

<p>1 Tuesday, 26 June 2018</p> <p>2 (9.30 am)</p> <p>3 SIR MARTIN MOORE-BICK: Good morning, everyone. Welcome to</p> <p>4 the hearing. We are going to hear some more evidence</p> <p>5 today.</p> <p>6 Yes, Mr Millett.</p> <p>7 MR MILLETT: Mr Chairman, could we please have Mr Dowden</p> <p>8 back to the witness table.</p> <p>9 SIR MARTIN MOORE-BICK: Thank you.</p> <p>10 MICHAEL DOWDEN (continued)</p> <p>11 SIR MARTIN MOORE-BICK: Now, Mr Dowden, I know this is quite</p> <p>12 a difficult exercise and, I think, in view of that and</p> <p>13 for the benefit of all of us, we are going to have a few</p> <p>14 more breaks, perhaps slightly shorter, but roughly once</p> <p>15 in hour.</p> <p>16 Mr Millett, would that be convenient?</p> <p>17 MR MILLETT: Yes, Mr Chairman. What I was going to suggest</p> <p>18 was that we break once an hour for 5 minutes, if that is</p> <p>19 acceptable to you. Once an hour for 5 minutes, with</p> <p>20 a slightly longer break mid-morning for, say,</p> <p>21 15 minutes.</p> <p>22 SIR MARTIN MOORE-BICK: Very well. You choose a convenient</p> <p>23 point in the questioning.</p> <p>24 MR MILLETT: Very well. It will be convenient to me and</p> <p>25 convenient to Mr Dowden, I hope.</p> <p>Page 1</p>	<p>1 from existing systems we had within the London Fire</p> <p>2 Brigade. So the assumption and expectation is a lot of</p> <p>3 that information would already be available within the</p> <p>4 ORD process.</p> <p>5 So if it was a premise that was a new-build or that</p> <p>6 was -- came to light that we had no record of that</p> <p>7 premise, then, yes, the expectation would be that we'd</p> <p>8 have to do a very robust and thorough 7(2)d visit.</p> <p>9 However, when conducting premises that are already</p> <p>10 existing to us and known to us, then there may well be</p> <p>11 amendments, and we can refer back to appendix 1 and also</p> <p>12 policy note 800 to make those amendments.</p> <p>13 So there is the expectation that every single 7(2)d</p> <p>14 visit we do, you have to follow, you know, a real robust</p> <p>15 and -- process following that, because the expectation</p> <p>16 is there should be some existing information there, but</p> <p>17 that may well need amending.</p> <p>18 Q. Right.</p> <p>19 When a building underwent a substantial</p> <p>20 refurbishment, what would your approach be to this</p> <p>21 shopping list, if I can call it that, when you went to</p> <p>22 visit that building when it was at the end of the</p> <p>23 refurbishment?</p> <p>24 A. It would be sort of looking at points -- if there was</p> <p>25 any amendments to that premise, so any additional fire</p> <p>Page 3</p>
<p>1 SIR MARTIN MOORE-BICK: All right.</p> <p>2 Questions by COUNSEL TO THE INQUIRY</p> <p>3 MR MILLETT: Mr Chairman, thank you.</p> <p>4 Mr Dowden, before I start, may I say how grateful we</p> <p>5 are, as the inquiry team, to you for coming along</p> <p>6 yesterday and spending the entire day answering</p> <p>7 questions from me. I want you to know that you are</p> <p>8 doing a public service and we are extremely thankful to</p> <p>9 you for it.</p> <p>10 Can I start by asking you to go back to policy 633,</p> <p>11 which is the high-rise firefighting policy, which is at</p> <p>12 tab 4 of the policy bundle. If you would turn in that</p> <p>13 bundle and tab, please, to appendix 1, which is at</p> <p>14 page 19 internally. We looked at that a little bit</p> <p>15 yesterday in relation to the shopping list of matters to</p> <p>16 be addressed on section 7(2)d visits to premises.</p> <p>17 Just looking at the list as a whole, my first</p> <p>18 question is: would you expect to address all of these</p> <p>19 issues in a single 7(2)d visit?</p> <p>20 A. I wouldn't say in a single 7(2)d visit because the 7(2)d</p> <p>21 is a process that -- okay, the system was set up, the</p> <p>22 information was already out there in different systems,</p> <p>23 usually on a paper system that was filed away at</p> <p>24 stations, and we had the ORD system that was borne, and</p> <p>25 a lot of the information from that was populated already</p> <p>Page 2</p>	<p>1 safety measures, additions in terms of our resourcing.</p> <p>2 From my sort of recollection and memory, that would be</p> <p>3 where we would be looking at, to amend the 7(2)d</p> <p>4 process.</p> <p>5 Q. Just so I'm clear, you would look at the details of the</p> <p>6 refurbishment and then check and see whether those</p> <p>7 details were things you had to check off on the list?</p> <p>8 A. Yes, but obviously only as to the information that was</p> <p>9 surrendered to us. So, you know, if there's something</p> <p>10 within that building we weren't aware of or we didn't</p> <p>11 necessarily understand because that information hasn't</p> <p>12 been surrendered to us, or we weren't known -- the risk</p> <p>13 wasn't identified to us, then that's something I as</p> <p>14 an individual or watch officer wouldn't necessarily</p> <p>15 understand or record.</p> <p>16 Q. Who would you rely on to provide you with the</p> <p>17 information that you say would be surrendered to you?</p> <p>18 A. That would be the responsible person for whoever owns or</p> <p>19 is responsible for that block, so whether it's a housing</p> <p>20 association, a local authority or a private landlord.</p> <p>21 Q. In respect of your visits to Grenfell Tower, do you</p> <p>22 remember who the responsible person was?</p> <p>23 A. The only people -- the organisations that I know in</p> <p>24 terms of relation to responsible persons for</p> <p>25 Grenfell Tower would be, from my understanding, Rydons,</p> <p>Page 4</p>

<p>1 who were the building contractor, and KCTMO, which is</p> <p>2 Kensington and Chelsea Tenant Management Organisation,</p> <p>3 who I understand were the managing agents of</p> <p>4 Grenfell Tower.</p> <p>5 Q. How would it work? Would you rely on them to volunteer</p> <p>6 relevant information about the matters on the shopping</p> <p>7 list or would you interrogate them, ask them questions</p> <p>8 about matters on the shopping list?</p> <p>9 A. It would probably be a two-way traffic, but I would</p> <p>10 hope -- I would be hopeful that if there was a certain</p> <p>11 risk within that building that wasn't expected, then</p> <p>12 that should be surrendered from that responsible party</p> <p>13 or person.</p> <p>14 The only way I can -- I would sort of refer -- and,</p> <p>15 you know, put high-rise aside -- if I was going to</p> <p>16 another premise that had particular processes, you know,</p> <p>17 that were apparent, then that's understandable; we can</p> <p>18 put that into our hazards and risks. If there was</p> <p>19 storage of certain products, certain signage, that's</p> <p>20 obviously something we look for, but also they should</p> <p>21 have a responsible person who, you know, undertakes that</p> <p>22 responsibility to let us and crews -- inform crews of</p> <p>23 that risk.</p> <p>24 Q. Yes.</p> <p>25 Now, you can see from the list that one of the items</p> <p style="text-align: center;">Page 5</p>	<p>1 a high-rise block?</p> <p>2 A. So as per policy 633, which is London Fire Brigade's</p> <p>3 high-rise policy, we sort of look at it in stages. So</p> <p>4 it would be en route initially, and that would be</p> <p>5 accessing any information sources that are available to</p> <p>6 us, whether that were via the MDT, which we spoke about</p> <p>7 in some detail, which would give us some information</p> <p>8 about the premise, any risks that are posed; further</p> <p>9 traffic from control, if there's make-ups, which -- that</p> <p>10 means any additional resources would be required;</p> <p>11 further information in terms of multiple calls; if it's</p> <p>12 identified if it's a persons reported incident, and</p> <p>13 that's all information, as incident commander, we</p> <p>14 obviously need to put into our plan moving forward.</p> <p>15 In terms of when we're on scene, as per policy 633,</p> <p>16 good practice is what we need to do is confirm our water</p> <p>17 supplies, that would be from a local hydrant source into</p> <p>18 our fire engine, and then we have to augment water</p> <p>19 supplies. What that means is we have to supply water to</p> <p>20 the building if it's a dry rising main. So we supply</p> <p>21 water to that pipe within the building that allows us to</p> <p>22 firefight internally. If it's a wet rising main then</p> <p>23 that's already fully charged with water.</p> <p>24 Expectation is at ground level we do, as incident</p> <p>25 commander, some information-gathering, so that would be</p> <p style="text-align: center;">Page 7</p>
<p>1 on the list -- it's six bullet points up from the</p> <p>2 bottom:</p> <p>3 "Evacuation arrangements which may include phased</p> <p>4 evacuation."</p> <p>5 Do you see that on the screen?</p> <p>6 A. (Nodded assent).</p> <p>7 Q. You've already said, I think, that you didn't know what</p> <p>8 the evacuation plan was for Grenfell Tower for the</p> <p>9 purposes of your 7(2)d visit.</p> <p>10 My question is: were you aware at the time of that</p> <p>11 visit that it was a high-rise building with a stay-put</p> <p>12 strategy in place?</p> <p>13 A. I wouldn't say at that time of the visit I was aware,</p> <p>14 but my assumption is and from previous knowledge that</p> <p>15 the majority of high-rise residential blocks will employ</p> <p>16 a stay-put policy.</p> <p>17 Q. Right, thank you.</p> <p>18 Now, I'm going to ask you some questions about the</p> <p>19 night and, to start with, your arrival at</p> <p>20 Grenfell Tower, which I think is where we left off</p> <p>21 yesterday afternoon, Mr Dowden.</p> <p>22 Before we get to the detail, can I just ask you to</p> <p>23 give me a general summary of the basic points from your</p> <p>24 high-rise training based on policy 633 that you told us</p> <p>25 about, about how you would go about tackling a fire in</p> <p style="text-align: center;">Page 6</p>	<p>1 from responsible people of the block, residents, and</p> <p>2 also to have a visual on the building itself: can we see</p> <p>3 any signs and symptoms of fire?</p> <p>4 Once we've established that from the</p> <p>5 information-gathering, the crews, the first in</p> <p>6 attendance, will be gathering a certain amount of</p> <p>7 equipment that we need as a minimum to help us tackle</p> <p>8 a high-rise fire. This will include: BA sets to be worn</p> <p>9 by firefighters; an extra control board; a forward</p> <p>10 information board; as a minimum, four lengths of hose or</p> <p>11 more, and that should be identified at familiarisation</p> <p>12 visits.</p> <p>13 Q. Can I just pause there, four lengths of hose, did you</p> <p>14 say?</p> <p>15 A. So four lengths of 45-millimetre hose, and that is each</p> <p>16 23 metres in length.</p> <p>17 Q. Right. And so that I'm clear, that's to go from the dry</p> <p>18 rising main outlet or from the pump to the inlet?</p> <p>19 A. No, that's to go from the dry rising outlet within the</p> <p>20 building. The hose we use from the pumping appliance --</p> <p>21 so from the hydrant to the first pumping appliance --</p> <p>22 would be 73-millimetre hose. Again, that is 23 metres</p> <p>23 in length. From pre-planning, we'll identify how much</p> <p>24 hose for that we'll need in terms of siting appliances.</p> <p>25 Again, from the pumping appliance dedicated as the</p> <p style="text-align: center;">Page 8</p>

<p>1 water machine, you'll have a 70-millimetre hose --</p> <p>2 which, again, is 23 metres in the length -- which will</p> <p>3 be supplying the dry riser inlet. That's how we augment</p> <p>4 or supply water to that property.</p> <p>5 Q. How long roughly would it take to charge the</p> <p>6 70-millimetre hose which runs from the pump to the dry</p> <p>7 rising main, would you expect?</p> <p>8 A. It's very difficult to put a time on that. There is</p> <p>9 a number of factors that can change that now. Obviously</p> <p>10 we rely on hydrant supplies; it all depends if the</p> <p>11 hydrant supplies at that time are operable. If they're</p> <p>12 obstructed by vehicles, which sometimes park over them,</p> <p>13 so we have to move that, access to them.</p> <p>14 Q. Right.</p> <p>15 A. Personnel, resourcing, in terms of we have -- sometimes,</p> <p>16 you know, we can have five or six on a fire engine,</p> <p>17 sometimes we can have four. So there are a number of</p> <p>18 factors in determining how long that would take. So it</p> <p>19 should be a matter of hopefully minutes if everything</p> <p>20 works for you.</p> <p>21 Q. And how long would it normally take to charge the</p> <p>22 45-millimetre hose from the dry rising inlet to the BA</p> <p>23 crew whose about to make entry?</p> <p>24 A. Again, that does have some factors in terms of</p> <p>25 timescales. It depends on where we are internally in</p> <p style="text-align: center;">Page 9</p>	<p>1 building is a maisonette-style construction high-rise,</p> <p>2 so you only have entrance from a protected stairwell</p> <p>3 into the flats every three floors.</p> <p>4 So somewhere like Trellick Tower, from local</p> <p>5 knowledge and pre-planning, our bridgehead will actually</p> <p>6 be on the fire floor, because there is the main</p> <p>7 residential block, you have a protected walkway and then</p> <p>8 a separate protected stairwell.</p> <p>9 So it's not always two floors below, but you only</p> <p>10 identify that from your local knowledge and</p> <p>11 pre-planning.</p> <p>12 Q. Thank you.</p> <p>13 We'll come on to some details about precisely what</p> <p>14 happened in relation to the bridgehead later on.</p> <p>15 Is there anything else you want to add by way of</p> <p>16 a summary of what you know about high-rise firefighting</p> <p>17 based on policy 633?</p> <p>18 A. Not really, just a couple of small points.</p> <p>19 We can't make a compartment entry, and that means</p> <p>20 obviously -- a compartment we refer to in the London</p> <p>21 Fire Brigade is the room or flat on fire, that's the</p> <p>22 compartment. We have to have a confirmed water supply</p> <p>23 before we do that. The way we do that in London Fire</p> <p>24 Brigade is, again, to make sure our crews are safe. We</p> <p>25 plug in or augment -- put our hose into the dry riser</p> <p style="text-align: center;">Page 11</p>
<p>1 the building, how high up we have to go, and, again, if</p> <p>2 things within that building are working correctly, the</p> <p>3 lift, et cetera -- if we have to use the stairs, if the</p> <p>4 lifts are compromised -- so if it's on the lower floors,</p> <p>5 again, you know, you can have a quick attack on that,</p> <p>6 but if it's on the upper floors, that can take some</p> <p>7 time.</p> <p>8 It's not a quick process in terms of tackling fires</p> <p>9 within a high-rise building. It's not we turn up, we</p> <p>10 go, we've got our water supply, we've got equipment; you</p> <p>11 have to have things in place before we can make an entry</p> <p>12 into a compartment.</p> <p>13 Q. Yes. What about the bridgehead? Can you just give us</p> <p>14 an idea of what happens at the bridgehead?</p> <p>15 A. The bridgehead is a place where we commit -- a safe</p> <p>16 place within the building that we commit our BA crews</p> <p>17 from. This will be set up two floors below the fire</p> <p>18 floor. This allows for a bit of contingency in case,</p> <p>19 you know, the floors above become compromised, so we</p> <p>20 always set our bridge up two floors below if the</p> <p>21 building allows us to do that, because some of the</p> <p>22 high-rise buildings within London will not allow you to</p> <p>23 do.</p> <p>24 One particular in North Kensington I can refer that</p> <p>25 to is Trellick Tower, because the construction of that</p> <p style="text-align: center;">Page 10</p>	<p>1 from the floor below the fire floor, and that allows</p> <p>2 crews that they have a firefighting media or water</p> <p>3 supply to progress up to the fire floor into unknown</p> <p>4 conditions.</p> <p>5 Because high-rise firefighting is challenging, once</p> <p>6 that initial crew has made entry into compartment, we</p> <p>7 need to secure their access and ingress and have</p> <p>8 a second crew to back them up. Generally what will</p> <p>9 happen is the second crew will plug in, if it's</p> <p>10 available, on the fire floor. They will plug their hose</p> <p>11 into the fire floor and they will back up and protect</p> <p>12 that first crew.</p> <p>13 The only change to that is if certain conditions or</p> <p>14 signs and symptoms within that compartment are evident,</p> <p>15 and that is a flashover or a back draft. We should not</p> <p>16 be putting crews into that risk area if those certain</p> <p>17 conditions apply because, obviously, crew safety is</p> <p>18 paramount from an organisational point of view, but from</p> <p>19 an incident commander's point of view. If that happens,</p> <p>20 the backup crew has to be in place before we make</p> <p>21 a compartment entry for firefighter safety.</p> <p>22 Q. Just give me an idea of how hard and fast the rule or</p> <p>23 principle is about not putting firefighters into the</p> <p>24 compartment without a water supply?</p> <p>25 A. It's a number 1 rule.</p> <p style="text-align: center;">Page 12</p>

<p>1 Q. Number 1 rule.</p> <p>2 A. There is no point putting a firefighter into</p> <p>3 a compartment on fire without firefighting media.</p> <p>4 Having said that, it's a very, very difficult place</p> <p>5 for a firefighter to be because we're here to help. We</p> <p>6 want to help people. And if it's a persons reported</p> <p>7 fire, we know there's someone in there, and that's why</p> <p>8 things have to happen quickly to allow us to get there</p> <p>9 as quickly as we can, but professionally as well; we</p> <p>10 have to act professionally.</p> <p>11 Q. Thank you very much.</p> <p>12 Now, I'm going to ask you some detailed questions</p> <p>13 about arrival at the very beginning.</p> <p>14 I think we know from the records that Golf 272 and</p> <p>15 Golf 271 arrive from North Kensington in that order at</p> <p>16 00.59.24 and 00.59.28. I'm not testing you on your</p> <p>17 precise memory of those, but take it from me that that's</p> <p>18 what the log shows. So they were what you call status 3</p> <p>19 at that point.</p> <p>20 A. That's correct.</p> <p>21 Q. Were they the first appliances to arrive on scene in</p> <p>22 response to a call to a fire at Grenfell Tower that</p> <p>23 night?</p> <p>24 A. Yes, they were.</p> <p>25 Q. They were. There was no appliance there before you?</p> <p style="text-align: center;">Page 13</p>	<p>1 Grenfell Walk to the east side and I glanced up to the</p> <p>2 east elevation of Grenfell Tower. At or around the</p> <p>3 fourth floor level, I could see an orange glow at</p> <p>4 a window of a compartment at the fourth floor level.</p> <p>5 Q. Now, in your statement on page 3, Mr Dowden, if you can</p> <p>6 just be shown that, in the middle of the page -- I'm</p> <p>7 afraid there are no paragraph numbers that we can work</p> <p>8 from, so bear with me -- about halfway down the page you</p> <p>9 see it says:</p> <p>10 "I dismounted the appliance and could see that there</p> <p>11 was a fire on the 4th Floor level of the tower as</p> <p>12 I could see a glow within the flat on the east side of</p> <p>13 the building ..."</p> <p>14 Then you say this:</p> <p>15 "... it seemed contained within the compartment."</p> <p>16 Was that your thought at the time?</p> <p>17 A. Yes.</p> <p>18 Q. And standing there and seeing the fire, did you make any</p> <p>19 assumptions about whether the building complied with</p> <p>20 rules and regulations about buildings so far as</p> <p>21 compartmentation was concerned?</p> <p>22 A. Not at that moment in time. That's not a thought -- at</p> <p>23 the dynamic stages of an incident as an incident</p> <p>24 commander, that is not a thought process that will go</p> <p>25 through your mind, no.</p> <p style="text-align: center;">Page 15</p>
<p>1 A. No.</p> <p>2 Q. Now, I think you tell us you parked Golf 271 under the</p> <p>3 covered part of Grenfell Walk. Why did you park there?</p> <p>4 A. From pre-planning, our previous visits, that's the</p> <p>5 perfect location for us to be able to get our hose at</p> <p>6 the quickest opportunity into the dry riser. So that</p> <p>7 was -- from pre-planning, it was a minimum of one length</p> <p>8 away from the dry riser inlet that allowed us to put</p> <p>9 water into that building.</p> <p>10 Q. Okay. So you say pre-planning; in the pre-planning, did</p> <p>11 you know where the dry rising main outlet was?</p> <p>12 A. Yes.</p> <p>13 Q. Where was it?</p> <p>14 A. It was the main entrance on the south side of the tower</p> <p>15 to the left-hand side at the sort of ground-floor level.</p> <p>16 Q. Very good, and did Golf 272 -- I call it G272 -- arrive</p> <p>17 behind G271?</p> <p>18 A. Yes.</p> <p>19 Q. Where did G272 park?</p> <p>20 A. Initially it was a position just behind, from my memory,</p> <p>21 Golf or G271.</p> <p>22 Q. Can you remember what you saw immediately you arrived,</p> <p>23 you personally?</p> <p>24 A. My first recollection when I dismounted the appliance is</p> <p>25 that I walked round from where we were positioned on</p> <p style="text-align: center;">Page 14</p>	<p>1 Q. Not, okay.</p> <p>2 Let me ask you this: could you see from your initial</p> <p>3 look at the building that the exterior of the building</p> <p>4 was covered in a cladding or envelope?</p> <p>5 A. At that point, I wasn't aware that it was cladding. At</p> <p>6 that point, I just thought it was the external part of</p> <p>7 Grenfell Tower.</p> <p>8 Q. Did you look at the outside?</p> <p>9 A. I would've looked at the outside, but I didn't make any</p> <p>10 conscious note or thought of what was on the external of</p> <p>11 that building, no.</p> <p>12 Q. Which pump was to be attached to the hydrant to obtain</p> <p>13 the water supply?</p> <p>14 A. At that point, it was Golf 271.</p> <p>15 Q. At that point it was 271?</p> <p>16 A. Mm-hm.</p> <p>17 Q. Who took charge of that process?</p> <p>18 A. From memory, the two drivers of the appliances, so</p> <p>19 Firefighter Dan Bills, who was the driver of the pump</p> <p>20 ladder, Golf 271, and also Firefighter Tom Abell, who</p> <p>21 was the driver of the pump, which is Golf 272. That</p> <p>22 would be their role. That is part of their role as</p> <p>23 a driver, to facilitate the water supplies.</p> <p>24 Q. Right.</p> <p>25 Did you at that point think of speaking to the</p> <p style="text-align: center;">Page 16</p>

<p>1 responsible person, or the person responsible for 2 Grenfell Tower?</p> <p>3 A. Again, not at that point. From my understanding, you 4 know, some high-rise blocks within London -- and 5 particularly we do have some on our ground at North 6 Kensington -- have a 24-hour concierge. I wasn't aware 7 that Grenfell Tower had a responsible person available 8 at that point. For me, as an incident commander, the 9 best information source we could have at that point 10 would be residents.</p> <p>11 Q. Yes.</p> <p>12 In general terms, when you're fighting a high-rise 13 fire, would you normally at some point speak to the 14 person responsible for the building?</p> <p>15 A. That could be a consideration if that person is on the 16 scene. At a dynamic stage of an incident, I know there 17 would be an emergency or a contact for that block, but 18 that's not something necessarily you would have the time 19 to contact at that point. If that responsible person 20 was on scene at that moment in time, absolutely, yes.</p> <p>21 Q. Right.</p> <p>22 Might there come a point during the development of 23 a fire or the firefighting or search and rescue that you 24 would need to contact the person responsible for the 25 building?</p> <p style="text-align: right;">Page 17</p>	<p>1 Just looking at the first page, do you think you're 2 familiar, or were familiar on the night, with that 3 policy, policy 431?</p> <p>4 A. Yes.</p> <p>5 Q. And the other one is in policy bundle 1, which is LFB 6 policy 238, which is at LFB00000164, incident command 7 procedures, current as at April 2014.</p> <p>8 Again, as at 14 June 2017, do you remember being 9 familiar with that policy?</p> <p>10 A. I would be familiar with it, yes.</p> <p>11 Q. Right.</p> <p>12 We know that you had training, from your records, in 13 incident command decision-making. Would that have 14 included training on these policies?</p> <p>15 A. The initial input -- I think we spoke about it 16 yesterday -- was, particularly when you go from 17 a firefighter to a crew manager, you have your initial 18 input, and that's when you sort of really get taught 19 your incident command procedures and how it's set up, 20 and then there are these refresher training, supervisor 21 and manager -- a managers' refresher course, incident 22 command refresher course. And also at more local level, 23 at station-based, that's something I would facilitate as 24 well but, you know, I don't -- outside of the incident 25 command refresher courses that I believe are, I think,</p> <p style="text-align: right;">Page 19</p>
<p>1 A. Yes. It is, I would say, good practice to liaise with 2 a responsible person for that block, but that's not just 3 alone to high-rise buildings; that's in any building we 4 have. That would be a good information source.</p> <p>5 Q. Yes.</p> <p>6 In your experience as an incident commander, 7 Mr Dowden, have you ever had cause to contact the person 8 responsible for the building during the course of 9 firefighting?</p> <p>10 A. Not remotely, ie by phone contact. Usually my contact 11 or conversation with a responsible person at an incident 12 would be on the scene.</p> <p>13 Q. Right. Okay. Well, we'll come back to that question as 14 we go through some of the facts.</p> <p>15 Now, you, I think, have told us that you were the 16 initial incident commander at the incident on the night.</p> <p>17 We can see, I think, from your training records that 18 you had had training in the role of incident command on 19 a number of occasions before 14 June 2017. Is that 20 right?</p> <p>21 A. Yes.</p> <p>22 Q. Yes. I'm just going to show you two policies. First of 23 all, policy LFB 431, which is at tab 11. I'm not sure 24 we've been to it. It's LFB00000048. This is current as 25 at 18 November 2014.</p> <p style="text-align: right;">Page 18</p>	<p>1 every two years, the training that I receive would be 2 down to myself.</p> <p>3 Q. Right.</p> <p>4 Can I just explore that a little bit more. Could 5 you please take or be shown on the screen tab 9, which 6 is your training records. It's tab 9 of the bundle.</p> <p>7 That's it. Can I ask you to go to page 25, which is the 8 entry for 12 May 2017.</p> <p>9 If, Mr Trial Director, you could just highlight 10 12 May, there should be three entries there for 11 12 May 2017.</p> <p>12 Mr Dowden, just bear with me.</p> <p>13 It's towards the bottom. It's about two-thirds of 14 the way down the page, 12 May. Yes, there.</p> <p>15 Right, so on 12 May you'll see there are three 16 entries in your training record, all theoretical 17 station-based training, and the left-hand column shows 18 "Decision making model - 341", and then: 19 "Training supervisor - Incident Management - 20 Incident Command - Decision Making - Decision making 21 model - 341."</p> <p>22 And then below it: 23 "... Dynamic risk assessment (Health & Safety)." 24 Then underneath that: 25 "Training Supervisor - Training Notes - Training -</p> <p style="text-align: right;">Page 20</p>

