Tower fire.
En route	145) Planning information should be shared with personnel en-route 146) Any significant information should be shared with all attending appliances 147) All available information systems should be utilised	Partially covered within Paragraphs 5.1 and 5.2 of PN 633	145 & 146) PN 633 does not offer the examples of risk critical information that are given in GRA 3.2. See paragraph 5.6.24 of the main report for further information.
On Arrival	148) Attend to main entrance unless alternative RVP agreed in Planning 149) Consider deployment sites for aerials 150) Liaison with responsible person, building occupants and/or fire Control to		151) This point was omitted from PN 633 and as such is a difference between GRA 3.2 and LFB policy.  154) This point was omitted from PN

Page 1116

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
Page 1117	<p>determine fire location. IC to utilise building plans; or premises information box. Explicit guidance to cross check information from different sources to help confirm its accuracy</p> <p>151) Utilise CCTV, Automatic Fire Detection (AFD), building plates and premises information boxes to confirm fire location</p> <p>152) Initial command planning and objective setting – implementation of appropriate command structure</p> <p>153) Declare an RVP</p> <p>154) Conduct evacuation with regard for buildings fire safety design and strategy</p> <p>155) Use of equipment to assist with reconnaissance e.g. aerial appliances and Thermal Imaging Cameras (TIC)</p> <p>156) Restrict access through cordons and set hazard zone (utilise Police)</p> <p>157) IC to consider setting up a logistics area</p> <p>158) Consider requesting attendance of Ambulance Service and Police to assist with casualties, evacuation and cordons</p>		<p>633 and as such is a difference between GRA 3.2 and this section of LFB policy. This point is however covered later in PN 633 under the heading 'Evacuation'.</p> <p>155) This point was omitted from PN 633 and as such is a difference between GRA 3.2 and LFB policy.</p> <p>157) This point was omitted from PN 633 and as such is a difference between GRA 3.2 and LFB policy.</p> <p>158) This point was omitted from PN 633 and as such is a difference between GRA 3.2 and LFB policy.</p>
<b>Securing water supplies for firefighting</b>	<p>159) Identify rising main inlet and water supply</p> <p>160) If fixed installations are vandalised or unavailable IC should implement alternative tactics</p> <p>161) Rising mains have a finite capacity which means it may not be possible to achieve optimum flow rates for branches. It may</p>	<p>Covered within Paragraphs 7.1 to 7.11 of PN 633 with the following additional detail:</p> <p>Paragraphs 7.4 &amp; 7.9 cover augmentation of fixed installations and Wet Rising Mains (WRM) with additional water supplies</p> <p>Paragraph 7.5 includes use of Mobile Data Terminals</p>	<p>167) This point was omitted from PN 633 and as such is a difference between GRA 3.2 and LFB policy.</p>

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
Page 1118	<p>be necessary to augment supplies via aerials or hose lines run up staircases</p> <p>162) Explicit guidance around the finite capacity of rising mains and the possible need to augment supplies via other means, such as via aerial appliances</p> <p>163) Need to consider premises layout, fire loading to plan hose lines and size</p> <p>164) Protect hose lines entering building from falling debris</p> <p>165) Need to maintain contact between all personnel</p> <p>166) Explicitly statement to not switch off sprinklers unless directed by IC and after fire extinguished</p> <p>167) Long lengths of hose generate high pressures</p>	(MDT) and Tactical Advisors to make best use of water supplies	
<b>Standard equipment</b>	168) FRS policy should have a specified list of equipment to be taken aloft to be identified during planning	Covered within Paragraphs 7.24 & 7.25 of PN 633. In addition, the policy allows for the flexibility for other equipment to be included if the nature of the incident indicates this is appropriate	
<b>Securing and using the firefighting lift</b>	<p>169) Secure fire lift and nominate an operator where the location of fire makes this necessary</p> <p>170) Generally only firefighting lifts should be used during an operational incident</p> <p>171) Lifts may not access all floors</p> <p>172) Obtain floor plans and information regarding building construction from the responsible person or FRS systems</p> <p>173) Personnel to exit at least two floors below the fire. If the location of the fire is</p>	Partially covered within Paragraphs 7.12 – 7.17 of PN 633	172) This point was omitted from PN 633 and as such is a difference between GRA 3.2 and LFB policy.



Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
	<p>not know firefighters should approach via protected staircases</p> <p>174) Position fire lift at Bridgehead to enable transport of rescued persons to ground floor. Where there is no fire lift the IC may need to request additional resources</p>		
<p><b>Establishing a bridgehead</b></p> <p>Page 1119</p>	<p>175) Bridgehead should be set up in a firefighting lobby and not a corridor</p> <p>176) Deploy the required number of personnel to the bridgehead</p> <p>177) Bridgehead location should take into account likely smoke spread once doors are opened and held open for firefighting</p> <p>178) IC establish the Bridgehead 2 or more floors below fire floor in line with NICS, unless planning identifies that it is safe to locate Bridgehead closer to the fire floor</p> <p>179) Nominate a Fire sector commander. Seniority of fire sector commander should be proportionate to the scale of incident and potential for it to escalate</p> <p>180) Need for a system to record information at the bridgehead; this system must be able to be re-located if it becomes necessary to re-position the bridgehead</p> <p>181) Need for regular communication between fire sector commander and IC to ensure shared situational awareness, including information to fire sector commander from those who can identify external fire and/or smoke spread</p>	<p>Partially covered within Paragraph 7.25 of PN 633.</p> <p>In addition PN 633 identifies:</p> <ul style="list-style-type: none"> <li>• the use of on-site and LFB systems to identify floor, flat and compartment numbers</li> <li>• use of Forward Information Board to record rescues and areas searched</li> <li>• increasing the weight of attack and anticipating a protracted incident where hoarding is present</li> <li>• establish an emergency team if not already set up and consider implementing Stage 2 Breathing Apparatus (BA) procedures</li> </ul>	<p>184) This point was omitted from PN 633 and as such is a difference between GRA 3.2 and LFB policy.</p>

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
	<p>182) Consider a staging area to reduce congestion at Bridgehead</p> <p>183) Consider effect of downward fire/smoke spread because of operations – if necessary to reposition update all personnel and inform BA teams. Consider impact on BA team turnaround times</p> <p>184) If bridgehead relocated need to identify pathway from old to new position e.g. use of a BA guideline</p>		
<p>Committing teams</p> <p>Page 1120</p>	<p>185) Specific tasking of teams must take place at bridgehead after the IC has decided to commit to internal firefighting</p> <p>186) Teams to be briefed on any specific information on persons needing rescue</p> <p>187) Use of all available information to determine, floors, flats and proximity to fire department e.g. building signage, plans and use of unaffected flats to understand layout of flat(s) affected by fire</p> <p>188) Records to be kept of persons rescued and areas searched</p> <p>189) Delays in committing crews can increase the risk of fire growth and spread – IC to consider the need for additional resources</p> <p>190) Sufficient weight of attack must be available before BA teams committed considering what is known regarding building construction, layout, fire load,</p>	<p>Partially covered within Paragraphs 7.33 – 7.44 of PN 633.</p> <p>In addition PN 633 identifies the benefits of nominating a search co-ordinator (with a reference to LFB PN 803 – Search and rescue procedures within structures)</p>	<p>190, 197 and 198) These points were omitted from PN 633 and as such are differences between GRA 3.2 and LFB policy.</p> <p>However, point 190 is covered in PN793- Compartment firefighting and this is referenced in paragraph 7.37 of PN633.</p> <p>It is also relevant to note that point 197 is covered in paragraphs 4.19-4.21 of PN822- Operational use of aerial appliances. This stipulates that a risk assessment should be completed before any use of an aerial appliance as a ‘water tower’ is implemented and it is reasonable to infer that consideration of whether there were any occupants remaining in the affected part of the building would</p>

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Page 1121</p>	<p>risk of window or wall panel failure</p> <p>191) Hose lines must be laid and charged in areas unaffected by fire/smoke and behind fire protecting structure or doors</p> <p>192) Providing no signs of abnormal fire development, deploy hose line from highest floor not affected by fire (as attack jet) and provide a cover jet as soon as practicable</p> <p>193) If there any signs of abnormal fire development a second team and covering jet must be in position before entry is made to the fire compartment</p> <p>194) Covering jet must be at least one hose length longer than attack jet</p> <p>195) RPE must be worn by all personnel going above the bridgehead except where the IC is confident the buildings construction has not be compromised and safe air is present. Teams must maintain communication and safety officers must be deployed in stairwell. Any non-RPE crews must be withdrawn as soon as any smoke or fire spread identified</p> <p>196) IC must consider resources necessary to sustain safe operations taking into account staff welfare, hydration and the need to rotate firefighters</p> <p>197) Where no persons are involved external attack from an aerial appliance can be considered</p> <p>198) Consider need for lighting to assist with</p>		<p>form part of that assessment.</p>

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
<p><b>Safety Cordons</b></p> <p><b>Evacuation &amp; Fire Survival guidance (FSG) calls</b></p>	<p>safe movement around building</p> <p>199) Establish a hazard zone considering building height, size and construction</p> <p>200) Hazard zone is to protect scene and prevent unauthorised access and separate those at risk from the hazard of falling debris</p> <p>201) Consider use of Police to manage cordons</p> <p>202) A residential building should comply to the applicable building standards including Approved Document B, noting older buildings may not be compliant with current standards</p> <p>203) Explicit guidance provided for evacuation, split into residential and commercial buildings</p> <p>204) Residential buildings – occupiers' responsibility for evacuation planning and maintenance through fire risk assessment process, in line with Regulatory Reform (Fire Safety) Order 2005</p> <p>205) IC to follow evacuation plan in fire risk assessment unless fire situation dictates otherwise</p> <p>206) Where Stay Put policy is in place occupants should remain in property unless it is affected by fire, heat or</p>	<p>Covered within Paragraphs 7.67 and 7.68 of PN 633</p> <p>Covered within Paragraphs 7.48 to 7.51 of PN 633.</p> <p>In addition to the information within GRA 3.2, PN 633 also includes:</p> <ul style="list-style-type: none"> <li>• Control will mobilise additional resources to deal with FSG calls</li> <li>• IC can change stay put policy in exceptional circumstances, but this is caveated as being contrary to National Control policy for handling FSGs</li> </ul> <p>In addition to the information provided within PN 633, LFB has a dedicated FSG policy for managing these calls at the scene of a HR fire. See PN 790 Fire Survival Guidance calls for more detail</p>	<p>202) This point was omitted from PN 633 and as such is a difference between GRA 3.2 and LFB policy.</p> <p>204) This point was omitted from PN 633 and as such is a difference between GRA 3.2 and LFB policy</p> <p>211) The need to establish a casualty receiving area was omitted from PN 633 and as such is a difference between GRA 3.2 and LFB policy. This point is covered in the London Emergency Services Liaison Panel's 'Major Incident Procedure Manual' where it is stated that establishing a casualty handling area is primarily an ambulance service function.</p> <p>213) This point was omitted from PN</p>

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Page 1123</p>	<p>smoke</p> <p>207) Not all residential HR buildings are designed or will have been maintained to support a stay put policy</p> <p>208) Commercial HR buildings – will have a variety of evacuation strategies and the IC should take these into account in their planning</p> <p>209) The evacuation strategy, its progress and the number of people involved can adversely affect firefighting operations</p> <p>210) Occupants may not react as expected, may be unfamiliar with the building and its layout and the IC should factor this into their planning</p> <p>211) The IC should consider the effect of firefighting on evacuation and vice versa. IC to consider additional resources to cover personnel diverted from original tasks, using other emergency personnel to assist with evacuation and set up a casualty receiving area</p> <p>212) ICs to use FSG information to locate and prioritise persons requiring rescue</p> <p>213) Control may have more accurate information regarding fire and casualty location than those on scene</p> <p>214) All FSGs must be recorded in Control and at the incident ground</p> <p>215) Advice for callers to remain in the property must be re-evaluated throughout the incident and where</p>		<p>633 and as such is a difference between GRA 3.2 and LFB policy</p> <p>216) This point was omitted from PN 633 and as such is a difference between GRA 3.2 and LFB policy. However, this point is covered elsewhere in PN 633 under 'Communication difficulties' see paragraph 7.72</p>

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
<p>Ventilation</p> <p>Page 1124</p>	<p>necessary the IC may need to change advice</p> <p>216) IC should consider using all available systems to communicate with occupants</p> <p>217) IC must liaise closely with fire Control</p> <p>218) Ventilation must only be undertaken on direction of the IC</p> <p>219) Doors should be kept closed unless necessary to open for people or equipment</p> <p>220) Ventilation only to be undertaken when it's affects:</p> <ul style="list-style-type: none"> <li>• Have been assessed</li> <li>• Resources are in place to contain the fire and</li> <li>• Surrounding risks have been protected</li> </ul> <p>221) If risk cannot be assessed, only ventilate post fire</p> <p>222) IC only change building ventilation systems on advice from responsible person or FRS trained personnel</p> <p>223) Ventilation system should only be used when the following have been identified and assessed:</p> <ul style="list-style-type: none"> <li>• Pathway for fire, heat and smoke to exit building</li> <li>• Effect on fire</li> <li>• Any adverse affect on evacuation</li> <li>• Effect of wind if doors or windows are open</li> </ul> <p>224) IC to use expert advice and building</p>	<p>Covered within Paragraphs 7.52 to 7.57 of PN 633.</p> <p>In addition to the information within GRA 3.2, PN 633 also includes:</p> <ul style="list-style-type: none"> <li>• The need to communicate and possibly withdraw personnel or occupants in affected areas before ventilation undertaken</li> <li>• Some ventilation shaft systems may require air from doors held in the inlet position (signified by doors opening inwards rather than outwards)</li> </ul>	<p>In addition to the information provided within PN 633, LFB has a dedicated Tactical ventilation policy for managing these calls at the scene of a HR fire.</p> <p>See PN 883 'Tactical ventilation' for more detail, which includes a description of LFB's Positive Pressure Ventilation (PPV) capability at the time of the Grenfell Tower Fire.</p> <p>PN 883 includes considerable detail regarding the specific hazards created by ventilation and the tactical considerations that must be considered and acted upon when undertaking ventilation.</p>

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
<p>Building design and fire safety measures</p> <p>Page 1125</p>	<p>design features to minimise smoke logging outside fire sector and to help protect building occupants</p> <p>225) Use of building ventilations and/or PPV to minimise smoke logging and improve conditions for firefighters and occupants</p> <p>226) Consider adverse impact to the level of risk that any compromised building features or if the building is under construction e.g. significant fire spread</p> <p>227) Any failure or non existence of compartmentation can cause a larger fire than is normally planned for</p> <p>228) IC to determine any fixed installations and facilities are available and working and incorporate them into their plan if appropriate</p> <p>229) If any fire safety measures are compromised IC to consider the need for additional resources</p> <p>230) IC to consider impact of building construction and contents on fire spread e.g. failure of window or wall panels also the risk this creates of firefighters falling from height</p> <p>231) IC to consider using any automatic fire curtain systems provided and raise awareness of personnel to the fact that these may impede egress from building</p>	<p>Covered within Paragraphs 7.58 to 7.64 of PN 633.</p> <p>In addition to the information within GRA 3.2, PN 633 also includes:</p> <ul style="list-style-type: none"> <li>• The benefits of requesting a Senior Fire Safety Officer where this would assist the IC</li> <li>• If radio antennas are present on the building the IC should follow guidance within PN 298 – Operations at radio transmitter sites</li> </ul>	<p>227) This point is not explicitly covered within PN 633 and as such is a difference between GRA 3.2 and LFB policy (although this information can be reasonably inferred from other statements in PN 633, such as those contained within paragraphs 2.16, 2.19, 2.23, 7.52(d) and 7.58)</p> <p>233) This point was omitted from PN 633 and as such is a difference between GRA 3.2 and LFB policy</p>

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
<p>Page 1126</p> <p>Anti-social behaviour</p> <p>Communications</p>	<p>232) The presence of fire curtains maybe identified during the planning phase but it is recognised their existence may not be know about in advance</p> <p>233) Automatic fire curtain systems may have a manual override facility for use by firefighters</p>		
	<p>234) If FRS personnel are subject to verbal or physical threat IC should request Police and consider withdrawal</p>	<p>Partially covered within Paragraph 7.71 of PN 633.</p>	<p>234) This point in PN 633 does explicitly state that the IC should consider withdrawing personnel and adopting defensive firefighting tactics. This point is however covered in PN261- 'Public order and civil disturbance,' at paragraph 4(1)(f).</p>
	<p>235) Consider use of alternative radio channels to manage volume of radio traffic</p> <p>236) Use of leaky feeders to overcome communications difficulties</p> <p>237) Use of phones, PA systems and loud hailers to communicate with occupants</p> <p>238) If radio communications are lost do not</p>	<p>Covered within Paragraphs 7.72 to 7.74 of PN 633.</p>	<p>In addition to the information provided within PN 633, LFB has a dedicated Communications policy for managing incident communications. See PN 488 Incident Communications calls for more detail Also, PN 466 – covers BA communications and emergency</p>



Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
<p>Safety Officers</p>	<p>assume this is a transmission problem and consider implementing BA emergency procedures</p> <p>239) Explicit guidance provided on the use of Safety Officers to eliminate or reduce risk</p> <p>240) Importance of IC checking SO understand roles, tasks, hazard information and lines of communication</p> <p>241) Those undertaking the role should:</p> <ul style="list-style-type: none"> <li>• be trained and competent</li> <li>• ensure personnel are wearing appropriate RPE/PPE</li> <li>• monitor the condition of personnel</li> <li>• take any urgent corrective action to ensure the safety of personnel</li> <li>• update the IC with any changes</li> <li>• not undertake any other role unless required to deal with a risk critical issue</li> </ul> <p>242) Rank of SO should be appropriate to size of incident and scope of responsibility</p> <p>243) SO must be recognisable e.g. by tabard</p> <p>244) Training and Aide memoirs to be provided by FRSs to support people in the role</p> <p>245) SO should be deployed in staircase and to observe all relevant faces of building</p> <p>246) When outside safety officers to check for falling debris, cordon integrity and external spread of fire and smoke</p>	<p>Partially covered within Paragraph 7.65 and 7.66 of PN 633.</p> <p>In addition to the information provided within PN 633, LFB has an additional policy PN 162 – Officer responsibilities at incidents of which paragraph 13.4 details the duties of a safety officer. See PN 162 Officer responsibilities at incidents for more detail.</p> <p>It is noted that PN 162 provides additional information on the structural integrity of building and the potential need to evacuate personnel. It is also stated that SOs may be formed into a team working under a sector commander safety</p>	<p>procedures and at paragraphs 7.7 and 7.8 details the response to a loss of radio communications.</p> <p>240, 241 and 242) These points are omitted from PN 633 and PN162 and as such are differences between GRA 3.2 and LFB policy.</p>

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
<p>PPE</p> <p>Page 1128</p>	<p>247) The SO role can be vital to communicate fire spread to the IC, Bridgehead and other personnel</p> <p>248) PPE is required to meet relevant standards and should be designed/procured as part of an overall approach to firefighter clothing provision</p> <p>249) Should include visibility for night working</p> <p>250) Consider physiological impact of PPE on firefighters and the IC can relax PPE where it is safe to do so</p> <p>251) Personnel working above the bridgehead must be in full RPE &amp; PPE unless it has been deemed safe by the IC to work without RPE</p>	<p>There is no dedicated PPE section within in PN 633.</p>	<p>248 &amp; 249) are omitted from PN 633 as they are standards for FRS to meet via their specification and procurement of PPE.</p> <p>250) This point is omitted from PN 633 and as such is a difference between GRA 3.2 and PN 633. However this control measure is included within PN 284 – Metabolic heat stress</p>
<p>Post incident</p>	<p>252) Relevant to the nature and scale of the incident the following measures should be considered or implemented to reduce risk post incident:</p> <p>253) Assess the building's fire protection and structural safety prior to handing back to occupier</p> <p>254) Liaise with occupier to reinstate fixed installations</p> <p>255) Report and manage any safety events e.g. RIDDOR</p> <p>256) Need for a procedure to deal with contaminated PPE</p> <p>257) Occupational health support and counselling services</p>	<p>Partially covered within Paragraph 7.75 of PN 633.</p> <p>All differences except (228) are covered in separate LFB policies</p>	<p>255) PN 368 – Health, safety and environmental event investigation policy (personal injuries, near misses and traffic incidents) covers the safety event reporting procedure</p> <p>256) PPE PN 617 – personal protective equipment at work and PN 693 – Structural firefighting personal protective equipment</p> <p>257) Extensive guidance, support and signposting to professional occupational health and counselling services is provided on the LFB</p>

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
Page 1129	<p>258) Consider any changes required to policy or equipment in light of any 'lessons identified' from incident</p> <p>259) Consider need to review information held on premises and/or to add premises to inspection regime</p> <p>260) For any more significant incidents arrange for personnel to make contemporaneous note as to their actions</p> <p>261) Consider any fire safety contravention and follow up with relevant enforcement team or agency</p> <p>262) Consider need for community safety interventions e.g. promote benefits of smoke alarm ownership among occupants</p> <p>263) Utilise community groups specific to premises or estate as a means of contacting and informing occupants</p>		<p>intranet site</p> <p>258) PN 825 Dynamic Intelligent Operational Training policy and process (DIOT) identifies organisational learning and best practice and links this to training requirements for operational personnel which are further covered in PN 427 'Development and maintenance of operational professionalism'.</p> <p>263) This point is omitted from PN 633 and as such is a difference between GRA 3.2 and LFB policy</p>
<b>Damage Control</b>	This section is not part of GRA 3.2	This sub-section of PN 633 appears on page 16 and encourages ICs to give early consideration to damage control at a high rise fire. It states that the high occupancy levels in some high rise buildings may mean that carrying out damage control activities will require the attendance of extra resources and that there is potential for damage from fire, smoke and/or water to spread through shafts and voids.	This is additional information provided in PN633 but not provided in GRA 3.2.

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
<b>Messages from HR incidents</b>	This section is not part of GRA 3.2	This sub-section of PN 633 appears on page 12 and describes an LFB requirement for the IC of a high rise fire to confirm via a radio message to Brigade Control that high rise procedure has been implemented.	This is technically a difference between GRA 3.2 and PN 633, but because it relates to a 'LFB-specific' protocol to send radio messages when attending certain high risk incident types (such as high rise and basement fires) it would not have been appropriate to include this information within GRA 3.2
<b>Appendix 1 - Sprinklers</b> Page 1130	Describes sprinkler systems as a series of pipes erected at or near ceiling designed to detect fire, attack fire and provide an audible warning. Details duties of firefighter sent to main stop valve as being to <ul style="list-style-type: none"> <li>• open valve if found closed</li> <li>• only shut down system on instruction of IC</li> </ul> Where possible, brigade pumps should be set in and made ready to augment water supplies to sprinklers if needed (from an alternative water main to that supplying sprinkler system) Checks should be made of where sprinklers have actuated for ensure fire fully extinguished Damage control measures may need to be taken to limit water damage if water supply system cannot be shut down System may be fitted with floor isolating valves to allow system repair/maintenance	PN 633 describes sprinklers in Appendix 6 – Water suppression systems. All the information from the GRA is included and in addition it is stated <ul style="list-style-type: none"> <li>• Sprinklers are a requirement in residential buildings over 30m constructed after 2006</li> <li>• Sprinklers may enable larger compartments with significant fire loadings to be constructed within a building</li> <li>• Sprinkler systems should not be switched off to fight the fire with hand-controlled jets</li> <li>• It may not be necessary to send a firefighter to the main stop valve if the building has a fire control centre which is able to monitor the sprinkler system</li> <li>• Some modern systems may be 'water mist systems' and it is pointed out these may have different features/capabilities to a traditional sprinkler system. Reference is made to the BS for water mist systems</li> </ul>	PN 633 provides greater detail and more current information than the GRA on this topic.

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
<p><b>Appendix 2 – Firefighting lifts</b></p>	<p>Specially designed lifts with dedicated power supplies provided to enable firefighters to reach upper floors without undue fatigue. Normally designed to carry 8 persons (850kg), will be clearly marked and should be identified during 7(2)d visits, when any differences in the facilities offered by older lifts should be identified.</p> <p>FRS should take control of the lift at an early stage during a fire, but if doubt exists regarding which floors are served, the lift should not be used.</p> <p>The different types of lift ‘fire control’ switches are described.</p> <p>The functions of the fire control switch are described as:</p> <ul style="list-style-type: none"> <li>• Lift car will return to access floor level, when lift car control buttons will become inoperative and lift car doors will open and remain open when car reaches access floor level</li> <li>• A firefighter equipped with a radio should be detailed to take control of lift car and stay in this role until relieved</li> <li>• Safety feature of modern lifts described requiring ‘close’ or ‘open’ door buttons to remain depressed until door has fully opened or closed.</li> <li>• Fire control switch may control two lift cars, if their shafts are adjacent to each other</li> </ul> <p>Care should be overtaken not to overload</p>	<p>PN 633 describes firefighting lifts at Appendix 2 and this contains all the information set out in the GRA <i>except</i> the need for the IC to take firefighting lifts out of service if the lift or motor room is threatened by fire spread.</p> <p>In addition, PN 633 provides more detail regarding the various British Standards that apply to firefighting lifts and lists the minimum features for a lift to be used for firefighting as being:</p> <ul style="list-style-type: none"> <li>• Primary and secondary power supplies</li> <li>• Water protection (IP rated wiring/controls)</li> <li>• Firefighter switches at access level and in the lift car</li> <li>• Firefighter communication system and floor indicators</li> </ul>	<p>With the exception of not providing guidance relating to action to be taken in the event of fire spreading towards a firefighting lift or lift motor rooms, PN 633 provides more detail regarding the key functions provided by firefighting lifts and the standards which apply to them.</p>

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
Page 1132	<p>firefighting lifts and their function should be returned to 'normal' at the end of an incident. 'Normal' lifts should not be used for firefighting, as they don't have dedicated power supplies and their movement cannot be controlled by a firefighter in the car. Lift usage should terminate at the bridgehead floor or in the staging area, never to the fire floor; where any doubt exists about fire location, lift should only be used to reach the highest confirmed unaffected floor. Lift shafts should be checked for smoke prior to using them.</p> <p>If there is a risk of the fire spreading to a firefighting lift or lift motor rooms, the IC should take lift out of service and ensure all personnel attending the incident are informed.</p>		
Appendix 3 – Dry rising mains (DRM)	<p>A DRM is described as a vertical pipe fitted to buildings over 18m in height, with a FRS inlet at lower end and outlets at various levels throughout building. DRM inlet box will be marked 'DRM' by 50mm lettering and 65mm outlets will be provided on every or sometimes alternate floor, located in protected lobbies or approach stairs. Outlets should normally be secured with valves closed when DRM not in use. DRM capacity stated as at least 1500 litres per minute. Drain and air valves are fitted to enable DRMs to be drained at completion of the incident.</p>	<p>In addition to the information within GRA 3.2, Appendix 4 of PN 633 also includes:</p> <ul style="list-style-type: none"> <li>• DRMs may be found in any building to compensate for poor water supplies or poor perimeter access</li> <li>• Advice to improve water distribution between individual branches when multiple jets in use by using branch control facilities. It is also stated that it may not possible to achieve maximum flow rates or optimum operating pressures in these circumstances.</li> <li>• Details of provision under British Standards for isolation valves at intervals not exceeding 10m to enable maintenance/repair of DRM</li> </ul>	<p>PN 633 provides additional information to GRA 3.2 that would assist planning and an IC to make the best use of available water supplies when 2 or more jets are in use</p>

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
Page 1136	<p>IC should ensure check is made that all outlets are closed once DRM has been charged. DRMs advantages are stated as reductions for</p> <ul style="list-style-type: none"> <li>• time to get water to upper levels</li> <li>• amount of hose required</li> <li>• frictional loss</li> <li>• amount of FRS equipment needed</li> <li>• effort required by FRS personnel</li> <li>• congestion of stairways by hose</li> </ul> <p>Guidance provided regarding risks posed by DRM's high operating pressures and how to manage a safe pressure release, if drain valve is defective i.e. use of hose and branch from 1<sup>st</sup> DRM outlet to release water outside building before breaking couplings.</p>		
Appendix 4 – Wet rising mains (WRM)	<p>WRMs fitted to all buildings over 60m (50m from 2006) due to excessive pressures necessary to pump water over this height. IC to consider possible water pressure problems in pre-2006 buildings over 50m. WRM is vertical pipes similar to DRM, with outlets on all floors except the ground. WRM is connected to permanent water supply (normally a tank fed from town mains) and with two pumps (one duty and one standby). Tanks fitted with system to warn of low water levels and tanks may need to be augmented during a protracted incident. WRM can supply a minimum of 1500l/min for 45 mins. Water pressure reduction valves are fitted to</p>	<p>Covered within Appendix 5 of PN 633. In addition to the information within GRA 3.2, PN 633 also includes advice for IC to use isolation valves to optimise water supply if WRM should fail.</p>	

Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
	<p>each floor outlet. Buildings constructed before 2006 will have outlet pressures of 4 or 5 bars, changed by BS 9990 to 8 bars (not retrospective).</p>		
<p>Appendix 5 – Firefighting shafts</p> <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Page 1134</p>	<p>Firefighting shafts are described as a means of enabling firefighters to reach any point in a building in the shortest possible time and as place of relative safety during firefighting/rescue.</p> <p>The integrity of these shafts may be affected by hose laid through doorways, which will allow smoke to travel into protected stairwells and risk of increasing fire spread via the ‘stack effect’.</p> <p>Reference to BS 9999:2008 for further detail regarding firefighting shaft provision, with basic definition given as stairs, lobby with D or WRM and a fire lift.</p> <p>Shafts may provide means to ventilate and, in complex buildings, a shaft may not serve all parts of the building i.e. individual firefighting shafts may only serve one part of the building.</p>	<p>Covered within Appendix 2 of PN 633.</p>	<p>There are no variations between the two documents with regard to this topic.</p>
<p>7(2)d</p>	<p>This heading is not included within GRA 3.2 as an Appendix, but forms Appendix 1 of PN633.</p>	<p>Appendix 1 provides a list of points to be considered during 7(2)d familiarisation visits that largely repeats the information that is provided under the heading ‘Planning’, both in GRA 3.2 and PN 633.</p> <p>Within this appendix, there are specific references to the <i>location</i> and <i>accuracy</i> of information on site; fire control rooms; and the length of hose runs from rising</p>	<p>As stated in paragraph 4.1 of PN 633, primacy for the gathering and recording of operational intelligence rests with PN 800 – Management of operational risk information.</p> <p>Analysis and review PN 800 is not</p>



Section heading	Generic Risk Assessment 3.2 - High rise Firefighting V3 (February 2014)	LFB Policy 633 – High rise firefighting (version issued 1/6/2015)	Comment on identified differences between GRA 3.2 and PN 633 (Paragraph numbers correspond to column 2)
		main outlets which are not made in the GRA.	within the scope of this report.





Guidance to support a temporary  
change to a simultaneous evacuation  
strategy in purpose-built block of flats

Issued on: 01/05/18  
(This replaces Waking Watch guide issued 2/10/17)

# Contents

1.	Introduction and scope of document.....	3
2.	Definitions.....	5
3.	Competence.....	7
4.	Changing to a simultaneous evacuation strategy .....	8
5.	Management considerations to support the adoption of an evacuation strategy .....	10
6.	Responsible person duties.....	14

# Appendices

1.	Detecting a fire and raising the alarm guidance.....	15
2.	Common alarm system .....	18

**This guidance note provides advice to building owners, their professional advisors and fire and rescue services on issues to consider where a decision is made, based on a comprehensive risk assessment carried out by a competent person, to suspend temporarily a stay put policy and adopt a simultaneous evacuation strategy.**

Although written for those responsible for the safety of residents in purpose-built blocks of flats, the principles of this guidance may, in certain circumstances, be applied to other premises.