<p>1 Dynamic Risk Assessment (Training Note)."</p> <p>2 That's a chunk of training on 12 May 2017.</p> <p>3 Do you remember whether on that occasion you had</p> <p>4 training in incident command decision-making?</p> <p>5 A. Not facilitated from the Brigade, but that's</p> <p>6 a station-based level. That would be from myself</p> <p>7 familiarising with the decision-making model we spoke</p> <p>8 about yesterday which helps us, through that flow chart</p> <p>9 process, resource, gather information relating to</p> <p>10 an incident. So that would be a policy-based theory</p> <p>11 session.</p> <p>12 Q. Right. So not the two policies we've just been looking</p> <p>13 at, 431 or 238?</p> <p>14 A. No, the incident -- what that alludes to, incident</p> <p>15 manager, incident command -- so that decision-making</p> <p>16 model sits under an umbrella of incident command</p> <p>17 training.</p> <p>18 Q. Yes.</p> <p>19 A. So that's not referring to those policies, no.</p> <p>20 Q. No. Okay.</p> <p>21 Could we go to page 24, very bottom -- same document</p> <p>22 but back at page -- very last entry, where, on</p> <p>23 16 March 2017, we can see the very last entry is</p> <p>24 "Management Role" -- sorry, I think you are going to</p> <p>25 have to show the document, Mr Trial Director, a little</p> <p style="text-align: right;">Page 21</p>	<p>1 A. Training supervisor is a role, so that's not -- from my</p> <p>2 understanding of how it works, that's not a policy, it's</p> <p>3 a role, because obviously being a watch officer, the</p> <p>4 training supervisor is -- when I check a certain box</p> <p>5 within that training record, it will say who was the</p> <p>6 lecturer or training supervisor, and that's why that</p> <p>7 record is shown there.</p> <p>8 Q. I understand.</p> <p>9 The one above it -- I should've taken this a little</p> <p>10 bit more slowly -- "Incident commander", which is the</p> <p>11 second last entry there you see, is that you receiving</p> <p>12 training?</p> <p>13 A. No, that's the same entry. So -- because I was</p> <p>14 the training supervisor, and the subject matter in the</p> <p>15 theory-based session would've been about incident</p> <p>16 command.</p> <p>17 Q. Okay.</p> <p>18 Then if we look a little bit higher up the page for</p> <p>19 the entries on 19 February 2017, we see, again, against</p> <p>20 your name:</p> <p>21 "Management Role - Incident Commander - Incident</p> <p>22 Commander."</p> <p>23 And then underneath that:</p> <p>24 "Management Role - Training Supervisor - Training</p> <p>25 Supervisor."</p> <p style="text-align: right;">Page 23</p>
<p>1 bit more widely so we can see what's on the left as</p> <p>2 well. If you go across the page. Keep going.</p> <p>3 Yes, so there's your name and then if you go back</p> <p>4 across to the right, "Training Supervisor",</p> <p>5 16 March 2017, then above it:</p> <p>6 "Management Role - Incident Commander - Incident</p> <p>7 Commander."</p> <p>8 On that occasion, would you have been trained in</p> <p>9 policy 431 or policy 238, do you think?</p> <p>10 A. I wouldn't have been trained. That, again, is</p> <p>11 a station-based level and, as you can see, training</p> <p>12 supervisor. So I would've at a local level at</p> <p>13 station -- that will refer to the policies we're talking</p> <p>14 about, incident commander.</p> <p>15 Q. It would?</p> <p>16 A. Yes, but it's not a -- that's not a centrally trained</p> <p>17 thing; that's at a local level at station.</p> <p>18 Q. Okay. But at local level, you would be receiving -- is</p> <p>19 this right -- or giving training on policy --</p> <p>20 A. Yes, I would be looking at giving that training, yes.</p> <p>21 Q. You are giving training on 431 and 238, yes?</p> <p>22 A. At a local level, yes.</p> <p>23 Q. Yes. When you say you're giving it, is that in</p> <p>24 reference to training supervisor or both entries,</p> <p>25 training supervisor and --</p> <p style="text-align: right;">Page 22</p>	<p>1 Both entries for 19 February 2017.</p> <p>2 Again, is that the same? Is that --</p> <p>3 A. That's the same. So whoever the officer is delivering</p> <p>4 that training session or a theory-based session or</p> <p>5 practical session, if they are allocated as delivering</p> <p>6 the training, they would be the supervisor. It's not</p> <p>7 a specific policy or session; it's just a role.</p> <p>8 Q. Right.</p> <p>9 So can we assume that you were, as incident</p> <p>10 commander, in the early part of 2017, very familiar with</p> <p>11 those two policies, 431 and 238, and had both had</p> <p>12 training on them and was giving training on them at</p> <p>13 a local level at least?</p> <p>14 A. Yes.</p> <p>15 Q. Yes. Thank you.</p> <p>16 Now, can I then ask you to look at the first of</p> <p>17 those policies, policy 431, in tab 11 of the policy</p> <p>18 bundle. I've given the Relativity reference for that;</p> <p>19 it's LFB00000048.</p> <p>20 Can I ask you, please, to turn, first of all, to</p> <p>21 page 3 internal.</p> <p>22 In fact, there's a quicker way of doing this,</p> <p>23 I think. Page 2, Mr Trial Director, if you could go</p> <p>24 back a page.</p> <p>25 "Key point summary". Just in terms of this policy,</p> <p style="text-align: right;">Page 24</p>

<p>1 the key point summary, is that, just so we know, 2 a summary of the entire contents of the policy? 3 A. It gives a snapshot of sort of the main points within 4 a policy, yes 5 Q. In the middle you can see: 6 "Role 7 "The primary purposes of operational incident 8 command is: 9 "To save life." 10 That's the first bullet point, if you go down to the 11 middle of the page. 12 Then there's a list of other things below that: 13 "To prevent further spread/loss/risk of injury. 14 "To mitigate damage. 15 "To mitigate environmental damage. 16 "To minimise disruption to the community. 17 Are those listed in order of priority? 18 A. Absolutely. 19 Q. Then: 20 "Responsibilities 21 "On arrival at an incident the IC will wear the 22 white 'Incident Commander' tabard. 23 "Assess the incident, establish priorities and 24 decide upon an overall operational plan using the DMM." 25 My question is: were you aware, on arrival at</p> <p style="text-align: right;">Page 25</p>	<p>1 does work alongside the decision-making model. What 2 basically that does is it allows us as incident 3 commanders -- not just incident commanders, everyone has 4 that responsibility on the fire ground from firefighter 5 up to, you know, to do dynamic risk assessment for 6 themselves and others, but particularly for an incident 7 commander, that allows us to basically, by policy or 8 safe systems of work, to choose and formulate a plan to 9 help us move forward into the hazard area. 10 The tactical mode is -- so if I have dynamically 11 risk assessed it, working from a decision-making model, 12 I have chose whether it is a safe system of work -- in 13 this where it relates to high-rise, it would be 14 high-rise procedure. And then if I commit personnel to 15 a hazard zone, ie make a compartment entry into the 16 fire, the tactical mode -- there are two tactical 17 modes: one is Oscar and one is Delta. 18 In relation to that, Oscar is offensive, which means 19 we are committing personnel to a hazard zone because 20 I have the right resources, I've chosen my safe systems 21 of work, I'm happy that my firefighters are as safe as 22 can be to make an entry as the priority is to save life 23 or extinguish fire; and the Delta is defensive, 24 ie I don't think it's safe, I don't have the right 25 resources in place to commit personnel to the hazard</p> <p style="text-align: right;">Page 27</p>
<p>1 Grenfell Tower as incident commander on 14 June, of that 2 responsibility as incident commander? 3 A. Yes. 4 Q. And so you were aware that the primary purpose of your 5 role as incident commander was the saving of life? 6 A. Yes. 7 Q. And then the other things below that? 8 A. Yes. 9 Q. If you look at the third bullet point down, you'll see 10 it says: 11 "Undertake an initial Dynamic Risk Assessment (DRA) 12 and subsequent reviews of that DRA. Following the DRA 13 a Tactical Mode must be declared. This process will be 14 continuous throughout the incident." 15 Just so that I understand it, is the dynamic risk 16 assessment, or the DRA, a reference to policy 341, the 17 decision-making model, or is it something else? 18 A. Separate policy. 19 Q. It's a separate policy? 20 A. Yes. 21 Q. We may need to come back to that. 22 A. I can explain, if you want me to -- 23 Q. Please do. 24 A. -- a snapshot of that policy. 25 Dynamic risk assessment, what that allows us -- it</p> <p style="text-align: right;">Page 26</p>	<p>1 zone. 2 Q. Thank you very much. That's very clear. 3 So on arrival at Grenfell Tower on the night or 4 morning of 14 June 2017, did you undertake an initial 5 dynamic risk assessment? 6 A. It's an instinctive thing. It's something you've been 7 given training -- I don't turn up and think, "I've got 8 to do a dynamic risk assessment". I know that sounds 9 strange, but as incident commander, that is something 10 you are trained to do. We all do that as individuals, 11 members of the public, we do a dynamic risk assessment 12 every single day: shall I cross that road? No, I won't. 13 We do that assessment anyway. 14 We, as an organisation, have to have a process 15 behind that and a policy behind that to refer to and to 16 give training from, but as an incident commander turning 17 up at an incident, from experience, from training, from 18 input, that is something that is done as a natural. We 19 do that -- yes. 20 So I won't say that consciously I must make 21 a dynamic risk assessment; I look from my experiences, 22 from policy, from training, from my situational 23 awareness on that incident ground at that moment in 24 time, I will do a dynamic risk assessment, and that will 25 allow me to make my decision in terms of: okay, have</p> <p style="text-align: right;">Page 28</p>

<p>1 I got enough resources? Is it safe to put personnel 2 within that hazard zone? 3 Q. And having done an instinctive, I think, dynamic risk 4 assessment you've been describing, can you tell us what 5 that was? What was the assessment you initially 6 performed? 7 A. You have to gather certain information first, okay? And 8 what I -- I think I spoke about it yesterday -- the 9 thing you're looking at is life, fire and hazard. 10 Because obviously the number 1 property of the London 11 Fire Brigade is to save life. And as an incident 12 commander, you have to gather some information first 13 before you can make that dynamic risk assessment. 14 So on that night, I was approached by the resident 15 of flat 16, and we have to ask a certain amount of 16 questions that will allow us to make that dynamic risk 17 assessment. 18 Those questions will be along the lines of: okay, 19 find out if that is the responsible -- or resident of 20 that block or building or premise. Do they have 21 information? Where is the fire located? What is on 22 fire? How long has the fire been burning for? Is 23 anyone involved? Are any persons involved? That's the 24 really important part, because that really changes your 25 thought process as an incident commander. Are there any</p> <p style="text-align: right;">Page 29</p>	<p>1 Q. What did you do? 2 A. The reasons for that -- so the incident command 3 structure -- as incident command, referring back to the 4 policy, we look at things called spans of control. 5 Q. Sorry, spans? 6 A. Spans of control. So that would be your lines of 7 communication, your information sources coming into you 8 as incident commander. 9 A comfortable amount is three lines of spans of 10 control, lines of communication, coming to you, so that 11 may well be your information-gathering to the initial 12 sources of a resident, occupier, owner, different 13 agencies. We want to try and limit that to three. 14 The optimum that you should be operating at as 15 an incident commander is five spans of control. 16 Anything beyond that, it gets really difficult to try 17 and process that information. 18 So my incident command structure, based on that and 19 referring to high-rise policy, was that I would 20 remain -- at the real initial point of that incident, 21 dynamic stage of that incident -- at ground-floor level, 22 outside of Grenfell Tower, because I need to have 23 a situational awareness of what's going on outside and 24 around, and be able to liaise with oncoming agencies, 25 further resources.</p> <p style="text-align: right;">Page 31</p>
<p>1 hazards within that property or that building? 2 Depending on what answers are surrendered, that 3 allows you to formulate your plan as an incident 4 commander. 5 So on the night of the fire at Grenfell Tower, 6 initially when I turned up, I did have that dialogue 7 with the resident of flat 16, confirmed that the fire is 8 in flat 16, it is on the fourth floor, the fire was in 9 the kitchen, he believed it was his fridge that was on 10 fire. And I asked the question once: is there anyone 11 inside the building? He confirmed no. And I reiterated 12 that, just to confirm my understanding: "You can 13 guarantee me that there's no one in flat 16, everyone 14 else is out?" To that the reply was no. 15 Q. Right. That's very helpful, Mr Dowden. I'm going to 16 come back just to explore that a little bit more in 17 a moment, because we've got some evidence to look at. 18 Before we do, can I just ask you to keep on this 19 page and go down a couple of bullet points -- this is 20 page 2 of policy 431 -- and just look at the bullet 21 point that says: 22 "Develop an effective organisational incident 23 command structure and communications network." 24 Did you do that on arrival at Grenfell Tower? 25 A. Yes, I say I would.</p> <p style="text-align: right;">Page 30</p>	<p>1 In terms of how that would've worked, I briefed my 2 crew manager at the time, Chris Secrett. He was to be 3 in charge of operations at the bridgehead. So he's 4 basically my eyes and ears on the bridgehead, and he 5 will be committing resources from there to the fire 6 compartment. 7 In terms of communications network, the incident 8 command channel which I was on was channel 1, and that's 9 how I would liaise with Crew Manager Secrett up at the 10 bridgehead. All BA teams would observe channel 6, which 11 is our breathing apparatus communications channel. 12 Q. And what about communications back to Brigade control? 13 A. That would be facilitated via the main scheme radio. So 14 on every front line pumping appliance we have our main 15 scheme radio, and that's how we on the fire ground would 16 be able to communicate back to control. 17 Q. And I'm sorry to go right away into a question I am 18 probably going to ask you this afternoon, but never 19 mind: you've got the main scheme radio linking control 20 to pump 271, which was the command unit? 21 A. No. 22 Q. No? 23 A. No, Golf 271 isn't command unit, that's totally 24 separate. That's a separate function. That's 25 a specific vehicle. So Golf 271 is a pumping appliance,</p> <p style="text-align: right;">Page 32</p>

<p>1 pump ladder. In the dynamic stage of an incident, we</p> <p>2 can identify a pumping appliance as an incident command</p> <p>3 pump, and I believe that function went to Golf 272 that</p> <p>4 night.</p> <p>5 Q. 272. Right.</p> <p>6 A. The only reason why that happened -- you can't confuse</p> <p>7 the two. We have to have a -- the machine supplying</p> <p>8 water to a -- whether it's a high-rise block,</p> <p>9 a commercial premise or even if it's the firefighting</p> <p>10 pump supplying water, you can understand that the diesel</p> <p>11 pump is revving, there's a lot of work, a lot of noise</p> <p>12 around that machine, okay?</p> <p>13 So the theory behind it is we have to have</p> <p>14 a separate machine that will be allocated as the</p> <p>15 incident command pump, and that will be facilitating</p> <p>16 messages via the main scheme radio to the fire ground.</p> <p>17 That's in theory how it should work.</p> <p>18 Q. I see. So main scheme radio links control to the</p> <p>19 command unit --</p> <p>20 A. Yes.</p> <p>21 Q. -- whatever it is, and then is there somebody in the</p> <p>22 command unit who is on the other end of the radio?</p> <p>23 A. Sorry, could you just repeat that question?</p> <p>24 Q. Let me put it this way: who stays within the command</p> <p>25 unit on the incident ground to receive radio messages</p> <p style="text-align: center;">Page 33</p>	<p>1 command vehicle.</p> <p>2 When a command unit, which is a vehicle which comes</p> <p>3 on at a later point, a resourcing point -- that's the</p> <p>4 command unit. They are two separate vehicles and</p> <p>5 functions.</p> <p>6 But you're right, the only way -- I, as an officer</p> <p>7 in charge at watch manager base level, have a fire</p> <p>8 ground radio, so I don't have the function to</p> <p>9 communicate directly to control from the fire ground.</p> <p>10 The only way that we can do that through front line</p> <p>11 pumping appliances is via the main scheme radio, which</p> <p>12 is on all front line pumping appliances.</p> <p>13 Q. That's very clear, thank you.</p> <p>14 Now, can I just ask you to look at policy 238 --</p> <p>15 just one or two questions on that -- which is policy</p> <p>16 bundle, tab 1, "Incident command procedures".</p> <p>17 Just picking up your point about ICP, just so I've</p> <p>18 got it in my head in policy terms, if you look at page 2</p> <p>19 internally of policy 238, this is the key point summary,</p> <p>20 and if you look halfway down that bullet point list,</p> <p>21 just understanding the bold letters, "I am taking over",</p> <p>22 can you see it says:</p> <p>23 "An initial command pump (ICP) will be established</p> <p>24 as soon as possible whenever more than one pumping</p> <p>25 appliance is in attendance. Headlights and blue beacons</p> <p style="text-align: center;">Page 35</p>
<p>1 coming on the main scheme radio from control?</p> <p>2 A. So, again, it's not -- so if we're talking about the</p> <p>3 incident command vehicle or pump at that time -- the</p> <p>4 ICP, as we call it -- on the fire ground, then the</p> <p>5 theory is that a driver will facilitate taking those</p> <p>6 messages from control via the designated machine.</p> <p>7 Q. Right.</p> <p>8 A. It does happen at the very, very early stages of</p> <p>9 a dynamic incident -- which Grenfell Tower was extremely</p> <p>10 dynamic -- that sometimes is difficult to facilitate</p> <p>11 because of how quickly your resources can be consumed on</p> <p>12 the fire ground.</p> <p>13 Q. Yes.</p> <p>14 A. And apart from having a driver or a person on that</p> <p>15 vehicle, we have no way of communicating with control.</p> <p>16 Q. So you're standing outside with a radio on the ground</p> <p>17 floor. Do you communicate directly with Brigade control</p> <p>18 or do you communicate with the command unit, who then</p> <p>19 communicates with Brigade control?</p> <p>20 A. I think we really need to be clear; it's not a command</p> <p>21 unit. We need to be -- that is a separate function,</p> <p>22 that's a separate vehicle. So the ICP -- we refer to it</p> <p>23 as the ICP, incident command pump, because at the</p> <p>24 initial stage of an incident, that is a pumping</p> <p>25 appliance that would be dedicated a role of the incident</p> <p style="text-align: center;">Page 34</p>	<p>1 should remain on to identify it."</p> <p>2 Just so that we're all absolutely clear, on arrival</p> <p>3 at Grenfell Tower on the night, which was the initial</p> <p>4 command pump? I think you said it was 272?</p> <p>5 A. From my understanding and referring back to my</p> <p>6 statement, the decision was taken for Golf or G272 to be</p> <p>7 the ICP.</p> <p>8 Q. Right.</p> <p>9 Who would've been the main scheme radio operator,</p> <p>10 communicating with Brigade control in G272?</p> <p>11 A. Ideally it would be the driver of that appliance, but</p> <p>12 that's not always the case. You know, we all have</p> <p>13 a responsibility, either as incident commander -- it</p> <p>14 could be the role of a firefighter, depending on what</p> <p>15 resource is available at that time.</p> <p>16 SIR MARTIN MOORE-BICK: Just tell me, would one of your crew</p> <p>17 be assigned to be the radio operator unless he's taken</p> <p>18 off it, so to speak? So he'd stay there until he got</p> <p>19 some other order?</p> <p>20 A. Not necessarily, no. Depending on how resourcing goes</p> <p>21 at the real dynamic stages of an incident -- because</p> <p>22 obviously we have to weigh up, okay, we need water to</p> <p>23 get into that building, so at that moment in time, both</p> <p>24 the drivers were exhausted in terms -- consumed in terms</p> <p>25 of facilitating the hydrant and the dry riser supply.</p> <p style="text-align: center;">Page 36</p>

<p>1 So it's not a case of, right – if we had the luxury 2 of, you know, having six or maximum ridership levels on 3 the fire appliances then, yes, that may well be the 4 case. But generally the ridership levels aren't at the 5 maximum; we generally ride at a minimum. That night we 6 were riding five and five.</p> <p>7 So it's not as if that would – if we have the 8 resource, enough personnel, that is a good practice to 9 adopt.</p> <p>10 SIR MARTIN MOORE-BICK: But what I would like to know is 11 when you get to the fire and you designate 272 as the 12 ICP, does one of the crew know that he is the radio 13 operator subject to being called to do other things, or 14 is it just a case of who happens to be close enough to 15 hear the radio?</p> <p>16 A. No, no, no, so it should generally be the driver that 17 takes that role. But, you know, everyone on the fire 18 ground has to have an understanding that that's how that 19 theory works, and if need be that they can take radio 20 messages and traffic, if required.</p> <p>21 SIR MARTIN MOORE-BICK: Yes, thank you.</p> <p>22 MR MILLETT: Just one more question on this communications 23 point.</p> <p>24 If you go on in this same policy to page 5, you can 25 see there is a heading under section 7, "Functions of</p> <p style="text-align: right;">Page 37</p>	<p>1 roughly sort of at head height. You've got a radio sort 2 of display and then you've got a handheld press-to-talk 3 receiver that you'll be able to send your radio traffic 4 to control and receive traffic as well.</p> <p>5 Q. And can it be removed from the vehicle? Can you use it 6 portably?</p> <p>7 A. No, you can't.</p> <p>8 Q. You can't. So someone needs to be physically sitting in 9 the ICP at all times in order to monitor and receive 10 those radio messages?</p> <p>11 A. That's the theory, yes.</p> <p>12 Q. That's the theory.</p> <p>13 Just going back a page in the same policy, to 14 paragraph 5, "The incident commander (IC)", and look at 15 paragraph 5.5, that says:</p> <p>16 "It is essential that action in the very early 17 stages of the incident supports the overall plan. The 18 IC will, therefore, need to make a positive decision as 19 to the purpose and manner in which to commit initial 20 resources. The IC will through reference to the 21 decision making model (DMM):</p> <p>22 "Assess the situation, establish priorities and 23 decide upon an overall operational plan."</p> <p>24 My question is: did you do that? Did you assess the 25 situation, establish priorities and decide upon</p> <p style="text-align: right;">Page 39</p>
<p>1 initial command pump (ICP)", and this covers that.</p> <p>2 If you look at paragraph 7.4, it says:</p> <p>3 "The ICP will provide the communications link 4 between Brigade control and the IC and remain the 5 incident focal point until relieved by the CU."</p> <p>6 Is that what you were referring to earlier when you 7 said that the initial pump is the ICP?</p> <p>8 A. That's correct.</p> <p>9 Q. What is the difference, then, so far as the 10 communications link is concerned, between the ICP and 11 the CU?</p> <p>12 A. Sorry, could you just repeat that question, please?</p> <p>13 Q. Yes, what's the difference between the ICP and the CU?</p> <p>14 A. The command unit is purely for incident command. It's 15 not a firefighting appliance. It doesn't carry any 16 water, doesn't carry any firefighting equipment; it's 17 purely to facilitate a better command and control 18 structure and assist the incident commander at any 19 incident.</p> <p>20 Q. Yes.</p> <p>21 Just a couple of questions on the main scheme radio.</p> <p>22 Whereabouts is that situated in a pump? Is it on 23 the vehicle?</p> <p>24 A. That's correct. It's in the front cab where the officer 25 in charge sits and the driver sits, and it's located</p> <p style="text-align: right;">Page 38</p>	<p>1 an operational plan on arrival at Grenfell Tower?</p> <p>2 A. Yes.</p> <p>3 Q. And what was your overall operational plan, can you 4 remember?</p> <p>5 A. From the moment we turned up in the very early stages of 6 that incident, my operational plan was to commit 7 crews – once we had established a safe system of work 8 as per high-rise policy, commit crews from the 9 bridgehead, and to make a compartment entry and put that 10 fire out.</p> <p>11 Q. At that stage, did you consider the risk of failure of 12 compartmentation?</p> <p>13 A. From memory, I would say yes, because my recollection is 14 we had a covering jet on the external ready. As I said, 15 you know, compartmentation does fail and that's not 16 something that's uncommon in fires – weak points, 17 windows, doors – and moving away from just high-rise 18 premises, it's good practice to have a covering jet out, 19 particularly to protect firefighters' access and ingress 20 into a premise. From my understanding, that was 21 facilitated by one of my drivers, Dan Bills. We had 22 a covering jet out because it was on the fourth floor.</p> <p>23 If it was higher up the building, that would be more 24 difficult to facilitate because of, you know, the 25 limitations of our firefighting jets. They won't</p> <p style="text-align: right;">Page 40</p>