# 1. Introduction and scope of document

- 1.1. NFCC supports the principle of a stay put strategy whenever possible, it reflects the Building Regulations requirement that each flat should be its own fire-resisting compartment, and has proved over many years to be safe for residents of purpose-built blocks of flats.
- 1.2. **This guidance provides fire safety advice in respect of purpose-built blocks of flats where a 'Stay Put' policy was part of the original design, but is no longer considered appropriate owing to significant risk issues such as combustible external facades. Where such issues exist a temporary change to a simultaneous evacuation strategy is likely to be necessary until the failings have been rectified.**
- 1.3. NFCC supports the 'Fire safety in Purpose-Built Block of Flats' guidance hosted on the Local Government Association's website (LGA) and developed by a wide range of stakeholders. The guidance remains appropriate for all purpose-built blocks of flats. However, the unique circumstances following the Grenfell Tower fire mean that Section 19 in particular 'Stay Put policy', and in particular paragraphs 19.6 and 19.7, should be considered in the context of this additional and complementary guidance.
- 1.4. In a building that was originally designed for a stay put policy, a change to simultaneous evacuation should only be temporary; NFCC do not consider that a permanent change of this nature is likely to be appropriate, particularly in buildings over 18m in height, in which the number of persons who evacuate simultaneously may be considerable. There are many reasons for this. For example, situations can arise whereby the evacuation of residents results in some risk to them (though lesser risk than remaining within their flats in the circumstances to which this guidance applies). Also, simultaneous evacuation of large numbers of people is likely to be an impediment to access by the Fire and Rescue Service (FRS) (even in a building with multiple stairways, so delaying firefighting and rescue activity. Reliance on simultaneous evacuation is also detrimental to the equality of disabled people, who may be unable to evacuate without assistance. If there are measures that would permit fire spread between floors - or between flats - the appropriate, ultimate solution is to rectify the associated defects, rather than to permanently to change the stay put strategy.
- 1.5. This guidance, which applies to premises in England and Wales, is produced to support the FRS, building owners/ Responsible Persons and associated fire safety specialists. This includes fire risk assessors at buildings that have been fitted with an external wall system that has failed large-scale tests, whether those were privately carried out or were commissioned by the Department for Communities and Local Government (now: the Ministry of Housing, Communities and Local Government MHCLG) following the Grenfell Tower fire, and that were carried out at the Building Research Establishment (BRE).
- 1.6. This guidance is principally intended for use in buildings over 18m in height in which the appropriate means for satisfying the requirements of the Building Regulations in relation to external fire spread have not been satisfied (e.g. as a result of the use of insulation and/or cladding materials that are not of limited combustibility and that do not achieve appropriate performance when the wall construction and cladding are tested in accordance with BS 8414). It should be noted that the figure of 18m is somewhat arbitrary (having, historically, been based on equipment that the FRS have not used for many years). Minor variation in the 18m limit need not necessarily have any significant effect; there is little material difference in risk between the use of combustible cladding on an existing building with a topmost floor located at a level of 17.5m above ground level and a similar existing building in which the topmost floor is located at 18.5m above ground level. However, particularly in the latter case, any decision not to follow this guidance should be based only on the advice of a qualified fire engineer and be fully justified.
- 1.7. The guidance sets out the context and decision-making considerations in moving from a stay put to simultaneous evacuation policy. It includes appendices that set out further guidance on the Waking Watch (Appendix 1) and Common Fire Alarm systems (Appendix 2) that are likely to be appropriate.

- 1.8. The fire safety strategy in purpose-built blocks of flats normally comprises an arrangement whereby only residents from flats directly affected by fire, heat or smoke need evacuate. Residents in other unaffected flats should be protected by general fire precautions provided in the building, such as the structure of the building, the front doors of individual flats, smoke ventilation provisions, etc. Those other residents should therefore be safe to 'stay put' during a fire in their building unless otherwise directed by the FRS, and, in many cases, may not even be aware of a fire elsewhere in the building.
- 1.9. The fire alarm arrangements in purpose-built blocks of flats typically include smoke (and sometimes heat) alarms within each flat to alert the residents of a fire in that flat only. There is generally no common fire alarm system.
- 1.10. Where fire detectors are installed in the common parts, they are likely to be provided only to operate active fire safety facilities such as a smoke control system. The detectors are not provided to give a warning to all residents in the building.
- 1.11. Where there is a significant failing in the general fire precautions and/or other issues such as combustible external facades, a competent fire safety specialist may consider that these failings could contribute to uncontrolled and, potentially, unrestricted fire spread in the building, and therefore the building can no longer support a stay put strategy. A temporary change to a simultaneous evacuation strategy may provide a level of confidence that, while there are clear risks that must be addressed, continued occupation of the building is possible with the adoption of a change to an evacuation strategy and a clear definition of the management strategy of the building, which should be communicated to residents.
- 1.12. While this guidance has been developed specifically for high-rise residential premises that require a change to the evacuation strategy to be adopted until fire safety defects are rectified, some of this guidance may be applied to other building uses (e.g. a hotel or hospital). In those cases, some of this guidance may be of assistance if adapted to those needs.

## 2. Definitions

### Assembly point

2.1. A designated place where people have been told to wait after evacuating a building in the event of a fire or other emergency.

Note: An alternative assembly point that has protection against inclement weather may be required.

### Common Parts

2.2. Those areas of a building that are not for the exclusive use of individual residents (e.g. common corridors, stairways, plant rooms, other ancillary areas, etc.).

### Common fire alarm system

2.3. A fire alarm system that will give a warning of fire throughout the building, including within all flats and within the common parts.

### Competent person

2.4. According to the Regulatory Reform (Fire safety) Order 2005 Article 18 (5), a person is to be regarded as competent for the purposes of this article (Safety Assistance) where he has sufficient training and experience or knowledge and other qualities to enable him properly to assist in undertaking the preventative and protective measures. Guidance on the competency standard for fire risk assessors and guidance on choosing a competent risk assessor is available here: <http://www.cfoa.org.uk/19532> In regard to temporary changing from a stay put to a simultaneous evacuation policy please refer to section 3 for further detail.

### Evacuation

2.5. A process whereby people leave premises in case of an incident e.g. fire and reach a place of safety.

### External wall system

2.6. External construction of a building including external walls, cladding, insulation, filler materials, cavity barriers, etc.

### General fire precautions

2.7. This term is used to describe precautions that are provided to reduce the risk of fire and spread of fire, in conjunction with other measures, to keep people safe from fire in a building (see Article 4 of the Regulatory Reform (Fire Safety) Order 2005).

### Interim measures

2.8. Urgent temporary measures which are to be put in place to address an unacceptable risk to occupants of a building.

### Mitigation Measures

2.9. Measures to mitigate the identified risk until the significant issues are resolved.

### Personal Emergency Evacuation Plan (PEEP)

2.10. A documented plan for the evacuation of people who are unable to self-evacuate, and/ or require some assistance to do so.

### Responsible person

- 2.11. The person, group, company or other entity on whom duties are imposed by the Regulatory Reform (Fire Safety) Order 2005 to ensure the safety of occupants of a building from fire (see Article 3 of Regulatory Reform (Fire Safety) Order 2005).  
Note: duties are also imposed on persons other than the Responsible Person (see Articles 5 (3) and 5 (4) of the Regulatory Reform (Fire Safety) Order 2005).

### Simultaneous evacuation

- 2.12. Procedure in which all parts of a building are evacuated in the event of fire at one time.

### Smoke ventilation system

- 2.13. A system to control and/or prevent the spread of smoke in protected routes in the event of fire. The primary objective of a smoke ventilation system is to protect the common parts. These areas may exist on the floor level where the fire has originated and in stairwells, enabling those occupants who feel threatened or who are at greatest risk to escape. Such systems will further assist firefighters to gain access.

### Sounder

- 2.14. A device that will give an audible warning in the event of fire.

### Stay Put strategy

- 2.15. A strategy based on the principle that only the residents of the flat of fire origin need to escape initially, while other residents may remain in their own flats unless their flat is affected by fire or smoke, they feel threatened, or they are instructed to leave by the FRS. A Stay Put strategy does not preclude residents, who are aware of a fire within the building but not affected directly by it, from deciding to evacuate.

### Waking Watch (also referred to as a fire watch)

- 2.16. A system whereby staff continually patrol all floors and the exterior perimeter of the building in order to respond to a fire, assist in calling the fire service and assisting with the evacuation of occupants of the building.



## 3. Competence

- 3.1. The complexity of the interactions between people, buildings and fire is such that no single set of criteria can be applied to all types of buildings in all circumstances. Therefore, an assessment - specific to the building in question - will need to be conducted that considers any potential fire spread in conjunction with the evacuation strategy and any modifications to that strategy (i.e. a change from a stay put to a simultaneous evacuation strategy).
- 3.2. The advice used to inform this assessment must be provided by a competent person, as this is critical for ensuring that an appropriate level of safety is achieved. In some cases, the risk assessment may be straightforward, in which case a competent fire risk assessor may be used (para 2.4). In others, the assessment will be more complex and require advice from a qualified engineer with relevant experience in fire safety, including the fire testing of building products and systems, such as a Chartered Engineer registered with the UK Engineering Council by the Institution of Fire Engineers.
- 3.3. Even if advice from a qualified fire engineer is required, there remains a need to consider a holistic overview of the general fire precautions. Where to get an appropriate level of competent advice will depend on the nature of the fire precautions being considered.
- 3.4. The fire risk assessment will need to be reviewed and updated to reflect the risk posed by a non-compliant external wall system. This will require close liaison between fire risk assessors and engineers with competency in the assessment of external wall design.
- 3.5. The Responsible Person and/or the competent person will need to ensure that those implementing the interim measures have the required level of competency to operate effectively.

## 4. Changing to a simultaneous evacuation strategy

### Reasons for changing to an evacuation strategy

- 4.1. As detailed in the introduction above, the strategy in a residential building typically comprises a Stay Put strategy. However, in exceptional circumstances it may be necessary to temporarily change the evacuation strategy from stay put to simultaneous evacuation.
- 4.2. A Stay Put strategy relies on the fire separation between each flat to ensure that the fire and smoke does not spread throughout the building unrestricted and uncontrolled. This fire separation is achieved through different means such as fire-resisting doors, fire-resisting walls, floors and ceilings separating flats, and ensuring that the external walls of the building adequately resist the spread of fire over the walls.
- 4.3. Buildings that have, for example, been identified as having an external wall system that does not adequately resist the spread of fire over the walls (e.g. ACM identified as hazardous by MHCLG because of large scale fire tests carried out on their behalf) is one example of circumstances where a simultaneous evacuation strategy may be needed.
- 4.3. In these circumstances, the change to a simultaneous evacuation strategy must not be permanent. It should always be considered as an interim measure, adopted for the safety of residents while works to rectify the identified fire safety failings are carried out. The installation of a temporary fire alarm and detection system is preferred over a continued use of a Waking Watch system.
- 4.5. In addition, it must be acknowledged that the move to a simultaneous evacuation may not address all the risks identified and be considered to mitigate all general fire precaution failings (e.g. deficiencies in means of escape). The responsible person must always discuss the change of evacuation strategy with a competent person, who can further advise on the proposal, including any limitations of such a change, and evaluate the overall fire safety provisions of a building.

### General requirements of a temporary simultaneous evacuation

- 4.6. Where a temporary simultaneous evacuation strategy is adopted, the responsible person must notify the FRS, as it may need to amend its operational procedures.
- 4.7. It is expected that FRS operational crews will visit the premises to update their tactical plans.
- 4.8. The common alarm and/ on-site staff should only be removed when the required remedial works have been completed, a competent fire safety specialist has been consulted and the FRS has been notified that the simultaneous evacuation strategy has ceased and the building has returned to the Stay Put strategy. A communal fire alarm is only a temporary measure and not an alternative to remedial works designed to reduce the risk from a non-compliant wall system.
- 4.9. A change to a temporary simultaneous evacuation strategy relies on two key essential principles:
  - Early detection of a fire and warning of occupants
  - Management of the evacuation.
- 4.10. It is the duty of the responsible person to ensure that both are appropriately considered and addressed as part of the simultaneous evacuation.
- 4.11. A change in evacuation strategy will require careful consideration of how people are warned of a fire. This means that, at the earliest opportunity, a fire should be detected and warning given throughout the building.
- 4.12. Flats that do not have their own smoke alarms should be fitted with them, regardless of the other fire safety provisions in the building. These are independent of any communal fire alarm and detection system specified as an interim measure.

- 4.13. The early detection of a fire may comprise one of the following:
- A suitable Common Fire Alarm system throughout the building with detectors and sounders where necessary is the most appropriate if the interim measures are to be in place for more than a short time (see Appendix 2 for further guidance on this topic);
  - A Waking Watch using trained staff to assist with detecting a fire, and raising the alarm, although this should only be used for a short term interim measure (see Appendix 1 for further guidance on this topic);
  - Ideally, a combination of both as it is highly likely that assistance will be needed to manage the evacuation
- 4.14. **NFCC strongly recommends that where a change to a simultaneous evacuation is deemed appropriate and will be required for medium to long periods of time, that a temporary common fire alarm system is installed. This is because a temporary common alarm when designed, installed and maintained appropriately is a more reliable and cost-effective way to maintain a sufficient level of early detection. An appropriate communal fire alarm and detection system will generally provide more certainty that a fire will be detected and warned at the earliest opportunity rather than rely on using trained staff.**
- 4.15. The management of the evacuation is a key part of change to a simultaneous evacuation strategy. On-site staff will be required to facilitate a rapid, effective and coordinated evacuation, contact the FRS to provide an essential link with them during operations. (see section 5 for further information about the management considerations).
- 4.16. Consideration should be given to the capacity of the staircase and whether it is able to accommodate the expected population in the building. This is not expected to be an issue in most cases.

#### Information to residents

- 4.17. It is essential that residents are informed as soon as practicable about the reasons for the change of the evacuation strategy, the purpose of it, and what actions will be taken in the event of a fire. It is unlikely that relying on a simple mail drop or information on communal notice boards will be sufficient. Resident meetings supported with written advice are more appropriate. These should be supplemented by staff (for example, representatives of the responsible person) proactively engaging with residents to ensure that they understand the situation and any subsequent changes/works that might be happening. In engagement with residents, priority should be given to vulnerable people.
- 4.18. It is important that, as part of this process, occupants understand the evacuation strategy as well as the evacuation procedures and what action they should take upon leaving the building.

## 5. Management considerations to support the adoption of an evacuation strategy

- 5.1. As detailed above, any evacuation strategy must be supported by appropriate managerial arrangements. The following paragraphs give further guidance about the management considerations that should be put in place to support this change.
- 5.2. It is recommended that every building *with a temporary simultaneous evacuation strategy* should be provided with 24/7 on-site staff. The staff should incorporate a team leader whose role will be to:
- Ensure that the FRS are called as soon as possible and provide key information about the building;
  - Ensure the evacuation is managed as necessary, including directing residents to a dedicated assembly point;
  - Liaise with the attending FRS to provide information as necessary.
- 5.3. The number of staff required in individual buildings will vary. Advice should be sought from a competent person to advise accordingly.
- 5.4. Following the identification of a confirmed fire (see Appendix 1 for further information), the on-site 24/7 staff should:
- Instigate a simultaneous evacuation of all occupants of the building without compromising the personal safety of staff;
  - Ensure that the FRS is called immediately; such is the importance of this action that one member of staff should be tasked with ensuring that this action has been taken, whether by that person or one of the other members of staff;
  - Reduce as far as reasonably practicable the evacuation time (e.g. supporting residents to leave);
  - Facilitate the evacuation of vulnerable people through PEEPs.

### Calling the Fire Service

- 5.5. In the event of fire, the on-site staff will make an immediate call to the FRS by dialing 999, stating:
- The address of the premises;
  - The total number of floors of the building;
  - Where the fire has started i.e. flat number and floor or externally;
  - That a simultaneous evacuation is under way;
  - Where known, the number and location of any people who may not be able to self-evacuate
  - Any other information as relevant.
- 5.6. Where possible it is recommended for one member of staff to meet the FRS on arrival to pass on relevant information.

## Vulnerable residents

- 5.7. Where possible all residents should be surveyed in respect of their ability to evacuate the building without assistance. In each case where a resident is identified as being unable to respond to the evacuation signal and/or unable to self-evacuate, the Responsible Person should, subject to the co-operation of the residents, seek to agree a PEEP with each of these residents. The level of on-site staff, training, equipment and evacuation protocols must fully reflect a simultaneous commitment to all the PEEPs, as well as the general evacuation in the building.
- 5.8. If it is evident that there will be a significant difficulty in being able to evacuate vulnerable persons, it may be possible to use a firefighters' lift. If this is to be considered, the FRS should be consulted.
- 5.9. The staff member designated to meet the FRS on their arrival must be able to report information on each resident for which a PEEP has been agreed but is not yet accounted for, namely:
- The flat number and floor of the resident;
  - The assistance required by the resident.
- 5.10. Vulnerable residents who cannot be assisted to safety may need to be relocated while this simultaneous evacuation strategy is in place. However, this would require the co-operation of the residents in question.
- 5.11. Information on residents who may need assistance to evacuate should be the responsibility of the team leader to ensure this is available to the fire service e.g. this could be kept in a premises information box that is readily available to a fire and rescue service.

## General housekeeping

- 5.12. Whilst undertaking their patrols, the on-site management staff should:
- Remove any combustible items stored inappropriately;
  - Ensure that all fire-resisting doors are kept shut, and locked shut, where required (e.g. riser cupboard doors);
  - Provide reassurance to residents of the building;
  - Report any concerns to the Responsible Person for the building.

## Staff facilities

- 5.13. Welfare/Toilet facilities should be considered for the well-being of the staff, such as washing, toilet, rest and changing facilities, and somewhere clean to eat and drink during breaks.
- 5.14. Staff should be clearly identified in high visibility clothing. The different roles (i.e. staff, team leaders) should be identified by the clothing or markings. Staff may also need other equipment such as air horns, a torch etc. to ensure they can perform their role.

## Staff training & communications

- 5.15. Training should be given to staff to ensure they fully understand the purpose of their role and what individual tasks they are responsible for both during normal activities and in the event of a fire. They should also be given general health and safety training, and specific fire training to support safe systems of work.
- 5.16. Specific instruction should be provided on the communication processes amongst the Waking Watch team, and how to ensure that they do not place themselves or others at risk.
- 5.17. In the event of a fire the priority for trained staff is to promote the evacuation of the building. Therefore, it is not advisable to expect staff to actively engage in first aid fire-fighting.
- 5.18. Training will need to be repeated if any of the staff members change and further training if any arrangement changes. All staff should receive regular refresher training.
- 5.19. It is important that staff can instantly and constantly communicate with each other. The method of communications must be available throughout the building. Radios are often the most appropriate way of achieving this and must be supported by an appropriate radio protocol.
- 5.20. This should include set words for checking in, raising the alarm etc. Radio traffic should be kept to a minimum to ensure that the system is available for appropriate communications. The adequacy and effectiveness of radio communication throughout the building should be tested and confirmed.
- 5.21. It is unlikely that mobile phones will provide an appropriate method of communications between staff. These require more than just a single button actuation, and will not be available for the instant and simultaneous relay of messages to multiple staff. Mobile phones also rely on being connected to a network and this may not always be possible.
- 5.22. Mobile phones may be the most appropriate method of calling the fire and rescue service if no land line is available.
- 5.23. If mobile phones are to be relied for any of the above purposes. it should be ensured that phones have sufficient charge and they should be tried and tested and its functionality regularly checked.

## Test of the process

- 5.24. The process should be tested in the form of regular staff training exercises to ensure that all staff understand their roles and that the system is appropriate for the specific building. However, where this is required, it will not usually be necessary to sound the evacuation signal (air horns etc.) every time as this may lead to complacency by the residents. Residents should not be involved in these staff training exercises, but should have been made aware of the necessary action if the evacuation signal is given.
- 5.25. Staff training exercises should be recorded and immediately available on site to the FRS for inspection.
- 5.26. The Responsible Person needs to ensure that there are arrangements for adequate monitoring of the Waking Watch team.
- 5.27. In every building where a simultaneous evacuation strategy is adopted, the FRS will make regular visits to ensure that the arrangements in place are being robustly implemented and managed.

## Fire risk assessment

- 5.28. The fire risk assessment for the premises, and its associated evacuation plan must be updated to reflect the issues identified, the role of the Waking Watch and the duration of the temporary mitigation measures in place.

#### Health and safety

- 5.29. It is vital that any processes and procedures put in place allow compliance with other applicable legislation such as Health and Safety at Work Act 1974, and the Management of Health and Safety at Work Regulations 1999. The procedures developed must never jeopardise the safety of staff

## 6. Responsible Person duties

- 6.1. The Responsible Person duties are laid out in Part 2 of the Regulatory Reform (Fire Safety) Order 2005.
- 6.2. The Responsible Person must ensure that the change to a temporary simultaneous evacuation strategy relies on the assessment by a competent person and addresses the risks identified.
- 6.3. The Responsible Person must ensure that the mitigation measures put in place always remain appropriate.
- 6.6. The Responsible Person must ensure that appropriate resources are allocated to address the specific risk identified in the building.
- 6.5. The evacuation strategy must be re-evaluated periodically as the remedial works are being carried out to ensure that it remains current and addresses the general fire precaution failings.
- 6.6. For further general fire safety advice, please contact your local FRS fire safety team.

**It may be that, even if all the above guidance were to be implemented, the risk is not reduced enough to enable all the persons to remain in the property, and certain uppermost floors might need to be temporarily evacuated. There should be liaison with the FRS in respect of this matter.**



# Appendix 1: Detecting a fire and raising the alarm incorporating a Waking Watch

A1.1 The system (either primarily an automatic system or by using trained personal) to instigate the simultaneous evacuation must:

- detect a fire in the building;
- detect external fire spread if combustible cladding/insulation materials have been identified as part of the external wall system;
- summon the FRS;  
provide a warning to ensure all residents are alerted to begin simultaneous evacuation;
- take appropriate action as required by the management strategy, including meeting the FRS on arrival.

A1.2 As a benchmark, the objective should be that, when a confirmed fire within a flat necessitates simultaneous evacuation, the time from detection of the fire to alerting all residents (by the Waking Watch staff) and confirming evacuation has started, should not exceed a time of typically 10-15 minutes in the case of an external wall system that represents a significant fire hazard (e.g. a system incorporating polyethylene core ACM, as described by tests 1, 2 & 3 in the Government cladding screening programme). In the case of those buildings that have a notable fire hazard (e.g. ACM with fire retardant polyethylene filler (category 2 in screening tests) with phenolic foam insulation as described in test 7 of Government cladding screening programme) then the 10-15 minutes time limit maybe increased slightly if suitably justified in the assessment by a competent person.

A1.3 There are three possible approaches to detect a fire and give early warning to residents:

- a) Installation of a common fire alarm system of the type described in Appendix 2. In this case, the objective of the Waking Watch does not comprise detection of fire, apart from external fire spread, or alerting residents. The role of the Waking Watch is purely to summon the FRS and manage the evacuation process. For this purpose, only a small number of staff is likely to be required in any building; there would not be any need for sufficient staff to patrol the building such that each floor was inspected within any given period. Where a group of affected buildings form an estate under common management, staff who manage the site on a 24-hour basis can perform this role if there is a method of informing them immediately of the fire alarm actuating, and that they can reach any building in a reasonable time. This is the preferable approach where an external wall system that represents a significant hazard on buildings over 18m in height and should be adopted where the external wall system cannot be replaced or removed in the short term. However, based on the competent person's advice, there may be some individual premises where a common fire alarm system only is adequate.
- b) Reliance on the Waking Watch to detect the presence of a fire by hearing a smoke/heat alarm sounding within a flat, and manually to initiate fire alarm sounders that would alert all residents of the need to evacuate. This will initially involve provision of sounders throughout the common parts, but, ultimately, is likely to need a sounder in every flat to ensure that the fire alarm signal is loud enough to rouse residents from sleep. The manual initiation of sounders would comprise, at least, one manual control on the ground floor that triggers operation of all sounders, but could comprise manual controls on additional floor levels. The method of operation of the manual controls should be such that they can only be operated by staff or FRS. In this case, the number of staff on the Waking Watch should be such that they become aware of a fire (e.g. by hearing a smoke alarm operate and immediately investigating) and operate a manual control within 10-15 minutes of operation of a smoke alarm within a flat.

- a) Reliance on the Waking Watch to detect the presence of a fire and to take manual action to alert residents of the need to evacuate (e.g. knocking on each flat front door and/or using an air horn to alert residents). In this case, there will, again, need to be sufficient staff on the Waking Watch, such that they become aware of a fire (e.g. by hearing a smoke alarm operate and immediately investigating) and then alerting all residents within 10-15 minutes of operation of a smoke alarm within a flat. This alternative is likely to be the least reliable, most resource intensive, and may not be suitable for the highest risk situations. This is also impracticable for a long-term solution and should only be a short-term measure until either option b) or preferably option a) is adopted

**NOTE:** Care should be taken (e.g. in the training of the Waking Watch staff) to ensure that they do not initiate a simultaneous evacuation in the event of a false alarm from a domestic smoke alarm, or a small fire that has been extinguished.

A1.4 While the above information is offered as a benchmark, the solution adopted by a competent person should consider many factors, including (but not necessarily limited to) the following:

- The FRS attendance time. *This is to be based on the assumption in Approved Document B that there will be fire service intervention in a timely manner. Stay Put requires firefighting intervention. This should not be taken as the time of arrival of the first appliance, but on an assessment of the attendance time of the predetermined attendance. No reliance should be placed on the attendance of high reach appliances as typically these will take longer to mobilise than the initial attendance.*
- The general fire precautions in the building. *As this document is predominately for buildings that have been fitted with an external wall system that has failed the large-scale tests it should be ensured that the general fire precautions are satisfactory. There may be some minor issues, but anything above an advisory comment in the FRA should be addressed as a matter of urgency.*
- The height of the building. *This is included to reflect both the difficulty of external fire fighting especially above 30m and the time for evacuation. External firefighting is impractical in the initial stages of an incident at heights above 18m, Firefighting with high reach appliances is unlikely to be available in the initial stages of a fire or at any height greater than 30m.*
- Provision of sprinklers or other automatic fire suppression systems. *Consideration should be given to the impact this could have on the evacuation strategy*
- The number of flats. *Consideration should to given to the number of people that could be evacuating and the possible conflict between evacuating people and firefighting operations.*
- The type and extent of the cladding. *Consideration should be given to the extent of the cladding and disproportionate fire spread. Account also needs to be taken of the proximity of the cladding to windows, vents, stairways and other architectural features that could spread fire.*
- The number of means of escape stairways. *Consideration should be given to the number of staircases and numbers using them.*
- Risk of external ignition of cladding (e.g. considering the height at which the cladding starts, proximity of cars, refuse, etc. to the cladding).
- Risk of internal ignition of cladding (e.g. from fires inside the building via unprotected window reveals and the proximity of ignition sources such as domestic appliances).
- The collective effect of the fire safety measures considered holistically, as opposed to each measure in isolation.

# Purpose

- A2.1 The purpose of the provision of a common fire alarm to support the change of the evacuation strategy from Stay Put to simultaneous evacuation is to ensure early detection and warning of a fire throughout the building (including any accommodation e.g. individual flats).
- A2.2 As described above, the common fire alarm system cannot be implemented in isolation and must be provided as part of a package of fire safety measures. The aim of the guidance below is to provide and highlight some of the key considerations about the selection and implementation of a common alarm system.

## System design and considerations

- A2.3 Considering the specific purpose of this guidance, the common fire alarm system should generally be designed in accordance with the recommendations of BS 5839-1 for a Category L5 system, except that the sound pressure level of the fire alarm signal within flats need only be 85dB(A) at the open doorways of every bedroom in each flat.
- A2.4 In every flat, the system should incorporate heat detectors within each room that has a window that overlooks an area of external wall, with an external wall system that results in a significant or notable fire hazard (except possibly toilets and bathrooms). Heat detectors should also be included in any other rooms, such as plant rooms and other ancillary facilities with windows or vents through which a fire could spread and ignite cladding. Consideration might also need to be given to the provision of smoke detectors within common parts, but these detectors should not initiate the general evacuation of the building; they may give a warning only to the Waking Watch team.
- A2.5 An immediate evacuation signal should be triggered by the operation of any single heat detector.
- It should be noted that the evacuation signal should not rely on the coincident operation of two heat detectors (sometimes described as “double knock”), as such an arrangement would not result in early enough operation of the evacuation signal in the event of a serious fire that might affect cladding.
- A2.6 In line with the individual PEEP process, specific measures such as a vibrating pager or beacon may be required if people with hearing impairments have been identified.
- A2.7 It is critical that the common alarm system installed in the premises must not have any adverse effect on the other fire safety provisions in the building. For example, the installation of a wired system must not create a route for fire and smoke to spread in fire rated walls which were previously imperforate. If the system is an extension of the smoke detection system provided for a smoke control system care must be taken to ensure that the operation of the smoke control system is not compromised by the new communal system

## Appendix 2: Common Alarm System: Automatic fire detection and alarm system supporting simultaneous evacuation

This guidance was produced for the National Fire Chiefs Council by a group of sector experts, comprising:

Nick Coombe, Chair representing NFCC

Sir Ken Knight, representing the MHCLG Independent Expert Advisory Panel

Colin Todd, representing the Fire Industry Association and the Institution of Fire Engineers

Colin Bassnett, representing the Fire Industry Association

Andrew Fox, representing the Fire Industry Association

Tom Gilbert, representing the Fire Industry Association

John Herbison, representing the Institution of Fire Engineers

David Rowson, representing London Borough of Southwark

Gareth Steele, representing London Fire Brigade

### Review Group the following additional assistance

Tony Hunter / John Buckley, representing London Councils

Charles Loft, representing the Local Government Association

Louise Upton, representing the Fire Policy Unit, Home Office

Mark Snelling, Representing ARMA

Jonathan Herrick, representing MHCLG

Peter Wise, Fire Engineer

NFCC also acknowledges the work of Ann Clarke of C. S. Todd & Associates in providing secretarial support, Charles Romeyer (LFB) and the wider NFCC Protection & Business Safety Coordination Committee for its comments.

This guidance will be kept under review and may be updated periodically. Please ensure you have the latest version.

# London Fire Brigade

Actions since the Grenfell Tower Fire

**OFFICIAL**  
24 October 2018

## Contents

<b>1. Introduction</b>	<b>2</b>
<b>2. LFB 'Safety and Learning' Review</b>	<b>2</b>
<b>3. Fire Safety</b>	<b>2</b>
High Rise Task Force (HRTF)	2
Fire Safety Engagement Activities	4
Improvement in fire safety inspection regime	4
<b>4. Operational Response</b>	<b>5</b>
Pre-Determined Attendance (PDA)	5
Fire Escape Hoods	5
Drones	6
Breathing Apparatus (BA) Equipment	7
High Rise Firefighting Tactics	8
Command Unit (CU) Replacement Project	8
Level 3 Advanced Incident Command Skills / Level 4 Strategic Incident Command Skills	9
Decision Loggist Training	9
Revalidation of Incident Command (RoIC)	10
Operational Policy Updates	10
<b>5. Control</b>	<b>11</b>
<b>6. Community Reassurance Activities</b>	<b>12</b>
<b>7. Operational Risk Information (ORI) Review</b>	<b>12</b>
<b>8. High Reach Fire Engines (Aerials)</b>	<b>12</b>
<b>9. National Operational Guidance</b>	<b>13</b>
<b>10. Counselling and Trauma Service</b>	<b>14</b>
<b>11. Communications and Media</b>	<b>14</b>
<b>12. Long Term Health Monitoring</b>	<b>15</b>
<b>13. London Resilience Group (LRG)</b>	<b>15</b>

## 1. Introduction

- 1.1 This document has been produced in response to the Inquiry's request, dated 24 September 2018, to provide *'a position paper describing in reasonable detail the actions they have already taken to address questions of public safety raised by the fire, the rationale behind them, and any further steps which they currently plan to take. The position paper should be supported by documentary evidence and should identify the person or persons within the organisation principally responsible for the steps described'*.
- 1.2 Where practicable this statement is supported by the relevant documentary evidence relating to each of the issues covered in the main body of the report. Appendix 6 provides a list of persons responsible for the actions identified in this report.

## 2. LFB 'Safety and Learning' Review

- 2.1 As an organisation committed to continuous improvement and learning from major events, in the days following the Grenfell Tower fire the LFB started the work to establish a dedicated team to undertake a comprehensive 'safety and learning' review. This team currently consists of over 30 dedicated members of staff who are responsible for undertaking and coordinating the LFB's investigation into the Grenfell Tower fire. This work includes supporting the documentary, data and physical evidence requirements associated with both the Metropolitan Police Service (MPS) investigation and the Grenfell Tower Inquiry (GTI).
- 2.2 The LFB investigation team, known as the *Grenfell Tower Investigation and Review Team* (GTIRT), is made up predominately from the Brigade's existing employees who have been seconded to the team to undertake specific roles to support the various work-streams and associated tasks. This team is currently being funded from LFB reserves.
- 2.3 As the GTI will be aware the work of GTIRT has been significant and seen a number of very detailed documents (Operational Response and Control Reports, etc.) produced that have greatly assisted the GTI to understand the events of the night of the fire.
- 2.4 The GTIRT aims to fully understand the LFB's actions and identify issues that will be progressed through the Brigade's normal organisational improvement processes. It will also, at the appropriate time, provide a comprehensive report detailing the Brigade's response to the fire and will examine some of the underpinning issues that influenced this response.
- 2.5 GTIRT will also discharge the Brigade's Health and Safety legal duties to fully investigate all safety events that occurred during the incident. The full 'Terms of Reference' for the LFB's 'Safety and Learning' review are detailed in Appendix 1.

## 3. Fire Safety

### High Rise Task Force (HRTF)

- 3.1 The week after the Grenfell Tower fire the LFB's Fire Safety Regulation (FSR) department established a HRTF to review the risks associated with high rise residential premises covered by the LFB area. To date this team has conducted in excess of 1,500 activities for high rise related work, including providing reassurance at residents meetings, co-ordinated visits with fire station based staff and the completion of over 1,100 visits to residential high rise buildings.
- 3.2 The HRTF audits were thorough inspections of the relevant (non-domestic) parts of premises and the management arrangements and accorded with government requirements made of Fire

and Rescue Services generally after 14<sup>th</sup> June 2017 to carry out fire safety checks on high rise residential blocks above 18m. HRTF inspections incorporated intrusive inspection and sought to establish so far as possible that compartmentation was not compromised. Emphasis was placed, for example, on understanding how building services enter and leave service risers and individual dwellings, which in turn required access into ducts and voids, and above false ceilings. Fire doors were subject to higher sampling rates. Checks were carried out on the operation of firefighting lifts and ventilation systems and on the availability of other firefighting facilities

- 3.3 These HRTF activities have been undertaken over three phases and the LFB's approach has varied slightly at each phase based on the emerging information and guidance received.
- 3.4 For example, HRTF1 (the first phase), was primarily focussed on information gathering and initial inspection of the general fire precautions and firefighting facilities in high rise residential buildings. This phase included an audit of the information the LFB holds for these high rise premises within its electronic Operational Risk Database (ORD) to ensure residential high rise premises identified as fitted with ACM cladding are recorded in the ORD. The ORD is intended to contain details of the risks at the premises and other important information, including an electronic Premises Information Plate (ePIP) to support the operational tactics to be employed should a fire occur. Information is also provided by Control on the mobilisation sheet received by crews advising that the premise they are being mobilised to has ACM cladding and if any special evacuation procedures are in place such as a waking watch.
- 3.5 A number of these buildings were re-inspected during HRTF2 (the second phase) once the Building Research Establishment (BRE) test results were made available to the LFB. This phase focused primarily on Local Authority/social housing high rise residential premises and NHS premises. During this phase LFB officers provided advice and guidance to the 'responsible person' for the affected premises on the implementation of the government's interim arrangements for some Aluminium Composite Material (ACM) clad buildings. This included obtaining a competent person's (as defined by the National Fire Chiefs Council<sup>1</sup>) advice, waking watch, common alarms and changes to the building's evacuation strategy.
- <sup>1</sup> National Fire Chiefs Council (NFCC) '*Guidance to support a temporary change to a simultaneous evacuation strategy in purpose-built block of flats*' - (Section 3 of Appendix 2 refers).
- 3.6 During HRTF3 (the third phase), over 350 new buildings (private blocks and hotels) were identified, some of which had already been visited or had been allocated to a LFB inspecting officer to arrange a visit. The usual process for referral of these new buildings is that the Local Authority collect the data, which is sent to the Ministry of Housing, Communities and Local Government (MHCLG). This data is then sent to the National Fire Chiefs Council (NFCC) who send the information to relevant fire and rescue service.
- 3.7 The LFB's FSR Department has also undertaken the following:
- produced the first guidance (under the banner of NFCC) for building owners with ACM cladding;
  - led on assisting the MHCLG in producing guidance for buildings that have partial cladding;
  - provided subject matter expertise to assist Home Office and MHCLG in implementing the Dame Judith Hackitt recommendations. LFB officers hold prominent positions on all the working groups established to deliver the Hackitt recommendations;
  - designated a LFB officer to lead the work on reviewing the competency of LFB's Fire Safety Enforcing Officers;



- embedded a LFB officer as a part of the Ministerial task force dealing with remediation of private tower blocks;
- provided, through the LFB FSR Fire Engineering team, assistance to several other fire and rescue services to help them deal with ACM clad buildings (peer review);
- provided, and are continuing to offer, expertise to Home Office, MHCLG, the Expert Panel and the Dame Judith Hackitt review workstreams. This includes the additional engagement following the concerns raised over fire doors since it was reported that a door from the Grenfell Tower block failed the fire spread test. There are a number of meetings every week on these issues;
- providing advice and support to London local authorities through regular monthly meetings of the London Councils Fire Safety sub group. One of the outcomes of which has been a proposal with the Local Government Association (LGA) and London Councils for a joint inspection team to deal with uncooperative landlords.

## **Fire Safety Engagement Activities**

- 3.8 Since the Grenfell Tower fire LFB officers have consistently engaged with London Councils via the London Councils Fire Safety Group forum. The London Council Fire Safety Group brings together those dealing with housing and fire safety issues and is made up of representatives from the 32 London Boroughs and the City of London, with representation from the Greater London Authority (GLA), Local Government Association (LGA), MHCLG and LFB.
- 3.9 This has allowed the Brigade to share information, advice and best practice on a range of issues such as ACM cladding, fire doors and buildings designed on the basis of a 'Stay Put' strategy, while giving a consistent fire safety message and helping to maintain links between local councils and the LFB's Fire Safety Teams and Borough Commanders. This has helped the LFB to provide community re-assurance, particularly to those in high rise residential properties. Gaps and overlaps with the Housing Act, the Housing Health and Safety Rating System (HHSRS) and the RRO have also been discussed at this forum. Recent topics include Person Centred Fire Risk Assessments and Personal Emergency Evacuation Plans (PEEPs).
- 3.10 The LFB's FSR teams are also working closely with operational colleagues at fire stations in the North East of London to pilot the Brigade's 'Fire Station Checks' initiative. This is an initiative where Fire Safety Inspecting Officers (FSIOs) are working with operational crews at fire stations to provide familiarisation and more specialist input on key fire safety issues that affect lower risk properties. This is aimed at improving operational staff's knowledge and understanding of the more specialised fire safety work and the built environment to enable them to undertake this type of inspection work going forward. This initiative should also help to free up more capacity for the FSIOs to focus on inspecting higher risk premises.

## **Improvement in fire safety inspection regime**

- 3.11 A number of additional Fire Safety Regulation posts were established as a result of the additional funding that the London Fire Commissioner (LFC) secured following the Grenfell Tower fire to enhance the Brigade's inspection regime. This has included development officers, quality assurance officers and the re-engagement of previously retired Inspecting Officers to create a new 'Specific Projects Group' (SPG). This new group is tasked to focus on high risk property types and complete a more thorough inspection (learning from the HRTF inspections).
- 3.12 In the aftermath of the Grenfell Tower incident FSR has been thinking differently about how it recruits fire safety officers, which are needed to meet the demands on the service now and in the future given the emerging demands created through greater public awareness and those

associated with the Dame Judith Hackitt outcomes. The FSR revised recruitment processes will aim to attract highest quality candidates taking into account that competition for skilled fire safety practitioners in the 'post Grenfell' climate is very challenging.

- 3.13 The FSR department has also been in consultation with representative bodies regarding the creation of a new 'gateway' role into becoming a Fire Safety Inspecting Officer, which is linked to new national apprenticeship arrangements titled 'Fire Safety Advisor'. The LFB is hoping the first cohort from these new arrangements will start training with the Brigade shortly. These new roles will assist LFB to improve its business engagement activities to satisfy requirements of 'better regulation' and our work towards 'compliance by consent'.

## 4. Operational Response

### **Pre-Determined Attendance (PDA)**

- 4.1 In June 2017 the PDA for a typical high rise fire comprised of the nearest four fire engines. This figure was based on:
- i) analysis of the national policy,
  - ii) the number of operational staff and resources required for dealing with a high rise compartment fire,
  - iii) assumptions associated with building regulations, i.e. a single flat fire that will have limited potential for fire spread beyond the compartment of origin.
- 4.2 However, as a result of the Grenfell Tower fire, and whilst awaiting the outcome of the MHCLG work into cladding on high rise buildings, the Brigade implemented an interim change to the PDA to all high rise buildings. This revision took effect from 22 June 2017 with five fire engines, one aerial (high reach) appliance and the standard officer complement for a five pump fire being mobilised to any high rise fire related incident.
- 4.3 In addition to the above, and as a result of the findings from the Government's series of fire safety tests of cladding and insulation combinations undertaken by the Building Research Establishment (BRE), the Brigade made a further interim revision to the high rise premise PDA starting from 10 August 2017. From this date when Brigade Control receives multiple calls (four calls or more) to a residential high rise premise the PDA now includes eight fire engines and one aerial appliance. Where the fire is reported to Brigade Control as being on the outside of a cladded building the PDA is further increased to ten fire engines and one aerial appliance (if the aerial appliance hasn't already been despatched). When this increase in resources is made the standard officer complement for an eight and ten pump fire is also mobilised. Appendix 3 details the two Communications messages that were issued to all operational staff when these PDA revisions were implemented.

### **Fire Escape Hoods**

- 4.4 Recognising the challenges that LFB officers faced in respect to the catastrophic failure of the Grenfell Tower building, in particular that associated with the protected single staircase which became compromised by heat, smoke and fire at a very early stage of the incident, the Brigade has undertaken research and procured fire escape hoods (also commonly referred to as smoke hoods).
- 4.5 Fire escape hoods are designed to be used easily by members of the public where they need rescuing through smoke filled environments, such as those experienced at the Grenfell tower fire. The hoods provide members of the public with up to 15 minutes protection from four of

the main fire gases (carbon monoxide, hydrogen cyanide, hydrogen chloride and acrolein) and can be worn by conscious or unconscious people. If more than 15 minutes protection is required then another hood can be given to each wearer. Firefighters will be able to offer people a hood to wear whilst they are being rescued and they will also be used to protect those who aren't able to escape easily, such as the elderly or wheelchair users.

- 4.6 These fire escape hoods are in the process of being issued across the Brigade. They will be carried on the Brigade's Standard Duration and Extended Duration Breathing Apparatus (SDBA/EDBA) sets which means a total of 649 on front line fire engines. An additional reserve of 78 will be held at the Brigade Distribution Centre. The fire escape hoods are due to go fully into operational service by the end of November 2018.
- 4.7 This new capability gives firefighters and officers a new tactical option should a similar building failure occur in the future. The LFB has worked closely with Kent Fire and Rescue Service, which will also be launching fire escape hoods on its front line fire engines. LFB and Kent will be the first UK fire and rescue services to provide this new capability.

## Drones

- 4.8 The Brigade has always enjoyed an effective and very productive relationship with the MPS air support service to provide imagery (including thermal imagery) of incidents in London and this negated the need for the LFB to provide its own aerial imagery capability. However MPS has recently joined the National Police Air Service (NPAS) collaboration and no longer enjoys the same level of control over the air assets it previously owned.
- 4.9 In addition, LFB led for the fire and rescue service on the Home Office supported 'Blue Light Air Support' programme. The programme was tasked to produce a blue print for a national emergency air service to fulfil the requirements of the blue light emergency services and other agencies such as Border Force and the Maritime and Coastguard Agency. A principal aim of the programme was to evaluate the use of unmanned aircraft to undertake some tasks currently delivered by manned rotary aircraft. A report outlining a blue print for a national emergency air service was submitted to Home Office in early 2017 and is currently still be considered.
- 4.10 Following the Grenfell Tower fire, the potential impact of MPS joining NPAS, and recognising the benefits of small drone technology identified during the Blue Light Air Support programme, the Brigade has reviewed its position in relation to providing its own drone capability and the London Fire Commissioner received funding for a drone trial from the Mayor's office as part of a package of additional resources agreed immediately after the fire.
- 4.11 During the 'recovery' phase of the Grenfell Tower fire the LFB made use of a small drone capability, which was secured under the national mutual aid agreement<sup>2</sup> from Kent Fire and Rescue Service. At the time of the Grenfell Tower fire the LFB did not have its own drone capability. The drone was used extensively to help provide situational awareness for the following issues:
- Extent of the fire spread;
  - structural integrity of the building; and
  - confirmation of safe areas to inform the planning for the body recovery operation.
- <sup>2</sup> *the national mutual aid protocol for incidents sets out the terms under which fire and rescue authorities may expect to request or provide assistance to each other in the event of a serious incident.*
- 4.12 Drones can offer incident command officers a range of capabilities, with the main aim of improving situational awareness and firefighter/public safety. The LFB started conducting a trial of drone capability on the 25 September 2018, which is expected to last for up to four months.

- 4.13 For this trial the LFB has purchased two drones that are operated by a minimum of two people; one who pilots the drone and one who operates the cameras. The drones have a number of different payload configurations from thermal imaging cameras to 30 x optical cameras. This flexible capability can support a range of operational environments; for example:
- Fires - where a specific need for a drone is required for aerial footage or would aid senior officers remote from an incident;
  - Urban Search and Rescue - for aerial mapping and wide area search functions including thermal imaging capability;
  - Fire Rescue Units - particularly at water related incidents for locating casualties, using thermal imaging or for wide area searches in conjunction with the Brigade's Emergency Rescue Boats (ERBs);
  - Improve firefighter safety, e.g. capturing thermal imagery remote from the risk area.
- 4.14 By providing an aerial view of an incident drones help to inform the incident commander's firefighting and operational tactics. Drones are also able to access areas, which are unsafe for firefighters which reduces risks and helps improve the Brigade's response to incidents.

## **Breathing Apparatus (BA) Equipment**

4.13 A corporate project to manage the scheduled replacement of all the LFB's Breathing Apparatus (BA) capability is currently underway. The 'Respiratory Protective Equipment' (RPE) project team is examining both the quantity and use of standard duration breathing apparatus (SDBA) and extended duration breathing apparatus (EDBA) sets within LFB. Whilst the scheduled replacement project predates the Grenfell Tower fire, the circumstances of the incident has provided new information that may inform technical and user requirements for the next generation of LFB breathing apparatus capability. It is anticipated that the outcomes from this project will not be implemented until 2020/21, but in the interim period work is underway to examine alternative options to deliver large numbers of EDBA sets to the scene of operations, when required. One option being considered is to make use of the LFB's existing Operational Support Units<sup>3</sup> (OSUs) for the delivery of this equipment. The predetermined attendance for certain incidents will be examined as part of this review.

<sup>3</sup> OSUs are lorries that deliver specialist equipment to the scene of operations.

- 4.14 The introduction of improved Breathing Apparatus Radio Interface Equipment (BARIE) communications is also being undertaken as part of the RPE replacement project and will depend heavily on funding and available technology. A short term solution being explored is to buy/lease a communications fit for the current Draeger PS7000 BA sets, which may include voice amplification when talking to members of the public through the BA facemask. A station based trial with the manufacturer is being explored as an option to evaluate the validity of this system. As part of the RPE replacement project all enhanced communication options are actively being explored with interested manufacturers.
- 4.15 In addition to the above and as part of the current Fire Rescue Unit (FRU) review work the LFB is exploring earlier mobilisation of FRUs to certain incident types. FRUs are the specialist fire engines that carry EDBA sets. However, caution must be attached to simply providing more EDBA for incidents as there are potentially significant safety implications for firefighters due to the increased physiological burden known to be associated with wearing a BA set of this weight. Therefore, it is important to note that depending on the conditions and due to the greater physiological demands associated with wearing EDBA, having more available air does not always mean being able to firefight for longer.

## High Rise Firefighting Tactics

4.16 The LFB is also reviewing various operational response options in terms of its ability to fight fires in high rise properties. This includes:

- Reviewing Positive Pressure Ventilation (PPV) tactics for potential use in high rise buildings;
- Research into a high pressure impellor for use with the Brigade's High Volume Pumps (HVPs). This will involve the testing of the high pressure impellor with a view to examining its effectiveness as a fire ground pump to provide large volumes of water at high pressure. Trials will be undertaken before the end of 2018 to establish whether this enhanced HVP capability could be used to charge a dry rising main fitted in a high rise premise. This research is being followed closely by fire and rescue colleagues nationally;
- Supporting the development of National Operational Guidance (NOG) for high rise fire fighting post Grenfell. This is being progressed via a number of working groups and the LFB continues to be involved in reviewing the new hazards identified post Grenfell and supporting the development of National Operational Guidance;
- Review the LFB's existing methods of entry equipment, policies and training. This work acknowledges the issues associated with breaching compartmentation when commencing firefighting operations. LFB is currently researching methods of gaining access for firefighting whilst at the same time being able to maintain control of compartment doors to control ventilation, smoke spread and fire development. Equipment such as smoke curtains could potentially be deployed on the fire floor following entry of firefighting crews to aid maintaining compartmentation and limit fire gas movement inside the protected stairwell(s);
- Wind driven fire tactics - LFB is currently researching the hazards and risks of wind driven fires at high rise buildings; looking at potential alternative tactical approaches and equipment to deal with this type of incident;
- The LFB is also reviewing existing solutions and undertaking further research into the practical water pressures and flow rates that can be achieved at the maximum heights of dry rising mains, particularly those premises built when dry risers were permissible up to 60 metres.. This work is aimed at identifying if the Brigade's current hose equipment and pumping capabilities are able to provide optimum fire fighting jets at the maximum height of a dry rising main. This research will involve practical testing at a number of residential high rise premises with similar characteristics to Grenfell Tower.

## Command Unit (CU) Replacement Project

4.17 Although this project predates the Grenfell Tower fire it is acknowledged that the reliability of the Command Support System (CSS) is an issue. As this corporate project is still over two years away from completion officers are now reviewing whether there is a potential interim IT solution that could be implemented.

4.18 The Brigade is aware that a portable command support system may provide more resilience to cover the interim period ahead of the CU replacement project being realised. Work is currently underway by officers within the Brigade's Operational Policy and Assurance department to research the available technologies to assess whether it is viable and expedient to progress an interim IT solution.

4.19 However, communications bandwidth over existing mobile phone bearer networks, coupled with delays to the national Emergency Service Network (ESN)<sup>4</sup> solution, means that restrictions

on the amount of data that can be transferred will apply to any portable system for the immediate future.

<sup>4</sup> *The Emergency Services Network (ESN) is a Government project to delivery a new communication system that will be used by the three blue light emergency services and other public safety users in the UK. It will be based on the latest technology, delivering secure and resilient voice communication but also broadband data services.*

- 4.20 In defining the requirements for the new command support solution the Brigade has requested that suppliers consider the use of linking alternate data sources, e.g. drone footage, into the new command support solution, across a range of device types. However, the use of such data has to be balanced against the need for the core incident data (e.g. messages from the Brigade's mobilising system) to be supplied without restriction as a priority. Once suppliers respond to the tender invitations the Brigade will be able to review which technologies and solutions will best be placed to provide all data required by the command support system.

### **Level 3 Advanced Incident Command Skills / Level 4 Strategic Incident Command Skills**

- 4.21 Although this initiative predates the Grenfell Tower fire the events of 14<sup>th</sup> June 2017 have been the catalyst to bring this work forward. In November 2017 talks with the Brigade's training provider (Babcock Training International) advanced to scoping out the development of both a Level 3 (L3) Advanced Incident Command and Level 4 (L4) Strategic Incident Command 1 day course. The L3 course is designed for all Deputy Assistant Commissioners (DAC) including substantive and temporary DACs and those Group Managers eligible to provide operational cover on the DAC rota. In August 2018 Babcock delivered the first of three pilot courses to ten DAC delegates. All pilot courses received very good feedback and an additional three courses have been scheduled for quarter three of 2018/19 to ensure sufficient course places are available to all eligible officers. The course aims to confirm the knowledge and understanding of a L3 Incident Commander associated with the organisational and strategic coordination arrangements. The L4 Strategic Command course is currently in development and the first pilot course is expected to be delivered in quarter four of 2018/19.

### **Decision Loggist Training**

- 4.22 Decision logging has been identified as a function that needs improvement. Within the Brigade decision logging is focussed on three key areas. These are:
- Logging key decisions and the rationale for these decisions, such as those taken at 'Commissioner's Continuity Group (CCG) convened under the Brigade's Strategic Response Arrangements (SRA), the Brigade Co-ordination Centre (BCC) and meetings held at the Metropolitan Police's Special Operations Room;
  - Decision logging in an operational environment;
  - Minute taking, e.g. Commissioner's Group (CG) and Tactical Support Group (TSG) meetings.
- 4.23 In May 2018 a report on the LFB's decision logging capability was submitted to the Safety & Assurance Directorate Board (DB) meeting. At this meeting it was agreed to sanction a revised training solution and increase the number of trained loggists to provide the Brigade with greater resilience. Following extensive research a pilot course has now been developed, which is being held over two days starting 19th December 2018.

## Revalidation of Incident Command (RoIC)

4.24 The RoIC is a corporate project that is currently in the planning stage of the project cycle. The project, once delivered, will see all Incident Commanders undergo a revalidation of their command skills on a bi-annual cycle through a knowledge test, evidence of Incident Command hours undertaken and a practical demonstration of their command proficiency using an Incident Command Exercise (ICE). In May 2018, following a recommendation at corporate level, a dedicated project manager was employed to progress this project.

## Operational Policy Updates

4.25 The LFB is currently reviewing Policy Note (PN 633) High rise firefighting and the associated training materials, which is at present out for consultation with the Brigade's Heads of Service. It is also being extensively consulted on with the two main Representative Bodies; the Fire Brigades Union (FBU) and Fire Officers Association (FOA). The updated policy will aim to complement the review of Policy Note 800 (PN 800) Management of Operational Risk. (see Section 6 of this report) and be an interim position ahead of any new National Operational Guidance being published.

4.26 The LFB is also reviewing its Fire Survival Guidance (FSG) policy note (PN 790). It is expected that changes to this policy will be made as a result of the review. Extensive scoping work is underway to include:

- a scalable approach to managing FSG calls - potential options for supporting the Control Room staff, when large numbers of FSG calls are being received, is being reviewed as part of this work. Any solution(s) developed will aim to compliment the existing arrangements that are already in place for dealing with high call volumes;
- optimising the use of existing communications equipment that ensure a network is established that can withstand the passing of multiple FSG call information between Control and the incident ground while ensuring Control receives accurate progress reports from the incident. Trials of various communications structures and protocols are on-going to establish the optimum solution using the existing communications equipment. The solution(s) and any associated training requirements will form part of the revised FSG policy;
- testing, through practical exercises, the current FSG information handling protocols and related capacity issues, minimising the stages currently undertaken to transfer FSG call information from LFB Control to the bridge head at the incident ground. These exercises have included reviewing different options for passing FSG call information between LFB Control and the incident;

4.27 The measures described above are predominantly concerned with ensuring the timely transfer of information between Brigade Control and the fireground. Another but equally key element is ensuring that effective processes are in place to handle large volumes of FSG calls which are likely to overstretch the capacity of a single Control room and ensure the timely sharing of risk critical information between Control rooms taking overflow calls. The actions that LFB and NFCC are working on collaboratively to improve this element are described below in paragraphs 5.3 to 5.5.

4.28 In addition to the above a thematic review is underway to identify any practical user improvements that can be made to the existing range of incident communication equipment. This includes handheld radio, portable and main scheme Airwave radio and Command Unit communications equipment.

## 5. Control

- 5.1 The review of Policy Note (PN 790) described above is directly relevant to the Control room function: in particular the management of large numbers of FSG calls and to ensuring optimum information flow in both directions between Control and the incident ground.
- 5.2 The management of multiple 999 and FSG calls within the control room itself has also been the subject of review by the LFB, particularly where the number of such calls may be on the exceptional scale experienced during the Grenfell Tower fire.
- 5.3 LFB, like all emergency services have established mutual aid arrangements in place with other Control rooms to answer and handle 999 calls including FSG calls should its own capacity be exceeded as a result of a major incident or spate conditions such as widespread flooding. LFB Control senior managers have engaged with the National Fire Chiefs Council (NFCC) Mobilising Officers Group (MOG) and discussed improving the communication of risk critical information between Controls involved in taking overflow calls under the established mutual aid arrangements.
- 5.4 The group has carefully considered the Grenfell Tower incident and the challenges presented by a number of Controls simultaneously handling calls relating to the same incident. The group propose the establishment of a dedicated national Airwave talk group for Fire Controls to enable the affected Control to simultaneously broadcast risk critical information to all Controls handling overflow calls and ensure supporting Controls can communicate information to the affected Control.
- 5.5 A proposal paper has been drafted by MOG to be presented for consideration by the NFCC Operations Coordination Committee. It is recognised that the proposed measure may be an interim solution dependent on the outcomes of work undertaken by the National Operational Learning Secretariat in response to the issue detailed in paragraph 9.1(ii) below.
- 5.6 The Brigade Control 'fallback' facility located in Stratford (the Control facility in use on the night of the Grenfell Tower fire) has been upgraded to enable the National Police Air Service (NPAS) helicopter downlink to be displayed on the large screens in this Control room.
- 5.7 The Brigade's 'Dynamic Cover Tool' (DCT), which assists Control officers to optimise the available fire cover resources during periods of high demand, is currently being tested to make it accessible at Stratford through a web based application. The DCT is already available at the Brigade's primary Control centre in Merton.
- 5.8 In addition, Brigade Control senior managers are considering the ad hoc actions implemented on the night of the fire to mitigate the unprecedented nature of the incident, recognising that established policies and procedures were overwhelmed. A training package is being developed and will be delivered to ensure that all staff are aware of the actions taken on the night where these are considered effective. Where improvements to the actions taken on the night have been identified, staff will receive input on the original action and the identified improvement. It is recognised this training is an interim measure prior to the implementation of revised policies and technological solutions such as those detailed in paragraph 4.26 and 4.27 above and 9.1(ii) below.
- 5.8 A more effective training recording system with the facility to automatically update Individual Training Records will also be implemented shortly, together with a more effective system, similar to that used for fire station staff, to ensure core skills are identified and competency of staff in these core skills is maintained .



## 6. Community Reassurance Activities

- 6.1 LFB Borough Commanders have been providing reassurance and focussed advice to their local communities in response to the concerns of residents following the Grenfell Tower fire. This has taken the form of briefings to partners, including local authorities and housing associations, residents and community groups and giving advice in relation to cladding and safety in high rise residential buildings.
- 6.2 In terms of providing support to the local community directly affected by the Grenfell Tower fire the LFB has initiated an immediate local response via the Kensington and Chelsea Borough Commander and local fire station crews. These activities included reassurance visits to local high rise residential blocks and a structured Home Fire Safety Visit (HFSV) programme focused on those blocks. This work is in addition to the focused programmed activity co-ordinated by the Brigade's Community Safety Department.
- 6.3 In addition to the above the a dedicated Community Safety 'Action Plan' of activity was co-ordinated by the Brigade's Community Safety Department. This included a number of initiatives, schemes and support focussed on prevention and community assurance within the borough of Kensington and Chelsea. These activities are set out in Appendix 4.

## 7. Operational Risk Information (ORI) Review

- 7.1 Since the Grenfell Tower fire the LFB has initiated a new corporate project to review and improve the current approach to the gathering, recording and dissemination of operational risk information. The review is assessing the effectiveness of how LFB risk assesses buildings and will define a unified approach that can be used across the organisation. The project is also:
  - i) coordinating the review of LFB Policy Note 800 (Management of operational risk information);
  - ii) ensuring that any changes are integrated with the outcomes from the Fire Safety Checks (FSC) initiative, which started in August 2016;
  - iii) identifying and planning for any new training requirements; and
  - iv) ensuring that any system related implications are integrated into the current and planned LFB IT upgrade programmes.
- 7.2 The outcomes of the ORI review and any resulting enhanced workflows will be pivotal to the design principles of the next phase of data system refreshes, some of which are on hold to ensure that they are informed by the outcomes of this review. The LFB is committed to developing a data infrastructure that will streamline the sharing of critical risk information across the various strands of the organisation, so that operational crews and Fire Safety Inspection Officers (FSIOs) will naturally achieve a shared view of the risks across London.

## 8. High Reach Fire Engines (Aerials)

- 8.1 LFB has provided its vehicles and equipment contractor, Babcock Critical Services, with a detailed output based specification for three extended height aerial appliances to complement the twelve standard height aerial appliances, which are currently being procured as part of the normal replacement life cycle for these assets. Technological advances mean these extended height aerial appliances have now become available on a similar size chassis to the Brigade's current fleet, mitigating the access and other issues associated with larger vehicle chassis, which existed previously.

- 8.2 In 29 May 2018, Babcock went out to the market to invite tenders for the supply of all of the new aerial appliances. This included the supply of both standard and extended height appliances as a single contract. The window to accept tender proposals closed on 25 June 2018 and the evaluation process of the received tender proposals has now been completed.
- 8.3 A preferred bidder has emerged from this process, but the tenders are now being subject to some further technical clarifications prior to the final decision being made. LFB is expecting delivery of the first of the new extended height aerial appliances towards the end of 2019.

## 9. National Operational Guidance

- 9.1 Two immediate issues were identified by the Grenfell Tower fire 'safety and learning' investigation;
- i) rapid fire spread taking place at the early stages of an incident and well before the expectation of when compartmentation of a building would normally be compromised, and
  - ii) how Fire Survival Guidance (FSG) calls are managed nationally when this type of call is passed to another Control Centre.
- 9.2 Both issues have been shared with the Fire Central Programme Office, National Operational Learning process, where LFB have worked closely with the National Operational Learning Secretariat. This has produced series of recommendations.
- 9.3 These recommendations have resulted in a number of national 'Action Notes' being published through the National Operational Learning User Group (NOLUG) forum. These 'Action Notes' include:
- An Action Note sent to 'Skills for Justice' (the sector skills council for the fire and rescue service) with a recommendation for the review of the National Occupational Standards (NOS), with a purpose of ensuring relevant knowledge and understanding of building construction, fixed installations, fire science and fire engineered solutions that complement National Operational Guidance – 'Fires in buildings';
  - An Action Note to all fire and rescue services in the UK highlighting the existing requirements under the National Operational Guidance control measures: 'Produce a risk management plan' and 'Site Specific Risk Information (SSRI)', in reference to high-rise premises designed or constructed in a way that may result in rapid fire spread. The note states that the NFCC support the approach of fire and rescue services determining their PDA for specific incident types on the basis of their own operational risk assessment (ORA). Each ORA will be cognisant of the need to achieve the appropriate speed and weight of attack.
  - An Action Note to NOG recommending a number of hazard and control measures relating to rapid fire spread and appropriate provision for fire survival guidance has also been issued.
- 9.4 In addition to the Action Notes referred to above, the NOG team have reviewed the hazards and control measures associated with rapid fire spread and are currently consulting on the proposed revisions to the guidance.
- 9.5 As a region in its own right LFB is also a standing member/stakeholder on the NFCC governed NOLUG with a member of the Brigade's Incident Command Policy and Assurance team representing the LFB at this forum. One of the groups references is to collate, consider, discuss and disseminate responses to issues put forward by various regional representatives. In

September 2018 LFB put forward an issue for discussion, which relates to evacuation methods used in high rise buildings involved in fire. The group, which meets every three months, is due to provide feedback at the next meeting in December 2018.

## 10. Counselling and Trauma Service

- 10.1 The LFB has a long standing and well respected in-house counselling service. The team has been expanded in the immediate aftermath of the Grenfell Tower fire in recognition of the ongoing nature of their role in supporting LFB staff deal with the traumatic impact of the fire and process of giving 'oral' evidence at the Grenfell Tower Inquiry. To date, the LFB's Counselling and Trauma team have treated over 157 personnel for adverse trauma response and/or Post Traumatic Stress Disorder (PTSD).
- 10.2 At the time of the Grenfell Tower fire the LFB had 5.2 trained counsellors (full time equivalents) with one providing out of hours, on call support. As a result of the Grenfell Tower fire the establishment of the counselling team has increased with an additional four whole time counsellors being employed.