<p>1 necessarily reach a certain amount of floors. But</p> <p>2 because of where the fire was on the fourth floor, I do</p> <p>3 believe quite early on we had a covering jet laid out</p> <p>4 ready in case compartmentation failed on the external of</p> <p>5 the building.</p> <p>6 Q. Now, this was a four-pump fire because the predetermined</p> <p>7 attendance for high-rises is four pumps; is that</p> <p>8 correct?</p> <p>9 A. That's correct.</p> <p>10 Q. And although initially the make-up was three, it was</p> <p>11 very quickly corrected by Brigade control as a matter of</p> <p>12 record. Does that accord with your recollection?</p> <p>13 A. That's correct. I received further traffic en route to</p> <p>14 Grenfell Tower that the PDA had been made up to the</p> <p>15 correct amount of appliances because it had been</p> <p>16 identified as a high-rise block, yes.</p> <p>17 Q. Yes.</p> <p>18 Now, under the LFB's make-up policy, their</p> <p>19 mobilisation policy, as it stood at the time of the</p> <p>20 fire, did you know what the personnel requirements for</p> <p>21 a four-pump fire were?</p> <p>22 A. Can you repeat that question?</p> <p>23 Q. The personnel requirements. Did you know what level of</p> <p>24 officer was required to attend at a four-pump fire?</p> <p>25 A. So as a watch manager B, that's my sort of -- there is</p> <p style="text-align: center;">Page 41</p>	<p>1 topic.</p> <p>2 SIR MARTIN MOORE-BICK: Yes.</p> <p>3 MR MILLETT: It may be convenient --</p> <p>4 SIR MARTIN MOORE-BICK: A good point to have a break?</p> <p>5 MR MILLETT: Yes.</p> <p>6 SIR MARTIN MOORE-BICK: Yes, thank you.</p> <p>7 You would probably quite like a break now, wouldn't</p> <p>8 you, Mr Dowden?</p> <p>9 THE WITNESS: Yes.</p> <p>10 SIR MARTIN MOORE-BICK: We'll break -- I'm going to say for</p> <p>11 5 minutes. Let's say until 10.35. I shall want to be</p> <p>12 back in promptly at 10.35.</p> <p>13 Thank you. Off you go.</p> <p>14 (10.28 am)</p> <p>15 (A short break)</p> <p>16 (10.35 am)</p> <p>17 SIR MARTIN MOORE-BICK: All right?</p> <p>18 THE WITNESS: Yes.</p> <p>19 SIR MARTIN MOORE-BICK: Good.</p> <p>20 THE WITNESS: Fine, thank you.</p> <p>21 SIR MARTIN MOORE-BICK: Yes, Mr Millett.</p> <p>22 MR MILLETT: Mr Dowden, can I just go back to something to</p> <p>23 do with communications at the initial command pump and</p> <p>24 the radio.</p> <p>25 Is there a speaker which is contained on the outside</p> <p style="text-align: center;">Page 43</p>
<p>1 two levels of -- we're trained to either level 1 or</p> <p>2 level 2 incident command. So for me, watch manager B</p> <p>3 level, I'm trained to incident command level 1, and</p> <p>4 generally I operate to anything up to four pumping</p> <p>5 appliances.</p> <p>6 With that, you'll get a station manager who will</p> <p>7 be -- not necessarily attend, who will be notified by</p> <p>8 pager as a monitoring officer to monitor that incident.</p> <p>9 Q. At the time of arrival at Grenfell Tower on the night,</p> <p>10 do you know whether you had a station manager paged to</p> <p>11 attend as a monitoring officer?</p> <p>12 A. That information would have been available via the tip</p> <p>13 sheet we spoke about yesterday that we have that comes</p> <p>14 from the watch room, so I would've been aware at that</p> <p>15 point that there was a monitoring officer on there.</p> <p>16 Q. Do you remember who the station manager was?</p> <p>17 A. I don't remember at that point in time, but obviously</p> <p>18 since that I do know who that monitoring officer was,</p> <p>19 yes.</p> <p>20 Q. Who was that?</p> <p>21 A. It was Station Manager Andy Walton.</p> <p>22 Q. Andy Walton. And do you remember what time he arrived</p> <p>23 on scene?</p> <p>24 A. No, I don't.</p> <p>25 MR MILLETT: Mr Chairman, I'm going to turn to a different</p> <p style="text-align: center;">Page 42</p>	<p>1 of an ordinary pump ladder or pump which would allow</p> <p>2 people around the pump to hear what messages are coming</p> <p>3 into the ICP from Brigade control?</p> <p>4 A. That's correct. In the pump bay there is a loud speaker</p> <p>5 that we can turn on that will allow us to do that, yes.</p> <p>6 Q. Right. So it's in the pump bay, is it?</p> <p>7 A. Yes.</p> <p>8 Q. Whereabouts on the vehicle is that?</p> <p>9 A. The rear. At the rear of the appliance.</p> <p>10 Q. Right. Do you remember whether you had those turned on</p> <p>11 on the night?</p> <p>12 A. I can't, no.</p> <p>13 Q. Would it be normal to have those turned on?</p> <p>14 A. That is a good practice to adopt, yes. But I can't</p> <p>15 confirm if that was on the night.</p> <p>16 Q. Right. Why would you not have the speakers turned on?</p> <p>17 A. The only reason for that would be that an individual has</p> <p>18 forgot to actuate the button to turn that on.</p> <p>19 Q. And who would that normally be?</p> <p>20 A. That would generally be down to the designated driver of</p> <p>21 that vehicle.</p> <p>22 Q. Yes.</p> <p>23 Now, going back to your statement, page 3, just</p> <p>24 below halfway down, you say:</p> <p>25 "I was wearing my hi-visibility Incident Commander</p> <p style="text-align: center;">Page 44</p>

11 (Pages 41 to 44)

<p>1 tabard and at that point a male came up to me and stated</p> <p>2 that the fire was in his flat on the 4th floor."</p> <p>3 Can we just have a look at some photographs. If you</p> <p>4 turn, please, in the documents bundle to tab 18, this is</p> <p>5 a photograph taken at just after 1 am. It's</p> <p>6 INQ00000009.</p> <p>7 There it is. I wonder if that could be blown up for</p> <p>8 you.</p> <p>9 This is a still taken from the CCTV cameras in the</p> <p>10 entrance hall, entrance lobby, to Grenfell Tower, as</p> <p>11 I say, just after 1 am.</p> <p>12 Can you identify yourself?</p> <p>13 A. That's myself with the high-visibility jerkin on, and on</p> <p>14 the back is the red incident commander tabard insert.</p> <p>15 Q. Right.</p> <p>16 A. So that is myself with the white helmet and the</p> <p>17 high-visibility jacket. Yes, that's me.</p> <p>18 Q. Very good. Are you able to identify who else we see in</p> <p>19 that picture?</p> <p>20 A. The firefighter directly in front of me is Firefighter</p> <p>21 Dorgu.</p> <p>22 Q. Dorgu.</p> <p>23 A. The firefighter entering by the main entrance is</p> <p>24 Firefighter Danny Brown. I'm not 100 per cent sure,</p> <p>25 I think the firefighter you can see with the hose, the</p> <p style="text-align: right;">Page 45</p>	<p>1 you? Was it inside the building or outside?</p> <p>2 A. From my memory and my recollection of that night, it was</p> <p>3 outside that I spoke to him.</p> <p>4 Q. As well as you can remember, what were the man's exact</p> <p>5 words?</p> <p>6 A. Again, from -- it was more in response to questions that</p> <p>7 I was asking the gentleman in terms of the fire,</p> <p>8 confirmed it was on the fourth floor, it was the</p> <p>9 gentleman's flat, it was in the kitchen, it was his</p> <p>10 fridge that was on fire, and he confirmed to me twice</p> <p>11 that there was no one else within that property or that</p> <p>12 compartment of flat 16.</p> <p>13 Q. Now, I am going to play, if I can, audio of a call that</p> <p>14 he made to the London Fire Brigade at 01.00.21. It's</p> <p>15 MET00014885, Mr Trial Director.</p> <p>16 I am going to play it, and I would just like you to</p> <p>17 listen very carefully, if you can, to the very start of</p> <p>18 the call. We may have to play it twice, but I just want</p> <p>19 to ask you some questions about what we can hear in that</p> <p>20 call.</p> <p>21 Could it please be played?</p> <p>22 (999 call played)</p> <p>23 Okay, you can stop there. If you could just play</p> <p>24 that once more, because it's quite a confusing audio</p> <p>25 track. I'll ask you the question before we play it</p> <p style="text-align: right;">Page 47</p>
<p>1 entry control board and the forward information board</p> <p>2 I think is Firefighter Badillo.</p> <p>3 Q. Badillo. Right.</p> <p>4 In his left hand, he has two things: the entry</p> <p>5 control board and the forward --</p> <p>6 A. Forward information board.</p> <p>7 Q. Forward information board, right.</p> <p>8 Could you please turn to tab 19 next, which should</p> <p>9 be another picture, which is INQ00000026. That is the</p> <p>10 picture of a male walking into the building.</p> <p>11 Can you identify from that picture perhaps whether</p> <p>12 this was the male that you say you spoke to? I have</p> <p>13 a better picture in case you can't.</p> <p>14 (Pause)</p> <p>15 Let me --</p> <p>16 A. It's difficult --</p> <p>17 Q. Yes.</p> <p>18 A. -- to identify from that angle.</p> <p>19 Q. Perhaps we can go to the next one, which is tab 20,</p> <p>20 INQ00000044. There's a picture of his face and whole</p> <p>21 person.</p> <p>22 Do you think that was the male that you spoke to</p> <p>23 when you arrived?</p> <p>24 A. I would say it bears a resemblance, yes.</p> <p>25 Q. Do you remember where he came up to you and spoke to</p> <p style="text-align: right;">Page 46</p>	<p>1 again.</p> <p>2 My question is: do you know to whom the caller --</p> <p>3 who we've identified as Mr Kebede, the occupant of</p> <p>4 flat 16 -- might have been speaking to?</p> <p>5 That's the question. So we'll play it again and see</p> <p>6 if you can identify --</p> <p>7 A. Can I just confirm, so are we talking about the</p> <p>8 actual -- the background, who he's talking to, referring</p> <p>9 to the incident ground, or in terms of at control?</p> <p>10 Q. No, in the background. It sounds as if he is speaking</p> <p>11 to somebody who is there present with him at the same</p> <p>12 time as speaking to somebody in control. I just want to</p> <p>13 know whether we can identify the person he is speaking</p> <p>14 to.</p> <p>15 If you could just play that again, please.</p> <p>16 (999 call played)</p> <p>17 Okay. That's all we need.</p> <p>18 Do you think you can identify the person who</p> <p>19 Mr Kebede was speaking to?</p> <p>20 A. I don't think so, no. It's difficult.</p> <p>21 Q. Did the man you spoke to say anything that made you</p> <p>22 think that this was more than an ordinary kitchen fire?</p> <p>23 A. There was no information surrendered to think, apart</p> <p>24 from the information I gathered, that would suggest it</p> <p>25 was anything other than a compartment fire within</p> <p style="text-align: right;">Page 48</p>

<p>1 a tower block, no.</p> <p>2 Q. If you go back to your statement, you go on, after</p> <p>3 having described this discussion, to implementing the</p> <p>4 high-rise procedure, and then you say:</p> <p>5 "The fire fighters were taking the necessary</p> <p>6 equipment from the appliances whilst I was speaking to</p> <p>7 the male and they were establishing a water supply in</p> <p>8 order to charge the dry riser."</p> <p>9 Could you just describe for us the process which was</p> <p>10 going on at that time in terms of charging the dry</p> <p>11 riser? What was happening?</p> <p>12 A. So, again, this is something that would generally be</p> <p>13 facilitated by -- and it was that night -- the two</p> <p>14 drivers of the fire appliances.</p> <p>15 So, first, we have to obtain a water supply into our</p> <p>16 fire engine, and that's from a hydrant source. So we</p> <p>17 have to take a certain piece of equipment off our fire</p> <p>18 engine, locate the hydrant, connect our piece of</p> <p>19 equipment to the opening at ground level on this</p> <p>20 hydrant, and then plug our hoses into the hydrant, key</p> <p>21 and bar and outlet. Then we run the hose into the back</p> <p>22 of the fire engine.</p> <p>23 At the same time -- this should be a simultaneous</p> <p>24 activity, we have two people doing it -- from the back</p> <p>25 of the fire engine, we will then run the hose or augment</p> <p style="text-align: right;">Page 49</p>	<p>1 Mr O'Keefe, who is from Kensington 331, he has</p> <p>2 provided us with a statement that says that you</p> <p>3 contacted him on the radio while he was status 2, so</p> <p>4 mobile to incident.</p> <p>5 Do you remember a conversation with Mr O'Keefe at</p> <p>6 an early stage?</p> <p>7 A. Yes, I do refer to that in my statement, because</p> <p>8 obviously I had a confirmed fire on the fourth floor,</p> <p>9 I believe to both Brian O'Keefe, who was the officer in</p> <p>10 charge of Golf 331, and also to Crew Manager</p> <p>11 Dave Davies, who was the officer in charge of Golf 362.</p> <p>12 Through my handheld radio on to those two oncoming</p> <p>13 appliances, I gave them some traffic in terms of I would</p> <p>14 request a pair of BA wearers, a set of BA wearers, from</p> <p>15 both trucks as soon as they got to the incident ground</p> <p>16 to report to the bridgehead on the second floor.</p> <p>17 Q. Yes, thank you.</p> <p>18 Now, it's a matter of record that Kensington</p> <p>19 Golf 331 arrived at 1.08 am. Does that tally with your</p> <p>20 recollection of when in the incident you spoke to</p> <p>21 Mr O'Keefe?</p> <p>22 A. It would've been prior to their arrival because that was</p> <p>23 when they was en route to the incident.</p> <p>24 Q. And what had you seen at that point that prompted you to</p> <p>25 make the request to have the crews in BA, breathing</p> <p style="text-align: right;">Page 51</p>
<p>1 the hose into the dry riser outlet, which at</p> <p>2 Grenfell Tower was on the south elevation of the</p> <p>3 building to the left-hand side of the main entrance.</p> <p>4 Once we've done that and we've connected the hoses</p> <p>5 up, we turn on the hydrant. Then we get a water supply</p> <p>6 to the fire engine. Once that is confirmed, we can then</p> <p>7 charge the supply to the dry riser, and that allows us</p> <p>8 then to put water into the building.</p> <p>9 So it's not -- depending on -- as we spoke about</p> <p>10 earlier, there are a number of mitigating factors in</p> <p>11 terms of the quickness and the rapidity of that. If the</p> <p>12 hydrant is in easy access, it's not obstructed, if it's</p> <p>13 operable, then that's something that would be</p> <p>14 facilitated generally by the drivers of the fire</p> <p>15 engines.</p> <p>16 Q. Do you remember, Mr Dowden, where the hydrant was</p> <p>17 located that you plugged into?</p> <p>18 A. Not from memory, no.</p> <p>19 Q. Do you remember anything about any difficulties with</p> <p>20 access to it?</p> <p>21 A. No.</p> <p>22 Q. Do you remember any difficulties initially with water</p> <p>23 pressure?</p> <p>24 A. No.</p> <p>25 Q. Slightly different topic.</p> <p style="text-align: right;">Page 50</p>	<p>1 apparatus?</p> <p>2 A. I can't remember any significant visual or event that</p> <p>3 made me make that decision; it was more of a case of,</p> <p>4 you know, I know from input and training that high-rises</p> <p>5 can be quite challenging incidents, particularly for</p> <p>6 firefighters, resource-heavy in terms of personnel. So</p> <p>7 thinking -- it was more of a contingency than there was</p> <p>8 a particular event or, you know, a visual that I saw</p> <p>9 that made me make that decision.</p> <p>10 Q. Now, in your statement, a little bit lower down page 3,</p> <p>11 four lines up from the bottom, you say:</p> <p>12 "I briefed Crew Manager SECRETT, who was in charge</p> <p>13 of G272, of the information I had obtained from the male</p> <p>14 from Flat 16, and requested that he go to the second</p> <p>15 floor and establish the Bridgehead."</p> <p>16 Can you just explain the command structure at that</p> <p>17 moment?</p> <p>18 A. So the command structure was that I was the incident</p> <p>19 commander and I would remain at ground level to</p> <p>20 facilitate, you know, oncoming appliances/officers to</p> <p>21 give them their brief; and then Chris Secrett, who was</p> <p>22 to be in charge of the bridgehead, and that would be</p> <p>23 committing BA crews, to liaise obviously with myself on</p> <p>24 channel 1, making sure BA crews are on channel 6, and if</p> <p>25 he would need any more resources, that would have to</p> <p style="text-align: right;">Page 52</p>

<p>1 come through myself and I could further resource the</p> <p>2 incident.</p> <p>3 Q. Did you then send in two BA wearers to the fire</p> <p>4 compartment?</p> <p>5 A. Once we had the bridgehead set up and that was confirmed</p> <p>6 and we had confirmed water supply, which I did get</p> <p>7 traffic back from Crew Manager Secrett that was the</p> <p>8 case, I was happy for compartment entry to be made, yes.</p> <p>9 Q. It's a matter of record that you sent in Charlie</p> <p>10 Batterbee, the crew manager from G271, and Danny Brown,</p> <p>11 Firefighter Danny Brown, a firefighter from G271 as well</p> <p>12 to flat 16.</p> <p>13 A. That's correct.</p> <p>14 Q. That's right.</p> <p>15 Do you remember, how did they get into the tower?</p> <p>16 How did they get up into the tower?</p> <p>17 A. From memory, it would've been via the main entrance on</p> <p>18 the south elevation of the building.</p> <p>19 Q. Were you aware that the internal door needed</p> <p>20 an electronic key to get through the security system?</p> <p>21 A. From the familiarisation visit, I believe that</p> <p>22 information was surrendered, but at that moment in time</p> <p>23 when I was at the dynamic stages of the incident,</p> <p>24 I don't think I recall that, needing it, no.</p> <p>25 Q. So did nobody in your crew radio to you or tell you that</p> <p style="text-align: center;">Page 53</p>	<p>1 I just want to ask you about that.</p> <p>2 How did Mr Secrett inform you? Was it by radio?</p> <p>3 A. That's my recollection, yes.</p> <p>4 Q. That's a radio communication between the bridgehead and</p> <p>5 you as the incident commander, is it?</p> <p>6 A. Yes. I don't know if he would've been at the bridgehead</p> <p>7 at that point, because at that point he may be obviously</p> <p>8 trying to secure the fire lift, which would've been at</p> <p>9 ground-floor level.</p> <p>10 Q. You're quite right, my fault. But the radio that</p> <p>11 Mr Secrett had was a radio that he would've used and was</p> <p>12 intending to use -- is this right -- from the bridgehead</p> <p>13 once he had established it?</p> <p>14 A. That's correct.</p> <p>15 Q. Okay. And those communications between you and him by</p> <p>16 radio were working, were they, at that point?</p> <p>17 A. Up to that point, yes.</p> <p>18 Q. Just casting your mind back and looking at your</p> <p>19 statement, can you remember exactly what Mr Secrett said</p> <p>20 about the fire lift not working?</p> <p>21 A. From my recollection, referring to my statement, the</p> <p>22 traffic I received from Crew Manager Secrett was that he</p> <p>23 had tried to command the fire lift and he was unable to</p> <p>24 do that.</p> <p>25 Q. Did he explain to you what it was about the lift that</p> <p style="text-align: center;">Page 55</p>
<p>1 they couldn't get through from the main entrance into</p> <p>2 the lift lobby because the door was electronically</p> <p>3 secured?</p> <p>4 A. I don't recall that, no.</p> <p>5 Q. Okay.</p> <p>6 Once you've sent Firefighters Batterbee and Brown</p> <p>7 into the tower, where did you go or where did you stand?</p> <p>8 A. From my recollection, the majority of the early parts of</p> <p>9 that incident and throughout when I was incident</p> <p>10 commander, I was on the outside of the tower,</p> <p>11 particularly looking up at the east elevation of</p> <p>12 Grenfell Tower.</p> <p>13 Q. Now, it's a matter of record that Kensington 331 --</p> <p>14 G331, I should call it -- arrived at 1.08.</p> <p>15 Do you remember who the crew manager was on G331?</p> <p>16 A. I believe at that time it was Crew Manager Jamal Stern.</p> <p>17 Q. Jamal Stern. Do you remember being asked to check by</p> <p>18 anybody from G331 whether the fire was spreading?</p> <p>19 A. I can't recall that, no.</p> <p>20 Q. Okay.</p> <p>21 Now, at the top of page 4 of your statement, you</p> <p>22 say:</p> <p>23 "Once they had entered the building CM SECRETT</p> <p>24 informed me via the radio that the fire lift was not</p> <p>25 working."</p> <p style="text-align: center;">Page 54</p>	<p>1 wasn't working that should've been?</p> <p>2 A. I can't recall any further explanation, but my</p> <p>3 assumption would've been that -- how a firefighting lift</p> <p>4 works is that we take control of the -- we override that</p> <p>5 by using the lift key so we can utilise equipment,</p> <p>6 personnel, and also the rescue of casualties,</p> <p>7 particularly if it's on the upper floors within</p> <p>8 a high-rise block.</p> <p>9 Q. Yes.</p> <p>10 I'm going to come back to that at some point because</p> <p>11 I'm interested in it, but at the moment I just want to</p> <p>12 know what you were thinking and what you knew about what</p> <p>13 the lift could and couldn't do.</p> <p>14 So my question is: did Firefighter Secrett explain</p> <p>15 to you what it was about the lift that wasn't working as</p> <p>16 it should've been? Did he tell you what was wrong with</p> <p>17 it?</p> <p>18 A. Not from my memory, no.</p> <p>19 Q. Did it occur to you at the time that the lift wasn't in</p> <p>20 fact a full firefighting lift, to give you all the</p> <p>21 functionality of a firefighting lift?</p> <p>22 A. I wasn't aware at that time, no.</p> <p>23 Q. What assumptions did you make at the time about what the</p> <p>24 lift could do in terms of attacking the fire and</p> <p>25 carrying out search and rescue?</p> <p style="text-align: center;">Page 56</p>

<p>1 A. At that point, the fire -- you know, it provided us the 2 opportunity to not have to carry equipment and personnel 3 via the staircase, it gives us a quicker access to the 4 fire floors. 5 In the case of Grenfell Tower, the fire was on the 6 fourth floor, so the distance between the ground and 7 where we set up the bridgehead was only two floors. You 8 know, if the fire floor was further up the building, it 9 would've been more of an issue, if I'm honest. 10 Q. In terms of functionality, where you can take over or 11 take control, as you say, of the lift using the lift 12 key, what benefits would that bring you as fire crew in 13 terms of firefighting and search and rescue? 14 A. Initially, it's the speed of access to get to the 15 bridgehead, because obviously time is very, very key in 16 particularly high-rise fires. Also, we can leave the 17 lift at the bridgehead level, so if we rescue any 18 casualties, again, we have ease and rapidity of getting 19 the casualty out of the building and to a point of care. 20 Q. What about later on? What other benefits would having 21 control over the lift give you in terms of rescue? 22 A. Can you just repeat that question? 23 Q. What benefits would having complete control over the 24 lift give you in terms of rescue? 25 A. It would refer back to the same two points in terms of</p> <p style="text-align: right;">Page 57</p>	<p>1 of order? 2 A. No. 3 Q. What was the immediate impact on your firefighting plans 4 of the firefighting lift not working? 5 A. Initially there could've been a small delay in getting 6 equipment up to the bridgehead but, as I said, because 7 it was on the second floor, there was only a minimal 8 travel distance from ground to second floor. 9 Q. Is there, or was there, an LFB plan or strategy for what 10 should happen if the firefighting lift is out of order? 11 A. It's one of two things: you either have to utilise the 12 stairwell or, as in the case I believe on that night, 13 the crews, I believe, still actually used the lift to go 14 up to the bridgehead. 15 Q. If the lift was out of order and not being capable of 16 being brought under control of the Fire Brigade, what 17 would you do to minimise the risks to occupants using 18 it? 19 A. Looking at it now, the only thing we potentially could 20 do is isolate the power supply to it. I don't think 21 that was something that was done on that night. 22 Q. Would that be a normal thing to do? 23 A. Not normal, no. 24 Q. No. 25 Can I ask you this: how normal in your experience is</p> <p style="text-align: right;">Page 59</p>
<p>1 being able to get our personnel into the building and up 2 to the fire floors quicker. 3 In relation to Grenfell Tower, it was difficult 4 because the fire was on the fourth floor, so we 5 shouldn't really -- it's difficult -- you don't want to 6 be going beyond the fire floor in any lift in a fire in 7 a high-rise block. So it would only really be to 8 transport personnel/equipment up to the bridgehead 9 level, not beyond. 10 Q. In your experience, are there any risks to the occupants 11 of the building during a fire in allowing or leaving the 12 lift to be completely uncontrolled by the Fire Brigade? 13 A. Yes. 14 Q. What are they? 15 A. If it's completely uncontrolled by the Fire Brigade, 16 that could lead to potentially residents using the lift 17 in a fire, and potentially that's compromised, and then 18 where the residents or occupants of that block may open 19 the doors onto a fire floor or an area that is 20 compromised. So that's why we generally will take 21 command over it, so we can have control over that. 22 Q. So the consequences of the Fire Brigade not having 23 control of the lifts are serious, are they? 24 A. They can be, yes. 25 Q. Can be. Do you know why the firefighting lift was out</p> <p style="text-align: right;">Page 58</p>	<p>1 it when you arrive at a fire in a high-rise block to 2 find that the lifts are either out of order or not being 3 capable of being brought under LFB control? 4 A. In my own experience, I've not come across that before 5 in an operational incident, no. 6 Q. Right. 7 If the firefighting lift was out of order, how would 8 that affect firefighting operations in the event that 9 the fire didn't remain in its compartment of origin? 10 A. You know, the potential there is for residents still to 11 use that in the -- and obviously the advice is not to 12 use lifts in any fire incident, particularly in 13 high-rise blocks, but, you know, obviously residents 14 react differently in those situations; it's stressful, 15 it's disorientating. Potentially, if they use the lift, 16 that could expose them to real risk. 17 Q. Yes. So if things turned out that the fire had spread 18 beyond the compartment of origin -- in this case 19 flat 16 -- would your plan of action then take account 20 of the fact that the firefighting lift had failed? 21 A. Could you just repeat that? 22 Q. Certainly. 23 If things turned out that the fire had spread beyond 24 the compartment of origin -- flat 16, in this case -- 25 would your plan of action then seek to take account of</p> <p style="text-align: right;">Page 60</p>