## 11. Communications and Media

- 11.1 Initial communications focused on the incident and immediate aftermath of the Grenfell Tower fire, including staff communications and public messaging. Since the fire there has been significant communications focus on reissuing and clarifying key safety messaging for the public. Content on the LFB website about fire safety in purpose built blocks of flats and maisonettes was reviewed in June 2017. This content, including animations, was originally developed as part of the LFB 'Know the Plan' campaign launched after the Lakanal House inquest. NB: All materials relating to the 'Know the Plan' campaign have already been disclosed to the GTI.
- 11.2 All content has then been promoted through media work focussing specifically on the practical advice LFB gives to Londoners living in purpose built flats and maisonettes. There was also focussed social media activity supporting this and communications to partners asking them to share this information.
- 11.3 The London Fire Commissioner wrote to housing providers across the capital on 26 June 2017 with a reminder of their duty to ensure there is a comprehensive fire risk assessment for all purpose built blocks of flats and maisonettes they own or manage. A copy of this letter is included as Appendix 5. The LFB has also reissued three fire safety tools designed to help housing providers check that their buildings are safe, also initially developed as part of the LFB's 'Know the Plan' campaign. These are two guides for councillors originally published in July 2014 to help councillors scrutinise the safety of purpose built flats in their constituencies:
- i) Councillor guide on fire safety for use during estate visits;
  - ii) Councillor guide on fire safety for use during council meetings; and
  - iii) The third is an audit tool to help examine whether the right measures are in place to ensure that refurbishments of blocks don't negatively impact fire safety is also available. This was first published in January 2015 and is called the ' Fire safety in refurbished buildings audit tool'.
- 11.4 Posters and guides targeted at members of the public, which were available to be jointly branded by housing providers and the LFB have been redistributed via partners including London Councils and the National Housing Federation. Campaigning work has also been

intensified specifically on the topics of sprinklers, building regulations and calling for a review of 'Approved Document B'.

- 11.5 Since the confirmation of where the fire started the LFB has increased proactive use of fire safety messaging in relation to white goods, primarily through increased focus on the pre-existing 'Total Recalls'<sup>5</sup> campaign.

<sup>5</sup> *The 'Total Recalls' campaign, launched by the LFB in 2016, calls for improvements to manufacturing standards for white goods and the product recall system in the UK.*

- 11.6 The LFB's use of internal communications have been extensive, making sure staff have access and updates to counselling, trauma and wellbeing information and are aware of the importance of referring media enquiries to the press office. Internal communications have also been used to keep all fire brigade staff updated on the Public Inquiry and Criminal Investigation.

## 12. Long Term Health Monitoring

- 12.1 The respiratory health of firefighters is already examined during their routine periodic medicals, which involve a specific asbestos health surveillance component. In addition to this, the Brigade have initiated discussions with researchers at Imperial College (in association with the Royal Brompton Hospital and Kings College) to undertake independently funded research into the effects of the Grenfell Tower fire on both the respiratory health and mental health of those firefighters that attended the incident. The study will be led by and financed through Imperial College London in collaboration with King's College (London) and independently of LFB.

- 12.2 If this study goes ahead firefighters will be offered a more comprehensive medical examination of cardio-respiratory health and a review of their psychological wellbeing. The study will be conducted in an entirely confidential manner in accordance with the ethical standards of good clinical and research practice; participation will be voluntary. The study's findings, which will be presented in a manner from which it will be impossible to identify individual participants, will be published in peer-reviewed journals and a summary of the study findings disseminated to all the participant.

## 13. London Resilience Group (LRG)

- 13.1 The LRG had full time staff committed to the Grenfell Fire Response Team until 8 September 2017, at which point the Recovery operation was formally handed over to the Royal Borough of Kensington and Chelsea. Since that time London Resilience has conducted the following pieces of work in direct relation to the Grenfell Fire.

- 13.2 On the 4th October 2017 the LRG convened members of the partnership to conduct a table-top exercise focussed on residential tower block evacuations. The exercise had representatives from:

- Greater London Authority (GLA) (including Communications and Housing teams);
- LFB (Assistant Commissioner and Deputy Assistant Commissioner from the Fire Safety Regulation department);
- MPS (Emergency Preparedness unit);
- Local authorities (Chief Executive, Director of Housing and Chief Executive Liaison Officer (Resilience));
- London Councils (Head of Strategic Policy);

- Major London housing associations;
- Voluntary sector (British Red Cross); and
- Department of Communities and Local Government Resilience and Emergencies Division (now MHCLG RED).

13.3 The exercise focussed on two scenarios: partners actions in relation to another tower block fire and also the need to decant residents from a number of tower blocks simultaneously due to fire safety concerns. The following actions were recorded and discharged to the relevant agency for further work or investigation:

- i) To consider early communication with the volunteer sector during an incident in regards to the activation of mutual aid - Action: LRG
- ii) For Borough Resilience Forums (BRFs) to revisit Rest Centre availability through Housing associations and refresh representatives awareness - Action - BRFs (communicated via LRG)
- iii) To acknowledge 'Community Resilience' within strategic coordination arrangements during an incident - Action: All Partners
- iv) To consider GLA Housing's offer to the housing association of coordination and capacity of volunteers during an incident - Action: Housing associations
- v) To clarify the roles and responsibilities of the HCA (Homes Community Agency) in response to an fire incident - Action: DCLG RED
- vi) To consider where the capacity is for additional resources in regards to emergency and temporary accommodation - Action: Local authorities
- vii) Local authority housing departments to consider a mechanism for coordinating resources to identify temporary and emergency accommodation and manage rehousing of large numbers of residents - Action: Local authorities

13.4 LRG also undertook an internal review of its response to the Grenfell Tower fire and the other declared 'Major Incidents' that occurred in 2017. As a result of that review the following actions were undertaken:

- A review of the capacity requirements to respond to the scale of incidents like the Grenfell Tower fire through a combination of full time London Resilience staff and further Fire and Rescue Service (FRS) volunteers;
- Further FRS volunteers were recruited from across the LFB to supplement the London Resilience on-call rotas. This filled vacancies that had arisen over the course of the summer of 2017 and provides a greater pool of volunteers and ensure the Brigade maintain a full compliment of 36 trained responders comprising of London Resilience staff and FRS volunteers;
- A review of internal training delivered to the on-call teams and an increase in frequency of training to staff;
- Increasing the number of on-call response staff trained in senior roles. LRG have increased the number of supervisors from four to eight with a total of nine staff trained in that role. LRG has also increased the number of strategic advisors from three to four with five staff trained in that role. This has increased the availability of senior staff and the flexibility to perform these roles across the full time members of London Resilience;

- Further investment has been made in remote working and the ability to establish a coordination function in a remote location to LFB facilities. All full time staff have been issued with 4G enabled laptops and additional laptops have been purchased for use in a response by volunteers. Additional stand alone printing capability has also been procured. This enables the entire team to work remotely in circumstances such as the sustained response to the Grenfell Tower fire.

13.5 A multi agency strategic debrief was arranged by LRG on behalf of the resilience partnership. The suite of debriefs were focussed against the seven capability frameworks and plans that were invoked as a result of the Grenfell Tower Fire. These were:

- Strategic Coordination Protocol;
- Recovery Management Protocol;
- London Resilience Gold Communications Emergency Plan;
- Mass Fatalities Plan;
- Humanitarian Assistance Framework;
- Scientific and Technical Advice Cell Plan;
- Structural Collapse and Site Clearance Framework.

13.6 As per the learning and implementation protocol the debriefs were facilitated by independent staff from Public Health England's National Training Team who are trained in the same methodology as debriefing that has been used for other Major Incidents in London since the Croydon Tram Derailment in 2016. The debriefs were conducted between 10 July 2018 and – 19 July 2018. The report of the debrief is scheduled to be presented to the London Resilience Forum on 18th October 2018 and the lessons identified consolidated into the London Resilience Partnership Lessons database and allocated to the relevant working group for further action.

Key Observation No.	Key Observation - LFB Interim GTIRT Report	Primary Action	Primary Action Owner	Supporting Action	Supporting Action Owner	Progress
1.1	The external cladding system installed on Grenfell Tower was not compliant with Regulation B4(1), contributing to the observed failure of the fire safety measures provided within the premises.	Commission 1 - ref 1	Assistant Commissioner Operational Policy & Assurance	Support to Building Safety programme	Assistant Commissioner Fire Safety	<p><b>Primary Action</b> Ops New 37 has been published in response to the primary action .</p> <p><b>Supporting Action</b> - Our officers are supporting the building safety program by ensuring that MHCLG are informed and updated on any new developments as a result of our ongoing inspection plan or any significant fires which may be relevant to matters being considered by the expert panel/MHCLG. We continue to provide technical fire service expertise to the Building Regulations Advisory Committee through their workshops focussed around the review of Approved Document B.</p> <p>LFB officers seconded to NFCC are leading the national response to key consultations to ensure that any new regime improves the current system whilst ensuring that it is suitable and practical.</p>
2.1	Any knowledge concerning the risks associated with cladding systems may not have been recognised and communicated effectively across the Brigade.	Commission 1 - ref 1	Assistant Commissioner Operational Policy & Assurance	ORI data amalgamation/One Risk Project/Ops News 34	Assistant Commissioner Fire Stations	<p><b>Primary Action</b> Ops New 37 has been published in response to the primary action . PN 633 (High rise procedure) and PN 790 (Fire survival guidance) are being reviewed but this is proving challenging.</p> <p><b>Supporting Action</b> OPS News 34 provided guidance on effective identification and recording of operational risk. This was in advance of ORI project that commenced in April 2018.</p>
2.2	The Operational Risk Database entry for Grenfell Tower was not populated in accordance with PN 800.	ORI Project	Assistant Commissioner Fire Stations	NA	NA	<p><b>Primary Action</b> The ORI project commenced in April 2018.</p>
2.3	There is a lack of consistency in the standard of premises risk information held on the Operational Risk Database.	ORI Project	Assistant Commissioner Fire Stations	One Risk Project	Head of ICT	<p><b>Primary Action</b> The ORI project commenced in April 2018.</p>
2.4	The Brigade has not undertaken Premises Risk Assessments for all residential high rise premises to determine the level of risk associated with these premises.	ORI Project	Assistant Commissioner Fire Stations	NA	NA	<p><b>Primary Action</b> The ORI project commenced in April 2018.</p>
2.5	There may be an inconsistent level of knowledge and understanding amongst operational staff in relation to 7(2)d visits.	ORI Project	Assistant Commissioner Fire Stations	Station based FS training and Commission 1 ref 8	Assistant Commissioner Fire Safety	<p><b>Supporting Action</b> - Babcock Training are delivering fire safety training to station based staff. Includes residential and commercial premises; syllabus includes elements of construction, compartmentation, firefighting facilities, evacuation strategies and ventilation systems.</p>
2.6	There is no established means for crews providing an emergency response to premises outside of their own station areas to be aware of any fire safety deficiencies that may have been identified.	ORI Project	Assistant Commissioner Fire Stations	One Risk Project	Head of ICT	<p><b>Primary Action</b> The ORI project commenced in April 2018.</p>
3.1	The scale and rapidity of the incident, combined with human factors, impacted on the ability to maintain situational awareness.	Commission 4	Assistant Commissioner Operational Policy & Assurance, Assistant Director People Services, Assistant Director Training & Professional Development	NA	NA	<p><b>Primary Action</b> Behavioural /Leadership frameworks being reviewed to ensure frameworks include the personal attributes and qualities that promote and enhance safety and health.</p>
3.2	The rapid escalation of the incident impacted to a limited extent on command handovers.	Commission 1 - ref 9/10	Assistant Commissioner Operational Policy & Assurance	Commission 4	Assistant Commissioner Operational Policy & Assurance, Assistant Director People Services, Assistant Director Training & Professional Development	<p><b>Primary Action</b> Revised Incident Command Level 1 and 2 training will be delivered to all those identified as requiring it, including newly promoted officers by the end of 19/20. Development of Level 3 and 4 Incident Command due to commence in April 2020.</p> <p><b>Supporting Action</b> Behavioural /Leadership frameworks being reviewed to ensure frameworks include the personal attributes and qualities that promote and enhance safety and health. The Assistant Commissioner – Operational Policy and Assurance will consider the design and format of operational policy / procedures and assess the extant suite of policies to ensure they adequately cover the concepts of risk perception, risk appetite, personal responsibility and the moral imperative.</p> <p>103 Assistant Director – Training and Professional Development will undertake a confirmation exercise to assess to what extent the principles of operational competence by rank / role are delivered within the Brigade's existing suite of training solutions.</p>
3.3	Effective early information gathering enabled the 'on arrival' tactics and actions identified in PN 633 to be implemented effectively by the crews who formed the pre-determined attendance for the incident.					
3.4	There was effective early recognition of resourcing requirements by ICs.					

3.5	Recording of decisions, rationale, objectives and tactical plans was in some regards ineffective.	Commission 1 - ref 1/9/10	Assistant Commissioner Operational Policy & Assurance	Commission 4 - ref 3/10/12/20	Assistant Commissioner Operational Policy & Assurance, Assistant Director People Services, Assistant Director Training & Professional Development	<p><b>Primary Action</b> Ops News 37 included an article that makes reference to the recording of decisions. Revised Incident Command Level 1 and 2 training will be delivered to all those identified as requiring it, including newly promoted officers by the end of 19/20. Development of Level 3 and 4 Incident Command due to commence in April 2020.</p> <p><b>Supporting Action</b> Behavioural /Leadership frameworks being reviewed to ensure frameworks include of the personal attributes and qualities that promote and enhance safety and health. The Assistant Commissioner – Operational Policy and Assurance will consider the design and format of operational policy / procedures and assess the extant suite of policies to ensure they adequately cover the concepts of risk perception, risk appetite, personal responsibility and the moral imperative.</p> <p>Assistant Director – Training and Professional Development will undertake a confirmation exercise to assess to what extent the principles of operational competence by rank / role are delivered within the Brigade's existing suite of training solutions.</p>
3.6	Difficulty in confirming who was being rescued or self evacuating from the building and from where created difficulty in maintaining accurate records to inform the search and rescue operation.	Commission 1 - ref 6/7	Assistant Commissioner Operational Policy & Assurance	NA	NA	<p><b>Primary Action</b> The exercising of developing guidance is under way. Five exercises have been completed and still proving a challenge. Evaluations and further testing still required.</p>
3.7	Operational Discretion was adopted for the incident but it was not formally recorded in accordance with Brigade policy.	Commission 1 - ref 1	Assistant Commissioner Operational Policy & Assurance	Commission 1 - ref 9/10/11	Assistant Commissioner Operational Policy & Assurance	<p><b>Primary Action</b> Ops New 37 has been published in response to the primary action .</p>
4.1	The Brigade had limited means to fight an external façade fire resulting from the non compliance of the installed external cladding system with the requirements of Regulation B4(1).	Building Safety Programme	Assistant Commissioner Fire Safety	Aerial Replacement Project	Assistant Director Technical & Commercial	<p><b>Primary Action</b> Our officers are supporting the building safety program by ensuring that MHCLG are informed and updated on any new developments as a result of our ongoing inspection plan or any significant fires which may be relevant to matters being considered by the expert panel/MHCLG. We continue to provide technical fire service expertise to the Building Regulations Advisory Committee through their workshops focussed around the review of Approved Document B. LFB officers seconded to NFCC are leading the national response to key consultations to ensure that any new regime improves the current system whilst ensuring that it is suitable and practical.</p> <p><b>Supporting Action</b> The replacement aerial fleet are "in build". The first of the new 32 metre appliances will arrive in Brigade in Jan 2020 and the 64 metre appliances in June 2020. This will be followed by a comprehensive training program which is well into the design stage.</p>
4.2	Extensive breaches of compartmentation resulted in simultaneous serious fires on multiple floors.	Commission 1 - ref 1	Assistant Commissioner Operational Policy & Assurance	Commission 1 - ref 4/5	Assistant Commissioner Operational Policy & Assurance	<p><b>Primary Action</b> Ops New 37 has been published in response to the primary action .</p> <p><b>Supporting Action</b> The revised PN 633 has been through Heads of Service consultation and is expected to be published by the end of 2019. A training solution will be developed and implemented to coincide with the publication of the revised PN 633 and associated policies.</p>
4.3	The building behaved in an unpredictable manner beyond the experience of the Brigade.	Commission 1 - ref 1	Assistant Commissioner Operational Policy & Assurance	Commission 1 - ref 4/5	Assistant Commissioner Operational Policy & Assurance	<p><b>Primary Action</b> Ops New 37 has been published in response to the primary action .</p> <p><b>Supporting Action</b> The revised PN 633 has been through Heads of Service consultation and is expected to be published by the end of 2019. A training solution will be developed and implemented to coincide with the publication of the revised PN 633 and associated policies.</p>



4.4	The building's single escape route was significantly compromised by the products of combustion from an early stage of the incident.	Intro of Fire escape hoods		Ops News 37		Complete
4.5	Number of FSG calls and the resulting volume of information significantly exceeded the expectations of Brigade policy and training.	Commission 1 - ref 6/7	Assistant Commissioner Operational Policy & Assurance	Commission 3 - ref 1/2/3	Assistant Commissioner Control & Mobilising	<b>Primary Action</b> Ops News 37 contained and article on FSG calls. <b>Supporting Action</b> Exercising of developing guidance under way. Five exercises have been completed and still proving a challenge. Evaluations and further testing still required. The expected date for completion is April 2020. Training cannot
4.6	Operational personnel were required by circumstances to provide fire survival guidance to residents, a task not anticipated by policy or training.	Commission 1 - ref 6/7		Commission 3 - ref 1/2/3		See above
4.7	Operational crews had problems physically identifying floor numbers in the stairwell.	ADB revisions	Assistant Commissioner Fire Safety	NA		<b>Primary Action</b> This exact example was one of many cited in the comprehensive response to the Hackitt review.
4.8	Some elements of the BA operations during the Grenfell Tower fire were not fully aligned to the Brigade's operational procedures set out in PN 466.	Commission 4	Assistant Commissioner Operational Policy & Assurance	Review of PN 466	Assistant Commissioner Operational Policy & Assurance	<b>Primary and Supporting Actions</b> Revisions to the National Operational Guidance for BA are expected to be published during October 2019 and will be considered by the Brigade in relation to any necessary changes to PN 466. A review being undertaken of both the behavioural and leadership frameworks (currently in development) to ensure they include all of the personal attributes and qualities that promote and enhance safety and health.
5.1	The facilities at the Brigade's fallback Control, located in Stratford, did not fully replicate those at the primary Control in Merton.	Intro of DCT and Helitele at Stratford				Complete
5.2	FSG call information was not gathered and communicated in accordance with PN 539, Appendix 3.	Commission 3 - ref 3	Assistant Commissioner Control & Mobilising	Control Improvement Plan	Assistant Commissioner Control & Mobilising	<b>Primary Action</b> The exercising of developing guidance is under way. Five exercises have been completed and still proving a challenge. Evaluations and further testing still required. The expected date for completion is April 2020. Training cannot commence until the final Policy Note is published. <b>Supporting Action</b> The Control Improvement Plan is still in development.
5.3	There was no established or tested method to maintain an overview of the FSG call information being received by Brigade.	Commission 3 - ref 1	Assistant Commissioner Control & Mobilising	Control Improvement Plan	Assistant Commissioner Control & Mobilising	<b>Primary Action</b> The exercising of developing guidance is under way. Five exercises have been completed and still proving a challenge. Evaluations and further testing still required. The expected date for completion is April 2020. Training cannot commence until the final Policy Note is published. <b>Supporting Action</b> The Control Improvement Plan is still in development.
5.4	The 'Vision' mobilising system does not support the identification of telephone numbers to enable call backs, and the Brigade does not have a clear policy position on re-contacting callers.	Commission 3 - ref 4	Assistant Commissioner Control & Mobilising	Commission 3 - ref 11	Assistant Commissioner Control & Mobilising	<b>Primary Action</b> It is anticipated to only be addressed as part of the design of a replacement mobilising system and will not be started until Jan 2024. <b>Support Action</b> Due to be completed by Mar 2020.
5.5	There are no national standards for passing and receiving FSG call information between Fire and Rescue Service Control rooms handling calls related to the same incident.	Commission 3 - ref 6	Assistant Commissioner Control & Mobilising	NFCC MOG	Assistant Commissioner Control & Mobilising	This has been started and scheduled for completion by Jan 2020. Training will then be implemented in Mar 2020 to reflect new national procedures.
5.6	There is no automated system to link NICE voice records to Vision call records, impacting on any post incident review.	Commission 3 - ref 4/10	Assistant Commissioner Control & Mobilising	Mobilising System Replacement	Assistant Commissioner Control & Mobilising	It is anticipated to only be addressed as part of the design of a replacement mobilising system and will not be started until Jan 2024.
5.7	The 'Vision' mobilising system 'call collection form' can be overwritten if a new call is taken before it is added to the incident log.	Commission 3 - ref 4	Assistant Commissioner Control & Mobilising	Mobilising System Replacement	Assistant Commissioner Control & Mobilising	It is anticipated to only be addressed as part of the design of a replacement mobilising system and will not be started until Jan 2024.
5.8	There is potential for Brigade Control personnel to experience secondary trauma following a traumatic incident.	Commission 3 - ref 9	Assistant Commissioner Control & Mobilising	Commission 5 - ref 2	Assistant Director People Services	<b>Support Action</b> AC C&M meeting with Head of Counselling and Trauma Services to consider options for support for Control staff.
6.1	The volume of radio traffic exceeded the capacity of both the BA and command channels.	Ops News 36 (Published February 2019)				Complete
6.2	There is evidence of a lack of knowledge and understanding of the potential tactics and associated equipment that may have mitigated radio communication issues.	Ops News 36 (Published February 2019)				Complete

6.3	Senior officers were unable to book in attendance at the incident due to the high volume of radio traffic on the Airwave main scheme radio.	Mobilising System Replacement	Assistant Commissioner Control & Mobilising	Mobilising System Replacement	Assistant Commissioner Control & Mobilising	It is anticipated to only be addressed as part of the design of a replacement mobilising system and will not be started until Jan 2024.
6.4	There was a lack of information provided to Brigade Control on progress with search and rescue operations.	Commission 1 - ref 6/7	Assistant Commissioner Operational Policy & Assurance	Commission 3 - ref 1/2/3	Assistant Commissioner Control & Mobilising	<b>Primary Action</b> The review of Policy Note 790 is still being done and due for publication in April 2020. <b>Supporting Action</b> Exercising of developing guidance under way. Five exercises have been completed and still proving a challenge. Evaluations and further testing still required. The expected date for completion is April 2020. Training cannot commence until the final Policy Note is published.
6.5	Dissemination of FSG information between the CU and the Bridgehead was delivered via multiple channels as the volume and sources of information increased.	Commission 1 - ref 6/7	Assistant Commissioner Operational Policy & Assurance	NA	NA	<b>Primary Action</b> The review of Policy Note 790 is still being done and due for publication in April 2020.
6.6	There was limited practical means to communicate with all residents in the building to provide advice and /or support.	Commission1 - ref 1	Assistant Commissioner Operational Policy & Assurance	Commission 1 - ref 4/5	Assistant Commissioner Operational Policy & Assurance	<b>Primary Action</b> Ops News 37 made reference to this. <b>Supporting Action</b> The review Policy Note 633 continues and is due in Nov 2019. However it is felt that this will be limited. NFCC have called upon Gov to undertake research into procedure for emergency evacuation.
6.7	There was no declaration of a Firefighter Emergency to Brigade Control in accordance with Policy Note 496.	Scheduled policy review in Sept / Oct	Assistant Commissioner Operational Policy & Assurance	NA	NA	<b>Primary Action</b> PN is currently under review
6.8	From 0300hrs, FSG information was passed from Brigade Control to the incident by a mobile to mobile communication link, resulting in a lack of evidence to support a post incident review.	Commission 3 - ref 1	Assistant Commissioner Control & Mobilising	Commission 1 - ref 6	Assistant Commissioner Operational Policy & Assurance	<b>Primary Action</b> The review of Policy Note 790 is still being done and due for publication in April 2020. <b>Supporting Action</b> Exercising of developing guidance under way. Five exercises have been completed and still proving a challenge. Evaluations and further testing still required. The expected date for completion is April 2020. Training cannot commence until the final Policy Note is published.
7.1	The Command Support System was unreliable during the incident.	hardware on existing CUs and issue of 4G laptops as resilience	Head of ICT and Assistant Director Technical & Commercial	CU Replacement project	Assistant Director Technical & Commercial	Replacement of hardware on existing Command Units due to be completed in March 2020. All CU have had 4G laptops issued.
7.2	There was no mobilising protocol for the Brigade's limited Positive Pressure Ventilation capability.	Intro of mobilising protocol				Complete
7.3	A number of BA sets were used more than once by different wearers and there was no means to record the test or the subsequent wearer.	Review of PN 466	Assistant Commissioner Operational Policy & Assurance	NA	NA	The findings of the GTIRT team on this subject have been passed to the Respiratory Protective Equipment policy team and the Protective Equipment Group for their consideration.
7.4	Time stamp on Thermal Image Cameras is not aligned to Greenwich Mean Time.	Scheduled replacement of equipment in 2020	Assistant Director Technical & Commercial	NA	NA	Scheduled replacement of equipment in 2020

Recommendation No	Recommendation	Work in progress	Lead Officer	Status
1	The Brigade should continue to work with all stakeholders to identify and deliver improvements to the regulatory regime to prevent a re-occurrence of the Grenfell Tower fire and increase the safety of the public and firefighters.	The Brigade continues to work with all stakeholders to identify and deliver improvements to the regulatory regime and support the Hackitt review and the Ministry of Housing, Communities and Local Government (‘MHCLG’) building safety programme. Brigade officers are supporting the building safety programme by ensuring that MHCLG and the Home Office are informed and updated on any new developments as a result of our ongoing inspection plan or any significant fires which may be relevant to matters being considered by the Expert Panel / MHCLG. Officers continue to provide technical fire service expertise to the Building Regulations Advisory Committee through their workshops focussed around the review of Approved Document B. In addition, Brigade officers seconded to the National Fire Chiefs Council (‘NFCC’) are leading the national response to key consultations to ensure that any new regime improves the current system whilst ensuring that it is suitable and practical. 77 On 5 July 2019, the LFC and the NFCC sent a joint letter to the MHCLG and to the Home Office <u>setting out their joint concerns at the slow pace of change to improve building safety in high rise residential</u>	Assistant Commissioner Fire Safety	Ongoing
2	The Brigade should continue to campaign vigorously for the provision of sprinklers in residential high rise and other types of buildings in order to improve public safety.	The Brigade has long advocated the use of automatic fire suppression systems such as sprinklers and water mist systems in residential high rise buildings as part of its commitment to reducing the impact of fire on people, property and the environment, as well as helping to protect firefighters. Despite all the evidence and widespread support for sprinklers, our evidence shows developers are consistently ignoring our expert advice on when they should be included. For well over ten years, we have raised the issue directly with Government Ministers, through MPs who have tabled questions in parliament and secured parliamentary debates, as well as giving evidence to other parliamentary groups and relevant forums. We have also worked closely with the London Assembly, for example with the Planning Committee’s 2018 report on sprinklers. Our Communications team continues to highlight the issue via media and social media campaigns, building support and awareness, as well as myth-busting some of the common misconceptions about how sprinkler	Assistant Commissioner Fire Safety	Ongoing
3	The Brigade should consider reviewing its policies and training packages relevant to 7(2)d visits to ensure consistent guidance is provided to operational personnel.	The review of PN 800 and associated policies within the ORI project will inform the gathering, recording and dissemination of operational risk information and the focus and format of 7.2(d) visits undertaken by station based staff. Once complete, station based staff will receive training on any changes implemented as a result of the ORI project outcomes	Assistant Commissioner Fire Stations	In progress
4	The Brigade should consider how to ensure information relating to identified fire safety deficiencies in a premises is available to all operational crews.	The ORI project is reviewing and, where necessary will improve the system for the gathering, recording and dissemination of operational risk information. The objectives for the project include creating a policy that encompasses understanding and identifying risk and provides a uniform approach to gathering, recording, prioritising and sharing of operational risk information; and ensuring that relevant risk information is easily <u>available to the right people at the right time in a format that is easy to understand and use</u> .	Assistant Commissioner Fire Stations	In progress
5	It is recommended that the Brigade determines whether to retain the DMM or move to the DCP. It is acknowledged the Brigade needs to consider the challenges and benefits of implementing such a wider ranging and fundamental change to its incident command framework, at a time of significant organisational change and other improvement programmes.	The Brigade is awaiting the GTI Interim Report to note if any urgent recommendations are directed at the Brigade in relation to this area, prior to making any decision on continuing use of the DMM or a move to the DCP.	Assistant Commissioner Operational Policy & Assurance	Not started
6	The Brigade should consider the extent to which human factors affecting command and control are addressed in policy and training.	GTIB has commissioned three Heads of Service to consider and ensure human factors are addressed within their respective areas of responsibility. The work is necessarily broad in scope and naturally complex because of the variability of individual human behaviours. The Assistant Director – People Services will consider recruitment and selection processes to identify factors that may improve or enhance health and safety, e.g. personal resilience, emotional intelligence, decision-making ability, and the ability to provide clear and effective instruction. The Assistant Commissioner – Operational Policy and Assurance will consider the design and format of operational policy / procedures and assess the extant suite of policies to ensure they adequately cover the concepts of risk perception, risk appetite, personal responsibility and the moral imperative. The Assistant Director – Training and Professional Development will undertake a confirmation exercise to assess to what extent the principles of operational competence by rank / role are delivered within the Brigade’s existing suite of training solutions. In addition the exercise will assess to what extent risk perception and personal responsibility is embedded within the <u>Brigade’s training provision</u> .	Assistant Commissioner Operational Policy & Assurance, Assistant Director People Services, Assistant Director Training & Professional Development	In progress
7	The Brigade should consider how it can most effectively raise awareness of and reinforce the requirements of PN 828 ‘Recording decisions at incidents’.	Delivered through Operational News 37		Complete
8	Whilst it is recognised that the volume of FSG calls experienced during the Grenfell Tower fire and the information associated with those calls was unprecedented, it is recommended the Brigade considers the issues carefully to ascertain if any measures can be implemented to address this matter.	The Brigade has provided interim advice in Operational News 37 whilst work is ongoing to revise PN 633 and PN 790 to deliver enhanced high rise firefighting and fire survival guidance procedures in April 2020.	Assistant Commissioner Operational Policy & Assurance	In progress

9	The Brigade should consider to what extent recognition that a building is behaving unpredictably in fire is addressed in policy and training.	The Brigade has provided interim advice in Operational News 37 whilst work is ongoing to revise PN 633 and PN 790 to deliver enhanced high rise firefighting and fire survival guidance procedures in April 2020. Training on the revised policies and procedures will be implemented at the time of publication and is likely to involve a blend of theory and practical training solutions. The Brigade is also considering how this training can be incorporated into DaMOP to ensure effective maintenance of skills.	Assistant Commissioner Operational Policy & Assurance	In progress but interim guidance provided in Ops News 37
10	It is suggested the Brigade considers the extent to which policy, training and human factors played a role in the control measure degradation identified. (relates to BA ops)	This work will be incorporated into the activities instigated by GTIB through Commission 4. The work and any improvements will be informed by the revisions to the Breathing Apparatus National Operational Guidance due to be published in October 2019.	Assistant Commissioner Operational Policy & Assurance	Not started
11	It is suggested the Brigade considers how shared situational awareness within the Control room might be achieved in similar circumstances and whether a more sophisticated system than the whiteboards used on the 14 <sup>th</sup> June should be developed and implemented as an established Control protocol.	The Brigade has already undertaken improvements to primary and fallback Control facilities to increase situational awareness including the provision of the NPAS 'heli-tele' downlink and the installation of a large wall screen to display information. Further improvements are being investigated as part of the review of PN 790.	Assistant Commissioner Control & Mobilising	In progress
12	The Brigade should consider whether any improvement measures are necessary in relation to FFE policy and / or training.	The policy note is due its scheduled three-yearly review in September 2019 and recommendation 12 will be considered as part of that review process.	Assistant Commissioner Operational Policy & Assurance	Review completed and PN 496 republished on 27 Sept 2019.
13	It is suggested that the Brigade considers whether it needs to make operational staff more aware of the current available PPV capability and its uses.	This recommendation will be addressed as part of the PPV project instigated by the Brigade which will initially roll out a PPV capability at ten strategic locations across the Brigade as a pilot to a potential wider use of PPV within the Brigade more generally.	Assistant Commissioner Operational Policy & Assurance	In progress but mobilising protocol for Special Operations Group PPV capability already implemented



LONDON FIRE BRIGADE

Report title

---

## Independent Review of Training

---

Report to	Date
Commissioner's Board	9 October 2019
Report by	Report number
Assistant Director, Training and Professional Development	LFC-0250

---

Protective marking: **OFFICIAL**

Publication status: Published in full

---

### Summary

This is the final report arising from the independent review of training. The six-month review, conducted by Ribband Star Consultancy Limited, began in February 2019, and has now been completed. The consultant's report is attached at Appendix 1.

Ribband Star Consultancy's report contains a series of recommendations and this report is seeking agreement from the London Fire Commissioner to the creation of a project Board chaired by the Commissioner which will oversee the development of an implementation plan for the proposed recommendations contained within Ribband Star Consultancy's report. The development of the implementation plan will be managed by the Assistant Director for Training and Professional Development and existing resources within the Training and Professional Development Department will be utilised to deliver the plan.

### Recommendations

That the Commissioner's Board notes:

1. That the London Fire Commissioner shall create and chair a Project Board to oversee the development of an implementation plan for the proposed recommendations contained within Ribband Star Consultancy's report; and
2. That the Assistant Director for Training and Professional Development shall manage and deliver the implementation plan agreed by the Project Board using existing resources within the Training and Professional Development department.

## **Background**

1. Following the tragedies that London Fire Brigade (LFB) responded to in 2017, and recent organisational changes, the London Fire Commissioner (LFC) requested an independent review of training and development to be carried out across the entire brigade. To ensure the review was truly independent and impartial, the LFC decided to procure the services of an external consultant and undertook a competitive tender process to identify a suitable individual/company to carry out this review.
2. The contract was awarded to Ribband Star Consultancy Ltd, and work commenced on 25 February 2019. The review was led by the Managing Director of the company, Robert Scott. Robert Scott is a retired Assistant Chief Fire Officer from the Scottish Fire and Rescue Service who has a background in training and operational review.
3. The terms of the contract stated that an Interim Report was to be produced at the midpoint of the six-month term. This was achieved and the Interim Report was presented and discussed with the Commissioner and key members of the Corporate Leadership Team on 19 June 2019. The Interim Report presented emerging themes and made observations based on evidence gathered and personal experience.
4. This "Final Report" builds on that work but also aims to provide observations, judgements and recommendations with regard to working practices, culture, equipment, recording systems, relationships and any other areas deemed relevant. The "Final Report" can be found at Appendix 1.
5. It must be borne in mind that these recommendations and observations within the "Final Report" are based on personal experience and opinion, coupled with an analysis of data gathered through the research carried out over a six month period. A number of observations may require further investigation and remedial action has been taken where there was found to be a need to put in place systems to ensure the safety of staff and members of the public.
6. These recommendations are in no way binding and are presented for the consideration of the Commissioner in a genuine bid to assist LFB to improve systems and practices related to training.

## **Next steps**

7. The London Fire Commissioner is asked to agree to the creation of a project Board, which she will chair, which will oversee the development of an implementation plan for the proposed recommendations contained within Ribband Star Consultancy's report. The development of the implementation plan will be managed by the Assistant Director for Training and Professional Development and existing resources within the Training and Professional Development Department will be utilised to deliver the plan. Should the implementation of any of the recommendations of the "Final Report" require decisions from the London Fire Commissioner or the Deputy Mayor for Fire and Resilience, then separate reports will be produced and submitted to the relevant decision-maker.
8. Should the report's recommendations be endorsed by the London Fire Commissioner there will be significant financial implications. Additional reports will be submitted to the Commissioner's Board setting out the cost of those recommendations.

## **Finance comments**

9. This report recommends that a Project Board is created to oversee the implementation of the recommendations in the report on the Independent Review of Training, attached at Appendix 1.

Work to support the Project Board will be managed by the Assistant Director for Training and Professional Development and will be contained within existing resources.

10. There are a total of 28 individual recommendations within the report attached at Appendix 1, a number of which are likely to result in financial implications if progressed by the Project Board. Additional information setting out the cost of those recommendation will form part of future reports as required, in compliance with existing governance arrangements.
11. Currently budget forecasts do not include any funding for these additional works, if agreed they will then be incorporated as part of the budget planning process for future years. Preliminary information on the potential costs of this are already being included for consideration as to their potential financial impact as part of the budget setting process.

#### **Workforce comments**

12. This report does not give rise to any workforce impacts. If the recommended decision from this report is taken, then the implementation team and plan will consider workforce implications.

#### **Legal comments**

13. Under section 9 of the Policing and Crime Act 2017, the London Fire Commissioner (the "Commissioner") is established as a corporation sole with the Mayor appointing the occupant of that office. Under section 327D of the GLA Act 1999, as amended by the Policing and Crime Act 2017, the Mayor may issue to the Commissioner specific or general directions as to the manner in which the holder of that office is to exercise his or her functions.
14. Section 1 of the Fire and Rescue Services Act 2004 states that the Commissioner is the fire and rescue authority for Greater London.
15. Under section 7 (2)(a) of the Fire and Rescue Services Act 2004 the Commissioner must secure the provision of personnel, services and equipment necessary to efficiently meet all normal requirements for firefighting. Furthermore under 7 (2)(b) of the aforementioned act the Commissioner must secure the provision of training for personnel.
16. The Commissioner is also a 'best value' authority under the Local Government Act 1999 and must make arrangements to secure continuous improvement in the way in which its functions are exercised, having regard to a combination of economy, efficiency and effectiveness.
17. The Commissioner, along with all employers, is required by the Health and Safety at Work Act 1974 and subsidiary legislation under that Act to protect the health, safety and welfare of their employees and other people who might be affected by their activities.
18. The attached report has been prepared in accordance with the above legal duties

#### **Sustainability implications**

19. This report does not give rise to any sustainability impacts. If a recommended decision from the "Final Report" is taken forward, then the implementation team will consider sustainability implications as necessary.

#### **Equalities implications**

20. This report does not give rise to any equality impacts. If a recommended decision from the "Final Report" is taken forward, then the implementation team will consider equalities implications as necessary.

## List of Appendices

Appendix	Title	Protective Marking
1.	Independent review of training – final report	OFFICIAL



London Fire Commissioner  
Independent Review of Training

# Final Report



Robert Scott QFSM MBA FIFireE

Ribband Star Consultancy Ltd.

11 September 2019

DRAFT

# Contents

<u>Section</u>		<u>Page</u>
1	Background	4
2	Scope	4
3	Approach	5
3.1	Evidence Gathering	5
3.2	Evidence Analysis	5
4	Emerging Themes	
4.1	Governance and Accountability	6
4.2	Culture	8
4.3	Training Venues	9
4.4	Self-Enrolment	11
4.5	BTL Instructor Cadre	11
4.6	Firefighter Development	15
4.7	Watch Officer Preparedness	18
4.8	Delivery and Maintenance of Operational Professionalism (DaMOP)	19
4.9	Senior Officer DaMOP	21
4.10	Incident Command Training	22
4.11	Operational Discretion	24
4.12	Local Training and Exercising	26
4.13	Access to Training for FRS Staff	27
4.14	Programming/Scheduling of Training	29
4.15	Training Commissioning and Alteration Process (TCAP)	31
4.16	Course Review	32
4.17	Training and Professional Development Department Structure	33
4.18	Fire Safety Training	35
4.19	Control and Mobilising Training	37
5	Conclusions	42
6	Summary of Observations	43
7	Summary of Recommendations	45

## Appendix

A	About Us
B	Project Timeline
C	BTL Instructor Cadre
D	Financial Impact

DRAFT

## 1. Background

Following the tragedies that London Fire Brigade (LFB) responded to in 2017, and, recent organisational changes, The London Fire Commissioner (LFC) requested an independent review of training and development to be carried out across the entire brigade.

To ensure the review was truly independent and impartial the LFC decided to procure the services of an external consultant and undertook a competitive tender process to identify a suitable individual/company to carry out this review.

The contract was awarded to Ribband Star Consultancy Ltd and work commenced on 25 February 2019. The review was being led by the Managing Director of the company, Robert Scott.

Robert Scott is a retired Assistant Chief Fire Officer from the Scottish Fire and Rescue Service who has a background in training and operational review (see Appendix A)

The terms of the contract stated that an Interim Report was to be produced at the midpoint of the six-month term.

This was achieved and the Interim Report was presented and discussed with the Commissioner and key members of the Corporate Leadership Team on 19 June 2019. The interim report presented emerging themes and made observations based on evidence gathered and personal experience.

This “final report” builds on that work but also aims to provide observations, judgements and recommendations with regard to working practices, culture, equipment, recording systems, relationships or any other area deemed relevant.

It must be borne in mind that these recommendations are based on personal experience and opinion, coupled with an analysis of data gathered through the research carried out over a six-month period. These recommendations are in no way binding and are presented for the consideration of the Commissioner in a genuine bid to assist LFB to improve systems and practices related to training.

## 2. Scope

In carrying out the review we aimed to consider all elements of training provided to operational crews, incident commanders, control and mobilising staff and FRS (Support) staff. We also considered the role played by third party training provider, Babcock Training Ltd (BTL), within the parameters of the contract currently in place.

Our analysis considered various phases of training including: -

- Acquisition/attainment of skills and knowledge
- Maintenance of skills and operational competence
- Recording and monitoring of training related data
- Quality assurance of training provided across multiple sites
- Future direction of travel

### 3. Approach

#### 3.1 Evidence Gathering

In order to fully understand, and appreciate the current arrangements in place, it was necessary to undertake a fairly intense period of evidence gathering. This “field work” phase included face to face interviews with a wide range of stakeholders, a review of key documents relating to training, and, a series of site visits to key locations across LFB.

In total this field work involved: -

- 104 face-to-face stakeholder interviews
- Visits to 18 operational fire station
- Visits to Babcock training facilities at Harrow, Beckton and Park Royal
- Visits to LFB Control and Mobilising Centre at Merton
- Attendance at Senior Managers Forum
- Attendance at a number of local training events
- Review of circa 40 strategic documents

Further detail can be found in the Project Timeline Gantt Charts included at Appendix B

#### 3.2 Evidence Analysis

Having considered the evidence gathered we have attempted to capture what can be described as emerging themes. These are areas that have been highlighted by stakeholders during interviews, have been brought to our attention during discussion, or simply observations based on personal understanding and experience.

The emerging themes have been cross referenced against witness testimony, observation, or document reference which has allowed the reviewer to understand the strength and depth of each issue and triangulate evidence when gathered from multiple sources.

Section 4 of the report will consider each of these themes and where appropriate will make observations and recommendations, where appropriate to do so. Emerging themes, and associated observations, are not presented in any specific order within the body of the report, however, each recommendation is prioritised using a Red, Amber Green system to indicate a priority rating, as perceived by the author.

**It should be noted at this point that some of the emerging themes, observations and recommendations relate to issues that are already known to LFB, and, on many occasions work has already begun, or is planned, to address these issues. Whilst we have tried to capture this within the narrative, the report aims to reflect the position at the time of writing rather than any planned future position.**

## 4. Emerging Themes

### 4.1 Governance and Accountability

LFB is one of the largest fire and rescue services of its type in the world. It employs over 5,000 members of staff and attends over 100,000 emergency calls a year. The service is governed by the London Fire Commissioner (LFC), acting on behalf of the Mayor of London. The LFC is a corporation sole and is the fire and rescue authority for London. The LFC is responsible for providing London's fire and rescue service, ensuring it is effective and efficient.

On a day to day basis the service is managed by a Corporate Team consisting of the Commissioner and three Deputies. The Training and Professional Development (T&PD) department sits within the Safety and Assurance Directorate. Responsibility for this department is further devolved to the Head of Training and Professional Development.

In 2012 LFB made a decision to outsource the majority of its training design and delivery to third-party provider. Following a competitive tendering process this contract was awarded to Babcock Training Ltd (BTL). This arrangement sees BTL deliver a wide range of training, on behalf of LFB, from a range of dedicated, and local training venues.

In the very simplest of terms the T&PD department acts on behalf of LFB and works closely with BTL to ensure the products being developed and delivered are based on need and are fit for purpose. This relationship, like any relationship of such scale and complexity, has taken time to develop but is now reaching a steadier state.

Whilst BTL is engaged to deliver the majority of training within LFB there are pockets of training that are sourced and delivered outside this contract. Most notably, training for regulatory fire safety officers, training for staff working within the control and mobilising centre and local exercising taking place across the four command areas that make up LFB.

#### Traditional model (Figure 1)

In most services, that have retained responsibility for their own training, there exists a very simple relationship between, those requiring training and the person responsible for training delivery. In this model anyone requiring training for their staff, e.g. Heads of various Departments, would be classed as the "Customer". The person with responsibility for training, the Head of T&PD, would be classed as the "Supplier".

The Customer identifies what training they require and discusses this need to the Supplier. The Supplier then determines how best this need can be met and either, designs and delivers an internal solution, or procures a suitable product from a third-party provider. Like all good suppliers they would, of course, ensure the customer is engaged in this process and is satisfied with the proposed solution.

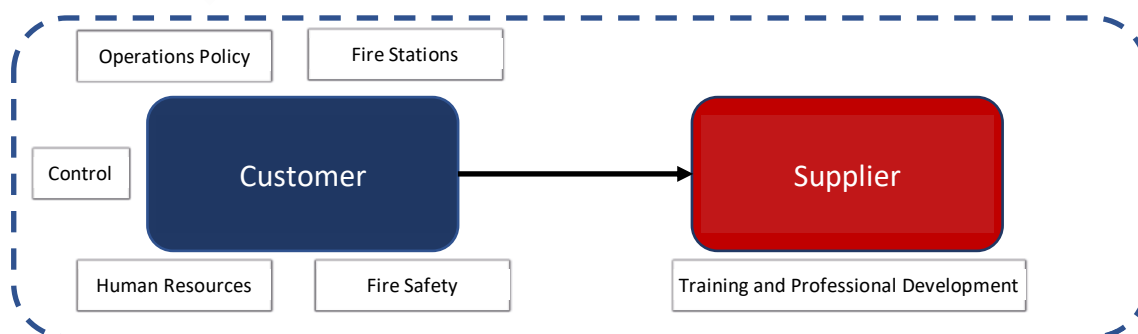


Figure 1

### LFB via T&PD - BTL Model (Figure 2)

In many ways the relationship between LFB and BTL simply expands on this principle. The Customer makes a request for training to the Supplier (Head of T&PD) who on most occasions will work on their behalf to ensure appropriate training is designed and delivered by BTL in their role as Provider.

Should BTL feel they do not have the expertise in-house or that another solution is available they will discuss this with the Head of T&PD, and, with agreement, they will procure the services of another provider to deliver this training on behalf of BTL.

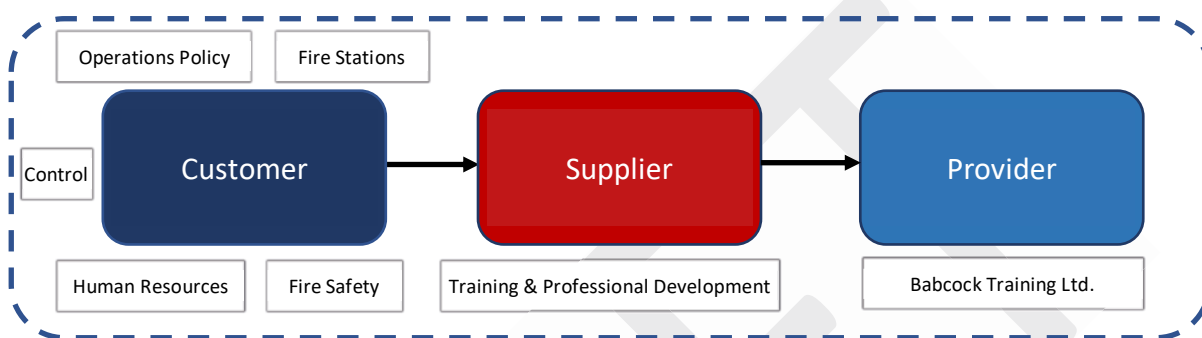


Figure 2

### LFB – Other Provider Model (Figure 3)

For me the confusion arises where the Customer (the department that requires training) is empowered to secure that training outside the BTL contract. On these occasions there are examples of departments deciding what training they require and securing this training from a third-party provider, developing an in-house solution, or working in partnership with other agencies, without the involvement of the T&PD department.

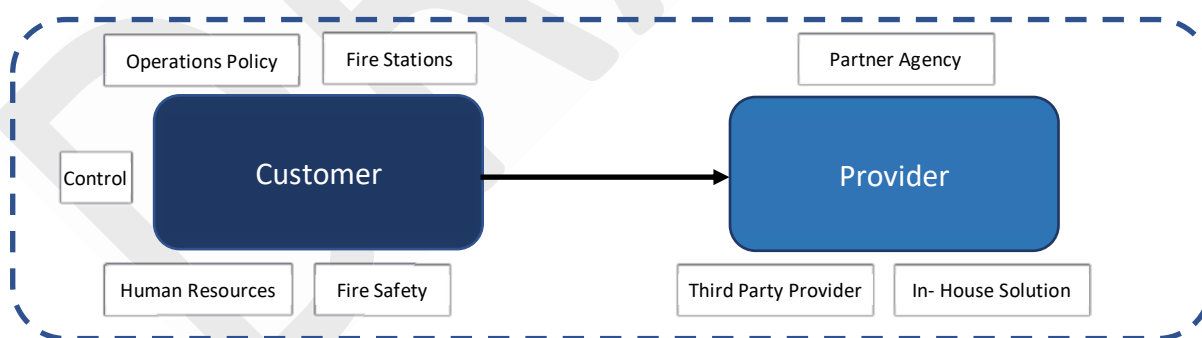


Figure 3

Whilst this model may seem more expedient and may appear to reduce the burden on T&PD, it leads to a situation where the true cost of training, the true level of training being provided, the true organisational training need, is unclear to the department with corporate responsibility for this extremely important function.



#### Recommended Model (Figure 4)

It should be made very clear that whilst BTL are the main provider of training for LFB, they are not the sole provider, however, where a customer wishes to engage another provider to deliver an element of training on their behalf they should do so through the offices of T&PD.

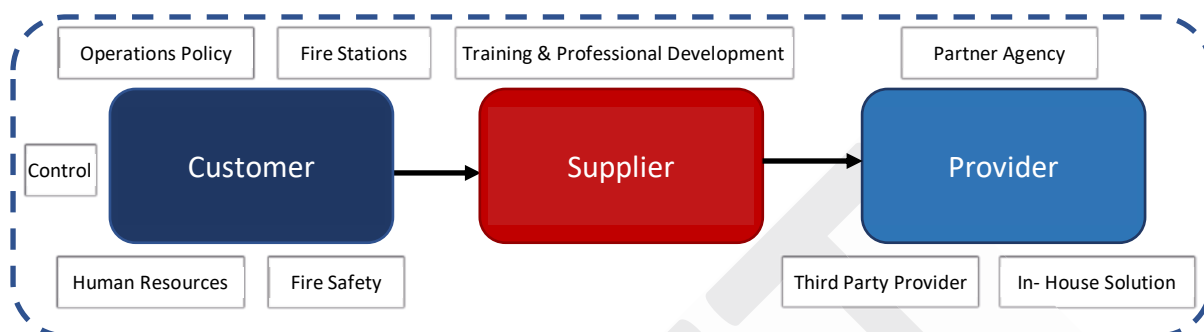


Figure 4

#### Recommendation 1 – **HIGH PRIORITY**

It is acknowledged that on some occasions there may well be good reason to procure/deliver elements of training outside the contract with BTL.

It is however strongly recommended that all departments are advised that their training needs, and suggested solutions, should be discussed with the Head of T&PD prior to entering into any external agreement or developing any in-house solution. It is vitally important that the T&PD department maintain “corporate oversight” of all elements of training to strengthen the governance and accountability relative to this crucial element of the service.

#### 4.2 Culture

It is important to stress from the outset that, in carrying out this review, I have been truly impressed by the professionalism, courtesy, and willingness to engage, shown by all stakeholders working for, or alongside London Fire Brigade. Furthermore, the genuine pride in working for LFB that is displayed by firefighters, officers, FRS staff, and employees of BTL is truly encouraging and should be considered as a genuine strength.

#### Observation 1

The sense of pride in working for LFB demonstrated by fire service personnel and BTL employees alike is encouraging and should be acknowledged and nurtured.

At times however, that pride in the brand, and in the heritage of the organisation, brings with it a degree of nostalgia and attachment to “how things used to be”. This was demonstrated during a number of visits, not only to fire stations, but during discussion with officers and FRS staff alike.

The decision to outsource training and to dispose of the training facility in Southwark may well have made sound business sense, however, it has resulted in a sense of loss among many members of staff who hold a great fondness and personal attachment to the building, and, to an era when LFB had sole responsibility for the delivery of training.

The contractual arrangement between LFB and BTL is very clearly a commercial venture and not a partnership in the true sense of the word. However, whilst this may be true, and important to remember from a corporate stance, at the point of delivery it is vital for staff working for LFB and BTL alike to form close relationships and to work together to achieve the common goal of delivering high quality training to those who need it.

Whilst there are some limited elements of a “them and us/blame culture” it appears that most people have now accepted the decision to outsource training to BTL and all parties directly involved with the design and delivery of training, from both LFB and BTL, are trying their very best to work together to deliver a system that is fit for purpose and delivers the best quality of training possible.

It is evident that this has been, and continues to be, a journey. It is, however, widely acknowledged that things are much better now than they were in the beginning and there is certainly evidence to suggest this relationship is improving as the contract matures.

#### 4.3 Training Venues

The decision to dispose of the LFB training facility in Southwark and to build two new purpose build centres, at Beckton and Park Royal, provided the service with access to modern, fit for purpose training facilities that allow firefighters to train using real fire.

Whilst both facilities are relatively compact, in terms of overall footprint, it is accepted, by almost all staff interviewed, that these facilities are far superior to those available in the old training centre. It is also accepted that it would have been impossible to obtain permission to put real-fire training facilities on the Southwark site.

Whilst some staff undoubtedly hold a nostalgic attachment to the Southwark training centre, the biggest tangible benefit to that facility was accessibility. In a Brigade as large as LFB it is almost impossible to please all of the people, all of the time. A training centre located in the West will not be popular with those who live in the East, and vice versa. Sites in Central London on good transport links, whilst popular, are likely to be unaffordable and would most certainly prohibit activities like real-fire training or breaking concrete etc.

The only realistic solution is to have a number of sites across the Brigade that can be accessed by staff undertaking training within a reasonable commute from their home address and/or place of primary employment.

## Observation 2

The branding employed within BTL facilities clearly depicts that these are Babcock facilities.

Whilst I understand the reasons behind this strategy it could strengthen the feeling of “them and us” and may lead to a feeling that staff walking into the training facility are visiting an outside agency, and, that training is something that is “done to them”. This makes it very easy to blame BTL for anything that is considered sub-standard.

## Recommendation 2 – **LOW PRIORITY**

Consideration should be given to displaying some visible imagery that demonstrates BTL and LFB working together to achieve a common goal. The facilities are clearly the property of BTL, and I am by no means suggesting that their branding is removed. By adding the LFB logo, and some form of words to show that BTL are delivering this training on behalf of LFB would however, in my opinion, underline the value of this relationship and present a message of “working together” rather than “them and us”

This needn't be an expensive exercise just the addition of a few signs, perhaps some framed pictures of operational training or exercising and perhaps the addition of joint logos on presentation slides.

The planned introduction of a new training facility in Croydon will almost certainly improve the current situation with regard to accessibility. The design of this new facility has been carefully thought through to ensure that it is able to deliver training on high volume, high frequency courses, such as BA Refresher and Incident Command Revalidation, as well as delivering elements of specialist training such as high-rise procedures etc.

## Recommendation 3 – **MEDIUM PRIORITY**

LFB should make every effort to ensure that staff have access to the venue closest to their home address, and where possible, all training centres are multi-use and able to deliver high volume, high frequency type courses. Where possible, the situation where staff have to pass a training venue, to access another that has the specialist equipment needed for them to train, should be avoided.

LFB should consider carrying out a travel impact assessment in a bid to better understand travel times associated with members of staff attending courses at existing or planned training venues. This assessment may lead future thinking around the need for further investment in training assets to ensure a suitable geographical spread of facilities that meets the needs of a brigade the size of LFB.

The service/BTL should consider alternative delivery methods for elements of training that do not require the use of fixed training apparatus (such as Carbonaceous Fire Training Units, USAR rigs). It may well be possible for some elements of training to be delivered on a fire station, or a suitable LFB facility, to a whole watch/team at a time, by simply providing the trainer with suitable transport to bring the lesson, and associated equipment, to the student.

#### 4.4 Self-Enrolment

One issue that came up time and time again, during discussion with the fire stations visited, was the manner in which courses are allocated. Under current arrangements courses are programmed for the year and populated by sending notification to those required to attend advising them of the date of the course and the venue. LFB must provide 28 days' notice and have recently committed to do their best to schedule training for the candidates preferred venue.

Many members of staff felt that there was significant room for improvement within this system. They provided examples of occasions where the date provided had been unsuitable and the process to alter or swap a date had appeared bureaucratic and at times inflexible.

During discussion with managers from LFB and BTL I was advised that a new system was in development that would provide staff with a list of courses they had to complete in the coming year, accompanied by available dates and venues where this training could be accessed. Staff would then be given a period of time within which they could self-enrol for their training at their preferred venue. If they chose not to self-enrol, or, if their preference was simply not available, then LFB would reserve the right to enrol them as per current arrangements and provide the mandatory 28 days' notice.

##### Recommendation 4 – **HIGH PRIORITY**

The introduction of a self-enrolment system that allows staff to book their training on a date, and at a venue, that best suits them, would be very well received and appreciated by staff from every fire station visited as part of this review. Above all other subjects discussed during these visits; self-enrolment would be the most welcomed change for end users based in operational fire stations.

LFB and BTL should allocate the necessary resources to develop and introduce a self-enrolment system at the earliest possible opportunity.

**LFB and BTL are currently taking steps to address this issue.**

#### 4.5 BTL Instructor Cadre

Prior to the award of the contract to BTL, in 2012, LFB, like most fire and rescue services in the UK, had a dedicated training department staffed primarily by serving members of staff.

As the BTL contract has matured, the model for attracting instructional staff has evolved, and BTL now employ instructors from a range of backgrounds. Some are retired members of LFB, some are retired officers from other services, some are serving fire officers from other fire and rescue services and some are serving members of LFB, who work for BTL on their middle two rota days (day 6&7). At the time this report was written, of the 99 instructors employed by BTL, a total of 10 were serving LFB officers seconded to Babcock on a full-time basis (Table 1 below).

<b>BTL Instructor Cadre</b>		
Number of trainers that are ex or retired LFB officers	39	
Number of trainers that are ex or retired from other Fire and Rescue Services	43	
Number of serving LFB employees seconded to Babcock	10	
Trainers seconded from London Ambulance Service	3	
Trainers seconded from Metropolitan Police Service	4	
<b>Total number of trainers within Babcock establishment</b>		<b>99</b>

Table 1

During discussion with various staff groups a number of points were raised in relation to this current staffing model. There are clearly a wide range of opinions with positive and negative views put forward for each of the methods in use for employing instructors.

Having explored these views further, and considered them in some depth, it is apparent that there are pros and cons attached to each of the methods currently in use for attracting instructional staff. Ultimately however, the most important thing, and the point made by almost every person interviewed thus far, is that they would like to be trained by someone who is competent and has credibility.

To understand this better I have been exploring the issue of credibility with staff across the service. What exactly does credibility look like? For most people credibility is linked to competence, the ability to communicate, experience, and a consistency of message.

Competence on its own can be gained through the attainment of a qualification, however, most people believe that qualifications without real life experience are not necessarily enough to bring credibility.

Qualifications and a lifetime of experience without the ability to communicate, control discussion and demonstrate effectively are also deemed to be of little use.

Whilst some believe that experience gained outside LFB is less valuable than experience of working in London, others accept there is a value in hearing from other services and learning from the practices and experiences of others.

Whilst there is no doubt that the opportunity to explore other ways of operating is valuable in the development of training materials or delivery techniques, there needs to be a consistency in the delivery stage and all instructors, regardless of their background or experience should be delivering a consistent standard of training in line with LFB practices and policies.

Some believe that currency is a factor in maintaining credibility, for example, the retired instructor with experience and credibility on day one of their retirement might struggle to maintain that credibility when it has been ten years since they served in an operational role. Others believe that by staying up to date with changes in practices and policies the length of time since retirement is irrelevant.

Another area linked to the practice of engaging retired fire officers as instructors is that they are likely to reflect a less diverse workforce than the one currently employed across LFB.



Figure 5

For many courses credibility is linked to having experience gained in a fire and rescue environment, while for other courses such as Immediate Emergency Care (IEC), line rescue, driving etc it may well be that the true experts are those who have served in other organisations or have gained their experience in other ways.

LFB has a role to play in the selection of instructors, and under the “Fit to Train” process, it retains the right to define necessary skills, qualifications and experience of staff employed by BTL to deliver training on each course provided.

The truth is, that there is probably no definitive formula that determines the exact way of selecting the best instructor. Each method has positives and negatives attached and there is a degree of subjectivity associated with any solution.

During the information gathering phase of this review I met with, and observed, a number of instructors, from a range of backgrounds. Some retired, some seconded, some from other fire and rescue services. In truth I have been impressed with the standard, attitude and instructional technique of each of them.

The observations and recommendations that follow are in no way a reflection on those instructors currently working for BTL, they are instead based on personal experience, and on the opinions of many people interviewed.

I believe that exposure to a career path within a training environment offers a development opportunity to serving staff that can provide them with increased confidence, improved communication skills and help prepare them for advancement through the organisation.

Whilst not every serving member of staff has the right skill set to make them a good instructor, I believe that an experienced, and serving, officer who has the right qualifications and currency is likely to bring credibility to the lesson.

The current situation, where only circa 10% of instructors engaged by BTL are currently serving within LFB, appears to me to be an opportunity missed.

One way of addressing this would be to increase the number of secondment opportunities for serving members of staff who wish to move into training as a career choice. Whilst there have been several attempts to achieve this it may well be worth exploring the reasons that staff are reluctant to take up these secondment opportunities.

Having discussed this topic with staff, based in the fire stations I visited, it may well be that one reason is the perceived loss of identity that is linked with being seconded to a completely different organisation like BTL.

As mentioned in paragraph 4.1, most people employed by, or associated with, LFB are immensely proud of that brand.

A system of secondment to BTL that allowed secondees to continue to wear LFB uniform and maintain their identity as serving officers may attract a greater number of applicants. This small change would also provide a team of very visible ambassadors for the service, as well as BTL, and could help to dispel the feeling of “them and us”.

#### Recommendation 5 – **MEDIUM PRIORITY**

I believe that the current blend of instructors could be enhanced by increasing the number of serving, experienced members of LFB.

A significant increase in the pool of serving officers, who would maintain their organisational identity by continuing to wear LFB uniform, would not only open development opportunities for the individual, it would enhance the quality of officer available for future advancement through the service and portray an image of BTL and LFB working together to deliver training.

I would recommend that LFB/BTL takes steps to develop an instructor pool where circa 50% of trainers are serving LFB employees. I would also recommend that opportunity for advancement within the training environment be factored into any new instructor pool. Providing an opportunity for staff to be promoted within the training environment (a mix of Leading Firefighter, Sub Officer and Station Officer posts) may help prevent the situation arising where experienced instructors require to look elsewhere within the service to achieve advancement.

I also believe that an increased uniformed presence may help to provide consistency and set clear and current standards expected among those attending firefighter development and other courses. The revised blend of serving and retired officers would provide an opportunity to better reflect the diversity of the organisation and display the culture of LFB today.

Clearly any increase in the number of staff seconded could have an effect on the number of staff available in fire stations and as such any decision to significantly increase the number of secondees may require a temporary increase in establishment, with associated costs being reclaimed via the BTL contract.

The costs associated with engaging secondees are greater than the costs of employing retired members of staff as pension contributions/on-costs have to be recovered. In addition, it is more likely that serving staff will seek other opportunities and therefore it is likely that costs of providing instructional qualifications may also increase in line with turnover of staff. The financial impact of such a move is considered at Appendix D

This proposal will, of course, require to be considered in more detail by LFB and BTL, however, it should be considered against the potential improvement to instructor credibility, the credibility of the contract, the opportunities for development of staff, and the wider benefits these changes will bring to LFB.