<p>1 the fact that you didn't have a firefighting lift that</p> <p>2 worked?</p> <p>3 A. At the night of Grenfell Tower fire, when I received</p> <p>4 that information from Crew Manager Chris Secrett, it was</p> <p>5 very early on in the incident and, from my knowledge,</p> <p>6 the fire was still contained in the compartment, so</p> <p>7 I hadn't at that point in time made a plan. That hadn't</p> <p>8 come into my thought process, no.</p> <p>9 Q. Now, going back to your statement, you say, after the</p> <p>10 reference to the lift not working, that in high-rise</p> <p>11 incidents you set up the bridgehead two floors below the</p> <p>12 fire and you plug into the dry riser on the floor below.</p> <p>13 You've explained already this morning some of that</p> <p>14 practice.</p> <p>15 In the first main paragraph of page 4 of your</p> <p>16 statement, if we can just go to that -- I think we're on</p> <p>17 it -- you say that you received radio traffic from</p> <p>18 CM Secrett that the crew had plugged their hose in on</p> <p>19 the fire floor as the fire floor was not compromised at</p> <p>20 that point.</p> <p>21 Was that in accordance with normal firefighting</p> <p>22 strategy in a high-rise building?</p> <p>23 A. That's not as it is in policy 633. However, for me,</p> <p>24 it -- to change that decision would have meant that we'd</p> <p>25 have had to bring the crews back down another floor, so</p> <p style="text-align: center;">Page 61</p>	<p>1 A. I can't recall. The only information I remember</p> <p>2 receiving back was that they were plugging it in on the</p> <p>3 fire floor already.</p> <p>4 Q. So it looks as if, from what you're saying, he had gone</p> <p>5 up, looked at it, saw it was clear of smoke and then</p> <p>6 made the decision to plug into the dry riser there and</p> <p>7 then told you about it.</p> <p>8 A. That's correct.</p> <p>9 Q. Is that a fair summary?</p> <p>10 A. Yes. He's a competent officer.</p> <p>11 Q. Yes.</p> <p>12 A. And sometimes we have to do, you know, a recce, for want</p> <p>13 of a better word, to get a bit more of a situational</p> <p>14 awareness within that building, you know, what the</p> <p>15 conditions are like, and Chris being a responsible and</p> <p>16 competent officer, he made that decision and I will</p> <p>17 stand by that.</p> <p>18 Q. Yes.</p> <p>19 In the next sentence of your statement in the same</p> <p>20 paragraph you say:</p> <p>21 "I was happy for crews to be committed from the fire</p> <p>22 floor as I felt that we had to be aggressive in tackling</p> <p>23 this fire."</p> <p>24 Why did you feel you had to be aggressive in</p> <p>25 tackling this fire?</p> <p style="text-align: center;">Page 63</p>
<p>1 there would've been a further delay or a delay in making</p> <p>2 a compartment entry.</p> <p>3 So as an incident commander, I received that</p> <p>4 information from Chris Secrett. If the traffic had come</p> <p>5 back to me to say that, actually, no, the fire floor is</p> <p>6 compromised, you know, it is carbonaceous, there is</p> <p>7 smoke filling the environment, then, yes, I don't want</p> <p>8 my firefighters put in any undue risk, so I would've</p> <p>9 given the direction to make sure that they came to the</p> <p>10 floor below. But because that area was not compromised,</p> <p>11 I was happy -- I made that decision to continue with the</p> <p>12 firefighting operations from the fire floor.</p> <p>13 Q. But is it right that Mr Secrett would not have known</p> <p>14 whether the lobby on the fourth floor was compromised</p> <p>15 with smoke until he got there?</p> <p>16 A. Yes, that's correct.</p> <p>17 Q. But he was going there without water?</p> <p>18 A. At that point, yes, correct.</p> <p>19 Q. Yes.</p> <p>20 So how did it work? Did he go up to the fourth</p> <p>21 floor and then make the decision himself to plug into</p> <p>22 the dry riser there and then tell you afterwards, or did</p> <p>23 he brief you first as to the conditions on the fourth</p> <p>24 floor before he plugged into the dry riser on that</p> <p>25 floor?</p> <p style="text-align: center;">Page 62</p>	<p>1 A. I think referring back to the -- six weeks prior we had</p> <p>2 the incident at Trellick Tower. We had the water</p> <p>3 failure. I think that was an eye-opener that for me,</p> <p>4 particularly, as incident commander, I wanted to be on</p> <p>5 the -- you know, not to have those potential issues at</p> <p>6 this fire. I wanted to be on the ball, for want of</p> <p>7 a better word. And I know that within, you know,</p> <p>8 high-rise blocks, you have to try and -- you know, time</p> <p>9 is of the essence. You have to make a compartment entry</p> <p>10 quite quickly but safely, and I was conscious that</p> <p>11 I didn't want to further delay. If I was to bring the</p> <p>12 crews back down, that would be a further delay to make</p> <p>13 a compartment entry into flat 16.</p> <p>14 Q. So was there anything about this fire that would mean</p> <p>15 that you would adopt a more aggressive strategy in</p> <p>16 attacking it than you would normally?</p> <p>17 A. Not necessarily, no, not at that point.</p> <p>18 Q. Now, in the next sentence of your witness statement, you</p> <p>19 say:</p> <p>20 "I requested that a support crew were to go to the</p> <p>21 3rd floor to secure their water supply and progress to</p> <p>22 the 4th floor to support the initial firefighting crew."</p> <p>23 Does that mean that you asked the support crew to</p> <p>24 plug into the dry riser on the third floor as well?</p> <p>25 A. No. So that was still within the radio traffic between</p> <p style="text-align: center;">Page 64</p>

<p>1 me and Chris Secrett, because that -- as policy 633</p> <p>2 states, that's generally where -- or should -- the first</p> <p>3 initial crew should go and plug in one floor below the</p> <p>4 fire floor, but obviously because they plugged in onto</p> <p>5 the fire floor, where the backup crew -- so the roles</p> <p>6 are almost swapped. So I was very conscious we needed</p> <p>7 obviously to secure a safe access and ingress for crews</p> <p>8 into that compartment, and that they were to plug in on</p> <p>9 the floor below the fire floor, the third floor.</p> <p>10 Q. I follow, thank you. So that would mean that there</p> <p>11 would be effectively four firefighters -- two teams of</p> <p>12 two -- is this right -- using two hoses from two dry</p> <p>13 risers, one on the third floor and one on the fourth</p> <p>14 floor?</p> <p>15 A. That's correct.</p> <p>16 Q. Would that be normal for an apparently ordinary kitchen</p> <p>17 fire in a compartment in a high-rise building?</p> <p>18 A. That's the expectation, yes.</p> <p>19 Q. Yes.</p> <p>20 Now, just focusing a little bit more, if we can, on</p> <p>21 the use of dry risers on two floors, I just want to ask</p> <p>22 you a few questions about that.</p> <p>23 The first question is: what effect on the water</p> <p>24 pressure available in each hose would the simultaneous</p> <p>25 use of two dry risers have?</p> <p style="text-align: right;">Page 65</p>	<p>1 lobby would leak into the staircase?</p> <p>2 A. That's correct.</p> <p>3 Q. So in general terms, how would the practice of setting</p> <p>4 a hose into a dry riser on the third floor and then</p> <p>5 running it up to the fourth floor lobby keep the</p> <p>6 protected staircase protected from the ingress of smoke?</p> <p>7 A. Because of the way Grenfell Tower is set up, the dry</p> <p>8 riser outlets were in the flat lobby areas. Generally,</p> <p>9 the principle -- the dry riser outlet should be in</p> <p>10 a protected stairwell. Yes, there is going to be some</p> <p>11 compromise of that because we have to get water into</p> <p>12 a compartment and it may well come into a stairwell,</p> <p>13 but -- so if you, for the initial crew, plug in the</p> <p>14 floor below, if it was in a protected stairwell, not in</p> <p>15 a lobby area of the flats, they would plug it in in the</p> <p>16 protected stairwell, go to the floor above, and then</p> <p>17 into the fire floor.</p> <p>18 Q. So what would you say about the position of the dry</p> <p>19 riser outlets in Grenfell Tower in the lobbies? Would</p> <p>20 the position of those outlets be something that would</p> <p>21 affect your firefighting operations?</p> <p>22 A. Potentially.</p> <p>23 Q. Would the position of those outlets potentially affect</p> <p>24 the integrity of the single protected staircase in terms</p> <p>25 of whether it remained protected?</p> <p style="text-align: right;">Page 67</p>
<p>1 A. It shouldn't have any effect. The minimum</p> <p>2 requirement -- what a dry riser should allow us to do is</p> <p>3 provide 1,500 litres of water per minute. What we do is</p> <p>4 we charge that at ground-floor level from the pumping</p> <p>5 appliance, and that should be at 10-bar. That allows</p> <p>6 for frictional loss within the dry riser.</p> <p>7 So the firefighting jets we had working on the third</p> <p>8 and fourth floor, they should be set for firefighting</p> <p>9 operations at 230 litres per minute, so that's</p> <p>10 460 litres per minute. That shouldn't exhaust the</p> <p>11 requirements at 1,500 litres per minute.</p> <p>12 Q. Right. That's very clear.</p> <p>13 My next question is: would the use of the dry riser</p> <p>14 and a hose plugged into it on the third floor mean that</p> <p>15 your crew had to pull the hose up two flights of stairs</p> <p>16 in the protected staircase?</p> <p>17 A. That's correct. So sufficient hose would've had to have</p> <p>18 been laid out and then the firefighting crew would've</p> <p>19 made their way up to the fourth floor with a charged</p> <p>20 length. That's correct.</p> <p>21 Q. Would that result in the door on both the third and the</p> <p>22 fourth floor from the staircase into the lobbies on each</p> <p>23 floor being propped open by the hose?</p> <p>24 A. That's correct.</p> <p>25 Q. Would that mean that any smoke from the fourth floor</p> <p style="text-align: right;">Page 66</p>	<p>1 A. Yes.</p> <p>2 Q. Can I ask you to look at policy 633 again, which is in</p> <p>3 the policy bundle at tab 4.</p> <p>4 I've just got a couple of questions on this before</p> <p>5 I am going to ask the chairman to break, Mr Dowden.</p> <p>6 So if you look at policy 633, I'd like you to go,</p> <p>7 please, to paragraph 7.2 on page 9. This is under the</p> <p>8 heading "Operational procedure, Securing water supplies</p> <p>9 for firefighting".</p> <p>10 You can see paragraph 7.2, which is about a DRM,</p> <p>11 a dry rising main, and I want to ask you about the</p> <p>12 second part of that paragraph. It says:</p> <p>13 "When laid on stairways, hose should be positioned</p> <p>14 in such a way that it minimises obstruction."</p> <p>15 Were you aware when you attended Grenfell Tower of</p> <p>16 that requirement in policy 633?</p> <p>17 A. I would've been, yes.</p> <p>18 Q. Looking in the same policy, back a little bit at</p> <p>19 paragraph 2.43, which is on page 6:</p> <p>20 "Firefighting operations may breach firefighting</p> <p>21 lobbies increasing risk to occupants and impacting on</p> <p>22 personnel at the bridgehead."</p> <p>23 And then in the last sentence, it says:</p> <p>24 "It will be necessary to run hose lines onto</p> <p>25 protected routes and stairways to undertake firefighting</p> <p style="text-align: right;">Page 68</p>

<p>1 and this will allow smoke to spread into previously 2 unaffected areas of the building." 3 Were you aware of that risk identified in policy 633 4 when you attended Grenfell on the night of the fire? 5 A. I would've been aware, yes. 6 Q. Yes. Did you take any steps to ensure that the 7 obstruction that is identified in that policy could be 8 minimised? 9 A. It's difficult -- we can only work with what we're given 10 on the night in terms of what that building presents to 11 us. We have to have a water supply. We have to put 12 water onto that fire. We can only work with the 13 facilities that are given to us at that moment in time. 14 Yes, it's good practice in terms of obstruction as 15 well. I think that's referring to trying not to lay 16 hose in the middle of stairwells, try to tuck it against 17 a wall, particularly an inner wall, so if we do have 18 residents or firefighters exiting and entering that 19 staircase, there's less of a trip hazard for them. 20 That's a good practice. 21 But depending on the location of the dry riser 22 outlets, we have to have a confirmed water supply, so we 23 have to work with what we're given. 24 Q. How feasible would it ever have been to plug or set 25 a hose into a dry riser outlet on every floor or a lot</p> <p style="text-align: right;">Page 69</p>	<p>1 MR MILLETT: Mr Dowden, thank you very much. 2 Mr Chairman, is now a convenient moment for a break? 3 I'm going to turn to a different topic. 4 SIR MARTIN MOORE-BICK: Yes, we'll have a break. 5 I think perhaps on this occasion we'll take 6 15 minutes, and I would like to be back by 11.35 by that 7 clock. Not all the clocks are the same, so I am going 8 to go by that one. 9 Right, Mr Dowden, we'll have a break. I should have 10 reminded you earlier: please don't discuss your evidence 11 or this aspect of the inquiry's work while you're still 12 giving evidence. 13 THE WITNESS: Yes. 14 SIR MARTIN MOORE-BICK: All right? We'll come back in 15 15 minutes. 16 THE WITNESS: Thank you. 17 SIR MARTIN MOORE-BICK: Thank you very much. 18 (11.20 am) 19 (A short break) 20 (11.35 am) 21 SIR MARTIN MOORE-BICK: All right, we will get Mr Dowden 22 back. 23 (Pause) 24 All right, Mr Dowden? Happy to carry on? 25 THE WITNESS: Yes, thank you.</p> <p style="text-align: right;">Page 71</p>
<p>1 of floors in Grenfell Tower and not use the dry riser 2 from the floor below? How feasible would that ever have 3 been? 4 A. Could you just repeat that for me? 5 Q. How feasible would it ever have been to set into the dry 6 rising outlets on every floor in Grenfell Tower or on 7 every floor where there was a fire? 8 A. That's almost an impossible task. It's something 9 that's -- it's not designed -- the dry riser main is not 10 designed to do that. The expectation is, back to 11 compartmentation, that we'd only be really firefighting 12 on one floor. Okay, it may go up, we can firefight the 13 internal to the external one or two floors, but not to 14 plug hoses in on every single outlet in a high-rise 15 block, no. 16 It can be done, but it would be extremely difficult 17 and, the further you go up the building, the water 18 pressure would lessen. The output -- going back, it 19 only provides us 1,500 litres per minute. The more jets 20 you put in, that's going to affect the water supply. 21 Q. I can't resist: what would happen after you got above 22 50 metres? 23 A. The water supply would be almost nonexistent. 24 Q. Nonexistent? 25 A. I would say so, yes.</p> <p style="text-align: right;">Page 70</p>	<p>1 SIR MARTIN MOORE-BICK: Yes, Mr Millett. 2 MR MILLETT: Mr Dowden, could I ask you to look at page 4 of 3 your statement, and together let's look at paragraph 3, 4 which starts "I contacted G331". I wanted to look with 5 you at the sentence that says: 6 "At 0113 hours, I made the decision to further 7 resource the incident by making it pumps 6 and 8 aerials 1." 9 First question: what did you, when you did this 10 statement, base your timing on? 11 A. The timing was -- I got the timings from our 12 mobilisation system, Vision. I didn't have any 13 understanding or recollection of the actual timings, so 14 the only reference I had to that within my statement was 15 from a later point when I referred back to our 16 mobilising system. 17 Q. Where were you physically when you made that decision? 18 A. From my recollection, I believe I was still outside the 19 building at ground-floor level and on the east 20 elevation. 21 Q. What information was your decision to make pumps six 22 based on? 23 A. I don't remember any significant event or anything that 24 triggered it; it was more of a contingency plan, if I'm 25 honest. Having been at other high-rise incidents, to</p> <p style="text-align: right;">Page 72</p>

<p>1 have the additional resource for BA and an aerial</p> <p>2 appliance is a good practice.</p> <p>3 Q. Who were you with when you made that decision?</p> <p>4 Perhaps I should ask you a slightly different</p> <p>5 way: were you with anybody when you made that decision?</p> <p>6 A. From memory, I think the only person that I was around</p> <p>7 at that time was my driver, Firefighter Dan Bills, but</p> <p>8 I cannot -- that's not 100 per cent accurate. That's</p> <p>9 only what I can account now.</p> <p>10 SIR MARTIN MOORE-BICK: Yes.</p> <p>11 MR MILLETT: Do you remember speaking to anybody about the</p> <p>12 decision to make pumps six before you made it?</p> <p>13 A. I don't have any recollection of that, no.</p> <p>14 Q. Now, Mr O'Keefe has provided a witness statement which</p> <p>15 we're going to be looking at with him. But to be fair</p> <p>16 to you, I should just tell you what he says, and that's</p> <p>17 that he went up to you when he arrived in front of the</p> <p>18 tower and asked if you had made up the incident. He</p> <p>19 said that you said no and he said you should make it</p> <p>20 six.</p> <p>21 Do you remember that?</p> <p>22 A. I don't, no.</p> <p>23 Q. You don't.</p> <p>24 Now, in the next sentence in your witness statement,</p> <p>25 you say:</p> <p style="text-align: right;">Page 73</p>	<p>1 stream. We call that a trigger warning. So I'm going</p> <p>2 to repeat the trigger warning in relation to the</p> <p>3 Luke Bisby fire spread video. We are about to look at</p> <p>4 that video again -- not the whole of it, just a small</p> <p>5 portion of it -- but it does show fire on the exterior</p> <p>6 of Grenfell Tower. So anybody who feels uncomfortable</p> <p>7 about that should take steps to leave the room now or</p> <p>8 protect themselves.</p> <p>9 So, Mr Dowden, will you forgive me if I wait</p> <p>10 a minute to allow people to do that.</p> <p>11 In the meantime, can I ask Mr Trial Director to</p> <p>12 queue up the Bisby fire spread video at 1.12.04, or</p> <p>13 perhaps as close to 1.12 as you can accurately get.</p> <p>14 I'll just wait another 30 seconds, if I may,</p> <p>15 Mr Chairman, just to make sure that the trigger warning</p> <p>16 has been understood.</p> <p>17 SIR MARTIN MOORE-BICK: Yes. Also, we have to remember</p> <p>18 there are people watching in the other locations who</p> <p>19 might be leaving.</p> <p>20 MR MILLETT: That's right.</p> <p>21 (Pause)</p> <p>22 Now, before we start looking at the video,</p> <p>23 Mr Dowden, on the screen there we have a still</p> <p>24 effectively taken from the video, and this was taken by</p> <p>25 a member of the public -- in fact, it was Mr Kebede,</p> <p style="text-align: right;">Page 75</p>
<p>1 "At this point, it hadn't taken hold and I felt</p> <p>2 comfortable with what we were dealing with as the fire</p> <p>3 was still contained within the compartment and there</p> <p>4 were no persons within the flat."</p> <p>5 When you say "At this point, it hadn't taken hold",</p> <p>6 could you explain, please, what you mean by that?</p> <p>7 A. So from my point of view as incident commander, the</p> <p>8 resourcing level was okay. From my understanding, I was</p> <p>9 still dealing with a compartment fire within the tower</p> <p>10 block in flat 16, and from my understanding, my</p> <p>11 recollection, it was still contained within flat 16.</p> <p>12 Q. Could you see the exterior of flat 16 at that point?</p> <p>13 A. I believe I could, yes.</p> <p>14 Q. And what could you see, do you remember?</p> <p>15 A. It's difficult. There was a lot of information.</p> <p>16 I wouldn't specifically be able to give you in terms of</p> <p>17 what my actual visual was at that moment in time, no.</p> <p>18 It's difficult.</p> <p>19 Q. Now, Mr Dowden, this, as you might imagine, is not</p> <p>20 a memory test for you, so I'm going to show you some</p> <p>21 video evidence which might help your recollection. We</p> <p>22 can look at it together and then you can help me with</p> <p>23 some questions I have.</p> <p>24 Before I show it to you, I do have to make a warning</p> <p>25 for people in the room and who are watching the live</p> <p style="text-align: right;">Page 74</p>	<p>1 I think, at this point -- and this shows, I think, the</p> <p>2 east side of the tower and you can see the fire there at</p> <p>3 that point.</p> <p>4 Can you, just on this still, identify who the</p> <p>5 firefighters are on the ground in the foreground there?</p> <p>6 This is at 01.12.04.</p> <p>7 A. I can only presume that the firefighter on the jet, what</p> <p>8 we call the covering jet, was Firefighter Murphy, but</p> <p>9 that can't -- I can't 100 per cent be accurate on that.</p> <p>10 Q. What about the other firefighter?</p> <p>11 A. It could be Firefighter Charlie Cornelius, who was part</p> <p>12 of the crew from Golf 331 Kensington. Again, I cannot</p> <p>13 confirm that.</p> <p>14 Q. On the ground there -- and this is a point I have for</p> <p>15 later, but we can pick it up now -- in front of the east</p> <p>16 side of the tower, you can see what looks like</p> <p>17 a liquid -- water, perhaps. Can you help with what that</p> <p>18 might be?</p> <p>19 A. I can only presume that that is water from the covering</p> <p>20 jet.</p> <p>21 Q. When one sets into a hydrant or sets into a pump with</p> <p>22 a covering jet, is it normal to give a test first, so</p> <p>23 you'd do a spray before you apply the jet to the</p> <p>24 exterior of the building?</p> <p>25 A. That's correct, because obviously there will be air in</p> <p style="text-align: right;">Page 76</p>

<p>1 the hose line, so we have to obviously drain that out, 2 it'll make a sound, and once we get water at the 3 endpoint of the branch, but also to test the branch to 4 make sure it's working, go through a sort of set of test 5 procedures, flow rates and different settings, to make 6 sure actually the branch is operable, yes. That's 7 something that's a usual practice, that's correct.</p> <p>8 Q. Looking at the quantity of water that you can see on the 9 ground there, would that be consistent with such a test?</p> <p>10 A. That's difficult to say. It depends how long that test 11 was for. It's either one of two things: it's either 12 from the covering jet was working or it's from a test. 13 I wouldn't be able to confirm either.</p> <p>14 Q. Very good. I'm now going to ask that the video be 15 played, but not the entirety of it. I'll give a signal 16 when I want it to stop.</p> <p>17 (Video played)</p> <p>18 Right, can we stop.</p> <p>19 Now, that's the video, and you'll have heard that 20 there's audio in the background. What I'm going to do 21 is ask for that to be played again, but if you could 22 listen out for the audio and the voices that you hear, 23 which if they could be made louder would be better. I'm 24 going to ask you some questions about who is saying 25 what.</p> <p>Page 77</p>	<p>1 So, there. And go on a little bit further, you can 2 see a little bit more.</p> <p>3 (Video played)</p> <p>4 Could you see --</p> <p>5 A. Maybe an ember or something hit the floor. Yes.</p> <p>6 Q. Yes. Do you remember that point in the development of 7 the fire, at around 1.12, when embers started to come 8 out of the window?</p> <p>9 A. I can't be time specific. There was a point in my 10 statement where I said I did still -- I started to feel 11 uncomfortable, because I'd seen something that -- the 12 fire was behaving in a way I'd not seen how it was 13 behaving before, in terms of how it was reacting. 14 I refer to my statement: it was like magnesium was 15 burning, it was almost like sparking and spitting, and 16 that's not generally something I've seen on the external 17 of a building before.</p> <p>18 Q. We're going to come back to that in some detail later 19 on, but at this point, can I just ask you: at this point 20 in the fire, when pumps were being made six, had 21 anything changed so that you now thought you needed to 22 make pumps six as opposed to leaving them at the 23 original four?</p> <p>24 A. My recollection of the event at that time was that 25 when -- at the point I made it pumps six, I was still</p> <p>Page 79</p>
<p>1 So, Mr Trial Director, could we play that again, 2 please.</p> <p>3 (Video played)</p> <p>4 You can stop.</p> <p>5 Could you hear someone shouting?</p> <p>6 A. I could hear something, yes.</p> <p>7 Q. Now, people may disagree about this. To us it sounds 8 like "Mike, Mike, make it six now". Can you comment on 9 that?</p> <p>10 A. From that audio, I could not tell that that was what was 11 said, no.</p> <p>12 Q. Does this prompt any recollection about someone shouting 13 to you to make pumps six?</p> <p>14 A. I can't recall that, no.</p> <p>15 Q. All right.</p> <p>16 Can we run the video again. Before we do, I just 17 want you to look out for what you can see in terms of 18 the fire and the material coming from the fire.</p> <p>19 Could we play that again, please.</p> <p>20 (Video played)</p> <p>21 Could you see material falling from the window where 22 the fire was?</p> <p>23 A. Could you play that again for me, please?</p> <p>24 Q. Could we play that again, please.</p> <p>25 (Video played)</p> <p>Page 78</p>	<p>1 quite comfortable, it was more of a contingency thing. 2 That was my point. That's how I remember it on that 3 night.</p> <p>4 Q. And what about the addition of an aerial, an aerial 5 ladder? Had anything changed in the development of the 6 fire to prompt you to ask for an aerial ladder?</p> <p>7 A. Not from my recollection at that point, no.</p> <p>8 Q. Now, at that point, 1.12 or 1.13, either way, the point 9 at which pumps were made six plus an aerial ladder, 10 given that you were preparing to fight a high-rise fire 11 at a height up to the height that could be reached by 12 an aerial ladder, did you have any thoughts about 13 whether the stay-put policy in place at Grenfell Tower 14 remained appropriate?</p> <p>15 A. At that point of that VT?</p> <p>16 Q. Yes.</p> <p>17 A. I wouldn't, as an incident commander at that moment in 18 time, feel that I would need to change that, no.</p> <p>19 Q. Right.</p> <p>20 At the point at which you made pumps six, were you 21 concerned about what you had in front of you?</p> <p>22 A. From my recollection, referring to my statement, not at 23 that point, no.</p> <p>24 Q. Now, in the light of what we've seen in the video, which 25 is material falling down to the ground, can I just take</p> <p>Page 80</p>