#### 4.6 Firefighter Development

Whilst not every person employed by LFB is employed in an operational capacity, it is fair to say that a large percentage of the organisation start their career as frontline firefighters. As such, their first exposure to training will be attendance at the Firefighter Development Course (FDC), delivered by BTL.

Since the award of the training contract to BTL this course has undergone a significant review. As a result of this review the length of the traditional firefighter development course has been shortened from circa 17 weeks to 11 weeks.

This has been achieved, in part, by providing new applicants with a range of pre-course materials around 5 weeks before they join the service. These materials are provided in an electronic format and the trainee is expected to study these prior to the commencement of their contract with LFB.

Many of the subjects included would have traditionally been covered in a classroom environment with an instructor standing at the front of the class working through lecture material.

It is fair to say that this new system has split opinion among staff based in the fire stations visited as part of this review. The decision to move to a system that puts the onus on the new candidate to self-study, prior to actually being employed by LFB, is viewed by some staff as unfair and an exercise in cost saving. Others, however, acknowledge that this demands a degree of commitment from the new trainees and shows a willingness to devote their own personal time and effort in a bid to being accepted for initial training. In many ways this could be seen as a pre-entry criteria and could be likened to attaining a level of knowledge or a qualification before being accepted onto the course.



The candidate's knowledge of this pre-learning material is tested on their first day of training. The test consists of a written examination with a pass rate of 80%. Should a candidate fail this test they will be afforded one opportunity to re-sit it later in the same week. Failure on the second attempt could lead to termination of contract.

Many of the new entrants I spoke to felt that it was challenging to fully digest this pre-learning material, whilst still holding down their existing job, or managing their family commitments. Every person I spoke to, however, had achieved a pass on the first or second attempt. Furthermore, they did not know of any other candidate who had failed to achieve a pass. BTL confirm this to be the case.

This would appear to demonstrate that the format, and quantity, of pre-learning materials, whilst challenging to work through, is manageable and fit for purpose.

Anecdotal evidence, from a number of new entrants, would suggest however that the system for accessing the learning materials electronically was, at times unreliable. Some users encountered problems in getting online. Others claimed that when they had asked questions, via the helpline email, or phonenumber, they had not received a reply or that the query had taken some time to resolve.

#### Observation 3

The system of providing pre-learning materials prior to commencement of contract seems to be producing efficiencies, whilst still ensuring candidates are receiving the information traditionally provided in the classroom.

#### Recommendation 6 – **MEDIUM PRIORITY**

The system that affords new candidates an opportunity to ask questions, seek support, and clarify points in a timely fashion should be reviewed to ensure it is fit for purpose.

If the tablet computer that is issued to trainees on their first day at the training centre was pre-loaded with all pre-course learning materials and issued to trainees at their induction day (circa five weeks prior to taking up their appointment) then issues relating to connectivity/broadband could be alleviated. Clearly there would need to be some type of contract in place and some way of recovering this equipment and information should the person decide not to take up their appointment. This should however be achievable, and the benefits would seem to me to outweigh the risk.

Many of the modules covered as part of the pre-learning materials are policy, or basic skills, related. There are some however that might be useful to include as part of the 11-week training course (even if that means reviewing the duration of the course).

Community Safety for example is currently only covered in the pre-learning phase. If there is a genuine desire to develop a culture among the workforce that values prevention as a function of the modern-day firefighter, then it would seem sensible to include some form of personal input on community safety during the formal delivery phase of the course.

Recommendation 7 - **MEDIUM PRIORITY**

A review of pre-learning materials should be carried out, to ensure that the subjects being covered prior to the commencement of the formal training course are the most appropriate ones.

The profile of community safety/preventative type activities should be raised by covering this subject during the formal delivery phase of training in the same way as practical operational skills are covered.

The eleven-week, on-site element of training was seen by most who had undertaken this training, as a positive experience. They valued the experience, spoke highly of their instructors and felt they had returned to station with an adequate level of knowledge to allow them to respond to emergencies, albeit under the supervision of a more experienced partner.

Some criticism was levelled at the training provider for not having the exact equipment in use within their particular stations. Whilst there may be some room for improvement, most accepted that it would be very difficult to fully achieve this and that some level of local appliance/equipment familiarisation would always be necessary on return to station.

The requirement to rotate through a number of different training sites during the eleven weeks resulted in travel related issues for some candidates. Whilst it may be worth exploring alternative delivery methods, it is difficult to see how this could be resolved in a Brigade the size of LFB without providing accommodation related costs. This would clearly have a significant impact on budgets.

Another issue raised by a number of new entrants, related to this rotation of venues. They felt that each cohort would benefit from having a lead instructor who remained with them throughout the entire course, rather than a new set of instructors at every venue. LFB and BTL are currently taking steps to address this issue, and the introduction of new "Apprenticeship Support Officers" will also introduce another level of support and continuity for new entrants.

Recommendation 8 – **MEDIUM PRIORITY**

Consider appointing a lead instructor for each squad of trainees who would accompany them through each element of the course rather than changing instructors completely at each change of venue. This would improve continuity, reduce pressure and demonstrate a commitment from staff and trainees alike to moving across venues.

**LFB are currently taking steps to address this issue.**

Despite the minor issues, highlighted above, the standard of trainees returning from the FDC is reported to be of a high quality, with many of the officers and senior firefighters interviewed in stations reporting that they have noticed an improvement in the standard of trainee returning to station since the introduction of the new course under the supervision of BTL.

*NB The recent decision to employ trainee firefighters as Modern Apprentices and to align their training to the attainment of a formal qualification under this scheme is innovative and forward thinking and does not appear to have any negative impact on course content or assurance of continued progression.*

#### 4.7 Watch Officer Preparedness

Whilst the acquisition of new skills is generally achieved through attendance at a training course delivered by BTL or another provider, the maintenance of skill and knowledge, for firefighters working in stations, is generally led by crew managers and watch managers.

The training provided across LFB's operational fire stations is currently delivered by these officers, who have responsibility for ensuring that their watches are able to respond safely to a wide range of operational incidents.

The issue of watch officer preparedness has been raised during a number of meetings with stakeholders from across the Brigade. Concerns have been voiced that newly promoted crew and watch managers, are not provided with any formal "Methods of Instruction" or "Training the Trainer" type input during their development courses.

Apparently, this type of input had been part of a former officer training course delivered by LFB. This had been removed when the courses had been reviewed some years ago.

It is widely recognised that this type of training, coupled with instruction on how to supervise and control standard fire service drills, would lead to an improved training experience for operational crews.

Whilst LFB has recently reintroduced a drill ground supervision test within its crew manager promotion process, this does not demonstrate the competence of those promoted prior to its reintroduction.

LFB has recently made progress in addressing this issue by developing an interim solution and commissioning the production of a bespoke two-day training course for upskilling all station based supervisory managers.

The interim "back to basics" type workshops are scheduled to begin in September 2019. The new 2-day "training for trainers" input is likely to be included in a revised suite of training courses for supervisory managers. LFB anticipate this training to commence in autumn of 2020.

#### Recommendation 9 – **HIGH PRIORITY**

Providing all watch-based officers with some formal instruction on how to deliver a lecture, conduct station-based training, oversee a drill or fireground scenario, will improve their ability to carry out their role within the station. It will also enhance their credibility and confidence and will assist the Brigade in providing assurance that skills are being adequately maintained in a consistent and professional manner.

LFB should continue with their planned roll out of interim training workshops and progress the design and delivery of a more formal "training for trainers" input at the earliest possible opportunity.

**LFB are currently taking steps to address this issue.**

#### 4.8 Delivery and Maintenance of Operational Professionalism (DaMOP)

##### Previous Approach

The first version of a DaMOP system was introduced into LFB in 2006. Prior to this date there had been little formality to the delivery maintenance of skills training on fire stations. This type of maintenance training had hitherto been identified, and delivered, solely by watch officers. Clearly this led to an inconsistency with regards quality and quantity of training delivered and provided no formal audit trail that could be examined by managers or external reviewers.

The original DaMOP system revolved around 4 core risk critical skills: -

- Breathing apparatus
- Working at heights and below ground
- Basic rescue and safety equipment
- Pumps and associated firefighting equipment

In essence each borough commander would develop an annual training plan that provided direction to watch officers within their fire stations on which elements of training required to be covered in each quarter.

Watch officers would then produce a watch training plan for the year that ensured that they would provide training to their crews to cover these risk critical skills. The method they employed to cover this would be determined by the individual watch officers.

These plans were then programmed into the station diary to show specific training plans for the forthcoming quarter (at least). Senior officers could then interrogate these plans to determine the suitability of the proposal and could attend and monitor training sessions with advance understanding of what was due to be covered.

In addition to the core skills the Deputy Assistant Chief (DAC), for each of LFB's four command areas, would produce a list of subjects that they deemed important. DAC's would expect that training input would be given on these specific subjects during the course of the year. This would normally work out at between 4 and 5 lectures a month on specific subjects such as Equality and Diversity, Building Construction, Acetylene Procedures etc.

Where a computer-based training (CBT) package existed on BTL's Learning Management System (Big Learning) that related to these subjects this would be utilised. Otherwise it would tend to be down to reading out a procedure note or policy document.

Time was allocated in station diaries and ring fenced for training. 2 Hours allocated on a day shift and 1 hour on a nightshift.

The key performance indicator (KPI) relating to the provision of training was based on the specific watch having undertaken a total of 6 hours training in a week (24% of time available). Watch officers would update the system following completion of training sessions and when they had achieved this KPI the indicator would turn green. There was no recorded system for individual training, roles performed during training, quality of training, quality of individual performance etc

## New approach

In 2018 a project team was formed and tasked with reviewing and improving the DaMOP policy. Their goal was to provide a new framework and assurance process that integrated local and centralised training and exercising and allowed operational staff to be able to maintain and demonstrate professional competence.

The team carried out research by visiting a number of other fire and rescue services and other organisations who have systems in place for ensuring the ongoing competence of their staff. They sought to learn the lessons of others in a bid to identify best practice.

The team carried out a mapping exercise to provide a list of core skills and knowledge required by firefighter to watch manager roles. This exercise took into account national role maps, national occupational standards and skills for justice specifications.

Following a comprehensive review, the team identified 20 competency areas for watch-based staff which have been divided into 0-12 month and 12-24 month frequency requirements.

Having identified the core competencies, the team looked at training materials available relative to those competencies and considered any gaps in current provision. Having identified gaps that required, either a revision of current materials or the creation of new materials, they then approached BTL to commission necessary changes. Over 30 packages needed to be altered, or created, as a result of this gap analysis exercise.

The new packages include theoretical elements and also a practical application of knowledge acquired.

The new system tasks watch officers with delivering theoretical training using CBT packages or policy documents/procedures etc, before conducting a practical consolidation exercise that allows staff to demonstrate skills in a practical setting.

Watch officers confirm the names of those who took part in the theoretical sessions and practical exercise and the role they played using an electronic – drop down menu type system. The current system of “best practice assessments” (BA checks, donning and starting up, facemask removal etc) will be built into the practical assessment, carried out in stations, under the supervision of watch officers

A “wheel of competence” with 8 segments on it, forms the basis for the phased delivery of this training. Every firefighter can see the segments they are working on and these are coloured red until all elements of training within that segment have been completed. Upon completion the segment will turn green. Clicking on the segment displays the individual elements contained within it and shows which elements are outstanding and which have been completed.

Watch officers can see the wheel of competence related to their watch progress and are also able to view the individual status of each member of their watch. This allows them to identify who still requires to be trained, and on what, before the watch can be deemed competent.

Borough commanders can see a wheel for each station under their command and so on up the organisation.

Whilst training is pre-populated for the entire quarter, and, details what each station should be doing on a particular day or night, watch officers have the flexibility to move training slots around within the quarter should they deem it beneficial to do so. Should they feel their watch require additional training on a particular subject, or piece of equipment, then this can be added to the training schedule. This would be in addition to programmed training not instead of it.

The borough training plan will continue to exist but will now be used to highlight any specific risks within the borough for which crews within specific stations may require to undertake additional training.

This new system went live on 1<sup>st</sup> July 2019 and is currently being refined as necessary in line with feedback from end-users.

#### Observation 4

Discussion with staff based in fire stations suggests that the new system will add a welcomed structure to station-based training. Improvements to Big Learning should allow easier access to training materials.

The success or failure of the project will hinge on the quality of training materials available and the ease of user interface with the new software platform. Whilst the team responsible accept that the system may require to be refined and improved, they were keen to launch the new system on schedule and respond to feedback from end users as necessary.

**This requires to be monitored in a bid to achieve continuous improvement.**

#### 4.9 Senior Officer DaMOP

As referenced above, there has been some formality to the maintenance of skills of staff based in fire stations since 2006. The revision of the DaMOP system should, hopefully, add additional support and provide a more detailed structure to assist in the delivery and recording of this type of training.

To take this one step further LFB has decided to introduce a DaMOP system to provide some formality and structure to the maintenance of skills training provided for senior officers.

Until now senior officers, from station manager upwards, have been expected to maintain their own competence by ensuring they keep up to date with policies, procedures and skills relevant to their roles. Many officers have reported that they take a proactive approach to maintaining competence and this is encouraging.

Officers are assigned to one of four rota groups. Each group provides emergency cover on a rotational basis. In some areas there are examples of officers assigned to these rota groups coming together on Saturday mornings to train as a team. Each member of the team takes turns to lead on a particular training subject. Whilst this type of commitment is to be applauded it is not centrally coordinated, structured, or consistently recorded and as such it is difficult to evidence accurately.

To address this, the service has decided to introduce a DaMOP system for senior officers. The new system will add some formality to the maintenance of skills for officers and will assign specific training modules to officer diaries with an expected completion date.

A great deal of work has already gone into the development of this system and it is expected to go live in 2020.

The system, like the DaMOP programme for fire stations, is based on the principle of training modules being assigned to an officer's diary. Officers will have access to the relevant training materials required to carry out this training and will have the flexibility to complete each module within a specified date range. On completion of each module the officer's individual training record will be updated to reflect progress made.

Whilst this is a positive step forward, and, will certainly provide some formality and consistency across each area and rota group, it should not be viewed as a replacement for the rota group type training that has been delivered in some areas.

To train as a group is hugely beneficial, particularly if this is the group you will respond with when an emergency occurs. This type of group exercising is important, and the service may wish to consider developing a range of consolidation exercises to compliment the theoretical input covered in the senior officer DaMOP modules. Coordination of rota group training events might also be improved by designating one officer per rota group as "Training Lead" and giving them responsibility for ensuring these exercises take place in line with direction set by the T&PD department.

Recommendation 10 – **MEDIUM PRIORITY**

Consider the introduction of practical exercises for rota groups to consolidate learning from theoretical elements of Senior Officer DaMOP training. Coordination of rota group training could be led by an officer designated as "Training Lead"

#### 4.10 Incident Command Training

##### Initial training

Under the current arrangements incident command training is provided for Supervisory Managers (Level 1) and Middle Managers (Level 2) through the contract with BTL. Those who have attended this training have provided positive feedback.

The training utilises computer generated images on a system known as X-VR to simulate an operational exercise. Candidates are given the opportunity to take charge of the event and put steps in place to manage and resolve the incident.

Whilst the course itself is well received there was some criticism around the delays that can occur in newly promoted officers, or those acting up in a new role, being able to access the training. This can at times lead to newly promoted members of staff taking charge of incidents without having received formal incident command training.

#### Recommendation 11 – **HIGH PRIORITY**

Some thought should be given as to how best to resolve the situation described above. Whilst it is often the case that training is provided after a promotion has occurred, some thought should be given to talent management, identification of potential, providing training in advance of promotion.

Where all else fails, an abridged version of the incident command course, “ticket to ride” type input could be developed to at least provide some input and limited assurance that the individual is aware of the most basic tenets of incident command.

**N.B. The issue of talent management/identification of potential is the responsibility of the People Services Department. This issue is currently under consideration.**

#### Refresher Training

Under the current arrangement, incident command refresher training is provided to all commanders on a two-yearly basis. Level 1 command refresher training consists of a two-day course, during which every candidate is given the opportunity to act as the incident commander. In the Level 2 refresher only one candidate in three is exposed to the incident commander role with the other 2 candidates adopting functional roles. All refresher training is delivered by BTL utilising X-VR.

Whilst feedback on the incident command refresher training was fairly positive, some officers felt that the opportunity to command a real crew, or crews, during a realistic exercise would have provided a more meaningful test. The facilities, and former training provided, at the Fire Service College are often referred to by officers who had the opportunity to attend command courses at this venue.

#### Observation 5

Incident command courses are generally considered to be of value, however, incident commanders felt they would benefit from an opportunity to take command of real crews rather than only being exposed to computer software-based scenarios.

#### Incident Command Revalidation

Whilst Level 1 and 2 refreshers are delivered by BTL there is currently no method of assessing performance with regard to incident command competence. LFB are able to monitor the number of commanders who have attended refresher training. The service also monitors, and reports on, the number of commanders who have exceeded expected timescale for refresher training. They do not, however, assess candidates during these courses. As such it is impossible to accurately state how many commanders have performed to a satisfactory level.

Revalidation through assessment only provides a snapshot in time, measured against a particular scenario, and does not necessarily give complete comfort that commanders can handle whatever type of event they are exposed to. It does, however, provide some comfort that they are familiar with the principles of incident command, decision making and risk assessment.

LFB has been considering the introduction of an incident command revalidation process for some time now and has set up a project team to consider how best to achieve this objective.



Recommendation 12 – **HIGH PRIORITY**

The introduction of incident command revalidation exercises will provide a more accurate picture of command competence across the Brigade and will provide a degree of comfort that those responding to emergency events possess the necessary skills and building blocks on which to manage an incident.

LFB should take necessary steps to introduce a system of incident command revalidation as a matter of urgency. LFB should also consider what action to take should commanders fail to meet the requisite standard during revalidation.

**LFB is currently taking steps to address this issue.**

Should BTL continue to deliver refresher courses, with a revalidation exercises added to the end, this will clearly have an impact on time available to ensure all candidates are exposed to the role of incident commander.

Another element of revalidation that may prove difficult to resolve will be the availability of suitably qualified and competent assessors working within the BTL team. This will be particularly problematic during Level 2 revalidation process.

LFB are currently giving this matter consideration under the project mentioned above. Options include secondment of suitably qualified officers from LFB to act as assessors or to bring incident command training, for Level 2 and above, back “in-house” to be delivered by a newly formed team of serving LFB officers.

Recommendation 13 - **HIGH PRIORITY**

Based on the sheer numbers and frequency of ICL 1 training courses I believe there is a benefit in continuing to deliver this level under the BTL contract. Assessment can be carried out by existing instructional staff who should already have experience of operating as Level 1 commanders.

Due to the difficulty in sourcing suitable assessors for ICL 2 and above, coupled with the need to be able to apply flexibility to ensure training is delivered swiftly to fill short term gaps, I would recommend that an in-house incident command team be established to deliver this training and associated revalidation process in-house thus removing this element of training from the BTL contract.

Clearly this would be subject to adequate resources being made available and appropriate discussion and adaptation of contract terms.

#### 4.11 Operational Discretion

Whilst every attempt is made to produce policies, operating procedures, and associated training packages that prepare staff for all eventualities; the dynamic nature of emergency response operations makes this very difficult to achieve. It is therefore essential that incident commanders are empowered to adapt, or move away from, operational policy to achieve their objective; but only if such a move is justifiable and the benefit of doing so outweighs the risk. This is known as exercising operational discretion.

Whilst a description of operational discretion, and when and how to apply it, is contained within LFB Policy relating to Dynamic Risk Assessment (No. 342), no formal training has been provided to incident commanders relating to this subject.

To take the decision to operate outside normal policy is not an easy one. Incident commanders making such a decision could well expose themselves, their crews, and/or members of the public to additional risk. They may also expose themselves and the organisation to legal challenge and public scrutiny. As such they must be aware of the importance of carrying out a thorough risk/benefit analysis and formally logging the rationale behind the decisions they have made.

The LFB Policy on Recording Decisions at Incidents (No 828) gives a thorough description of how to do this, however, there appears to have been no formal training provided relating to this subject.

The parameters relating to what is deemed an acceptable deviation from policy are also somewhat unclear. The policy refers to the application of professional judgement and accepts this will differ depending on the individual officer's level of experience.

An exercise in setting parameters, and providing examples, of what may be deemed acceptable and unacceptable deviation from policy, may assist incident commanders to understand the operational risk appetite of the organisation and its corporate team.

Recommendation 14 – **HIGH PRIORITY**

The service should consider how best it prepares and supports incident commanders in relation to the application of operational discretion. Some formal input on the importance of carrying out a thorough risk/benefit analysis before deviating from policy should be provided to all incident commanders.

Formal input on the importance of maintaining a decision log and keeping contemporaneous notes should also be provided.

The service should also consider how it supports incident commanders by deploying trained loggists to assist in the collation of such written narrative. **LFB has recently convened a cross-directorate group to consider all issues relating to note taking and evidence gathering in more detail, however, the delivery of formal training on the application of operational discretion should not be delayed awaiting the conclusion of this wider piece of work.**

The service should also consider providing some guidance and examples of what might be deemed to be acceptable and unacceptable deviation from policy. This would help to provide notional parameters for less experienced commanders.

Incident commanders should be made aware of the possible implications of deviating from, or indeed failing to deviate from, operational policy.

#### 4.12 Local Training and Exercising

In addition to the elements of training that are delivered under the BTL contract, and the DaMOP process, there are also examples of high-quality training events that are being driven and coordinated by teams based in local areas.

I have listed a few examples below but am certain that there are many others occurring across the entire Brigade.

##### Corrosive attacks training

In direct response to a known risk within their area, local crews and officers, from the North East Area, set about designing a training package that would help prepare crews for attendance at such an event. The training was so well received that it has now been rolled out across the entire Brigade. In addition, LFB staff have now delivered this training to partners from the Metropolitan Police, London Ambulance Service and key individuals from bus operators and London Underground. The package has subsequently been cascaded by these individuals to officers, drivers and operators across their own organisations.

##### Multi-pump exercises

As part of their borough training plans, a requirement of the existing DaMOP system, borough commanders are expected to organise multi-pump exercises on a regular basis. This is often achieved by crews identifying a vacant premise in their area that might be available for use by LFB as a realistic training venue. Following a great deal of effort, including discussion with landlords, risk assessments, completion of legal documentation etc, these premises are made available to LFB and can be used to deliver realistic training.

I was grateful to be invited to attend one of these exercises and witnessed first-hand the level of realism, the opportunity for fire crews and officers alike to train together in a meaningful fashion, and the benefits gained from this type of event.

##### Multi-agency exercises

Large scale multi-agency exercises are also a fairly regular occurrence across LFB, and these afford crews and officer the opportunity to train alongside colleagues from other emergency services and/or other agencies. A recent 14 pump exercise at Canary Wharf involved partners from London Ambulance Service, the Metropolitan Police, Stagecoach Buses, the Canary Wharf Group and a range of other players.

##### Observation 6

Local training and exercising is a valuable addition to the elements of formal training delivered through the BTL contract and in line with the DaMOP system.

Locally based staff are best placed to understand the risks in their area, and to identify potential training venues within their communities. Staff should be encouraged to do so and supported in the formal elements of securing such premises, completion of risk assessments, securing necessary resources etc. These elements of bureaucracy are often enough to discourage staff from being proactive in this process and some consideration might be given to creating a central team to assist in this administrative function.

Recommendation 15 – **MEDIUM PRIORITY**

This type of local training and exercising is most certainly taking place across the boroughs and command areas of LFB. Whilst it would be wrong to discourage the initiative and ingenuity of local officers, there may be a benefit to having a centrally located team that plays a role in coordinating such events.

By doing so, key learning points, areas of good practice, areas for improvement etc, could be captured and shared across the Brigade. Also, a particularly useful exercise, may be able to be replicated in other areas and by building up a central repository of local exercises duplication of effort could be avoided.

With proper co-ordination these local exercises could provide the exposure to real life training opportunities that Incident Commanders feel would build on the lessons learned during their exposure to X-VR type training (See observation 5).

#### 4.13 Access to Training for FRS Staff

In addition to operational fire crews and senior officers, LFB also relies on a wide range of professionals who support the delivery of front-line service. These individuals, working across almost every department within the organisation do not wear a uniform, however, they are crucial to ensuring that those who respond to emergency incidents are equipped, trained and resourced to allow them to protect the communities they serve.

Many of those performing FRS roles within LFB will be specialists, who have attained formal qualifications prior to joining the Brigade. Accountants, lawyers, procurement, ICT experts who have been employed based on their experience and qualifications, and, who have already demonstrated a competence, or expertise, in their particular field. Others will join LFB and seek to develop their skills and experience as they advance their career and seek promotion or exposure to new opportunities.

At present there appears to be a lack of formality to the manner in which FRS staff can access maintenance training or development opportunities.

The service publishes a syllabus of training courses available each year. FRS staff wishing to access a particular course can make representation through their line manager and apply to attend. Some courses are progressive (MS Office levels 1-3 for example) whilst others may be stand-alone (Managing conflict etc).

Staff can also apply to attend external courses that will lead to a formal qualification and could, if successful in their bid, access funding to allow them to develop in this way.

At a point in time when the service is developing an improved system (DaMOP) for ensuring firefighters and officers are able to maintain and develop their skills it would appear appropriate that a similar system is developed to formalise the development pathways associated with FRS roles.

Clearly this will need to be tailored and specific to individual roles. Consequently, it may be more challenging than developing a generic programme of training for a large group, however, this type of system is in place in other services and organisations and lessons could no doubt be learned when developing a system for LFB.

A visible investment in a system of this type would demonstrate a commitment to the continued development of an extremely important staff group who are crucial to the successful delivery of service across LFB.

Recommendation 16 – **MEDIUM PRIORITY**

LFB should invest in the creation of a career development pathway/maintenance of skills programme for FRS staff groups to formalise training and development opportunities available and provide clear guidelines on how to access internal and external courses.

**N.B. Responsibility for the development of a career development pathway lies with LFB's People Services Department. This is currently under consideration.**

Through discussion with members of FRS staff and their representative bodies it emerged that one potential barrier to staff being proactive in applying for development courses is the location of the training facilities where the courses are delivered.

It is clearly necessary for uniformed colleagues to attend a dedicated training facility to access some operational courses due to the requirement to use equipment and resources that are not easily transported (BA training units, set servicing, USAR rigs etc).

FRS staff training however, tends to be classroom based and some consideration should be given, where possible, to delivering training at sites that better suit students such as LFB HQ or other central locations.

Recommendation 17 – **MEDIUM PRIORITY**

A thorough review of training available to FRS staff should be carried to ensure that training is matched to identified need.

As part of this review some consideration should be given to the use of venues that better suit the target audience, even if this results in trainers having to travel to students and rooms being sourced in centrally located venues.

#### 4.14 Programming/scheduling of training

The contract between LFB and BTL, like any contract of this type, is complex and difficult to accurately summarise. In the most basic terms, the annual costs associated with the contract can be broken down into two categories: -

Fixed costs – Those costs that are constant and required to be paid regardless of the training undertaken. These are effectively the overheads associated with managing such a contract. Staff costs for permanent team members, accommodation related costs, utilities, rates. Anything that remains constant.

Variable costs – the costs that fluctuate in line with types and numbers of courses being run.

In essence the contract has an annual value attached to it. BTL simply subtracts the fixed element from the total cost of the contract and the figure remaining, after fixed costs are deducted, is the amount that can be spent on training. To make this easier to understand BTL has created a system of measurement known as training units. The number of instructors, cost of consumables, catering, etc are calculated for each course and this overall price is shown as number of training units per course.

LFB has a finite number of units to allocate each year and so they must programme their courses carefully to ensure the best use of units available.

##### Observation 7

LFB has a finite number of training units that can be utilised each year. Consequently, they populate a training programme in accordance with units available. This can lead to a culture of allocating training simply to use up all slots available rather than allocating training based on actual need.

Ideally, training should be delivered based on need, not on time slots available. In some years the need may be greater than others.

Perhaps a system that allowed unused training units from one year to be carried forward to the next year, in much the same way as budgets are carried forward as reserves, might lead to a culture where training is programmed based on genuine need.

Should this result in gaps within the annual programme then these could be used to deliver short notice courses that had been unpredicted, or simply carried forward to provide more training units the following year. This would clearly lead to fluctuations in annual income for BTL, however, in a contract that is set to run for another 18 years this should hopefully be worthy of discussion.

To ensure the training provided is in line with the needs of the organisation a syllabus of available courses is published. Department Heads are asked to consider the training needs for their departments for the coming year and bid for the type, and number, of courses they will require to meet this need. These requests are considered and, if approved, they are entered into the "Statement of Training Requirement" (SoTR) for the coming year. To assist in this process Department Heads are given access to a summary of the courses requested in previous years, actual attendance rates, number of students who did not attend etc.

It is the belief of many of the stakeholders interviewed that the default position is to simply request the same number of courses as requested in previous years without a proper analysis of actual training need within each department.

There are some elements of training that are repetitive such as BA refresher courses, Immediate Emergency Care (IEC) courses, Incident Command Refresher courses etc. Others are determined by a need to recruit staff to replace those leaving the service on retirement etc. Other courses are required to meet particular skills gaps such as driving, or elements of specialist rescue.

Not only does the service need to understand the training required today, Heads of departments must also predict their training needs in the future. They must consider skills gaps and geographical locations that exist today and those that are likely to occur in the future.

**To accurately predict the training need for every department in a brigade the size of LFB, up to a year in advance, is an incredibly complex task.**

Analysis of potential retirement rates, and, historic trends with regard to those leaving to seek other opportunities, are used to provide an indication of numbers of new firefighters likely to be required to maintain crewing levels.

Analysis of potential leavers, in relation to their positions within the hierarchy of the organisation, can also be used to predict any likely shortfall in officer numbers and schedule the necessary steps in the promotion process.

To truly understand and predict other elements of training required, however, needs a system that considers, not only the number of potential leavers, and their current ranks, but also takes into account;

- additional skills they have,
- gaps that will result from their departure
- knock-on effect when promotions occur
- Implications of staff with particular skills leaving to work in other departments

Clearly a complicated system that is based on a great many assumptions, however, this must be considered if the service is to accurately predict, and subsequently programme its training requirement for the year ahead.

#### Observation 8

To base the population of the annual SoTR on the number of courses requested last year without a greater analysis and prediction of potential skills gaps, vacancies, succession planning etc, to better understand actual training need, will lead to overprovision of some courses and under provision of others. In a system that requires training to be programmed so far in advance any change to address skills gaps, that had not been predicted, can take time and have implications on other elements of planned training. It is vitally important that the analysis of training need is considered fully, and more time is given to the predictive element associated with such a process.

Recommendation 18 - **MEDIUM PRIORITY**

In order to truly understand the actual training required across the organisation LFB should carry out a complete Training Needs Analysis (TNA) across the entire organisation. Consideration of risks, historic activity data, role within the community (current and future), specialist skills, incident command, FRS departmental requirements and current skills gaps that exist should be considered in great detail to determine the training required to maintain and enhance these skills.

Further consideration of predicted skills shortages moving forward will enhance this exercise.

Training should be based on need, not on historic provision.

#### 4.15 Training Commissioning and Alteration Process (TCAP)

The process for designing a new training course is a complex one that involves a wide range of stakeholders and can at times take a considerable time to complete.

In the most basic of terms, when a training need is identified, perhaps due to the introduction of a new piece of equipment, a change in policy, acceptance of a new role etc, the department responsible for this change (referred to as the commissioning department) will complete a training request form (TRF).

The TRF will be sent to the Training Commissioning department who will review the form and consider if there is a genuine training need, or, if an alternative route (perhaps an information bulletin, comms message etc) exists.

Authority to progress will be sought from the Strategic Training Oversight Board (STOB) who will consider the request, review the strategic implications, and determine the priority of this training in the wider organisational context.

Assuming there is a genuine need, a TCAP working group will be convened to discuss this need, how it could be addressed, and, the implications of introducing this new training. The working group includes representatives from T&PD, LFB Contract Manager and representatives from BTL.

Should the group agree that a training course is necessary then the responsibility for the design of the course will transfer to BTL. BTL employ Training Solution Architects (usually retired fire officers) who will work with the commissioning department to explore options on what training might look like, what needs to be covered, how this might be delivered etc.

Once broad agreement has been reached, the outline will be handed to a training design team, who again work for BTL, to design a suitable training course, necessary materials, areas to be covered, most suitable delivery method etc.



BTL will then return to the commissioning department with proposals on how best to meet their need. The commissioning department will work with BTL to ensure they are satisfied with the proposal. This often takes time and requires input from the subject matter experts who first identified the training need and completed the training request form.

Once all parties are satisfied, the proposal will be signed off, and, a pilot course developed and delivered. LFB will observe the pilot course, and adapt as necessary, until they are satisfied the course is fit for purpose. At this point the TCAP is signed off and considered closed.

#### Observation 9

Whilst the TCAP process has been necessary to ensure that LFB, as the client, are confident that the provider is delivering training that is appropriate and delivered in a consistent manner, it is viewed by many as a cumbersome process that can lead to significant delays in the design and delivery of new courses.

It seems that part of the difficulty is that the driver for such training, be it the creation of a new policy, the alteration of existing policy or the introduction of new equipment or techniques, is generally developed by a subject matter expert (SME) employed by LFB. Following the TCAP process, however, means the associated training package will be designed by the training provider, BTL, who may not have access to this level of expertise.

Inevitably there needs to be input into this process from LFB and the SME's involved in writing the original policy and training request. It therefore appears that the SME's, who create the policy, could play a more active part in the design process and give training delivery greater consideration as part of the policy creation stage.

#### Recommendation 19 – **HIGH PRIORITY**

Based on the observation above it seems logical that the design of training should lie with LFB rather than BTL. The creation of a “training design team” within the T&PD department could assist in the streamlining of the TCAP process and speed up the journey from identification of need to delivery of training.

This would require a change to the contract and an increase in resource within LFB to ensure T&PD, and SMEs, could manage this additional workload. It may also result in some members of the BTL design team moving to LFB to ensure training content is presented and delivered in a suitable fashion.

#### 4.16 Course Review

At the commencement of the contract with BTL it was agreed that a full review of training would be carried out during the first three years of the contract. This was achieved; and a recent direction from the Strategic Training Oversight Board (STOB) to schedule a continuous cycle of course review is entirely appropriate.

A recent decision to revamp the quality assurance (QA) of courses has led to this function now lying within the Operational Policy and Assurance Department. The new QA process will see subject matter experts (SMEs) from this department auditing courses to, not only assess the suitability of facilities and materials, but also, the suitability of content and delivery.

This seems appropriate; however, this new approach should be reviewed periodically to ensure it is delivering the benefits expected and is fit for purpose.

It seems sensible now to also consider the courses that are available, review their content, consider relevance/content/duration, and to revise the syllabus accordingly. Many stakeholders report that some courses include elements that could be delivered at station via computer-based training packages, others believe there is a degree of repetition within courses, and some are believed to be outdated.

To carry out a root and branch training needs analysis, ensuring that needs are matched with relevant and meaningful training opportunities, should hopefully result in a syllabus that provides the right opportunities, to the right people to access the right training.

**Recommendation 20 – MEDIUM PRIORITY**

A review of the entire suite of training courses available, content, and suitability, has begun under the leadership of the Head of T&PD.

This review should be resourced and supported appropriately to ensure that it can be delivered within a realistic timeframe.

The end product should be a syllabus that affords people the opportunity to access training that is fit for purpose and is matched to actual training need.

#### 4.17 Training and Professional Development Department Structure

Whilst design and delivery of training has been outsourced to BTL since 2012, LFB retain the overall responsibility for ensuring their workforce is adequately trained and able to perform in a safe and competent manner. It is therefore vital that they clearly define their requirements, oversee design and delivery of training, and ensure the quality of the product being delivered is in line with the needs of their staff.

The T&PD Department was established to create this vital link between LFB and BTL and to ensure that training is being delivered to the expected standard, in line with the terms of the contract, and in a manner that best suits the organisation and its workforce.

Whilst there is absolutely no doubt that the department and its team members are devoted and competent individuals, and are performing to a high standard, the structure of the department, the job titles, and the areas of responsibility are somewhat confusing to those unfamiliar with the department's history.

A recent review of People Services, coupled with a decision to move the quality assurance team into Ops Policy and Assurance, has significantly altered the structure and the functions the T&PD department carries out.

The training delivery team for example do not have any responsibility for the physical delivery of training, instead they provide a very necessary link between LFB and the external training provider. A more appropriate title might be business relationship team, and it might be argued that some of the functions carried out within this team, such as arranging for the allocation of uniforms to new entrants, are not best placed within a training and development department.

Again, the role of the performance improvement and compliance team appears to focus on performance reporting, which is only one element of improvement, and may well sit better within a contract management function.

The service has already recognised that this departmental structure could benefit from a review and has tasked a senior officer based within the department to carry out this work.

Building on recommendations 15 and 19 above, there may be merit in inserting a new team within the T&PD department, that would take responsibility for elements of training design, as well as a team to assist in the administration associated with local exercising, and capturing and sharing the lessons learned from such exercises in a bid to create realistic training opportunities across the entire service and improve operational competence.

To assist in implementing recommendation 1 it may be necessary to introduce dedicated posts to provide an improved customer liaison function between T&PD and other departments who have training requirements that lie outwith the contract with BTL.

Recommendation 21 – **MEDIUM PRIORITY**

The ongoing structural review of T&PD should continue as planned.

The officer carrying out the review should consider the functions, job titles and most appropriate departmental location for each function currently performed within T&PD and provide options as to how best to achieve clarity and efficiency where appropriate.

Consideration should be given to the reporting lines for the review team to provide a degree of independence and ensure the results are seen as impartial.

The review may also provide an opportunity to consider how best to resource and supervise any change that is considered appropriate in relation to bringing design of training in-house, and in supporting the delivery of local exercises and capturing and sharing lessons learned at these events.

The review team should also give due regard to recommendations contained within this report.

#### 4.18 Fire Safety Training

LFB places great value in the prevention of emergencies and the protection of the communities they serve.

The fire safety department exists to provide advice and support, to inspect/audit specific premises, to investigate the cause of fire and to educate the public and other stakeholders on how to prevent fires and other emergencies occurring.

##### Departmental Training

The team can be broadly divided into 4 functional teams: -

- Regulatory Fire Safety
- Fire Engineering
- Fire Investigation
- Community Safety

The training requirements for each of these teams originally formed part of the BTL contract. Due to the specialist nature of some elements of this training it was agreed that BTL would seek to engage the services of a suitable partner to deliver this training on their behalf.

Whilst this arrangement served a purpose in the initial stages of the contract it became apparent over time that it might be better for LFB to secure the services of another provider outwith the BTL contract and so a decision was taken to remove elements of fire safety related training from the BTL contract.

The fire safety department has nominated a member of staff to act as its “Learning and Development Manager” and this person has worked hard, alongside senior managers from fire safety, to ensure that the training needs of the department are adequately covered.

This has involved working with colleagues from procurement to carry out a range of competitive tenders to ensure best value and secure the services of third-party training providers who are able to meet the needs of specific departments.

Regulatory fire safety training for inspectors and auditing officers is now provided by Xact Training Ltd. Xact were appointed on a five-year contract in 2019 and will deliver Fire Safety Levels 3 and 4 Certificate and Level 4 Diploma.

Fire engineering degree courses are delivered by Glasgow Caledonian University at their London campus with continuous professional development (CPD) arrangements for engineers being secured through an arrangement with the Institution of Fire Engineers (IFE).

With regard to fire investigation qualifications, new members of the team will attend a 2-week foundation course run by Bureau Veritas and will then be expected to undertake the practical fire investigation course run by Gardeners and undertake the Level 5 and Level 7 advanced investigator courses accredited by Skills for Justice. CPD for investigators relies on an in-house programme drawing on materials from a range of expert providers.

Community safety training appears to be less formal with staff having access to elements of the BTL syllabus, supplemented by specific workshops, in-house presentations and external conferences.

Regulatory Reform Order (RRO) fire safety inspecting officers, fire engineers and fire investigation officers are making major decisions on behalf of LFB which may have major implications for public and firefighter safety. They may, depending on the circumstances, represent LFB at all levels of court proceedings. Untrained staff in those circumstances could pose a major risk to LFB.

Whilst there are clear signs that the fire safety department is taking steps to provide training and development opportunities for staff engaged across each of its teams, there appears to be a lack of engagement between the department and the Head of T&PD.

The introduction of a fire safety learning and development post has provided staff within the department with a point of contact relative to training. This has perhaps, however, led to a situation described in Chapter 1 of the report where the Customer is empowered to secure training from a range of third-party providers and has done so without the direct involvement of the person with corporate responsibility for training and professional development (figure 3 below).

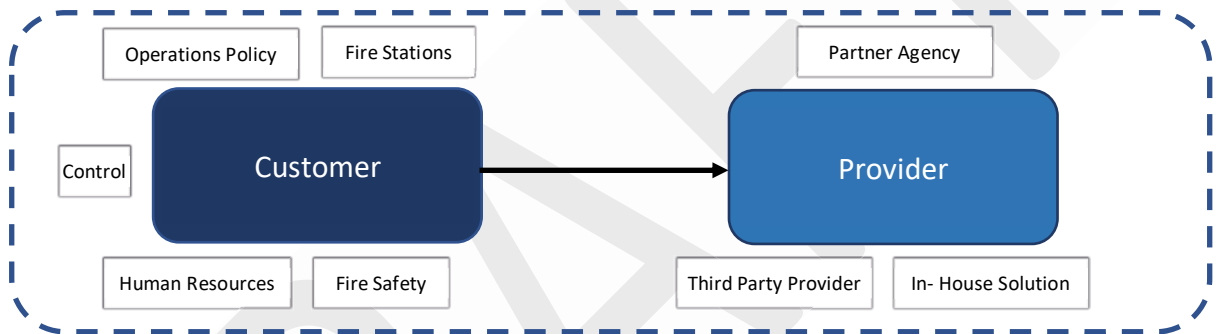


Figure 3

Whilst I appreciate the departmental benefits of having a “go to person” for all things training, it might be better if that post sat within the T&PD structure. Alternatively, this “departmental partnering arrangement” should be formalised to ensure that T&PD are fully aware of all training needs and steps that have been taken to ensure adequate training was being provided to specialist teams.

As indicated in Chapter 1, this would not preclude the use of alternative third-party providers, or the development of in-house solutions, it would simply provide the organisation with an appropriate corporate oversight and understanding of training need (figure 4 below).

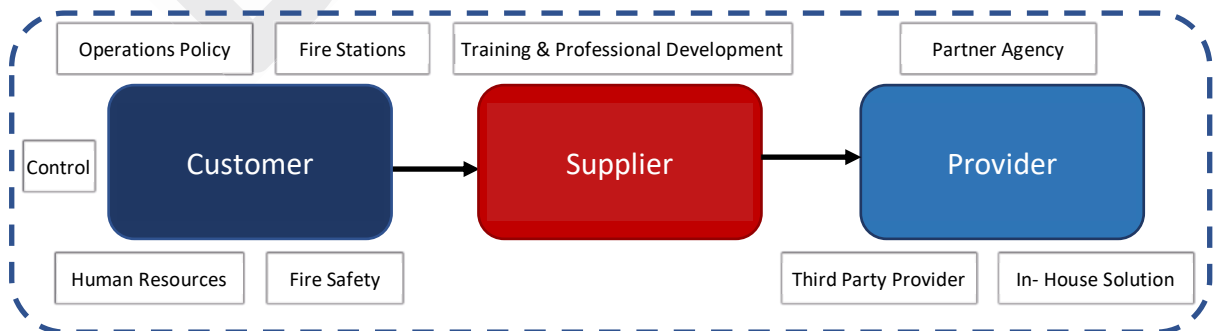


Figure 4

Recommendation 22 – **HIGH PRIORITY**

It is strongly recommended that a formal relationship between Fire Safety and T&PD be re-established and all training needs, and suggested solutions, are discussed with the Head of T&PD prior to entering into any external agreements or developing in-house solutions.

It is vitally important that the T&PD department maintain “corporate oversight” of all elements of training to strengthen the governance and accountability relative to this crucial element of the service.

Systems for scheduling training and monitoring attendance should be developed to ensure accurate recording is in place.

A consistent method of recording training undertaken should be developed as a matter of urgency.

#### 4.19 Control and Mobilising Training

Unlike the majority of training that takes place in LFB, the training of staff working within the control and mobilising team was never outsourced to BTL. A decision was taken, at the point of awarding the contract, to keep the training of control room staff in-house and to maintain a stand-alone “Operations Support Team” (OST) within the control room establishment.

Observation 10

The current system for provision of control room training sees the OST developing and delivering an in-house solution with little or no involvement from the T&PD department. As a consequence, the T&PD department has little or no oversight of training being carried out within the control room environment.

Recommendation 23 – **HIGH PRIORITY**

As per recommendation 1, the AC Control and Mobilising and Senior Operations Managers should work in partnership with the Head of T&PD to develop the best solution to their training requirements moving forward.

The OST currently consists of six members of staff who work Monday to Friday and have responsibility for training and for the collection and analysis of data.

## Observation 11

Whilst the size of the OST seems broadly appropriate there are many demands upon their capacity which can impact upon their ability to focus on training e.g. data request, compilation of presentations and reports etc. It also appears that they have responsibility for compiling information and forming control operating procedures to complement new LFB operational procedures.

It was noted through observation and discussion with members of the OST, and the duty watch, that all staff want to work hard and play a role in ensuring that the LFB control room function performs to the highest standard.

There appears however to be a disconnect between the watches and OST and this could lead to a blame culture developing.

## Recommendation 24 – **MEDIUM PRIORITY**

The size and function of the OST should be reviewed. Consideration should be given to the work that they carry out with an emphasis on their core functions. If necessary, the OST should be split into functional parts e.g. (1) Training and (2) Systems and Data. The roles of these two new sections should be carefully considered and clearly set out to ensure “left field” activities and requests do not detract from core functions.

Positive engagement between the OST and the control room watches must be encouraged. A suitable meeting forum, or OST Champions assigned to each Watch, would go some way to ensuring the respective needs of each group can be clearly understood. The training needs of each watch could be better understood by the OST champion and used to influence future design and delivery.

Positive engagement between the OST and watches (see above) is the responsibility of the Senior Operations Managers and should become a key consideration for them via formalised processes e.g. setting up and attending watch managers meetings. Collegiate working between the groups should be encouraged and actively fostered.

## Attainment Phase

On joining the brigade, new trainees undertake a 9-week training programme covering a range of subjects including: -

- Introduction to LFB
- Mobilising protocols
- Incident types
- Radio procedures and
- Specialist mobilising

Trainees are assessed on a weekly basis and must attain an 80% pass mark to proceed. They are subjected to a formal written test and a practical skills demonstration at the end of their training and the pass rate is very high.

Following successful completion of their training course the trainees are posted to a watch within the control room and are expected to work in partnership with a more qualified officer who will act as a supervisor/mentor for a period of 12 weeks.

#### Observation 12

Attainment records for trainees appear to be paper based with no IT system in place that fully captures an individual from entry to the brigade, through their twelve-month probation and on through their service within the organisation.

Beyond the nine-week initial trainee course there appear to be no formal overarching system in place to take an individual to full competence and then maintenance of the skills necessary for them to operate within an environment such as the LFB control room.

#### Maintenance Phase

In relation to maintenance of skills training, this appears to lack a formal structure. The training is designed and delivered by the OST, under the supervision of one of the Senior Operations Managers. It is often driven by policy changes, introduction of new practices, new equipment etc and is responsive in nature.

To deliver training to watch based staff in the control room environment is not easy. It is clearly vital to ensure adequate numbers of operators are on duty to respond to calls for assistance. This means that training has to be delivered to batches of staff rather than reaching an entire watch with one training session, as is the case in a typical fire station.

Given there are increased numbers of staff on duty during the “Middle Shift”, every effort is made to use this time of the day to deliver training. The recent introduction of a two-hour training slot into the daily routine should be a welcomed and fully utilised.

#### Recommendation 25 – **MEDIUM PRIORITY**

All staff should be reminded that the two-hour training slot has been introduced to ensure that training is being carried out on a daily basis. This is a mandatory session factored into the daily routine and is not optional; exigencies of the service, spate conditions aside.

LFB is well aware of the need for a DaMOP type system, that adds structure to the training of control officers and managers. The development of such a system had been programmed into Phase 2 of the DaMOP project, expected to conclude in July 2020. Following discussion during the initial phase of this review the Head of T&PD has agreed to accelerate this timeline and develop a control room DaMOP as a matter of urgency.



Recommendation 26 – **HIGH PRIORITY**

Phase 2 of LFB's DaMOP project, focusing on Control Room training, was originally scheduled for delivery in July 2020 I would strongly recommend that this is re-prioritised and a maintenance training system for Control Officers and Managers is developed at the earliest possible opportunity.

Within the control room section of DaMOP there should be a series of core and peripheral training modules that are designed for delivery by the OST and/or control room watch managers. Core modules should be delivered on an annual basis with peripheral modules scheduled for delivery over a longer period e.g. 12 to 36 months.

LFB should consider bespoke development of the final modules content or seek exemplar examples from Services within the UK that could offer an off-the-shelf solution in the short term.

The content, design and development of planned control room training modules should be considered via formal engagement processes between the OST and the control room watches and managers. Engagement outcomes should advise a training needs analysis (TNA) that would necessarily be conducted by T&PD in association with control room managers. It is vitally important that control room staff are involved in the development of this new system to avoid the feeling that "training is something done to them and not necessarily with them".

The maintenance phase training system should have direct linkage to an IT based recording system where individual training records can be held, checked for completion and evidence of competence down to individual levels with the ability to be checked at a corporate level for performance management purposes.

Any maintenance phase training plan, the plan contents, recording of the training etc. should be clearly set out in a policy designed specifically to meet the needs of the control and mobilising team.

The role of the watch manager (as their primary trainer) should be firmly reinforced to ensure that the two-hour training time slot within the working day is utilised as part of normal practice. The trainer role and what is delivered by watch managers should be scrutinised by the SOM's on a regular and scheduled basis.

Watch managers, whose role in training delivery and recording will be critical, should be provided with appropriate support and training as described for station-based officers at Section 4.4 of this report.

Physical Environment

The LFB control room is a modern and comfortable space and has a dedicated training room within the building. The training room has adequate space to accommodate 9 new members of staff as they undertake their initial training over a nine-week period. The lighting in the training room was criticised by a number of people working in the building who felt it was unduly dull and not particularly conducive to learning.

Another more pressing issue is that there is only one training room within the facility. Therefore, whenever a new trainee courses is underway there are no alternative facilities available for experienced control operators to use to undertake their two hours of daily maintenance of skills training.

The building itself has adequate space and with a minor reconfiguration an additional training room could be provided.

**Recommendation 27 – MEDIUM PRIORITY**

An improvement to the lighting within the training room at the control and mobilising centre would create an atmosphere that better lends itself to the purpose for which it is being used.

Attempts should be made to identify a space within the building, that could be used as a second training room during periods when a trainee course is in session. This would provide staff with an area that allows them to utilise their two-hour training slot and maintain their skills in line with a newly formalised DaMOP programme.

Whilst such a training space would require some moderate investment, to ensure computer hardware and dedicated training server are installed, it would provide a necessary facility to ensure ongoing training takes place and forms part of the daily routine of LFB control operators.

**4.20 Special Operations Group (SOG)**

LFB’s special operations group has a range of responsibilities including issues of local and national resilience, interoperability, and ensuring the service is able to receive and act upon intelligence provided by partner agencies.

The team deliver a range of in-house training, plan and oversee realistic exercises and attend a wide range of national courses and seminars to develop and maintain specialist skills relevant to their roles.

Much of the training required by the SOG is of a specialist nature and is delivered to relatively low numbers of people. It is therefore understandable that this might require to be sourced from a third-party provider, a partner agency or an in-house solution developed.

This has, in much the same way as described for the fire safety section above, led to a situation where the Customer is empowered to secure training from a range of providers and has done so without the direct involvement of the person with corporate responsibility for training and professional development.

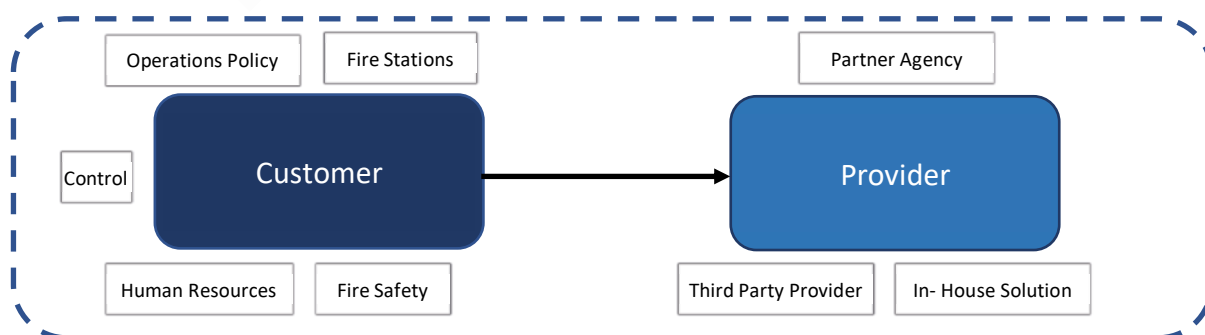


Figure 3

Recommendation 28 – **HIGH PRIORITY**

It is strongly recommended that a formal relationship between the SOG and T&PD be re-established and all training needs, and suggested solutions, are discussed with the Head of T&PD prior to entering into any external agreements or developing in-house solutions.

It is vitally important that the T&PD department maintain “corporate oversight” of all elements of training to strengthen the governance and accountability relative to this crucial element of the service.

A consistent method of recording training undertaken should be developed as a matter of urgency.

## 5. Conclusions

London Fire Brigade (LFB) is one of the oldest, largest and busiest fire and rescue services in the world. The men and women who serve within it are immensely proud of their heritage, their brigade, and of the role they play in protecting those who live, work and travel within, and around, the nation’s capital.

The role of a firefighter in LFB, as in any other fire and rescue service, is an inherently dangerous one. It is therefore imperative that those engaged to carry out this vital job are equipped and trained to the highest possible standard and that these essential skills are maintained throughout their entire career.

LFB, in conjunction with Babcock Training Ltd (BTL), has taken steps to provide this training and to provide staff with suitable arrangements to attain and maintain the skills required to respond to the incidents they are likely to face.

Like any organisation of this size and complexity there is always room for improvement. The London Fire Commissioner (LFC) engaged the services of Ribband Star Ltd to carry out this review of training arrangements within LFB in a genuine bid to identify where such opportunity exists. The Commissioner has allowed Ribband Star to operate with complete autonomy and to form opinion, express views and make recommendations based on observation, engagement and experience.

The observations and recommendations contained within this report are presented for consideration by the LFC and LFB in a genuine desire to present opportunity for improvement.

It is hoped that LFB will give due regard to these recommendations and, where it is deemed appropriate to do so, that they will implement changes within a realistic timeframe.

## 6. Summary of Observations

No.	Topic	Observation
1	Culture	The sense of pride in working for LFB demonstrated by fire service personnel and BTL employees alike is encouraging and should be acknowledged and nurtured.
2	Training Venues	It is however strongly recommended that all departments are advised that their training needs, and suggested solutions, should be discussed with the Head of Training & Professional Development prior to entering into any external agreement or developing any in-house solution. It is vitally important that the T&PD department maintain “corporate oversight” of all elements of training to strengthen the governance and accountability relative to this crucial element of the service.
3	Firefighter Development	The system of providing pre-learning materials prior to commencement of contract seems to be producing efficiencies, whilst still ensuring candidates are receiving the information traditionally provided in the classroom.
4	DaMOP	<p>Discussion with staff based in fire stations suggests that the new system will add a welcomed structure to station-based training. Improvements to Big Learning that allowed easier access to training materials.</p> <p>The success or failure of the project will hinge on the quality of training materials available and the ease of user interface with the new software platform. Whilst the team responsible accept that the system may require to be refined and improved, they were keen to launch the new system on schedule and respond to feedback from end users as necessary.</p> <p><b>This requires to be monitored in a bid to achieve continuous improvement.</b></p>
5	Incident Command Training	Incident Command courses are generally considered to be of value, however, incident commanders felt they would benefit from an opportunity to take command of real crews rather than only being exposed to computer software-based scenarios.
6	Local training and exercising	<p>Local training and exercising is a valuable addition to the elements of formal training delivered through the BTL contract and in line with the DaMOP system.</p> <p>Locally based staff are best placed to understand the risks in their area, and to identify potential training venues within their communities. Staff should be encouraged to do so and supported in the formal elements of securing such premises, completion of risk assessments, securing necessary resources etc. These elements of bureaucracy are often enough to discourage staff from being proactive in this process and some consideration might be given to creating a central team to assist in this administrative function.</p>

7	Programming, scheduling of training	<p>LFB has a finite number of training units that can be utilised each year. Consequently, they populate a training programme in accordance with units available. This can lead to a culture of allocating training simply to use up all slots available rather than allocating training based on actual need.</p> <p>Ideally, training should be delivered based on need, not on time available. In some years the need may be greater than others.</p> <p>Perhaps a system that allowed unused training units from one year to be carried forward to the next year, in much the same way as budgets are carried forward as reserves, might lead to a culture where training is programmed based on genuine need.</p> <p>Should this result in gaps within the annual programme then these could be used to deliver short notice courses that had been unpredicted, or simply carried forward to provide more training units the following year. This would clearly lead to fluctuations in annual income, however, in a contract that is set to run for another 18 years this should hopefully be worthy of discussion.</p>
8	Programming, scheduling of training	<p>To base the population of the annual SoTR on the number of courses requested last year without a greater analysis and prediction of potential skills gaps, vacancies, succession planning etc., to better understand actual training need, will lead to overprovision of some courses and under provision of others. In a system that requires training to be programmed so far in advance any change to address skills gaps, that had not been predicted, can take time and have implications on other elements of planned training. It is vitally important that the analysis of training need is considered fully, and more time is given to the predictive element associated with such a process.</p>
9	TCAP	<p>Whilst the TCAP process has been necessary to ensure that LFB, as the client, are confident that the provider is delivering training that is appropriate and delivered in a consistent manner, it is viewed by many as a cumbersome process that can lead to significant delays in the design and delivery of new courses.</p> <p>It seems that part of the difficulty is that the driver for such training, be it the creation of a new policy, the alteration of existing policy or the introduction of new equipment or techniques, is generally developed by a Subject Matter Experts (SME) employed by LFB.</p> <p>Following the TCAP process, however, means the associated training package will be designed by the training provider, BTL, who may not have access to this level of expertise.</p> <p>Inevitably there needs to be input into this process from LFB and the SME's involved in writing the original policy and training request. It therefore appears that the SME's, who create the policy, could play a more active part in the design process and give training delivery greater consideration as part of the policy creation stage.</p>
10	Control and Mobilising training	<p>The current system for provision of control room training sees the OST developing and delivering an in-house solution with little or no involvement from the T&amp;PD department. As a consequence, the T&amp;PD department has little or no oversight of training being carried out within the control room environment.</p>

Recommendation			Potential Impact
No.	Page	Priority Rating	
1	8		<p>It is strongly recommended that all departments are advised that their training needs, and suggested solutions, should be discussed with the Head of T&amp;PD prior to entering into any external agreement or developing any in-house solution. It is vitally important that the T&amp;PD department maintain “corporate oversight” of all elements of training to strengthen the governance and accountability relative to this crucial element of the service.</p> <p>Consider strengthening links between T&amp;PD and other departments by creating business partner roles within T&amp;PD structure. This may require additional members within the T&amp;PD team and should be considered fully as part of the ongoing review of department structure.</p>
2	10		<p>Consideration should be given to displaying some visible imagery that demonstrates BTL and LFB working together to achieve a common goal. The facilities are clearly the property of BTL, and I am by no means suggesting that their branding is removed. By adding the LFB logo, and some form of words to show that BTL are delivering this training on behalf of LFB would however, in my opinion, underline the value of this relationship and present a message of “working together” rather than “them and us”</p> <p>This needn’t be an expensive exercise just the addition of a few signs, perhaps some framed pictures of operational training or exercising and perhaps the addition of joint logos on presentation slides.</p>
3	10		<p>LFB should make every effort to ensure that staff have access to the venue closest to their home address, and where possible, all training centres are multi-use and able to deliver high volume, high frequency type courses. The situation where staff have to pass a training venue, to access another should be avoided.</p> <p>LFB should consider carrying out a travel impact assessment to better understand travel times associated with staff attending courses at existing or planned training venues. This assessment may lead future thinking around the need for further investment in training assets to ensure a suitable geographical spread of facilities that meets the needs of a brigade the size of LFB.</p> <p>The service/BTL should consider alternative delivery methods for elements of training that do not require the use of fixed training apparatus (such as Carbonaceous Fire Training Units, USAR rigs). It may well be possible for some elements of training to be delivered on a fire station, or a suitable LFB facility, to a whole watch/team at a time, by simply providing the trainer with suitable transport to bring the lesson, and associated equipment, to the student.</p> <p>LFB has already taken steps to allow staff to select their preferred venue. The introduction of self-enrolment system (recommendation number 4) would further assist. Costs associated with the introduction of self-enrolment already feature in budget assumptions.</p> <p>An exercise in cross mapping home address information, already held on HR database, against location of existing training facilities should hopefully provide a picture of travel times associated with accessing facilities. This may help LFB to identify best location for any planned development of training related footprint.</p> <p>The costs associated with providing transport for trainers to achieve this recommendation could potentially be offset against travel related costs associated with sending students to a dedicated training facility.</p>

Recommendation			Potential Impact
No.	Page	Priority Rating	
4	11		<p>The introduction of a self-enrolment system that allows staff to book their training on a date, and at a venue, that best suits them, would be very well received and appreciated by staff from every fire station visited as part of this review. Above all other subjects discussed during these visits; self-enrolment would be the most welcomed change for end users based in operational fire stations.</p> <p>LFB and BTL should allocate the necessary resources to develop and introduce a self-enrolment system at the earliest possible opportunity.</p>
5	12		<p>I believe that the current blend of instructors could be enhanced by increasing the number of serving, experienced members of LFB.</p> <p>A significant increase in the pool of serving officers, who would maintain their organisational identity by continuing to wear LFB uniform, would not only open development opportunities for the individual, it would enhance the quality of officer available for future advancement through the service and portray an image of BTL and LFB working together to deliver training.</p> <p>I would recommend that LFB/BTL takes steps to develop an instructor pool where circa 50% of trainers are <u>serving</u> LFB employees. I would also recommend that opportunity for advancement within the training environment be factored into any new instructor pool. Providing an opportunity for staff to be promoted within the training environment (a mix of Leading Firefighter, Sub Officer and Station Officer posts) may help prevent the situation arising where experienced instructors require to look elsewhere within the service to achieve advancement.</p>

Recommendation			Potential Impact
No.	Page	Priority Rating	
6	16		<p>The system that affords new candidates an opportunity to ask questions, seek support, and clarify points in a timeous fashion should be reviewed to ensure it is fit for purpose.</p> <p>If the tablet computer that is issued to trainees on their first day at the training centre was pre-loaded with all pre-course learning materials and issued to trainees at their induction day (circa five weeks prior to taking up their appointment) then issues relating to connectivity/broadband could be alleviated. Clearly there would require to be some type of contract in place and some way of recovering this equipment and information should the person decide not to take up their appointment. This should however be achievable, and the benefits would seem to me to outweigh the risk.</p>
7	17		<p>A review of pre-learning materials should be carried out, to ensure that the subjects being covered prior to the commencement of the formal training course are the most appropriate ones.</p> <p>The profile of community safety/preventative type activities should be raised by covering this subject during the formal delivery phase of training in the same way as practical operational skills are covered.</p>
8	17		<p>Consider appointing a lead instructor for each squad of trainees who would accompany them through each element of the course rather than changing instructors completely at each change of venue. This would improve continuity, reduce pressure and demonstrate a commitment from staff and trainees alike to moving across venues.</p>



Recommendation			Potential Impact	
No.	Page	Priority Rating		
9	18		<p>Providing all watch-based officers with some formal instruction on how to deliver a lecture, conduct station-based training, oversee a drill or fireground scenario, will improve their ability to carry out their role within the station. It will also enhance their credibility and confidence and will assist the Brigade in providing assurance that skills are being adequately maintained in a consistent and professional manner.</p> <p>LFB should continue with their planned roll out of interim training workshops and progress the design and delivery of a more formal “training for trainers” input at the earliest possible opportunity.</p>	<p>LFB has already taken steps to introduce an “interim solution” and develop a longer-term solution that will involve all watch officers being provided with two-day input during the suite of supervisory managers courses. Associated costs have already been considered by T&amp;PD.</p>
10	22		<p>Consider the introduction of practical exercises for rota groups to consolidate learning from theoretical elements of Senior Officer DaMOP training. Coordination of rota group training could be led by an officer designated as “Training Lead”</p>	<p>No significant impact other than development of exercises which could be factored into the ongoing senior officer DaMOP project.</p>
11	23		<p>Some thought should be given as to how best to provide incident command training to newly promoted officers or those acting-up. Whilst it is often the case that training is provided after a promotion has occurred, some thought should be given to talent management, identification of potential, providing training in advance of promotion.</p> <p>Where all else fails, an abridged version of the incident command course, “ticket to ride” type input could be developed to at least provide some input and limited assurance that the individual is aware of the most basic tenets of incident command.</p>	<p>Clearly the practice of providing incident command awareness training to staff showing potential, rather than waiting for substantive appointment, will lead to an increase in this type of training.</p> <p>It is difficult to quantify the exact impact of such a change in policy, however, the creation of a one day “ticket-to-ride” course would help to ensure some level understanding had been demonstrated prior to officers taking charge operational incidents.</p>

Recommendation			Potential Impact
No.	Page	Priority Rating	
12	24		<p>The introduction of incident command revalidation exercises will provide a more accurate picture of command competence across the Brigade and will provide a degree of comfort that those responding to emergency events possess the necessary skills and building blocks on which to manage an incident.</p> <p>LFB should take necessary steps to introduce a system of incident command revalidation as a matter of urgency. LFB should also consider what action to take should commanders fail to meet the requisite standard during revalidation.</p>
			<p>LFB is in the process of developing a revalidation process and has formed a project team to consider this in more detail.</p> <p>The costs associated with introducing a revalidation element to ICL 1 refresher courses should be minimal if the existing course is reshaped to ensure an appropriate test of competence is included.</p> <p>The impact on service delivery when officers fail to meet the requisite standard will depend on how LFB chooses to deal with this scenario. Should they elect to remove these officers from operational duties this could of course impact on officer availability/increased overtime costs etc.</p>
13	24		<p>Based on the sheer numbers and frequency of ICL 1 training courses I believe there is a benefit in continuing to deliver this level under the BTL contract. Assessment can be carried out by existing instructional staff who should already have experience of operating as Level 1 commanders.</p> <p>Due to the difficulty in sourcing suitable assessors for ICL 2 and above, coupled with the need to be able to apply flexibility to ensure training is delivered swiftly to fill short term gaps, I would recommend that an in-house incident command team be established to deliver this training and associated revalidation process in-house thus removing this element of training from the BTL contract.</p> <p>Clearly this would be subject to adequate resources being made available and appropriate discussion and adaptation of contract terms.</p>
			<p>No significant impact other than managing issues related to those who do not meet the requisite standard.</p> <p>The creation of an in-house Incident Command Team would clearly have significant resource implications. The size of team, level of management structure, equipment required, assessment arrangements etc. would all require to be considered in great detail. This should be considered against potential savings associated by removing ICL2 refresher from BTL contract.</p>

Recommendation			Potential Impact
No.	Page	Priority Rating	
14	25		<p>The service should consider how best it prepares and supports incident commanders in relation to the application of operational discretion. Some formal input on the importance of carrying out a thorough risk/benefit analysis before deviating from policy should be provided to all incident commanders.</p> <p>Formal input on the importance of maintaining a decision log and keeping contemporaneous notes should also be provided.</p> <p>The service should also consider how it supports incident commanders by deploying trained loggists to assist in the collation of such written narrative.</p> <p>The service should also consider providing some guidance and examples of what might be deemed to be acceptable and unacceptable deviation from policy. This would help to provide notional parameters for less experienced commanders.</p> <p>Incident commanders should be made aware of the possible implications of deviating from, or indeed failing to deviate from, operational policy.</p>
15	27		<p>There may be a benefit to having a centrally located team that plays a role in coordinating local training and exercising.</p> <p>By doing so, key learning points, areas of good practice, areas for improvement etc, could be captured and shared across the Brigade. Also, a particularly useful exercise, may be able to be replicated in other areas and by building up a central repository of local exercises duplication of effort could be avoided.</p> <p>With proper co-ordination these local exercises could provide the exposure to real life training opportunities that Incident Commanders feel would build on the lessons learned during their exposure to X-VR type training (See observation 5).</p>

The exact content of such training input should be considered carefully, and appropriate course commissioned and designed, or purchased. Clearly the manner of delivery will impact on costs, time, resources required etc. The decision to develop an in-house course or procure a third-party solution will influence the overall cost of such training.