<p>1 you to your statement. You say -- I think I've shown</p> <p>2 you -- in the seventh line down in the third paragraph</p> <p>3 on page 4:</p> <p>4 "At this point, it hadn't taken hold and I felt</p> <p>5 comfortable with what we were dealing with as the fire</p> <p>6 was still contained within the compartment ..."</p> <p>7 In light of what I've now shown you and what you</p> <p>8 call embers falling down to the ground, can you just</p> <p>9 explain why you say in your statement that the fire</p> <p>10 hadn't taken hold and that it was still contained in the</p> <p>11 compartment?</p> <p>12 A. I can only -- I was reacting to what I thought was</p> <p>13 happening at that moment in time. With everything that</p> <p>14 went on in that incident and everything that I had to</p> <p>15 deal with, everything I saw, the decisions I made, the</p> <p>16 sensory overload, my recollection at the time of that</p> <p>17 statement was that was my feeling.</p> <p>18 Q. I understand.</p> <p>19 At that point, had you had any information from any</p> <p>20 residents regarding the state of the fire or the smoke</p> <p>21 within the building?</p> <p>22 A. From my recollection, not at that point, no.</p> <p>23 Q. At that point -- and just to be clear, we're talking</p> <p>24 about the point at which you made pumps six -- did you</p> <p>25 make any assessment regarding the number and frequency</p> <p style="text-align: center;">Page 81</p>	<p>1 Q. Do you know what appliance the message was sent from?</p> <p>2 Do you remember?</p> <p>3 A. Not at that moment in time, no.</p> <p>4 Q. Can I ask you, please, to look, I think, at a document</p> <p>5 for the first time in your evidence, which is tab 23 of</p> <p>6 the bundle, which is the short incident log disclosed to</p> <p>7 us by the London Fire Brigade, which is MET00013830.</p> <p>8 To be fair to you, so you know what it is, it's</p> <p>9 a short version of a much longer document which</p> <p>10 identifies a number of messages in chronological order</p> <p>11 through the incident, and if you go, please, to page 17,</p> <p>12 you can see that a quarter of the way down, underneath</p> <p>13 or next to the time stamp of 1.13.39, "SAD, Make Up, IUP</p> <p>14 G331 MAKE PUMPS SIX AND ONE HP".</p> <p>15 That was amended 40 seconds or so later to</p> <p>16 "Amendment to one aerial".</p> <p>17 What I wanted to ask you about was, looking at the</p> <p>18 entry on this document, which we call the short incident</p> <p>19 log or the SIL, can you explain the message, "IUP G331</p> <p>20 MAKE PUMPS SIX AND ONE HP"?</p> <p>21 A. So that denotes that the initial make pumps six and the</p> <p>22 request for an aerial was sent by Golf 331, which was</p> <p>23 Kensington pump ladder.</p> <p>24 Q. Do you know why that would be?</p> <p>25 A. I can say that obviously they were in attendance at the</p> <p style="text-align: center;">Page 83</p>
<p>1 of any residents leaving Grenfell Tower?</p> <p>2 A. That's not something I can recall.</p> <p>3 Q. Let me ask a slightly simpler question: do you remember</p> <p>4 at that point seeing any residents or occupants leaving</p> <p>5 Grenfell Tower?</p> <p>6 A. Not that -- there may have been, but I can't remember</p> <p>7 taking note.</p> <p>8 Q. Now, according to Mr O'Keefe's contemporaneous notes, he</p> <p>9 had been told -- and we'll explore this with him -- by</p> <p>10 Firefighters Stern and Hippel that there was heavy smoke</p> <p>11 logging on the sixth floor and that he, O'Keefe,</p> <p>12 reported that to you and advised you to make pumps six.</p> <p>13 That's what he's recorded in his contemporaneous notes.</p> <p>14 Can you comment on that?</p> <p>15 A. I don't have any recollection of that, no.</p> <p>16 Q. Do you say that he's wrong or do you say that he's right</p> <p>17 but you can't remember?</p> <p>18 A. I'm not saying he's wrong, absolutely not. That may</p> <p>19 have been the case, that may have been his</p> <p>20 understanding, but I don't have any recollection of that</p> <p>21 event, no.</p> <p>22 Q. Can you explain the process whereby you made pumps six?</p> <p>23 A. From my understanding, it would have been -- I believe</p> <p>24 that I would've asked my driver, Firefighter Dan Bills,</p> <p>25 to send that message.</p> <p style="text-align: center;">Page 82</p>	<p>1 time, and whether -- obviously my perception of where</p> <p>2 that message went is incorrect and it went from</p> <p>3 Golf 331.</p> <p>4 Q. Right. Why would it go from G331 and not from the ICP,</p> <p>5 do you know?</p> <p>6 A. Because my explanation for that would be that obviously</p> <p>7 that was the dynamic stage of the incident, there was</p> <p>8 obviously -- personnel were at a minimum, and that was</p> <p>9 facilitated maybe by the driver of Golf 331.</p> <p>10 Q. Right.</p> <p>11 Do you remember what type of aerial was requested?</p> <p>12 There is an amendment from one HP, which I think -- is</p> <p>13 this right -- is high platform?</p> <p>14 A. Hydraulic platform.</p> <p>15 Q. Hydraulic platform, yes, and amended to one aerial.</p> <p>16 Do you remember what aerial you asked for?</p> <p>17 A. I don't think there were any specifics, whether it was</p> <p>18 a TL or an ALP, aerial ladder platform.</p> <p>19 Q. Okay. We may explore that with other people.</p> <p>20 You can put that away.</p> <p>21 Is it normal procedure for a watch manager to be in</p> <p>22 charge at a fire of more than four pumps?</p> <p>23 A. As policy states, no. Watch manager B should be up to</p> <p>24 four pumping appliances, with a monitoring officer of</p> <p>25 a station manager rank. Once it goes beyond that to six</p> <p style="text-align: center;">Page 84</p>

<p>1 pumping appliances, the monitoring officer at the rank 2 of station manager will effectively take over. 3 However, that -- there is -- you have to have 4 a little bit of a degree of flexibility in that because, 5 obviously, officers getting to the incident ground, 6 depending on how quick the make-up is -- there may be 7 a little bit of overhang in terms of how long, as 8 a watch manager, you're in charge of an incident. 9 Q. Right. Is it right that, according to LFB policy, 10 a six-pump fire requires two station managers and 11 a group manager as monitoring officer? 12 A. That's correct. 13 Q. Now, in your statement, if you go back to it, you say -- 14 this is just a sentence on from where we were before: 15 "G362 arrived and I directed the crew to go to the 16 Bridgehead with the breathing apparatus. I also 17 requested that G331 get a covering jet for the outside 18 of the flat where the fire was, in order to keep it 19 contained and stop it spreading above and below the 20 compartment." 21 I just want to ask you a question or two about that. 22 At this point in time, did you have any thoughts 23 about whether the fire was still within the compartment 24 or whether it had broken out of the compartment? 25 When I say "at this point", let me be clear: at the</p> <p style="text-align: center;">Page 85</p>	<p>1 Q. So I don't want to put words in your mouth, but do 2 I understand it this way: you had asked for the covering 3 jet to be put on the exterior because you saw there was 4 a real risk of the fire breaching out of the compartment 5 window? Is that fair? 6 A. Yes. 7 Q. Okay. 8 Now, again, you won't have seen this but I want to 9 ask you about it. Crew Manager Secrett says in 10 a statement that he has given us that he recalls that at 11 the point when the first BA crew -- which is 12 Charlie Batterbee and Daniel Brown -- were at the door 13 of flat 16, you radioed Crew Manager Secrett and told 14 him that the fire was breaking out of the window. 15 That's what he remembers. 16 A. Right. 17 Q. Do you remember that? Do you remember having that 18 conversation? 19 A. I remember there was traffic between me and Chris, 20 because I knew obviously we had a BA crew up on the 21 bridge or going up to the fire floor. At the point 22 where I started to feel uncomfortable, I think that's 23 when I sent some traffic into Chris on the bridgehead 24 and asked him, "Have we got a team within the 25 compartment, are they putting water on the fire?",</p> <p style="text-align: center;">Page 87</p>
<p>1 point at which you asked G331 to put a covering jet on 2 the outside. 3 A. It's difficult to pinpoint the exact time but, yes, the 4 fire did break out the compartment in terms of the 5 window, but that's not an uncommon thing in compartment 6 or building fires, and the way we counteract that is 7 to -- to suppress that fire spread is with external 8 covering jet to -- you know, we don't want to be putting 9 it into compartments, particularly where firefighters 10 are working, because that really can decrease the 11 conditions and risk the firefighters in the compartment, 12 but certainly above and below to stop any upward and 13 downward fire spread. 14 Q. So let me just see if I can ask the question again 15 a slightly different way. 16 At the point in time at which you asked G331 to put 17 a covering jet on the outside of the flat where the fire 18 was, did you have any thoughts about whether the fire 19 was still contained within the compartment or had broken 20 out? 21 A. No direct thoughts come to my mind, but it lends itself 22 to -- okay, it had come out of the compartment because 23 that's the job of the covering jet is to protect -- 24 sorry, to stop the spread of a compartment fire that has 25 potentially breached the window, yes.</p> <p style="text-align: center;">Page 86</p>	<p>1 because from what I could see on the outside, it was 2 developing. 3 I didn't know at that point that any facia or 4 exterior of the building was involved; I just thought 5 there was a developing compartment fire from the 6 window -- had breached the window and was coming out the 7 window. 8 Q. Right. 9 Can I just explore what you've just said, which is 10 that you just thought there was a developing fire, or 11 a developing compartment fire, that had come out from 12 the window. 13 So when a fire comes out of, in your experience, 14 a compartment window in a high-rise block, I think you 15 said before that that's not uncommon, but would that, to 16 you, mean a breach of compartmentation? 17 A. Not specifically, because that's on the external -- for 18 me, the compartmentation is the internal part, you know, 19 the internal part of the building. So, for me, as 20 an incident commander on the outside, I wouldn't be too 21 concerned if a fire had breached a window because, you 22 know, I would be -- my assumption was that we could 23 tactically control that from the ground, particularly at 24 the fourth floor level, with a covering jet. 25 Q. So the exit of flames from the window, would that be</p> <p style="text-align: center;">Page 88</p>

<p>1 a game-changer in terms of your strategy, or not?</p> <p>2 A. Not at that point. The only change of strategy which we</p> <p>3 had in place was to implement a covering jet.</p> <p>4 Q. Now, let's just go to the question of the covering jet.</p> <p>5 Crew Manager Secrett says in his statement that you</p> <p>6 told him that you wanted to put a covering jet on the</p> <p>7 exterior. Do you remember it that way?</p> <p>8 A. Not to those exact words. You know, the purpose of the</p> <p>9 covering jet is to stop the external fire spread, but</p> <p>10 also to cool any gases that are exiting from the</p> <p>11 building as well.</p> <p>12 My recollection was that I was hoping that we could</p> <p>13 not put it into the compartment but put it above and</p> <p>14 beyond the compartment to stop any external fire spread</p> <p>15 that potentially could occur.</p> <p>16 Q. He says in his statement that he, Crew Manager Secrett,</p> <p>17 told you not to put a covering jet on because the BA</p> <p>18 crew was just about to make entry into the flat. Do you</p> <p>19 remember it that way?</p> <p>20 A. I don't remember that. I don't remember those</p> <p>21 specifics, no.</p> <p>22 The only thing I really quite remember about the</p> <p>23 covering jet is that particularly -- and I've had this</p> <p>24 confirmed by Des Murphy, who is a firefighter who was at</p> <p>25 Kensington at the time, he's now at my watch, North</p> <p style="text-align: center;">Page 89</p>	<p>1 Q. Now, Crew Manager Secrett says in his statement --</p> <p>2 I just want to put this to you so as to get your</p> <p>3 recollection -- that he told you to put the jet above or</p> <p>4 below the window but not into it. He says he was the</p> <p>5 one who said that. Do you recall that?</p> <p>6 A. Again, with everything that -- you know, the initial</p> <p>7 officers dealing with the fire that night, we gave a lot</p> <p>8 of direction, we gave a lot of orders, we had to make</p> <p>9 a lot of quick and dynamic decisions. Everyone's</p> <p>10 perception of what they did that night is going to be</p> <p>11 quite different from each -- and I have to be true to my</p> <p>12 account and Chris has to be true to his account.</p> <p>13 Q. Yes. That's very fair.</p> <p>14 Can I then look a little bit down the page -- and</p> <p>15 this is also at the top of page 5 -- you say:</p> <p>16 "I knew that the crews were now tackling the fire.</p> <p>17 Within the compartment but I noticed that the fire had</p> <p>18 now breached the window of the flat on the 4th floor and</p> <p>19 was starting to affect the external facia of the</p> <p>20 building."</p> <p>21 Now, can you remember whether your discussion with</p> <p>22 Crew Manager Secrett about the covering jet was before</p> <p>23 you first saw that the fire had breached the window of</p> <p>24 the flat, or after it?</p> <p>25 A. I can't confirm that. That's difficult.</p> <p style="text-align: center;">Page 91</p>
<p>1 Kensington Red Watch -- my instruction was: don't put it</p> <p>2 in a compartment, just put it above and beyond.</p> <p>3 Going back to -- if we put a covering jet into a</p> <p>4 compartment as firefighters, that's going to pose</p> <p>5 a serious risk and increase the risk to firefighters</p> <p>6 within the compartment, because of -- without going too</p> <p>7 much into science, the expansion rate of water to steam</p> <p>8 is 1,700 to 1, so you are really, really going to put</p> <p>9 a real risk to firefighters in any compartment if we put</p> <p>10 water into it where they are.</p> <p>11 Q. Yes. You say that in your statement in the passage</p> <p>12 I think we've just highlighted, in fairness to you:</p> <p>13 "It was necessary to aim water above and below the</p> <p>14 compartment ..."</p> <p>15 You see where it says that?</p> <p>16 A. Yes.</p> <p>17 Q. "... but not directly into it as that could affect the</p> <p>18 fire fighters working within the compartment."</p> <p>19 Do you see that?</p> <p>20 First question: was that your thinking at the time?</p> <p>21 A. Yes.</p> <p>22 Q. And was that the subject of a conversation that you had</p> <p>23 with Crew Manager Secrett?</p> <p>24 A. From my recollection -- I beg your pardon -- from my</p> <p>25 recollection, yes.</p> <p style="text-align: center;">Page 90</p>	<p>1 Q. Right. Just to see if I can jog your recollection,</p> <p>2 Mr Secrett says that it was after you first saw that,</p> <p>3 and we'll explore with him how he knows that. But</p> <p>4 assuming he's right about that, what's your</p> <p>5 recollection?</p> <p>6 A. I can't be time-specific. I know that traffic happened</p> <p>7 but I really can't pinpoint in terms of when that</p> <p>8 happened or in relation to Chris's statement.</p> <p>9 Q. Again, Mr Dowden, that's very fair and this is not</p> <p>10 a memory test. It's just that we have to go through</p> <p>11 some of these details.</p> <p>12 A. I appreciate that.</p> <p>13 Q. Having spoken to Crew Manager Secrett about the jet, did</p> <p>14 you give any instructions as to where the jet should be</p> <p>15 aimed?</p> <p>16 A. As previously discussed, for me, it was, you know, above</p> <p>17 and below the compartment of origin, but not to be put</p> <p>18 directly into the compartment.</p> <p>19 Q. Right. And who did you give those instructions to, do</p> <p>20 you remember?</p> <p>21 A. From my memory, it was Firefighter Des Murphy, who was</p> <p>22 on the initial covering jet crew.</p> <p>23 Q. Anybody else?</p> <p>24 A. There was another firefighter on the jet, and I believe</p> <p>25 it was firefighter Charlie Cornelius, but I can't</p> <p style="text-align: center;">Page 92</p>

<p>1 confirm that.</p> <p>2 MR MILLETT: Cornelius.</p> <p>3 Now, I'm going to show you another clip of the</p> <p>4 Luke Bisby video, this time at 01.12.15, and I'll let it</p> <p>5 run on over into the next clip.</p> <p>6 I am not sure if I need, Mr Chairman, to repeat the</p> <p>7 trigger warning every time we go to a clip. It's</p> <p>8 probably sensible.</p> <p>9 SIR MARTIN MOORE-BICK: I think it would be, because we</p> <p>10 don't know if someone has come in not just to this room,</p> <p>11 but to one of the other rooms.</p> <p>12 MR MILLETT: Mr Dowden, will you bear with us while we just</p> <p>13 give the trigger warning again.</p> <p>14 We're about to show another section of the</p> <p>15 Luke Bisby fire spread clip, which shows scenes of</p> <p>16 Grenfell Tower on fire on the night. If anybody feels</p> <p>17 uncomfortable about viewing those, they should take</p> <p>18 steps not to view them now.</p> <p>19 We'll allow another 30 seconds to elapse,</p> <p>20 Mr Chairman, if that's enough.</p> <p>21 SIR MARTIN MOORE-BICK: Yes, thank you.</p> <p>22 MR MILLETT: While we're just waiting, Mr Dowden, what I'm</p> <p>23 going to do -- these are the things to look out for --</p> <p>24 I'd like you to look out for two things in the</p> <p>25 sequences: the timing of the covering jet going on and,</p> <p style="text-align: right;">Page 93</p>	<p>1 A. It's difficult to say. I don't have -- didn't have</p> <p>2 a timeline running and ... but if I'm honest, I thought</p> <p>3 the covering jet was up and working before that point</p> <p>4 from my recollection at that moment in time.</p> <p>5 Q. That's very fair. Can we just move --</p> <p>6 SIR MARTIN MOORE-BICK: Before we move on, can I just ask,</p> <p>7 in the centre of those three pictures there, it might be</p> <p>8 the case that there's someone wearing a white helmet,</p> <p>9 and if that is the case, do you think that might be you?</p> <p>10 A. That would be me, yes.</p> <p>11 SIR MARTIN MOORE-BICK: You think it is you?</p> <p>12 A. Yes.</p> <p>13 SIR MARTIN MOORE-BICK: All right, thank you.</p> <p>14 MR MILLETT: Okay.</p> <p>15 So did you have a good view of the covering jet</p> <p>16 going onto the window and the material coming off the</p> <p>17 window?</p> <p>18 A. As it stands in those images, then yes.</p> <p>19 Q. Then if we go on just a little bit further with the</p> <p>20 clip, we'll see the covering jet being applied.</p> <p>21 (Video played)</p> <p>22 About 1.15.53, and there it goes on.</p> <p>23 Now, we'll come to the next clip shortly, but my</p> <p>24 question is whether -- I think you've answered this, but</p> <p>25 I just want to get it absolutely clear, having shown you</p> <p style="text-align: right;">Page 95</p>
<p>1 secondly, any burning material coming off the building.</p> <p>2 Those are the two things we're just trying to get</p> <p>3 a handle on.</p> <p>4 Mr Trial Director, if you could now play the loop</p> <p>5 starting at 01.12.15.</p> <p>6 (Video played)</p> <p>7 Right, thank you.</p> <p>8 Perhaps play the beginning of the next, if you</p> <p>9 would, as well.</p> <p>10 (Video played)</p> <p>11 Stop there. Thank you very much.</p> <p>12 Now, Mr Dowden, I want to ask you a number of</p> <p>13 questions about the sequence we've just seen. I'll ask</p> <p>14 you first of all to look at this and answer a question</p> <p>15 of whether you see any covering jet on the building at</p> <p>16 the start of the sequence.</p> <p>17 If we can just play the first part of the sequence.</p> <p>18 Just look out for the timing as to when the jet goes on.</p> <p>19 (Video played)</p> <p>20 So at the moment, 1.15.39, we see no jet. Is that</p> <p>21 right?</p> <p>22 Just pause there.</p> <p>23 So far, 1.15.47, we see no jet on the outside of the</p> <p>24 window, and we see there is burning material coming off.</p> <p>25 Does that accord with your recollection?</p> <p style="text-align: right;">Page 94</p>	<p>1 the whole of the clip -- that was the first time that</p> <p>2 the jet goes onto the exterior, or whether there's</p> <p>3 an earlier point in the development of the fire before</p> <p>4 burning material comes down from the window that the jet</p> <p>5 was being applied.</p> <p>6 A. I can't recall two separate times that the jet was</p> <p>7 working. You know, my recollection was that I was</p> <p>8 concerned with the development of the fire on the</p> <p>9 outside. I spoke and had traffic with Crew Manager</p> <p>10 Chris Secrett wanting to get a covering jet up, but not</p> <p>11 into the compartment. The plan was to make sure that we</p> <p>12 could get it above and below, and that's the instruction</p> <p>13 I gave to the covering jet crew.</p> <p>14 I can't be time-specific, but that's my recollection</p> <p>15 of that event at that time.</p> <p>16 Q. Right.</p> <p>17 Now, I am going to ask for the clip to be played</p> <p>18 once more. The question I have for you is, as we look</p> <p>19 at it, whether the jet was being applied below the</p> <p>20 compartment or above the compartment.</p> <p>21 (Video played)</p> <p>22 So from that clip, does that prompt a recollection</p> <p>23 as to where the jet was being aimed?</p> <p>24 A. In that image there, it looks like it -- it's difficult</p> <p>25 because of the development of the fire. It looks like</p> <p style="text-align: right;">Page 96</p>

<p>1 it's pointing at the base of where the fire is.</p> <p>2 Q. Right. The base.</p> <p>3 A. It does look -- there, yes. But my recollection was</p> <p>4 that, you know, my instruction was above and below the</p> <p>5 compartment, but from that image there, it looks like</p> <p>6 it's at the base.</p> <p>7 Q. After the sequence we've just seen, do you remember</p> <p>8 whether you stayed there to continue to monitor what the</p> <p>9 firefighters aiming the jet on the exterior were doing,</p> <p>10 or did you move away and go and do another task?</p> <p>11 A. Again, I wouldn't be able to be time-specific. I know</p> <p>12 I was quite mobile, particularly on that ground-floor</p> <p>13 area. I didn't stay in one position. I wasn't static;</p> <p>14 I was very mobile, pacing to -- yeah, I -- without -- if</p> <p>15 there's any images or video that -- otherwise I was</p> <p>16 quite mobile and walking around, so I don't think I was</p> <p>17 static in one position for a long period of time.</p> <p>18 Q. No.</p> <p>19 Now, we're going to come back to the next sequence</p> <p>20 in just a moment, so the same trigger warning will</p> <p>21 continue to apply throughout the next 5 or 10 minutes or</p> <p>22 so, Mr Chairman, if that's all right.</p> <p>23 Can I just ask you this: can you please look at</p> <p>24 page 4 of your statement, back to page 4. It's</p> <p>25 a sentence we've already looked at, seven lines up from</p> <p style="text-align: right;">Page 97</p>	<p>1 Q. I understand.</p> <p>2 By this point in time, when we see the covering jet</p> <p>3 going on and the burning material coming off, about</p> <p>4 1.15, did you consider the risk of failure of</p> <p>5 compartmentation around flat 16? When I say "around",</p> <p>6 I mean anywhere in relation to flat 16?</p> <p>7 A. The only reference I have to that, the external -- in</p> <p>8 terms of the window that had failed and the -- obviously</p> <p>9 the fire was developing outside that compartment on the</p> <p>10 external of the building.</p> <p>11 Q. Do you remember seeing the burning material coming off</p> <p>12 the building at about that point?</p> <p>13 A. I remember seeing -- this is the point where I started</p> <p>14 to feel uncomfortable in terms of how the fire was</p> <p>15 behaving and reacting on the external, as I refer to in</p> <p>16 my statement. You know, it was sparking, spitting and</p> <p>17 reacting like when magnesium burns. So that's the only</p> <p>18 real reference that I can say when I saw -- maybe that</p> <p>19 was my reference in terms of stuff -- the debris falling</p> <p>20 from the building.</p> <p>21 Q. Okay. I am going to come back to that in just a moment.</p> <p>22 But at the moment when you saw the material coming</p> <p>23 off the building like that, did you assess the risk of</p> <p>24 breach of compartmentation?</p> <p>25 A. The only reference I can make to that is just -- I don't</p> <p style="text-align: right;">Page 99</p>
<p>1 the bottom of page 4, after the sentence "It was</p> <p>2 necessary to aim water above and below the compartment",</p> <p>3 et cetera, then you say:</p> <p>4 "At this point the fire was still in the</p> <p>5 compartment, but the window had failed, in that it had</p> <p>6 broken."</p> <p>7 Do you see that?</p> <p>8 I just want to ask you about that.</p> <p>9 This is at the point when the exterior jet is being</p> <p>10 applied.</p> <p>11 In the video we saw that there was burning material</p> <p>12 coming off the window at the moment when the jet was</p> <p>13 being applied.</p> <p>14 Now, if that was the first time that the exterior</p> <p>15 jet was being applied, is it right that the fire was</p> <p>16 still within the compartment?</p> <p>17 A. Sorry, could you repeat that question, please?</p> <p>18 Q. Yes. Having seen the video and the burning material</p> <p>19 coming off the building at the moment when the exterior</p> <p>20 jet was applied, is it right to say that at that point</p> <p>21 the fire was still in the compartment?</p> <p>22 A. Looking at the images we've seen, then it looks like the</p> <p>23 fire exited out the compartment, but at that moment in</p> <p>24 time when I made that statement, that was my</p> <p>25 recollection of events.</p> <p style="text-align: right;">Page 98</p>	<p>1 remember having a conscious decision on that, but</p> <p>2 because I had the covering jet out, you know, for me</p> <p>3 that was the control measure to try and negate any fire</p> <p>4 spread on the external of that building.</p> <p>5 Q. Now, we're going to come back to what happens next in</p> <p>6 terms of fire spread in a moment and your feeling</p> <p>7 uncomfortable, I want to ask you about that, but before</p> <p>8 we do, can I just ask Mr Trial Director to roll the film</p> <p>9 on again. I just want to ask one or two questions about</p> <p>10 the exterior jet again.</p> <p>11 If you start at 16, I want you to follow this</p> <p>12 through, please, watch the exterior jet and then listen</p> <p>13 out also for the audio.</p> <p>14 Just to say, the trigger warning I gave 5 minutes</p> <p>15 ago still remains in place.</p> <p>16 SIR MARTIN MOORE-BICK: Yes.</p> <p>17 (Video played)</p> <p>18 MR MILLETT: Just pausing there, what can you see from that</p> <p>19 video about where the jet is being aimed?</p> <p>20 A. It's being aimed at the -- from that VT, at the base of</p> <p>21 where the fire is.</p> <p>22 Q. The base, so not above?</p> <p>23 A. No.</p> <p>24 Q. Can you continue, please.</p> <p>25 (Video played)</p> <p style="text-align: right;">Page 100</p>

<p>1 Right, now, in that clip, we can see -- perhaps just</p> <p>2 play it again, because it looks as if you can see the</p> <p>3 hose stream being applied below the window and a voice</p> <p>4 saying, "It's not high enough".</p> <p>5 Could you just play that again, please.</p> <p>6 (Video played)</p> <p>7 Right, just pause there.</p> <p>8 We heard the voice saying, "It's not high enough",</p> <p>9 and you can see the hose stream being applied below the</p> <p>10 window.</p> <p>11 Can you comment on the voice that says "It's not</p> <p>12 high enough"? If you had seen that -- first of all, did</p> <p>13 you see that at the time? Did you see the hose stream</p> <p>14 being applied below the window as opposed to above the</p> <p>15 window?</p> <p>16 A. It's not something I have a clear memory of at that</p> <p>17 moment in time on that incident ground. I didn't hear</p> <p>18 the visual -- that audiovisual, "It's not high enough,</p> <p>19 it's not high enough".</p> <p>20 Q. No. I mean, assuming it's a member of the public saying</p> <p>21 "It's not high enough", can you comment on that?</p> <p>22 Let me ask the question: what would a member of the</p> <p>23 public know about where to aim an exterior jet and then</p> <p>24 say, "It's not high enough"?</p> <p>25 A. It's a member of the public's own reaction to what</p> <p style="text-align: right;">Page 101</p>	<p>1 floor where the fire was.</p> <p>2 It may be it was, it may be it wasn't, but I just</p> <p>3 wondered what you would say about that.</p> <p>4 A. At the time that the fire -- I ordered the covering jet,</p> <p>5 or the covering jet was working, I was confident that</p> <p>6 the resource we had there would be sufficient to try to</p> <p>7 suppress that fire in a normal compartment fire in</p> <p>8 a high-rise building known -- as I know it to be</p> <p>9 constructed.</p> <p>10 SIR MARTIN MOORE-BICK: So you think there was a fair chance</p> <p>11 that you could've got water onto the level above where</p> <p>12 the flat on fire was?</p> <p>13 A. At that moment in time, that would have been my</p> <p>14 thinking, yes.</p> <p>15 SIR MARTIN MOORE-BICK: Right, thank you.</p> <p>16 Shall we have a short break then, please? Let's say</p> <p>17 resume 12.35. All right?</p> <p>18 (12.27 pm)</p> <p>19 (A short break)</p> <p>20 (12.34 pm)</p> <p>21 SIR MARTIN MOORE-BICK: Yes.</p> <p>22 Now, Mr Dowden, I understand that you would welcome</p> <p>23 a break at this point.</p> <p>24 Mr Millett, I was going to suggest that we might</p> <p>25 rise for an early lunch now, but resume at 1.45 instead</p> <p style="text-align: right;">Page 103</p>
<p>1 they've seen in front of them. But, again, in that</p> <p>2 moment of that incident, with the resources we had -- we</p> <p>3 would try and do what we can with the resources. We had</p> <p>4 that jet, and at that point in time, it didn't look like</p> <p>5 it was effective.</p> <p>6 Q. Did you go back and take steps to ensure that the</p> <p>7 covering jet was aimed above the window?</p> <p>8 A. I can't recall that, no.</p> <p>9 MR MILLETT: Okay.</p> <p>10 Mr Chairman, I think now may be an appropriate</p> <p>11 moment for a 5-minute break.</p> <p>12 SIR MARTIN MOORE-BICK: We'll have a break in just a second.</p> <p>13 I'd like to ask one question, or perhaps more than one.</p> <p>14 I assume there's a maximum height to which</p> <p>15 a covering jet like that can reach. Do you happen to</p> <p>16 know what it is?</p> <p>17 A. I would say the maximum you would be looking at,</p> <p>18 depending on what water pressure you can get, is</p> <p>19 probably a maximum of -- that's probably about its</p> <p>20 maximum, about four floors, if I'm honest. It may be</p> <p>21 more. I mean, I couldn't give you an exact in terms of</p> <p>22 height.</p> <p>23 SIR MARTIN MOORE-BICK: Well, no, but I just wondered</p> <p>24 whether, in your own opinion, it would be possible for</p> <p>25 a covering jet to be playing on the floor above the</p> <p style="text-align: right;">Page 102</p>	<p>1 of 2 o'clock, thereby giving a slightly longer break for</p> <p>2 lunch without losing too much time. Would that</p> <p>3 inconvenience you?</p> <p>4 MR MILLETT: Not at all, Mr Chairman.</p> <p>5 SIR MARTIN MOORE-BICK: Then, Mr Dowden, we'll do that.</p> <p>6 We'll have a slightly longer lunch break, but we'll take</p> <p>7 it now and resume at 1.45.</p> <p>8 THE WITNESS: Thank you.</p> <p>9 SIR MARTIN MOORE-BICK: If you're all right to do that?</p> <p>10 THE WITNESS: Yes.</p> <p>11 SIR MARTIN MOORE-BICK: Please remember not to talk about</p> <p>12 your evidence during the break.</p> <p>13 THE WITNESS: Thank you.</p> <p>14 SIR MARTIN MOORE-BICK: All right? Thank you very much.</p> <p>15 Okay.</p> <p>16 (12.36 pm)</p> <p>17 (The short adjournment)</p> <p>18 (1.45 pm)</p> <p>19 SIR MARTIN MOORE-BICK: Mr Dowden is on his way, Mr Millett.</p> <p>20 MR MILLETT: I hope so.</p> <p>21 (Pause)</p> <p>22 SIR MARTIN MOORE-BICK: All right, Mr Dowden? Happy to</p> <p>23 continue?</p> <p>24 THE WITNESS: Yes.</p> <p>25 SIR MARTIN MOORE-BICK: Thank you very much.</p> <p style="text-align: right;">Page 104</p>

<p>1 Mr Millett.</p> <p>2 MR MILLETT: Mr Dowden, before we broke for lunch, you were</p> <p>3 asked a question I think by the chairman about water</p> <p>4 pressure in a covering jet and its maximum reach.</p> <p>5 In your experience, are there any issues which</p> <p>6 impact on water pressure in a covering jet which might</p> <p>7 affect its maximum reach?</p> <p>8 A. The only real effect on that would be the amount of hose</p> <p>9 on that covering jet, depending on the size of that</p> <p>10 hose. So as we referred to earlier, a 70-millimetre</p> <p>11 length of hose, the frictional loss on that would be 0.2</p> <p>12 of a bar. The 45-millimetre length, which I believe</p> <p>13 that covering jet was on the fire ground that evening,</p> <p>14 the frictional loss is 1 bar per length of hose.</p> <p>15 So that's the only real sort of issue you're going</p> <p>16 to have against your pressure at the branch.</p> <p>17 Q. Right. When you say per length of hose, how long do</p> <p>18 you mean?</p> <p>19 A. 23 metres. Both the 70-millimetre hose and the</p> <p>20 45-millimetre hose are 23 metres in length.</p> <p>21 Q. Right. Thank you.</p> <p>22 Secondly, at the time when the covering jet was</p> <p>23 being applied, did either Firefighter Murphy or</p> <p>24 Cornelius tell you about whether they could or couldn't</p> <p>25 reach above the window in flat 16?</p> <p style="text-align: center;">Page 105</p>	<p>1 referring to, it's about a third of the way down the</p> <p>2 page under, "Informative". Do you see? "Informative,</p> <p>3 SUP FROM G272 RESIDENTIAL BLOCK OF FLATS".</p> <p>4 That message there, Mr Dowden, is that the message</p> <p>5 that you're referring to in your witness statement?</p> <p>6 A. That's correct.</p> <p>7 Q. So we can put a time on that of 01.16.02.</p> <p>8 You can see an initial in the "Op" column, "SAD".</p> <p>9 Do you know who that might be?</p> <p>10 A. I can only assume that would be the control room</p> <p>11 operator who took that informative message.</p> <p>12 Q. Right.</p> <p>13 What does "SUP FROM G272" mean? Do you know?</p> <p>14 A. I wouldn't have -- understand what the "SUP" stands for,</p> <p>15 but obviously from is -- that message is from Golf 272</p> <p>16 on the incident ground.</p> <p>17 Q. According to your statement, you asked Crew Manager Dave</p> <p>18 Davies from G362 to send that message, but it looks as</p> <p>19 if it came from G272. Can you explain why that was?</p> <p>20 A. Just because I tasked an officer and he was from</p> <p>21 a different station doesn't mean he has to specifically</p> <p>22 send it from his machine. At that moment in time, as we</p> <p>23 referred to earlier, Golf 272 was the incident command</p> <p>24 pump.</p> <p>25 Q. It says in the message that you implemented the</p> <p style="text-align: center;">Page 107</p>
<p>1 A. I can't recall a conversation of that respect taking</p> <p>2 place, no.</p> <p>3 Q. So they didn't come to you and say, "Well, we know you</p> <p>4 told us to put water above flat 16, but we can't because</p> <p>5 there's no pressure or too little pressure"?</p> <p>6 A. I can't confirm that occurred. My recollection is that</p> <p>7 I don't remember that, no.</p> <p>8 Q. Okay.</p> <p>9 Now, in your statement, if you could go back to it</p> <p>10 please, at page 4, 6 lines up from the bottom, you see</p> <p>11 the sentence just after the sentence:</p> <p>12 "At this point the fire was within the compartment,</p> <p>13 but the window had failed, in that it had broken."</p> <p>14 Then you say:</p> <p>15 "I then asked CM Dave DAVIES from G362 to send an</p> <p>16 informative message to control stating 'Residential</p> <p>17 Block of flats, 20 plus floors, 25 meters by 25 meters,</p> <p>18 high rise procedure implemented, 5 room flat on the 4th</p> <p>19 Floor, 75% alight, MDT in use, tactical mode Oscar.'"</p> <p>20 And you explain what tactical mode Oscar is.</p> <p>21 I just want get a precise fix on that time with you</p> <p>22 and then we'll move on.</p> <p>23 Could you turn to bundle of documents tab 23, which</p> <p>24 is the short incident log. In that document, if we go</p> <p>25 to page 17, if you focus on the message that you're</p> <p style="text-align: center;">Page 106</p>	<p>1 high-rise procedure, and I think you explained this</p> <p>2 morning what that was.</p> <p>3 Can I just ask you why the message seems to suggest</p> <p>4 that you implemented that at 1.16.02 and not on arrival?</p> <p>5 A. Because when we arrive on the scene at an incident, we</p> <p>6 haven't -- I haven't had time to do my dynamic risk</p> <p>7 assessment in terms of choosing the safe system of work,</p> <p>8 referencing to policies and procedures. That message</p> <p>9 can only be sent when we've committed personnel to the</p> <p>10 risk environment or to the hazard area and I've</p> <p>11 implemented a safe system of work following the</p> <p>12 decision-making model as well.</p> <p>13 Q. If you continue to look in page 17 of the short incident</p> <p>14 log, you can see that two entries above the one we've</p> <p>15 just been looking at 01.16.02 there's an entry at</p> <p>16 01.13.39. Again, SAD, "Make up, IUP G331 MAKE PUMPS SIX</p> <p>17 AND ONE HP", and then "AMENDMENT TO ONE AERIAL" about 40</p> <p>18 seconds later.</p> <p>19 So can we get from that that you implemented the</p> <p>20 high-rise procedure after you'd made pumps six and one</p> <p>21 aerial?</p> <p>22 A. It doesn't necessarily work like that. When we --</p> <p>23 trying to explain it a bit more, when an incident</p> <p>24 commander or officer turns up on the fire ground, from</p> <p>25 the moment we book status 3, which is we are in</p> <p style="text-align: center;">Page 108</p>

<p>1 attendance at an incident, generally the rule of thumb</p> <p>2 is within -- it is the policy, we have 20 minutes,</p> <p>3 a 20-minute window, to get an informative message away</p> <p>4 to let control know in terms of what the incident</p> <p>5 commander is doing and basically paint a picture up to</p> <p>6 the officers in control, monitoring officers and any</p> <p>7 other officers listening in to the main scheme</p> <p>8 radio: okay, the incident commander, this is his or her</p> <p>9 decision and this is the resources he or she needs.</p> <p>10 The only other side to that is when we send</p> <p>11 an assistance message, a priority message, which in</p> <p>12 these terms was a make-up, I needed more resources, that</p> <p>13 also has to be followed up as soon as practicable with</p> <p>14 an informative message to inform control and monitoring</p> <p>15 officers who are remote from the incident why I have</p> <p>16 asked for additional resources.</p> <p>17 Q. Right.</p> <p>18 Now, we then go on to the next topic which is making</p> <p>19 pumps eight. As we do so, can I take you to your</p> <p>20 statement at the top of page 5. I've shown you this</p> <p>21 before.</p> <p>22 It starts at the very foot of page 4. Let's begin</p> <p>23 there:</p> <p>24 "I knew that the crews were now tackling the</p> <p>25 fire ..."</p> <p style="text-align: center;">Page 109</p>	<p>1 was sent.</p> <p>2 Q. After the informative message?</p> <p>3 A. Yes.</p> <p>4 Q. Would you say that when you noticed the situation was</p> <p>5 beginning to turn because the fire wasn't behaving in</p> <p>6 a way that you would've expected from previously</p> <p>7 experience, is that the moment you, looking back on it,</p> <p>8 would say was the turning point, when you crossed the</p> <p>9 line?</p> <p>10 A. That was the first real moment I -- as I refer to in my</p> <p>11 statement, that I felt uncomfortable, and that's why</p> <p>12 I wanted confirmation from Crew Manager Secrett at the</p> <p>13 bridgehead in terms of what was happening to the</p> <p>14 firefighter crew from within that building. It's not</p> <p>15 uncommon, as a fire within a compartment develops and if</p> <p>16 a window has failed, for that to show on the external of</p> <p>17 the building, because obviously that fire is trying to</p> <p>18 search for an oxygen supply, and if a window or</p> <p>19 compartment has failed, the oxygen supply will be</p> <p>20 external to the building, so that's a source of its</p> <p>21 oxygen supply. So it's nothing too uncommon. But</p> <p>22 I just -- I knew there was a BA team within that</p> <p>23 compartment and I couldn't understand why that fire</p> <p>24 wasn't being suppressed.</p> <p>25 Q. Just trying to get a handle on more precise timings,</p> <p style="text-align: center;">Page 111</p>
<p>1 So if you look at the very top of the screen:</p> <p>2 "I knew that the crews were now tackling the fire</p> <p>3 within the compartment but I noticed that the fire had</p> <p>4 now breached the window of the flat on the 4th floor and</p> <p>5 was starting to affect the external facia of the</p> <p>6 building."</p> <p>7 Then you say:</p> <p>8 "It was at this point that I noticed the situation</p> <p>9 was beginning to turn because the fire wasn't behaving</p> <p>10 in a way that I would have expected from previous</p> <p>11 experience."</p> <p>12 You go on:</p> <p>13 "It was sparking and spitting in a similar way to</p> <p>14 when magnesium burns and was making me feel</p> <p>15 uncomfortable."</p> <p>16 Now, that point, when you noticed that the situation</p> <p>17 was beginning to turn, do you remember whether that was</p> <p>18 before or after you'd made pumps eight?</p> <p>19 A. My recollection was that was one of the markers in terms</p> <p>20 of further resourcing to make pumps eight.</p> <p>21 Q. Was that moment when you noticed the situation was</p> <p>22 beginning to turn before or after you'd sent the</p> <p>23 informative message which we looked at a minute ago at</p> <p>24 01.16?</p> <p>25 A. From my memory, that was after the informative message</p> <p style="text-align: center;">Page 110</p>	<p>1 I think you said that the turning point, as you describe</p> <p>2 it in your statement, came after you'd sent the</p> <p>3 informative message at 01.16.</p> <p>4 You remember the video we looked at this morning,</p> <p>5 and I am very happy to show it to you again, but timed</p> <p>6 at 01.12, I think we could see pieces of molten and</p> <p>7 flaming material coming down from the building. I asked</p> <p>8 you about that and you couldn't remember. But on the</p> <p>9 basis that the video is accurately timed, would you</p> <p>10 agree that it looks like burning material was coming off</p> <p>11 the building at that time, 01.12, and therefore earlier</p> <p>12 than you sent your informative message?</p> <p>13 A. I can only refer to the -- I've seen those images today,</p> <p>14 but my decisions and my actions were taken on what I saw</p> <p>15 that night and previously I've put in my statement. And</p> <p>16 I don't have a reflection of the timeline that night.</p> <p>17 It's so -- for me, that night, the decisions and the</p> <p>18 choices I took had to be very, very quick. I didn't</p> <p>19 have the benefit of working to a timeline; it was very</p> <p>20 much reacting to what I saw in front of me and what</p> <p>21 I had from my training, my previous experience, my</p> <p>22 colleagues around me, in terms of what I thought was the</p> <p>23 best -- and good intent in terms to resolve this</p> <p>24 incident successfully.</p> <p>25 Q. Yes, I understand.</p> <p style="text-align: center;">Page 112</p>

<p>1 When you saw the material coming off the building --</p> <p>2 leave aside timing for a moment, but on the video that</p> <p>3 we've seen -- and I'm not going to show it to you again</p> <p>4 unless you want me to, I will do if you want me to --</p> <p>5 but when you saw what was coming off the building, what</p> <p>6 did you think it was?</p> <p>7 A. At that point I -- you know, it was something on the</p> <p>8 external of the building. I didn't know at that point</p> <p>9 it was what I know now in terms of flammable cladding,</p> <p>10 the ACM cladding. If we were aware of that risk and</p> <p>11 that hazard at that point, as we are now, as the</p> <p>12 organisation, we've put things in place. But, yes,</p> <p>13 I wasn't aware of this cladding material that was, you</p> <p>14 know, put onto the external envelope of the building.</p> <p>15 Q. All right. Let's take it in stages then.</p> <p>16 At the top of page 5, after the sentence about</p> <p>17 sparking and spitting, you say:</p> <p>18 "I contacted CM SECRETT on the radio and checked</p> <p>19 that the BA crew were tackling the fire to which he</p> <p>20 replied that they were making good progress."</p> <p>21 Was that contact with Crew Manager Secrett after you</p> <p>22 think you saw the molten and flaming material falling</p> <p>23 off the exterior?</p> <p>24 A. Referring to my statement, I don't know if it was when</p> <p>25 I saw -- I can't say it was molten -- and what I -- you</p> <p style="text-align: center;">Page 113</p>	<p>1 extinguishing the fire.</p> <p>2 I can't remember if he said it was extinguished, but</p> <p>3 my recollection of that event was that they were making</p> <p>4 steady progress into that compartment.</p> <p>5 Q. During that conversation, did you tell him that you were</p> <p>6 going to make pumps eight?</p> <p>7 A. I believe that traffic was sent back into Chris that I'm</p> <p>8 further resourcing it, because from my understanding of</p> <p>9 the -- obviously from his point of view, they were</p> <p>10 dealing with -- or tackling a compartment fire which</p> <p>11 they were, you know, making good progress on, and from</p> <p>12 what I was seeing on the outside, that was a different</p> <p>13 story.</p> <p>14 So from what I understand, yes, I do believe that</p> <p>15 traffic that I was further resourcing went in to</p> <p>16 Chris Secrett.</p> <p>17 Q. Yes. You could see the exterior -- is this right --</p> <p>18 because you were on the ground, but he couldn't because</p> <p>19 he was inside the building?</p> <p>20 A. Yes.</p> <p>21 Q. Did you tell him what you could see?</p> <p>22 A. I can't remember if there was a real detailed</p> <p>23 description of what was occurring on the outside of the</p> <p>24 building. I can't recall.</p> <p>25 Q. No. Let me see if I can just dig a little further.</p> <p style="text-align: center;">Page 115</p>
<p>1 know, from my interpretation of it, it was sparking and</p> <p>2 spitting. So, you know, my recollection is I don't</p> <p>3 remember sort of the facia of the building falling; it</p> <p>4 was more of the way it was reacting. But, yes, I do</p> <p>5 think that was around the same time that that happened</p> <p>6 that I contacted Chris Secrett, yes.</p> <p>7 Q. If I may say so, that's a very fair answer.</p> <p>8 I understand what you're saying. So you weren't aware</p> <p>9 that it was molten material falling off, but there was</p> <p>10 sparking and spitting.</p> <p>11 But you put the conversation with Crew Manager</p> <p>12 Secrett after that point?</p> <p>13 A. I believe so, yes.</p> <p>14 Q. Now, Crew Manager Secrett has provided a statement in</p> <p>15 which he is going to say that he radioed you -- it was</p> <p>16 he who radioed you -- and told you there was a fire in</p> <p>17 the fridge in the kitchen and that the fire was now out.</p> <p>18 Do you remember that?</p> <p>19 A. I can't remember if it was words to that effect or</p> <p>20 exactly to that point, but I do remember getting traffic</p> <p>21 back from Chris along the lines of, "Hold on, let me get</p> <p>22 some information from the crews within the compartment",</p> <p>23 and from my understanding -- you know, my recollection</p> <p>24 of what I put in that statement, they were making good</p> <p>25 progress in terms of into that compartment,</p> <p style="text-align: center;">Page 114</p>	<p>1 Did you tell him that the fire was sparking and</p> <p>2 spitting in a similar way to when magnesium burns and</p> <p>3 you were uncomfortable? Did you tell him any of that?</p> <p>4 A. I don't recall I did, no.</p> <p>5 Q. He says in his statement -- I appreciate you haven't</p> <p>6 seen it, so I'm going to put it in a very gentle and</p> <p>7 neutral way -- he says he told you to slow down because</p> <p>8 the fire was now out. Do you remember that?</p> <p>9 A. I don't remember those words to that effect, no.</p> <p>10 Q. Do you remember slowing down what you were doing because</p> <p>11 of anything that Crew Manager Secrett said?</p> <p>12 A. Absolutely not.</p> <p>13 Q. You say absolutely not with some conviction.</p> <p>14 A. Yes, I was -- for me on that fire ground at that point,</p> <p>15 I was almost -- you know, I was very much aware of what</p> <p>16 was going on in that building. I never at one point</p> <p>17 slowed down my thinking, my actions. No way.</p> <p>18 Q. At this point -- and I'm not going to be absolutely</p> <p>19 precise with the timing, Mr Dowden -- when you're</p> <p>20 talking to Crew Manager Secrett and he's telling you</p> <p>21 that he's put the fire out, did you get any messages</p> <p>22 from Firefighter O'Beirne, do you remember, on your</p> <p>23 radio?</p> <p>24 A. I don't intercept any traffic from Firefighter O'Beirne,</p> <p>25 no.</p> <p style="text-align: center;">Page 116</p>