**LFB has recently convened a cross-directorate group to consider all issues relating to note taking and evidence gathering in more detail, however, the delivery of formal training on the application of operational discretion should not be delayed awaiting the conclusion of this wider piece of work.**

I would suggest such a team would require circa five members of staff. One focusing on each of the four command areas and one in a supervisory capacity.

These would be new posts and would therefore require an increase in authorised establishment.

Financial implications are considered in Appendix D.

Recommendation				Potential Impact
No.	Page	Priority Rating		
16	28		LFB should invest in the creation of a career development pathway/maintenance of skills programme for FRS staff groups to formalise training and development opportunities available and provide clear guidelines on how to access internal and external courses.	No significant impact associated with such a move. LFB are currently giving this matter consideration.
17	28		<p>A thorough review of training available to FRS staff should be carried to ensure that training is matched to identified need.</p> <p>As part of this review some consideration should be given to the use of venues that better suit the target audience, even if this results in trainers having to travel to students and rooms being sourced in centrally located venues.</p>	<p>This issue is currently being considered by people services department and resources should be committed to allow this to continue.</p> <p>Increased costs associated with providing trainers with transport, hiring local venues etc. should be offset against reduced travel costs for students and improved uptake.</p>
18	31		<p>In order to truly understand the actual training required across the organisation LFB should carry out a complete Training Needs Analysis (TNA) across the entire organisation. Consideration of risks, historic activity data, role within the community (current and future), specialist skills, incident command, FRS departmental requirements and current skills gaps that exist should be considered in great detail to determine the training required to maintain and enhance these skills. Further consideration of predicted skills shortages moving forward will enhance this exercise.</p> <p>Training should be based on need, not on historic provision.</p>	<p>A project team should be formed to carry out this review and appropriate resources allocated to carrying out this vital piece of work.</p> <p>It is impossible to fully understand the impact of this project, but it is anticipated that some elements of training will require to be increased whilst others may no longer be required or can be reduced.</p>
19	32		<p>Based on the observation above it seems logical that the design of training should lie with LFB rather than BTL. The creation of a “training design team” within the T&amp;PD department could assist in the streamlining of the TCAP process and speed up the journey from identification of need to delivery of training.</p> <p>This would require a change to the contract and an increase in resource within LFB to ensure T&amp;PD, and SMEs, could manage this additional workload. It may also result in some members of the BTL design team moving to LFB to ensure training content is presented and delivered in a suitable fashion.</p>	<p>The creation of a training design team in LFB will lead to increased staff costs, however, this should be offset against savings in relation to BTL carrying out this function.</p> <p>Such a change is also likely on contracts, structures, terms and conditions of staff members and will require to be handled sensitively and in partnership with BTL.</p>

Recommendation			Potential Impact	
No.	Page	Priority Rating		
20	33		<p>A review of the entire suite of training courses available, content, and suitability, has begun under the leadership of the Head of T&amp;PD.</p> <p>This review should be resourced and supported appropriately to ensure that it can be delivered within a realistic timeframe.</p> <p>The end product should be a syllabus that affords people the opportunity to access training that is fit for purpose and is matched to actual training need.</p>	<p>This review has begun, and resources already committed. No further impact expected.</p>
21	34		<p>The ongoing structural review of T&amp;PD should continue as planned.</p> <p>The officer carrying out the review should consider the functions, job titles and most appropriate departmental location for each function currently performed within T&amp;PD and provide options as to how best to achieve clarity and efficiency where appropriate.</p> <p>Consideration should be given to the reporting lines for the review team to provide a degree of independence and ensure the results are seen as impartial.</p> <p>The review may also provide an opportunity to consider how best to resource and supervise any change that is considered appropriate in relation to bringing design of training in-house, and in supporting the delivery of local exercises and capturing and sharing lessons learned at these events.</p> <p>The review team should also give due regard to recommendations contained within this report.</p>	<p>This review has begun, and resources already committed. No further impact expected.</p>

Recommendation			Potential Impact
No.	Page	Priority Rating	
22	37		<p>It is strongly recommended that a formal relationship between Fire Safety and T&amp;PD be re-established and all training needs, and suggested solutions, are discussed with the Head of T&amp;PD prior to entering into any external agreements or developing in-house solutions.</p> <p>It is vitally important that the T&amp;PD department maintain “corporate oversight” of all elements of training to strengthen the governance and accountability relative to this crucial element of the service.</p> <p>Systems for scheduling training and monitoring attendance should be developed to ensure accurate recording is in place.</p> <p>A consistent method of recording training undertaken should be developed as a matter of urgency.</p>
23	37		<p>As per recommendation 1, the AC Control and Mobilising and Senior Operations Managers should work in partnership with the Head of T&amp;PD to develop the best solution to their training requirements moving forward.</p>
24	38		<p>The size and function of the OST should be reviewed. Consideration should be given to the work that they carry out with an emphasis on their core functions. If necessary, the OST should be split into functional parts e.g. (1) Training and (2) Systems and Data. The roles of these two new sections should be carefully considered and clearly set out to ensure “left field” activities and requests do not detract from core functions.</p> <p>Positive engagement between the OST and the control room watches must be encouraged. A suitable meeting forum, or OST Champions assigned to each Watch, would go some way to ensuring the respective needs of each group can be clearly understood. The training needs of each watch could be better understood by the OST champion and used to influence future design and delivery.</p>

Recommendation			Potential Impact
No.	Page	Priority Rating	
25	39		No significant impact
26	40		<p>A team has already been identified to take this work forward. This will be managed using existing resources from T&amp;PD and Control.</p> <p>No significant impact other than the work of the team currently committed to this task</p> <p>No significant impact other than the work of the team currently committed to this task</p> <p>No significant impact other than increased time associated with staff engagement.</p>

Recommendation			Potential Impact
No.	Page	Priority Rating	
26 cont.	40		<p>The maintenance phase training system should have direct linkage to an IT based recording system where individual training records can be held, checked for completion and evidence of competence down to individual levels with the ability to be checked at a corporate level for performance management purposes.</p> <p>Any maintenance phase training plan, the plan contents, recording of the training etc. should be clearly set out in a policy designed specifically to meet the needs of the control and mobilising team.</p> <p>The role of the watch manager (as their primary trainer) should be firmly reinforced to ensure that the two-hour training time slot within the working day is utilised as part of normal practice. The trainer role and what is delivered by watch managers should be scrutinised by the SOM's on a regular and scheduled basis.</p> <p>Watch managers, whose role in training delivery and recording will be critical, should be provided with appropriate support and training as described for station-based officers at Section 4.4 of this report.</p>
27	41		<p>An improvement to the lighting within the training room at the control and mobilising centre would create an atmosphere that better lends itself to the purpose for which it is being used.</p> <p>Attempts should be made to identify a space within the building, that could be used as a second training room during periods when a trainee course is in session. This would provide staff with an area that allows them to utilise their two-hour training slot and maintain their skills in line with a newly formalised DaMOP programme.</p>



Recommendation			Potential Impact
No.	Page	Priority Rating	
28	42		<p>It is strongly recommended that a formal relationship between the SOG and T&amp;PD be re-established and all training needs, and suggested solutions, are discussed with the Head of T&amp;PD prior to entering into any external agreements or developing in-house solutions.</p> <p>It is vitally important that the T&amp;PD department maintain “corporate oversight” of all elements of training to strengthen the governance and accountability relative to this crucial element of the service.</p> <p>A consistent method of recording training undertaken should be developed as a matter of urgency.</p>

## **About us**

Robert Scott, the owner and managing director of Ribband Star Consultancy, has a proven track record in leading major organisations during periods of significant change. Robert joined the fire and rescue service in 1989 and served in Strathclyde Fire and Rescue, and subsequently, the Scottish Fire and Rescue Service until his retirement in 2017.

### **Strathclyde**

Robert has managed a number of significant projects over the years including the design and build of Scotland's national training centre and headquarters, a £45M project, delivered ahead of schedule and significantly under budget.

He was appointed as Assistant Chief Officer, Director of Training and Operational Review, for Strathclyde Fire and Rescue, in 2010 and immediately set about reviewing all elements of training delivery to ensure that all staff were given access to local, regional, and national training as required. He also made sure that training materials and recording systems were fit for purpose and that managers could easily access evidence of competence in risk critical areas.

### **Fire Service Reform**

When the Scottish Government announced plans to reform police and fire services in Scotland, and to create a single fire service for the country, it was agreed that existing fire services leaders should help shape the new organisation. A Fire Reform team was established under the auspices of CFOA (Scotland) and the team set about designing a service that was fit for purpose. Lead officers were appointed to oversee each element of this reform and Robert was tasked with leading on all elements of Learning and Development, Health and Safety and Environment.

In relation to learning and development, Robert and his team carried out a comprehensive training needs analysis (TNA) exercise across the 8 legacy services to identify, based on risk and historic activity, the focus, frequency, and best delivery method, to ensure a competent response.

A complete review of training assets within fire stations, regional and national facilities was carried out and training activities were matched to the most appropriate asset based on such factors as student numbers, frequency of training, travel distances and infrastructure costs.

A review of existing training staff structures was carried out and consideration given to final structures for the national service.

The final report highlighting the current position and recommended structure and delivery method was presented and accepted by the Reform Group, chaired by Deputy Chief Officer Alex Clark, prior to the creation of the single service and formed a basis for the delivery mechanism in place today.

## **Scottish Fire and Rescue Service**

In 2013, following a competitive process, Robert was appointed as Assistant Chief Officer, Director of Service Delivery (North), within the Scottish Fire and Rescue Service (SFRS). The SFRS is a service that employs over 8,000 members of staff, operating across 356 fire stations, and protecting over 5 Million people. It is one of the world's largest fire and rescue services and one of very few services in the UK that is truly comparable with LFB in terms of scale, activity levels, budget, staff numbers, and training requirements.

During his time as a member SFRS's Strategic Leadership Team, Robert also served as Director of Strategic Planning, Performance and Communications and carried out a comprehensive review of departmental structures, governance arrangements and performance reporting mechanisms. The new arrangements gave Board members and senior managers clearer sight of priorities and increased accountability and transparency across many areas of the service.

## **Service Transformation**

In his final 12 months of service Robert was appointed as Director of Service Redesign and was asked to lead a small team in the creation of a compelling narrative of transformation that could help shape the future role of firefighters across Scotland. The final report set out a vision of modernisation that would see firefighters in Scotland accepting new responsibilities and playing a wider preventative and response role. The vision, and associated financial implications, was presented to Representative Bodies and Scottish Government Ministers and led to the SFRS attracting a budget increase linked with the delivery of transformation. The SFRS has subsequently undertaken a public consultation exercise and continues to discuss such a reform with representative bodies.

## **HM Fire Service Inspectorate**

Following his retirement Robert accepted a 12-month contract as an Associate Inspector within Her Majesty's Fire Service Inspectorate (Scotland). During this period, he led on a number of workstreams including a review of all elements of training for SFRS staff conditioned to the Retained Duty System (RDS). Robert carried out extensive field work, interviewing Directors and strategic managers, training managers and local training officers and many RDS firefighters. Whilst the report was not completed prior to the end of his fixed-term contract he was able to draw a great number of conclusions and present emerging themes and findings to his successor for inclusion in the final report.

## **Ribband Star**

Robert clearly has a wide range of relevant experience, and, having recently retired his experience has currency that bring with it credibility and respect. Furthermore, his experience has been gained in a service that is comparable in scale and complexity to LFB which is unusual if not unique.

Robert has a Master's degree in business administration (MBA) and is a Fellow of the Institution of Fire Engineers (IFE). As a Director of the Fire Service Section of the National Fire Protection Association (NFPA), he works with colleagues from the USA and Canada in a bid to improve public and firefighter safety. He was awarded the Queens Fire Service Medal for distinguished service in the 2015 Birthday Honours.

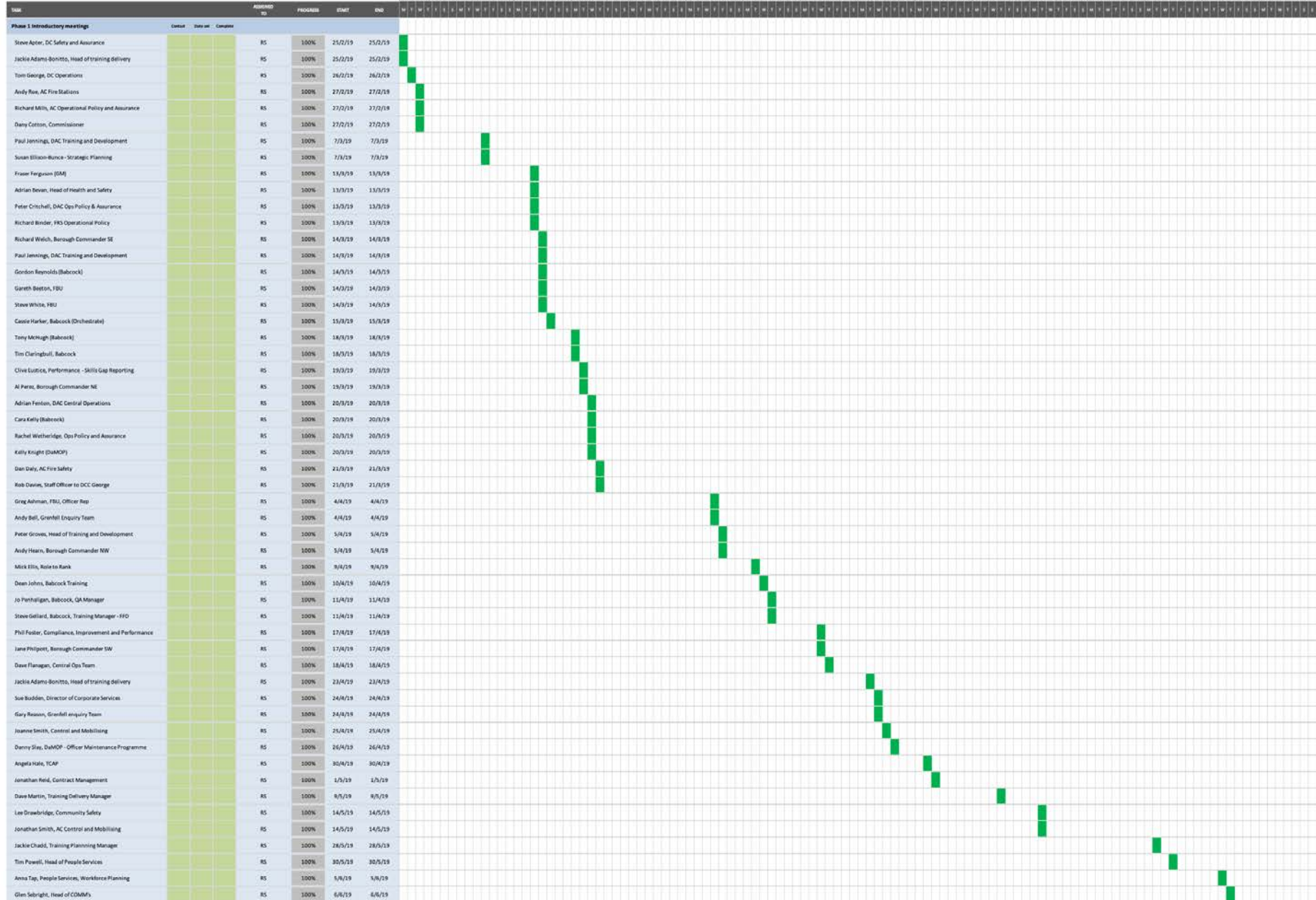
LFB - Independent Review of Training

Ribband Star Consultancy Ltd  
Robert Scott

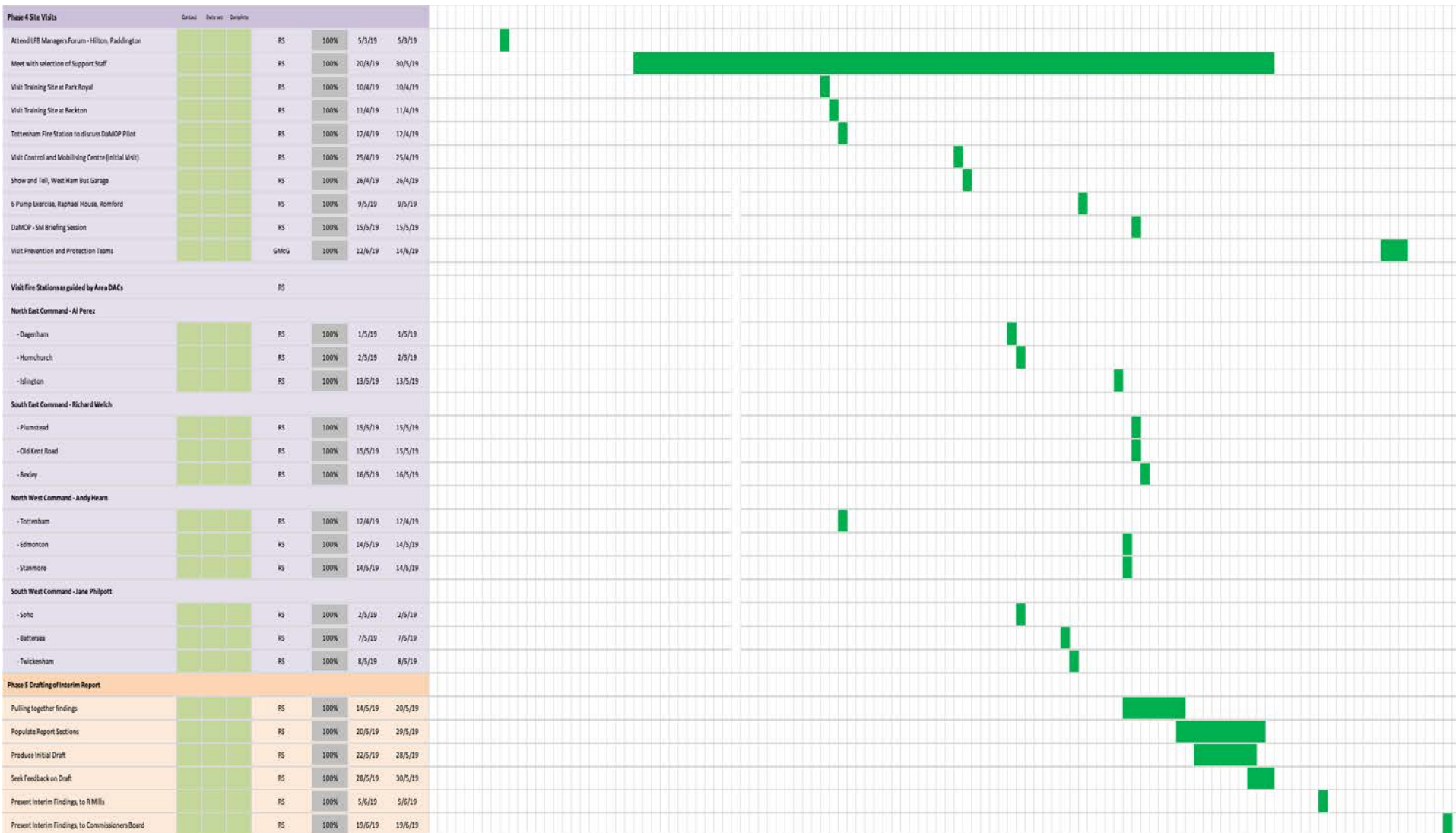
Project Start: Mon, 25/2/2019  
Today's Date: Fri, 23/6/2019  
Display Week: -24



STAGE 1 - Interim Report



Phase 2 Document Review				started	completed	status
London Safety Plan		RS	100%	23/2/19	25/2/19	100%
Inclusion Strategy		RS	100%	25/2/19	25/2/19	100%
LFB: Development and Training Strategy		RS	100%	25/2/19	25/2/19	100%
People Services Review 2017		RS	100%	26/2/19	26/2/19	100%
Development and Training Summary Paper		RS	100%	5/3/19	5/3/19	100%
Future Options for Training CMB Report 47/11		RS	100%	8/3/19	8/3/19	100%
Future Options for Training CMB Report 158/11		RS	100%	8/3/19	8/3/19	100%
Collation and management of training		RS	100%	8/3/19	8/3/19	100%
TDP v 4 (2014-2017)		RS	100%	8/3/19	8/3/19	100%
Annual training requirement 2017		RS	100%	8/3/19	8/3/19	100%
Review of training - AikME Consultancy		RS	100%	8/3/19	8/3/19	100%
MOFAC audit of delegate throughput		RS	100%	8/3/19	8/3/19	100%
People Services Review - CMB report 2018		RS	100%	8/3/19	8/3/19	100%
People Services CB update paper LFC-0038		RS	100%	8/3/19	8/3/19	100%
Training Contract - Babcock Performance 119/17		RS	100%	8/3/19	8/3/19	100%
Training update reports v 3 (3-5) (16/19)		RS	100%	8/3/19	8/3/19	100%
Operational Improvement Process PNB25		RS	100%	8/3/19	8/3/19	100%
Strategic Resource Policy PMS17		RS	100%	8/3/19	8/3/19	100%
Planned Release of Personnel Policy PNB17		RS	100%	8/3/19	8/3/19	100%
Development and Maintenance of Professionalism (PM427)		RS	100%	8/3/19	8/3/19	100%
Borough Training Plans		RS	100%	8/3/19	8/3/19	100%
Babcock website (LFB Case Study)		RS	100%	8/3/19	8/3/19	100%
Statement of Training Requirements		RS	100%	8/3/19	8/3/19	100%
How Training Works - Grenfell Submission		RS	100%	19/3/19	19/3/19	100%
Review of Brigade Control - DC Tom George - Feb 2017		RS	100%	21/3/19	21/3/19	100%
Review of Control Room Training - SM Cottress Jan 2019		RS	100%	21/3/19	21/3/19	100%
DaMap Programme Literature		RS	100%	5/4/19	5/4/19	100%
Babcock Contract - Relevant Extracts		RS	100%	5/4/19	5/4/19	100%
Secombe Policy		RS	100%	5/4/19	5/4/19	100%
Fit to Train Criteria		RS	100%	11/4/19	11/4/19	100%
Trainee FT Syllabus		RS	100%	11/4/19	11/4/19	100%
BTL Instructor Cadre - Numbers in Each Category		RS	100%	4/6/19	4/6/19	100%
Phase 3 Follow Up discussions				started	date set	complete
Andy Roe, AC Fire Stations		RS	100%	15/3/19	15/3/19	100%
Steve Apter, DC Safety and Assurance		RS	100%	19/3/19	19/3/19	100%
Peter Groves, Assistant Director Training and Development		RS	100%	18/4/19	18/4/19	100%
Gordon Reynolds (Babcock)		RS	100%	24/4/19	24/4/19	100%
Gareth Beeton, FBU		RS	100%	25/4/19	25/4/19	100%
Richard Mills, DC Safety and Assurance		RS	100%	1/5/19	1/5/19	100%
Dary Cotton, Commissioner		RS	100%	15/5/19	15/5/19	100%
Peter Groves, Assistant Director Training and Development		RS	100%	29/5/19	29/5/19	100%
Kelly Knight (DIMOP)		RS	100%	29/5/19	29/5/19	100%
Dary Cotton, Commissioner		RS	100%	13/6/19	13/6/19	100%









## BTL Instructor Cadre

4 June 2019

The table below shows the number of trainers currently engaged by Babcock Training Ltd to deliver training to staff employed by London Fire Brigade. The data within this table is accurate at point of writing this report (4 June 2019).

Number of trainers that are ex or retired LFB officers	39	
Number of trainers that are ex or retired from other Fire and Rescue Services	43	
Number of serving LFB employees seconded to Babcock	10	
Trainers seconded from London Ambulance Service	3	
Trainers seconded from Metropolitan Police Service	4	
Total number of trainers within Babcock establishment		99

In addition to the above, Babcock also engages the services of a number of associate trainers. These are not full-time employees, they are instead, individuals engaged on zero-hours contracts who can be called upon when required and paid a daily rate for their services. Associate trainers can be broadly divided into two categories, those who are serving members of LFB with permission to work in day 6 and 7 of their duty pattern, those not employed by LFB.

Number of LFB Associate Trainers (Day 6/7)	31	
Number of Associate trainers (not Day 6/7)	38	
Total number of Associate trainers		69

## Financial Implications

Many of the recommendations made in this report can be achieved using existing resources. Others are already being implemented by LFB and have resources allocated to them. Some of the recommendations made however, should LFB decide to accept and act upon them, will have financial implications. It is difficult at this stage to fully quantify these costs. We have therefore used available information, and sought staff opinion, to provide an estimated cost of implementing those recommendations where the potential impact is deemed significant.

LFB should of course carry out a more comprehensive financial impact assessment, and cost benefit analysis exercise, before implementing any of the proposals made in this report.

Recommendation		Costs	Total
No. 5	<p>Should LFB accept the recommendation to increase the number of serving officers used as instructors within the BTL instructor cadre this will result in an increase in associated instructor costs. To move to the 50% seconded model proposed will require an increase of 40 secondments to supplement the 10 seconded posts currently in place.</p> <p>The total cost of introducing a blend of secondment opportunities for an additional 5 x Stn/O, 10 x Sub, 5 x FRSE and 20 LFF's would be circa £2,233,510.</p> <p>This of course would be offset against a reduction of 40 instructors employed on a full-time basis by BTL. The average salary of an instructor (retired LFB or otherwise) employed by BTL is circa £43,086 per annum.</p> <p>A reduction of 40 instructors engaged on this type of contract therefore totals approximately £1,723,440.</p> <p>Implementing this recommendation is therefore likely to result in an increase of circa £510,070 per annum.</p>	£510,070	
No 7	<p>The introduction of fire safety related training materials into the formal instruction phase of the FFD course may result in a need to increase the duration of the course. A full review of the syllabus is underway and may well find opportunities to reduce certain practical elements of training. However, should the course require to be extended from 11 weeks to 12 weeks this is likely to impact on course costs, and potentially on numbers of trainees available each year.</p> <p>To estimate the cost of adding one week of classroom related input to the syllabus I have considered the costs associated with the 5-day IEC course, £628.47, and multiplied this by the maximum number of trainee courses delivered in a 12-month period.</p>	£7,541	

Recommendation		Costs	Total
No13	<p>The creation of an in-house Incident Command Team is likely to require an overall increase to officer numbers. Whilst this is difficult to accurately quantify it may be worth considering that the Incident Command team employed within the Scottish Fire and Rescue Service (SFRS) is staffed by 1 Group Manager, 1 Station Manager and 6 Watch Managers. Revalidation assessments are carried out by flexi-duty managers, who volunteer to act as assessors, and are allocated to assessment duties on a rotational basis and at no additional cost to the service. The costs associated with introducing a similar model would therefore be circa £500k.</p> <p>This increased cost however could be offset against any savings made from removing the provision of ICL 2 (and above) training from the BTL contract.</p>	£500,000 minus ICL 2 related costs	
No 15	The introduction of a new team within T&PD to strengthen relationship with areas and help support local training and exercising would result in an increase in establishment of circa 5 posts. Based on 1 x Stn/O and 4 x Sub/O with admin support this would equate to costs of circa £357,572.	£357,572	
No 19	The formation of an in-house training design team will require a number of new posts to be created within the T&PD structure. Following discussion with teams from T&PD and Ops Policy and Assurance department, it is felt that this would require circa 15 new posts to be included in the structure. The total costs associated are based on 1xFRSG, 2xStn/O, 7xSub/O, 3xFRSE and 2 x LFF and are approximately £876,748. Whilst these costs are significant, the introduction of such a team should provide opportunity for savings within the BTL contract. This, however, is clearly a contractual matter that will require appropriate discussion and agreement between LFB and BTL.	£876,748 Minus BTL design team related costs	
No 27	Improvement to lighting and upgrading ICT equipment within areas of Control Room used for training will require a modest one-off capital investment. It is impossible to accurately predict the costs associated until an area is identified for use as second training room, however, I would expect this to be no more than £50,000	£50k maximum	
<b>Total financial impact</b>		Approx. £2.25M  Minus costs associated with BTL providing ICL2 refresher and design of training	

DRAFT