<p>1 Q. Did you know at the time that he had gone higher up into 2 the building at this point?</p> <p>3 A. Not at that point, no.</p> <p>4 Q. He says that he was sending you radio messages to tell 5 you about the conditions on the fifth, sixth and seventh 6 floors. Do you remember that?</p> <p>7 A. No.</p> <p>8 Q. Let me ask you: did you have a radio with you, 9 a handheld radio with you, at all times?</p> <p>10 A. Yes. My handheld fire ground radio was on my tunic.</p> <p>11 Q. On your tunic?</p> <p>12 A. Yes.</p> <p>13 Q. What channel was it tuned to?</p> <p>14 A. It would have been the incident command channel, fire 15 ground channel 1.</p> <p>16 Q. The fire ground channel 1?</p> <p>17 A. Yes.</p> <p>18 Q. Was there a point around this time or a little bit more 19 generally early on in the fire when you might have 20 discovered that your handheld radio on channel 1 wasn't 21 receiving messages?</p> <p>22 A. No, not at that point, because I -- up until that point 23 me and Chris had had communication on that channel and 24 I seemed to be receiving traffic okay.</p> <p>25 Q. So just so I'm clear, are all the firefighters at that</p> <p style="text-align: right;">Page 117</p>	<p>1 communicate what he had seen on floors 5, 6 and 7, just 2 to be clear, you are saying that he would've 3 communicated that with the bridgehead and the bridgehead 4 would then have communicated that with you by radio?</p> <p>5 A. That's my understanding but, you know, from Firefighter 6 O'Beirne, what he did inside that tower and on the upper 7 floors and that traffic, then I'm not going to discredit 8 in terms of how he communicated that because obviously 9 there was some valuable information, but I didn't 10 receive that information.</p> <p>11 Q. But I think you are saying that there was at least 12 a mechanical means whereby the radios could've talked to 13 each other?</p> <p>14 A. Absolutely, yes.</p> <p>15 Q. Okay.</p> <p>16 Now, when you say in your statement that you were 17 starting to feel uncomfortable, you then go on to say 18 after the sentence about contacting Crew Manager 19 Secrett:</p> <p>20 "... I did not feel reassured due to the way the 21 fire was developing on the outside of the building."</p> <p>22 Do you see that?</p> <p>23 A. Yes.</p> <p>24 Q. What did you think was happening with the fire on the 25 outside of the building at that point?</p> <p style="text-align: right;">Page 119</p>
<p>1 point that are in the building communicating with you or 2 able to communicate with you on channel 1?</p> <p>3 A. Generally the incident command channel should be left 4 for incident command, so if something -- incident 5 command I put in place obviously myself down at the 6 ground-floor level and I would directly feed into 7 Chris Secrett on the bridgehead.</p> <p>8 It's not uncommon for, you know, firefighters to put 9 traffic on that radio wave. That's not uncommon. But 10 generally it would be for incident commanders or 11 decision-makers within that incident ground to 12 communicate on that command channel.</p> <p>13 Q. Okay. If a firefighter who had been sent higher up into 14 the building or had gone higher up into the building 15 with a radio was going to communicate with anybody, who 16 would it be? Would it be with you or would it be with 17 the bridgehead?</p> <p>18 A. Generally, if it was in the internal of the building 19 then -- it would still be on channel 1, but the 20 information, because it's inside of the building, would 21 be transmitted through the bridgehead and then that 22 information would come through to me.</p> <p>23 Q. From the bridgehead?</p> <p>24 A. Correct yes.</p> <p>25 Q. So if, for example, Firefighter O'Beirne had wanted to</p> <p style="text-align: right;">Page 118</p>	<p>1 A. It's difficult to go back in that point of time to 2 really pinpoint. I think my only assumption would be 3 that, you know, the fire -- if it was still going in the 4 compartment -- I cannot pinpoint a particular memory of, 5 okay, what is happening -- how is that igniting on the 6 external of that building?</p> <p>7 Q. Did --</p> <p>8 A. I can only refer -- you know, a lot of what we do as 9 firefighters and officers is we -- what we -- obviously 10 we have policy to refer to, but a lot of what we do and 11 the instantaneous, that split-second decision-making, is 12 based on previous knowledge. I had no previous 13 knowledge on how that building was reacting. I had 14 nothing to fall back on, no default in terms of my own 15 previous knowledge of how that building was reacting at 16 that moment in time.</p> <p>17 So I -- you know, I did feel out of my -- 18 uncomfortable, outside my comfort zone, because I didn't 19 have any previous experience to fall back on in terms of 20 how that building -- the way it was behaving and 21 reacting.</p> <p>22 Q. Did there come a point when you realised that the 23 exterior of the building had itself ignited?</p> <p>24 A. Yes, without -- I can't put a time on it. Obviously 25 there was a point that that was evident because of the</p> <p style="text-align: right;">Page 120</p>

<p>1 way that -- the rapidity in terms of the building on the</p> <p>2 external -- the flames were spreading up the external of</p> <p>3 that building.</p> <p>4 Q. Can you help me with the timing, as best you can, in</p> <p>5 terms of when you first realised that the exterior of</p> <p>6 the building had ignited?</p> <p>7 A. It's going to be really difficult to put a time on that,</p> <p>8 unfortunately.</p> <p>9 Q. Let me see if I can help you.</p> <p>10 Do you think it was before you made pumps eight or</p> <p>11 after?</p> <p>12 A. I'd say on or around the time that I made pumps eight or</p> <p>13 just after.</p> <p>14 Q. Now, just so we can get a time fixed on that, you say on</p> <p>15 or around or perhaps just after. Let's be a bit more</p> <p>16 specific. If you could please be shown again tab 23 of</p> <p>17 the documents bundle, the short incident log, page 17,</p> <p>18 time slot 01.19.35, "Make Up, IUP G272 MAKE PUMPS</p> <p>19 EIGHT".</p> <p>20 So that's when the short incident log records that</p> <p>21 decision as having been taken. Would that accord with</p> <p>22 what you remember of the night?</p> <p>23 A. Yes.</p> <p>24 Q. Would that agree with it? It would. Okay, so we have</p> <p>25 pumps eight at that time.</p> <p style="text-align: right;">Page 121</p>	<p>1 be looking at what you see and what you hear from</p> <p>2 members of the public as well.</p> <p>3 (Video played)</p> <p>4 I think we can stop.</p> <p>5 Okay.</p> <p>6 Now, we can go over it again. You can see what's</p> <p>7 happening with the fire --</p> <p>8 SIR MARTIN MOORE-BICK: Are you okay?</p> <p>9 THE WITNESS: Can I take a break, please?</p> <p>10 SIR MARTIN MOORE-BICK: 5 minutes? Yes. All right. We'll</p> <p>11 resume at 2.20.</p> <p>12 MR MILLETT: It may be Mr Dowden wants a little longer.</p> <p>13 SIR MARTIN MOORE-BICK: Well, would you like longer than</p> <p>14 5 minutes, Mr Dowden?</p> <p>15 THE WITNESS: 10, please.</p> <p>16 SIR MARTIN MOORE-BICK: Yes, of course. That's what we'll</p> <p>17 do. We'll resume at 2.25.</p> <p>18 Right, off you go with the usher.</p> <p>19 (2.15 pm)</p> <p>20 (A short break)</p> <p>21 (2.50 pm)</p> <p>22 SIR MARTIN MOORE-BICK: Ladies and gentlemen, I am sorry</p> <p>23 that the break has been rather longer than I had</p> <p>24 originally indicated it would be. It won't have escaped</p> <p>25 anyone's attention, I'm sure, that Mr Dowden is finding</p> <p style="text-align: right;">Page 123</p>
<p>1 I'm going to show you the video again, Mr Dowden.</p> <p>2 Are you all right to see that again?</p> <p>3 A. Yes.</p> <p>4 Q. All right.</p> <p>5 SIR MARTIN MOORE-BICK: Could you just remind everybody</p> <p>6 about the video because people may have come since we</p> <p>7 had the adjournment.</p> <p>8 MR MILLETT: Yes, exactly, and Mr Kinnier is signalling</p> <p>9 madly to me on my right.</p> <p>10 So, certainly, I will repeat the trigger warning</p> <p>11 that we are about to see video and hear audio of</p> <p>12 Grenfell Tower on fire on the night, and that people</p> <p>13 might find that uncomfortable and distressing. So if</p> <p>14 anybody doesn't want to see or hear it then they should</p> <p>15 take steps not to do so, either in this room or if</p> <p>16 they're watching remotely, not to look or to take</p> <p>17 themselves away from the media.</p> <p>18 Mr Dowden, I'll wait 30 seconds or so. What I am</p> <p>19 going to show you is a time slot of the video, sequences</p> <p>20 between 1.16 -- so around about the time that the</p> <p>21 informative message is sent -- through to about 1.20.</p> <p>22 So that's what we're going to look at.</p> <p>23 So perhaps we can show that. I'm going to do the</p> <p>24 video twice. We're going to look at it first time round</p> <p>25 and then I'm going to go through it, and we're going to</p> <p style="text-align: right;">Page 122</p>	<p>1 giving this part of his evidence very difficult and, in</p> <p>2 particular, when he is asked to view the film of the</p> <p>3 fire itself.</p> <p>4 But he is now ready to go on, and we will go on now,</p> <p>5 but we shall rise early. I shall finish no later than</p> <p>6 4 o'clock.</p> <p>7 Thank you.</p> <p>8 MR MILLETT: Thank you, Mr Chairman.</p> <p>9 SIR MARTIN MOORE-BICK: Now, Mr Dowden, are you able to go</p> <p>10 on all right?</p> <p>11 THE WITNESS: Yes, that's fine.</p> <p>12 SIR MARTIN MOORE-BICK: I've been told -- maybe you've been</p> <p>13 told as well -- there are no more videos to watch and we</p> <p>14 shall finish the afternoon no later than 4 o'clock.</p> <p>15 THE WITNESS: Thank you.</p> <p>16 SIR MARTIN MOORE-BICK: So it's relatively short spell now.</p> <p>17 All right?</p> <p>18 THE WITNESS: Yes.</p> <p>19 SIR MARTIN MOORE-BICK: But if you do need a break, just</p> <p>20 indicate and we'll have one.</p> <p>21 THE WITNESS: Okay, thank you.</p> <p>22 SIR MARTIN MOORE-BICK: Yes, Mr Millett.</p> <p>23 MR MILLETT: Thank you, Mr Chairman.</p> <p>24 Mr Dowden, can I go back to a question based on the</p> <p>25 informative message in the short incident log. If you</p> <p style="text-align: right;">Page 124</p>

<p>1 could please be shown tab 23 of the documents bundle and</p> <p>2 turn in it to page 17 up on the screen. It's a process</p> <p>3 question.</p> <p>4 You'll see there that the informative message comes</p> <p>5 onto the short incident log at 01.16.02, "Informative,</p> <p>6 SUP FROM G272", then we see the rest of the message we</p> <p>7 looked at before. I want to ask you just some process</p> <p>8 questions about this, really.</p> <p>9 What does the time, 01.16.02, tell us? Is that the</p> <p>10 message coming from Brigade control to G272 confirming</p> <p>11 that the message has been received, or what is it? What</p> <p>12 actually happens at that time?</p> <p>13 A. From my understanding -- I've never worked in a control</p> <p>14 room, but I believe that would be the time the</p> <p>15 informative was received from the fire ground at control</p> <p>16 at Merton -- at Stratford, sorry.</p> <p>17 Q. Does that mean that the decision -- which was your</p> <p>18 decision -- to send the informative message that we see</p> <p>19 there on the screen was taken earlier than 01.16.02?</p> <p>20 A. That would be correct, yes.</p> <p>21 Q. How much earlier, roughly?</p> <p>22 A. A couple of minutes. By the time you have the</p> <p>23 conversation, getting to the fire appliance and then</p> <p>24 that message being sent, a minute to two minutes, maybe.</p> <p>25 I can't be exact on that.</p> <p style="text-align: center;">Page 125</p>	<p>1 system, and then that's how that's then reflected on the</p> <p>2 incident report.</p> <p>3 Q. I see. Is that the Vision log?</p> <p>4 A. Vision, that's correct, yes.</p> <p>5 Q. Right. Okay.</p> <p>6 Mr Dowden, I'm going to take you away from the</p> <p>7 events of the night for a little bit of time. We'll go</p> <p>8 back to it, but I just want to take you away from that</p> <p>9 and just ask you about a piece of machinery, if I can,</p> <p>10 the smoke extractor operating system.</p> <p>11 Now, in your witness statement, many pages on from</p> <p>12 where we're looking, you say that after you were</p> <p>13 relieved of incident command, you went to the</p> <p>14 ground-floor lobby where you knew the smoke vent system</p> <p>15 was located.</p> <p>16 Had you had any occasion in the past, before the</p> <p>17 Grenfell Tower fire, to look at the smoke vent system in</p> <p>18 the lobby of Grenfell Tower?</p> <p>19 A. I do believe on the familiarisation visit I was on,</p> <p>20 I was shown that panel in the lobby area, yes.</p> <p>21 Q. Right. And you were shown it by whom, do you remember?</p> <p>22 A. I cannot remember the individual's name, but it was a --</p> <p>23 I believe a contractor from Rydens or who was</p> <p>24 responsible for that refurbishment.</p> <p>25 Q. Right. Do you remember what they showed you?</p> <p style="text-align: center;">Page 127</p>
<p>1 Q. So just talk me through the little bits of the process.</p> <p>2 You make the decision to send the message.</p> <p>3 A. Yes.</p> <p>4 Q. Then you communicate it to somebody.</p> <p>5 A. I think the incident of that night, because obviously</p> <p>6 I was quite busy on the fire ground at that moment in</p> <p>7 time, I think it's not uncommon for another officer to</p> <p>8 designate that role to another officer on the fire</p> <p>9 ground, and that was Dave Davies. But the -- you know,</p> <p>10 for him to have -- formulate the message, but obviously</p> <p>11 to make sure that I see that message before it goes from</p> <p>12 the fire ground because I have sole responsibility, and</p> <p>13 I believe that's what happened. He was drafting the</p> <p>14 message and I was happy with that message and that</p> <p>15 message was sent.</p> <p>16 Q. Right. I see. Did he press the buttons to send the</p> <p>17 message?</p> <p>18 A. It's not pressing any buttons; that would be done</p> <p>19 verbally over the main scheme radio.</p> <p>20 Q. Right. So the buttons on the radio, if you like.</p> <p>21 A. Yes.</p> <p>22 Q. Then that's received by Brigade control, and what</p> <p>23 happens next?</p> <p>24 A. Well, the control room operator will basically just take</p> <p>25 down a message on the message log, on the computer</p> <p style="text-align: center;">Page 126</p>	<p>1 A. It's more -- from my understanding, it was more of the</p> <p>2 location of the smoke extract panel itself. I think</p> <p>3 there was a discussion -- I had an understanding of how</p> <p>4 it worked anyway because it's not a unique fixed</p> <p>5 installation or fire-engineered solution within</p> <p>6 a premise, so -- but I can't remember specifics, but it</p> <p>7 was along the lines of how it would actuate in an event</p> <p>8 and how it works.</p> <p>9 Q. Okay, so not a fire-engineered solution -- so a familiar</p> <p>10 model, was it? A familiar --</p> <p>11 A. Yes. It's not something that's specific to</p> <p>12 Grenfell Tower.</p> <p>13 Q. And did the person from -- you think it was Rydon, do</p> <p>14 you?</p> <p>15 A. I believe so, yes.</p> <p>16 Q. Did the person from Rydon show you anything else apart</p> <p>17 from the panel? Did they show you the extractor fan</p> <p>18 units in the building?</p> <p>19 A. No.</p> <p>20 Q. No. Did they explain to you how the system was supposed</p> <p>21 to work in the event of a fire?</p> <p>22 A. I would suggest they probably would, but I had</p> <p>23 an understanding of that anyway in terms of how that</p> <p>24 would operate.</p> <p>25 Q. Right. That understanding you had about how it would</p> <p style="text-align: center;">Page 128</p>

<p>1 operate, did that come from experience that you've had</p> <p>2 in the past or did it come from specific training, or</p> <p>3 both?</p> <p>4 A. I would say both.</p> <p>5 Q. Both.</p> <p>6 Now, you also say in your statement -- and we'll go</p> <p>7 to it if we need to -- you saw the panel -- this is on</p> <p>8 the night -- and keys hanging from it; is that right?</p> <p>9 A. That's correct. That's my recollection, yes.</p> <p>10 Q. Now, it's difficult to be specific with times, but</p> <p>11 roughly when do you think you were relieved of incident</p> <p>12 command?</p> <p>13 A. The only reference I have to this is back from the</p> <p>14 Vision log, and I think I was in charge of that incident</p> <p>15 for around an hour. So it would've been between 1.50 or</p> <p>16 2 o'clock in the morning.</p> <p>17 Q. Yes. We've got around about that time as well. The</p> <p>18 time of 1.50, estimated, is what was in the original LFB</p> <p>19 log, and that seems to be right.</p> <p>20 When you went to look at the smoke vent system at</p> <p>21 that time, were you with anybody, do you remember?</p> <p>22 A. I believe at that time I was with Station Manager</p> <p>23 Andy Walton, because there was a very short sort of</p> <p>24 handover to Andy Walton outside and then, very shortly</p> <p>25 after that, there was another handover to another senior</p> <p style="text-align: center;">Page 129</p>	<p>1 you find that strange?</p> <p>2 A. As I said before, just because, you know, my experience</p> <p>3 of something like that description -- it's not something</p> <p>4 that would be in that condition when you expect to see</p> <p>5 it. It would be closed. You would have to have access</p> <p>6 to the keys to get into the panel. So why -- the keys</p> <p>7 generally shouldn't be in the panel because it's not --</p> <p>8 it's something that only a responsible person or, you</p> <p>9 know, trained fire officers can access. You know, it's</p> <p>10 there for a reason and for no one else to tamper with.</p> <p>11 Q. Just on the keys question, do you know where the keys</p> <p>12 were to be found at Grenfell Tower if somebody wanted to</p> <p>13 access the smoke panel?</p> <p>14 A. I can't be specific in terms of where the keys would be</p> <p>15 located, no.</p> <p>16 Q. In your experience, what would you have expected?</p> <p>17 A. In my experience, one of two things: it would either be</p> <p>18 in the premises information box that we'd have access to</p> <p>19 via a girder key, or it would be in a small, round sort</p> <p>20 of break-glass box next to the panel, or, thirdly, it</p> <p>21 may well be within a secure location within the building</p> <p>22 a responsible person may have access to.</p> <p>23 Q. But on the night you said pretty clearly you don't know</p> <p>24 where the keys were to be found?</p> <p>25 A. No, the only keys I saw were in the unit already.</p> <p style="text-align: center;">Page 131</p>
<p>1 officer that came on the scene on the incident ground.</p> <p>2 And from that, myself and Station Manager Andy Walton</p> <p>3 both went into Grenfell Tower.</p> <p>4 Q. Yes. Okay.</p> <p>5 At that time, do you remember whether you knew</p> <p>6 whether the smoke vent system was working or not?</p> <p>7 A. The two memories -- the first memory I have is that the</p> <p>8 panel -- you have a panel on the front, that was open</p> <p>9 and the keys were in it, and that -- I remember thinking</p> <p>10 that was strange because generally the panel would be</p> <p>11 closed, and also the keys would be in a secure location</p> <p>12 outside in a break glass next to the panel so we can</p> <p>13 access those keys, or it will be in an office of some</p> <p>14 description, you know, a caretaker's office.</p> <p>15 I remember looking at the panel, first of all,</p> <p>16 thinking of that, but I don't remember reading any data</p> <p>17 or anything of any significance that would assist us on</p> <p>18 that night. I can't recall.</p> <p>19 Q. Now, if you go to page 10 of your statement, still on</p> <p>20 the smoke vent issue, you say at the very top of the</p> <p>21 page you found it strange that the panel was already</p> <p>22 open and the keys hanging from it. Do you see that at</p> <p>23 the very top?</p> <p>24 A. Yes.</p> <p>25 Q. And then you say that you found that strange. Why did</p> <p style="text-align: center;">Page 130</p>	<p>1 Q. You then go on to say a couple of lines down:</p> <p>2 "I went to the ground floor lift with SM WALTON and</p> <p>3 saw that the smoke vent point was on automatic."</p> <p>4 Can you just help me, what does that mean, the smoke</p> <p>5 vent point being on automatic?</p> <p>6 A. So it should automatically -- what happens is with one</p> <p>7 of these systems, a smoke extract system, you have</p> <p>8 a detector head in each lobby area where the flats -- in</p> <p>9 the communal area where they come out into the lobby.</p> <p>10 So if there's a fire in a compartment, ie a flat, and</p> <p>11 the detector head senses that, then it will</p> <p>12 automatically open what we call AOV, automatic opening</p> <p>13 vent. That goes into a protected shaft that goes up the</p> <p>14 building and vents the products of combustion so we</p> <p>15 don't have a carbonation environment in a communal area.</p> <p>16 That's an automatic thing.</p> <p>17 However, there is a manual override. So in each of</p> <p>18 those lobby areas, there's a small little box where --</p> <p>19 a key override. You can go from automatic to manual.</p> <p>20 Q. You say:</p> <p>21 "I went to activate the point using the keys and</p> <p>22 switch it to manual, but decided against this as</p> <p>23 interfering with any fire solution within a building can</p> <p>24 worsen conditions for both the residents and the</p> <p>25 firefighters."</p> <p style="text-align: center;">Page 132</p>

<p>1 What would have been the purpose of switching it to</p> <p>2 manual, which of course you decided against? What would</p> <p>3 be the idea there?</p> <p>4 A. The idea would be to potentially -- you know, to try and</p> <p>5 clear the stairwell of any smoke. But I, you know,</p> <p>6 didn't have an understanding at that point of the</p> <p>7 internal -- how the internal building was behaving, if</p> <p>8 indeed it was working, and generally something of that</p> <p>9 nature should only be facilitated within our policy, as</p> <p>10 it is in high-rise policy 633, by the responsible person</p> <p>11 of that building or a trained fire safety officer of</p> <p>12 a station manager rank or above.</p> <p>13 Q. Yes.</p> <p>14 A. So I was very conscious that I didn't want to actuate</p> <p>15 that in case I worsened conditions within the stairwell</p> <p>16 for either the residents or the firefighters.</p> <p>17 Q. Yes, and on that exact point, to the best of your</p> <p>18 knowledge, who was first London Fire Brigade person to</p> <p>19 attend the fire who was an appropriately trained fire</p> <p>20 and rescue authority person, do you know?</p> <p>21 A. I don't know.</p> <p>22 Q. You don't know. Did you take steps to find out?</p> <p>23 A. I didn't on that night. I since understand that it was</p> <p>24 a station manager called Dan Egan, but I don't know who</p> <p>25 Dan Egan is within the organisation.</p> <p style="text-align: center;">Page 133</p>	<p>1 information for investigation."</p> <p>2 If you look at it, it's signed or sent by</p> <p>3 Andy Walton, and he's telling Mr Apter in the first</p> <p>4 paragraph that:</p> <p>5 "I have just recalled an action or omission by me in</p> <p>6 the early stages of the Grenfell Tower incident which</p> <p>7 I urgently bring to your attention."</p> <p>8 Then he says this:</p> <p>9 "As I moved to take up the Fire Sector Commander</p> <p>10 role I passed through the lobby and encountered</p> <p>11 WM Dowden, G271 OIC and original incident commander.</p> <p>12 I directed him to make sure the smoke extraction system</p> <p>13 was operating using the control panel on the wall in the</p> <p>14 lobby."</p> <p>15 Just pausing there, is that correct? Did he do</p> <p>16 that?</p> <p>17 A. I can't remember if I got direction from the Station</p> <p>18 Manager Andy Walton, no.</p> <p>19 Q. He then says:</p> <p>20 "He went to the panel, seemed to try and operate a</p> <p>21 touch pad on the screen and came back to me and said</p> <p>22 something like 'it is not working' or 'it is not</p> <p>23 operating', I can not be sure of the exact wording."</p> <p>24 Just pausing there, is that correct?</p> <p>25 A. It would be words to that effect, yes.</p> <p style="text-align: center;">Page 135</p>
<p>1 Q. Now, in the next sentence you say:</p> <p>2 "I did inform SM WALTON of my actions. I then</p> <p>3 returned the keys to the smoke panel in the lobby area</p> <p>4 where I had found them."</p> <p>5 Do you remember what Station Manager Walton did next</p> <p>6 after you'd told him of what you'd done with the AOV, in</p> <p>7 other words left it?</p> <p>8 A. I can't recall if there was a confirmation that he</p> <p>9 received that, but I do remember that he was obviously</p> <p>10 to my side and that was something that I was trying to</p> <p>11 confirm to him, that I wasn't going to actuate it</p> <p>12 manually.</p> <p>13 Q. Can I show you a document very briefly, Mr Dowden. It's</p> <p>14 at bundle of documents, tab 3, and it's an e-mail. The</p> <p>15 reference is MET00005713.</p> <p>16 Now, this is an e-mail which wasn't sent to you or</p> <p>17 sent by you, so I don't expect you to have seen it</p> <p>18 before, Mr Dowden. I'll just show you what it is. It's</p> <p>19 an e-mail from Andy Walton -- well, it starts as</p> <p>20 an e-mail from Charlie Pugsley to OPSGrenfellTower</p> <p>21 dated 19 June 2017, and it forwards effectively</p> <p>22 an e-mail from Andy Walton of 18 June 2017 to</p> <p>23 Steve Apter, who is director of safety and assurance,</p> <p>24 and the subject is:</p> <p>25 "Official - Sensitive - Grenfell Tower - Significant</p> <p style="text-align: center;">Page 134</p>	<p>1 Q. Then he says:</p> <p>2 "I know my understanding was that the system had</p> <p>3 failed and WM Dowden had tried to turn it on but it was</p> <p>4 not responding."</p> <p>5 Is that correct?</p> <p>6 A. I don't remember trying to actuate the panel itself.</p> <p>7 The only point that I had any sort of use of the key is</p> <p>8 when I took it out and went to, as I referred earlier,</p> <p>9 the individual lobby area to try and actuate in that</p> <p>10 lobby area, not at the main panel.</p> <p>11 Q. Okay, thank you very much.</p> <p>12 Now, can I go back earlier in the night to making</p> <p>13 pumps eight, which takes us to, as we saw from the short</p> <p>14 incident log, around about 1.19 in the morning.</p> <p>15 You had said in your statement on pages 4 and 5, and</p> <p>16 particularly the top of page 5, that you were not</p> <p>17 reassured due to the way the fire was developing on the</p> <p>18 outside of the building.</p> <p>19 Just look with me, if you will, at paragraph --</p> <p>20 well, there's no paragraph -- it's about seven lines</p> <p>21 down from the top of page 5:</p> <p>22 "At 0119hours, I sent a message to Control via my</p> <p>23 driver, Dan BILLS, requesting further assistance, and to</p> <p>24 make the incident 'pumps 8'."</p> <p>25 At that point, did you have any thoughts about how</p> <p style="text-align: center;">Page 136</p>

<p>1 the fire was behaving on the exterior?</p> <p>2 A. The only thought I can relate that to is I have not seen</p> <p>3 a building react in this way on the external before.</p> <p>4 Referring back to the incident we had at Trellick Tower</p> <p>5 six weeks prior to that, we had a half an hour delay of</p> <p>6 making entry into that compartment and, okay, the</p> <p>7 windows failed and it stayed within that compartment.</p> <p>8 This is about 20 minutes into the incident and it wasn't</p> <p>9 behaving as I would expect from my previous experiences.</p> <p>10 So that's the only really sort of thoughts I had at that</p> <p>11 moment in time.</p> <p>12 Q. Did you have any thoughts drawn from your experience of</p> <p>13 Shepherds Court?</p> <p>14 A. I can't remember referring it back to Shepherds Court,</p> <p>15 no.</p> <p>16 Q. Did you have any thoughts about considering the impact</p> <p>17 of the building materials on the behaviour of the fire</p> <p>18 and its spread?</p> <p>19 A. No, because I wasn't aware at that point in time of the</p> <p>20 building materials on the external envelope of that</p> <p>21 building.</p> <p>22 Q. What was it that prompted you to increase the make-up</p> <p>23 from six pumps to eight at that point, about 01.19?</p> <p>24 A. I can only refer to the way that the fire was developing</p> <p>25 outside that compartment on the external.</p> <p style="text-align: center;">Page 137</p>	<p>1 that I was consumed by that in terms of the sensory</p> <p>2 overload and -- yeah. Because of the way it was, I do</p> <p>3 have some blanks and it's very difficult to recall</p> <p>4 specific parts of that incident.</p> <p>5 Q. Can I ask you just one or two questions about what you</p> <p>6 knew or didn't know about what was happening inside the</p> <p>7 building at this point around 01.19 on the night when</p> <p>8 you make pumps eight.</p> <p>9 First of all, were you aware of any reports from any</p> <p>10 residents or anyone inside the building reporting a fire</p> <p>11 on the fifth floor?</p> <p>12 A. Not that I can remember internally, no.</p> <p>13 Q. Flat 26, specifically?</p> <p>14 A. No, not -- no.</p> <p>15 Q. Did you have any information about floor 6 at all at</p> <p>16 about that time?</p> <p>17 A. Not that I can recall at that time, no.</p> <p>18 Q. At about that time -- as I say, 01.19, round about --</p> <p>19 did you see any residents emerging from the tower?</p> <p>20 A. On reflection, there may have been, but I cannot recall</p> <p>21 at that moment in time if there was people exiting the</p> <p>22 building.</p> <p>23 Q. At that moment in time -- let me see if I can help you</p> <p>24 remember where you were standing -- so pumps eight, you</p> <p>25 ask him to make pumps eight, Danny Bills. Where were</p> <p style="text-align: center;">Page 139</p>
<p>1 Q. Did you discuss what you'd seen with anybody at that</p> <p>2 point?</p> <p>3 A. I can't recall.</p> <p>4 Q. At that point, did you consider whether it was necessary</p> <p>5 to appoint a search co-ordinator?</p> <p>6 A. No.</p> <p>7 Q. Did you at that point consider evacuation?</p> <p>8 A. No. The only reason for that is -- I'm aware,</p> <p>9 obviously, that would be referenced into a policy, but</p> <p>10 at that moment in time, as I said before, things were</p> <p>11 rapidly developing and it was a very, very dynamic</p> <p>12 situation. I was feeling very uncomfortable.</p> <p>13 I wasn't -- at that point wasn't aware of what was</p> <p>14 happening internally within that building and, you know,</p> <p>15 those decisions I made on that night -- no, no sector</p> <p>16 commander -- search sector commander or to evacuate the</p> <p>17 building at that point, no.</p> <p>18 Q. Did you start at that point to consider what you might</p> <p>19 do if the fire got out of control on the exterior?</p> <p>20 A. I can't recall a point of that conscious thinking, but</p> <p>21 it doesn't mean to say I didn't or I did, but I think</p> <p>22 this is the point where I'm starting to become very</p> <p>23 consumed in terms of what was happening in front of me.</p> <p>24 I think the way it was increasing and developing, I've</p> <p>25 never seen anything like that before and it was almost</p> <p style="text-align: center;">Page 138</p>	<p>1 you standing, do you know? Do you remember?</p> <p>2 A. From my understanding, I was around where you had the</p> <p>3 start of the grassy verge, I believe, on the eastern</p> <p>4 elevation of the building still.</p> <p>5 Q. So I don't want to put words in your mouth, but you</p> <p>6 were -- is this right -- on the east side of the</p> <p>7 building, underneath the fire, looking up?</p> <p>8 A. Not directly underneath, at a safe distance back, but,</p> <p>9 yes, that's roughly where I was.</p> <p>10 Q. Right.</p> <p>11 A. I'm not saying there was not people exiting then, there</p> <p>12 probably was, but I don't have a recollection of it.</p> <p>13 Q. Can you explain how you made pumps eight, in the sense</p> <p>14 of who put the message across, do you remember?</p> <p>15 A. From my memory, it was my driver, Firefighter Dan Bills,</p> <p>16 who was the driver of Golf 271.</p> <p>17 Q. 271?</p> <p>18 A. Yes.</p> <p>19 Q. Yes. Can I just ask you, then, about that.</p> <p>20 Could you please go back to bundle of documents,</p> <p>21 tab 23, page 17. This is the short incident log again.</p> <p>22 There, at 1.19.35, we have, "Make up, IUP G272 MAKE</p> <p>23 PUMPS EIGHT".</p> <p>24 So it looks, Mr Dowden, as if, according to the</p> <p>25 short incident log, the message had come from G272, but</p> <p style="text-align: center;">Page 140</p>

<p>1 your recollection is that it was 271, is it?</p> <p>2 A. Trying to make it a bit clearer, no, Dan Bills was the</p> <p>3 driver of Golf 271; that doesn't necessarily mean that</p> <p>4 the message was sent from 271. He may well have sent --</p> <p>5 because Golf 272 was the incident command pump still --</p> <p>6 I didn't specify what machine, I just wanted that</p> <p>7 message to go.</p> <p>8 Q. Yes, I see. Okay.</p> <p>9 It may not matter very much, but just so that we are</p> <p>10 clear, do you know of any reason why Danny Bills</p> <p>11 would've gone to 272 to send the message as opposed to</p> <p>12 271?</p> <p>13 A. No.</p> <p>14 Q. Which was nearer to the tower?</p> <p>15 A. At that point, it would've been Golf 271.</p> <p>16 Q. Now, going back to the kind of question I asked you</p> <p>17 a bit earlier today about make-ups.</p> <p>18 Is it normal procedure for a watch manager to be in</p> <p>19 charge at a fire where there are more than six pumps?</p> <p>20 A. No, it's not normal.</p> <p>21 Q. And so the call to go from six to eight, who would that</p> <p>22 normally be made by?</p> <p>23 A. The watch manager can make that call. We have the</p> <p>24 authority to call what resources we need if we can</p> <p>25 justify it. Yes, I wouldn't generally be in charge of</p> <p style="text-align: center;">Page 141</p>	<p>1 Q. Yes.</p> <p>2 Now, at that point, having asked for a make-up to</p> <p>3 eight pumps at 01.19 or so, when the message gets sent,</p> <p>4 did you think you could control the exterior fire</p> <p>5 spread?</p> <p>6 A. I'm going to be honest, and from some of the decisions</p> <p>7 I took a bit later on, I would say yes.</p> <p>8 Q. How did you think you were going to do that?</p> <p>9 A. One of my decisions was -- and when I had my first FR --</p> <p>10 fire and rescue unit crew in attendance, and this is</p> <p>11 referenced in my statement, I detailed them to make</p> <p>12 their way to roof level. The fire and rescue unit is</p> <p>13 not a front line pump appliance; they have specialist</p> <p>14 equipment. Part of their equipment is a line-ups</p> <p>15 capability. Basically what that allows us to do is work</p> <p>16 at height.</p> <p>17 Without referencing it to my statement and the</p> <p>18 timings, I wouldn't be able to give you that, but</p> <p>19 I tasked them to, if they could, make an attempt to get</p> <p>20 to roof level and try and get water from above the fire</p> <p>21 onto it, in terms of kind of replicating a drencher</p> <p>22 system. So I would say -- that would suggest that, yes,</p> <p>23 I was still thinking that we would try and put this fire</p> <p>24 out.</p> <p>25 Q. So at that stage, 01.19, your thought process was to</p> <p style="text-align: center;">Page 143</p>
<p>1 a six-pump fire or an eight-pump fire if a more senior</p> <p>2 officer was in attendance, unless there was mitigating</p> <p>3 circumstances, but I, as a watch manager, being</p> <p>4 an officer of the London Fire Brigade, would have the</p> <p>5 authority to request that resource if I needed it and</p> <p>6 can justify it.</p> <p>7 Q. What level of seniority or what rank would you expect to</p> <p>8 be involved as taking over as incident commander at</p> <p>9 eight pumps?</p> <p>10 A. When an incident is declared eight pumps, a group</p> <p>11 manager would assume the role of incident commander and</p> <p>12 a deputy assistant commissioner will then be notified as</p> <p>13 a monitoring officer.</p> <p>14 Q. I think we know the answer to this, Mr Dowden, but were</p> <p>15 you relieved of incident commander at eight pumps by</p> <p>16 a group manager?</p> <p>17 A. No.</p> <p>18 Q. Do you know why not?</p> <p>19 A. Just because of the way that that incident was made up</p> <p>20 and how quickly that was made up. Generally to where</p> <p>21 I resource it to, that's generally over a longer period</p> <p>22 of time and we do have senior officers in attendance,</p> <p>23 but the way that fire developed, the resources meant</p> <p>24 that I was in charge for longer than usual because of</p> <p>25 the way that fire developed.</p> <p style="text-align: center;">Page 142</p>	<p>1 attack the fire by applying water from above the fire --</p> <p>2 A. I wouldn't say it was at that point, but there was</p> <p>3 a point that is referred to in my statement that that</p> <p>4 was my thinking. So I would still be on the same train</p> <p>5 of thought that I would be looking to extinguish this</p> <p>6 fire.</p> <p>7 Q. Okay.</p> <p>8 What about an aerial appliance? Would you have been</p> <p>9 able to control the fire at that point, 01.19, if you</p> <p>10 had an aerial appliance, do you think?</p> <p>11 A. That's very difficult to comment on. We didn't.</p> <p>12 I cannot comment on that. You know, the aerial turned</p> <p>13 up when it did. We got it to work as quickly as we</p> <p>14 could. I didn't have it at that moment in time. So</p> <p>15 I can't comment.</p> <p>16 Q. You talk about going up the building to roof level, and</p> <p>17 this may be a speculative question, Mr Dowden, but did</p> <p>18 you think at the time that it would be possible to go to</p> <p>19 a lower level -- say the 12th floor -- and downward hose</p> <p>20 the exterior from there?</p> <p>21 A. But at that point that I made that decision with the FRU</p> <p>22 crew, the fire was already pretty much at roof level.</p> <p>23 Q. Yes. Okay.</p> <p>24 At that point -- again 01.19, when pumps get made up</p> <p>25 to eight -- did you assess the risk that flats now</p> <p style="text-align: center;">Page 144</p>

<p>1 exposed to the flame front might be penetrated by</p> <p>2 an external fire?</p> <p>3 A. I can't remember that thought process coming into my</p> <p>4 head but, again, with the way that fire was developing</p> <p>5 and how dynamic it was, it was just -- I was trying to</p> <p>6 make the best decisions I could in terms of my previous</p> <p>7 experience and what I was seeing in front of me, you</p> <p>8 know. I had never experienced anything like this</p> <p>9 before.</p> <p>10 Q. And just on that last answer, let me see if I can dig</p> <p>11 a bit further: are you saying that you had never</p> <p>12 experienced fire on the exterior breaking back into</p> <p>13 a flat in a high-rise block higher than the compartment</p> <p>14 of origin?</p> <p>15 A. Not at the rate it was developing, no.</p> <p>16 Q. Had you ever had that experience?</p> <p>17 A. Not as an incident commander, but I have seen it on the</p> <p>18 incident ground, yes.</p> <p>19 Q. You have. When was that, do you remember?</p> <p>20 A. That would be at the Shepherds Court fire.</p> <p>21 Q. Shepherds Court.</p> <p>22 So when you saw the fire developing up the exterior</p> <p>23 at about 01.19, did you have any thoughts about</p> <p>24 Shepherds Court and a repeated experience?</p> <p>25 A. I can't remember at that moment in time, no.</p> <p style="text-align: center;">Page 145</p>	<p>1 referring to it, you know, the amount of information</p> <p>2 that was coming in, it was just -- the way that fire was</p> <p>3 developing, you know, it's been a real struggle of mine</p> <p>4 since. Trying to recall those events has been really,</p> <p>5 really difficult.</p> <p>6 Q. Do you remember having any thoughts about whether</p> <p>7 compartmentation on the inside of the building would</p> <p>8 hold up?</p> <p>9 A. Not that I can recall.</p> <p>10 Q. Did you have any thoughts at about this time -- 1.19,</p> <p>11 1.20 -- as to what fire survival guidance should be</p> <p>12 given to 999 callers who might be calling control?</p> <p>13 A. At that point, I wasn't aware that fire survival</p> <p>14 guidance was in process.</p> <p>15 Q. Right. Did you have any thoughts about whether the</p> <p>16 stay-put advice, as the standing advice as it was,</p> <p>17 continued to be safe advice to be given to any resident</p> <p>18 who called?</p> <p>19 A. At that point in time, I had -- from my recollection,</p> <p>20 I didn't receive any information in terms of the</p> <p>21 internal conditions within that building that would</p> <p>22 warrant me to change that advice.</p> <p>23 Q. Now, at pumps eight, it's right, isn't it, that there's</p> <p>24 a predetermined attendance under the mobilisation policy</p> <p>25 for two command units?</p> <p style="text-align: center;">Page 147</p>
<p>1 Q. Now, it was a warm June night. Did you have any</p> <p>2 thoughts about the effect of people having their windows</p> <p>3 open and what that might mean, given the development of</p> <p>4 the fire?</p> <p>5 A. Okay, I'd like to have thought that the traffic -- I had</p> <p>6 some kind of traffic going into the bridgehead in terms</p> <p>7 of making some action in terms of getting crews</p> <p>8 internally to go to the floors above. It's only from</p> <p>9 reading the statement, the LFB response, we did have</p> <p>10 crews on that fifth floor firefighting.</p> <p>11 So I don't have any recollection of that traffic</p> <p>12 going from me into the bridgehead, but there are big</p> <p>13 gaps in my memory in terms of when I was in charge of</p> <p>14 that incident because of the amount of information was</p> <p>15 coming in. You know, I refer to it, again, as a sensory</p> <p>16 overload. This was an unprecedented fire at</p> <p>17 an unprecedented rate that I found myself trying to do</p> <p>18 my best, with all good intent, to try and suppress and,</p> <p>19 as an incident commander, carry out my duties.</p> <p>20 Q. I fear that many of the questions I am going to ask you</p> <p>21 from now on may have the same answer, which is fine,</p> <p>22 but --</p> <p>23 A. I can only apologise for that because there is -- when</p> <p>24 I was incident commander of that incident, there is real</p> <p>25 big blurs and blanks because I think purely -- I keep</p> <p style="text-align: center;">Page 146</p>	<p>1 A. That's correct.</p> <p>2 Q. You knew that at the time, did you?</p> <p>3 A. I was aware, yes.</p> <p>4 Q. So is it right that at that time -- 1.20 -- you were</p> <p>5 expecting two command units to turn up?</p> <p>6 A. At some point. Obviously it's not a quick process.</p> <p>7 Again, they have to be -- like any mobilisation, that</p> <p>8 would be -- the make-up would be received by control,</p> <p>9 they have to -- that would be picked up, the Vision</p> <p>10 would pick that up, allocate the nearest available</p> <p>11 command unit, and then the command unit team would be</p> <p>12 mobilised. They would have to then obviously get on to</p> <p>13 the command unit itself and be mobile to the incident.</p> <p>14 So there is a delay, like any attendance, from the point</p> <p>15 of call.</p> <p>16 Q. When these command units were status 2, were you made</p> <p>17 aware?</p> <p>18 A. That's not something at the incident ground you're</p> <p>19 generally made aware of, no.</p> <p>20 Q. What about status 3?</p> <p>21 A. No.</p> <p>22 Q. You see them, I suppose.</p> <p>23 A. That's when -- yes, the first you know they're in</p> <p>24 attendance is when the command unit team leader will</p> <p>25 present themselves to you as the incident commander.</p> <p style="text-align: center;">Page 148</p>

<p>1 Q. Right.</p> <p>2 Now, we have, in our records, CU8, which is Fulham,</p> <p>3 as the first CU -- command unit -- to arrive at the</p> <p>4 incident, and we have that time at 01.30.48.</p> <p>5 Do you remember being aware of the arrival of that</p> <p>6 command unit?</p> <p>7 A. Yes, I do.</p> <p>8 Q. When it arrived, did you make any use of it?</p> <p>9 A. At that point, that was the first time I was aware we</p> <p>10 had fire survival guidance in progress.</p> <p>11 Q. Right. Just walk me through that then.</p> <p>12 A. Yes.</p> <p>13 Q. So you see CUs arrive, Fulham, at about 1.30. That's</p> <p>14 when it arrives. What did you do? Did you go up to it?</p> <p>15 A. No, the -- I didn't go up to -- the team leader, I can't</p> <p>16 remember his name, he came onto the fire ground and he</p> <p>17 presented himself to me, because at that point I was</p> <p>18 still wearing the incident commander tabard.</p> <p>19 Q. Okay. Do you remember where CU8 was parked?</p> <p>20 A. No, I don't.</p> <p>21 Q. Was it near the tower or far?</p> <p>22 A. It wouldn't have been near the tower because the access</p> <p>23 into Grenfell Tower is just by Grenfell Road, and by</p> <p>24 that time we had other fire appliances in attendance.</p> <p>25 Q. Right. Just help me, maybe you don't know, but how long</p> <p style="text-align: center;">Page 149</p>	<p>1 A. From my recollection and from what I had in my</p> <p>2 statement, it was the command unit team leader.</p> <p>3 Q. Right. So do I take it that nobody from the control</p> <p>4 room had contacted you or the ICP, 271, to tell either</p> <p>5 you or whoever was in the ICP that fire survival</p> <p>6 guidance calls were in progress?</p> <p>7 A. There may have been attempts, but I was unaware at that</p> <p>8 point.</p> <p>9 Q. What did you learn about the fire survival guidance</p> <p>10 calls from the CU8 personnel?</p> <p>11 A. At that moment -- point in time, I think it -- the</p> <p>12 statement -- we got multiple fire survival guidance in</p> <p>13 progress, and at a very sort of similar time I had</p> <p>14 another senior officer that was in attendance now at the</p> <p>15 incident, Station Manager Brett Loft.</p> <p>16 Q. Sorry, Brett?</p> <p>17 A. Brett Loft.</p> <p>18 Q. Brett Loft, yes, yes. Okay. And he was on the incident</p> <p>19 ground when?</p> <p>20 A. From my recollection, it was almost simultaneously that</p> <p>21 the command unit team leader was in attendance.</p> <p>22 Q. Right, okay. I'm going to come back to this in detail</p> <p>23 on that, Mr Dowden, but at the moment I just want to get</p> <p>24 an understanding of what you got by way of the picture</p> <p>25 of fire survival guidance calls.</p> <p style="text-align: center;">Page 151</p>
<p>1 would it take to walk at a good pace between the tower</p> <p>2 and CU8 when it had parked?</p> <p>3 A. I wouldn't be able to comment on that because I don't</p> <p>4 know where CU8 was located.</p> <p>5 Q. Is it important generally, in your experience, to have</p> <p>6 command unit, when it arrives at eight pumps, near the</p> <p>7 incident, or does it not matter?</p> <p>8 A. You want it in a close location because obviously</p> <p>9 that -- you know, in a sensible location in terms of not</p> <p>10 too far from the incident. But, yes, you know, right on</p> <p>11 top of the incident -- it was difficult at</p> <p>12 Grenfell Tower because of the Grenfell Road and the</p> <p>13 access difficulties in for the appliances. That was</p> <p>14 an issue.</p> <p>15 Q. Yes. That was an issue. All right.</p> <p>16 Can I go back to an answer you gave a minute ago and</p> <p>17 follow up on it. You said, I think, that it was on the</p> <p>18 arrival of CU8 that you first became aware that fire</p> <p>19 survival guidance calls were in process. Is that your</p> <p>20 evidence?</p> <p>21 A. That is referred into my statement, yes.</p> <p>22 Q. Yes, yes, that's what you recall?</p> <p>23 A. Yes.</p> <p>24 Q. So who told you, do you remember, that fire survival</p> <p>25 guidance calls were in process?</p> <p style="text-align: center;">Page 150</p>	<p>1 What was your impression when you first learnt that</p> <p>2 they were in progress about the volume of fire survival</p> <p>3 guidance calls?</p> <p>4 A. I can't remember I got a specific number in terms of the</p> <p>5 volume of fire survival guidance calls.</p> <p>6 Q. No, but was it your impression that there were some?</p> <p>7 A lot? A few?</p> <p>8 A. Well, from my -- it was multiple.</p> <p>9 Q. Multiple?</p> <p>10 A. Yes.</p> <p>11 Q. Did you ask: how many are we talking about?</p> <p>12 A. I don't recall I did that, no.</p> <p>13 Q. Did you gain any kind of understanding about where in</p> <p>14 the building the fire survival guidance calls were</p> <p>15 coming from and to? In other words, which floors or</p> <p>16 flats the fire survival guidance calls were being made</p> <p>17 in respect of?</p> <p>18 A. No. At that point we had the command unit team leader</p> <p>19 in attendance, as I referred to earlier, we had Station</p> <p>20 Manager Brett Loft also in attendance. Now, if a more</p> <p>21 senior officer attends the fire ground, it is their</p> <p>22 responsibility to take over from the junior officer in</p> <p>23 charge at that point in time, which was myself.</p> <p>24 A decision was taken between myself and Brett Loft</p> <p>25 that at that point in time, the most important thing --</p> <p style="text-align: center;">Page 152</p>

<p>1 my priority and -- was the multiple fire survival 2 guidance calls that we had.</p> <p>3 So the decision was made that Brett Loft, the 4 station manager, would not take over the incident, but 5 that the priority was for him to take the team leader 6 for the command unit, and he was to take ownership and 7 manage the fire survival guidance calls, and the 8 decision was for him directly to liaise with Brian 9 O'Keefe, who by that point was in charge of the 10 resourcing up on the bridgehead, and because there was 11 multiple FSGs going on, there was a decision made not to 12 use the incident command channel, which was channel 1, 13 but to go to a dedicated different channel, which was 14 channel 3, so we could have that channel dedicated to 15 managing the fire survival guidance traffic or radio 16 traffic and how we are going to resource that up to the 17 bridgehead.</p> <p>18 I just want to also clarify that as soon as the 19 authority, the London Fire Brigade, receives fire 20 survival guidance, that will attract its own 21 predetermined attendance. So we have -- as soon as we 22 receive that information that we have someone in 23 a premise or property that is trapped and they cannot 24 leave safely by normal means, immediately we will 25 mobilise a command unit, a station manager, a pump</p> <p>Page 153</p>	<p>1 Loft instead or as well. Do you remember?</p> <p>2 A. From my understanding, Brett Loft wasn't mobilised as 3 the FSG co-ordinator as a station manager, no.</p> <p>4 Q. Was there an FSG co-ordination manager mobilised, do you 5 remember?</p> <p>6 A. I would not be able to confirm. That would have to be 7 confirmed by the control room staff.</p> <p>8 Q. Right.</p> <p>9 Now, can you go back to your statement, please, and 10 be shown page 5. I am now going to turn to the topic of 11 make pumps 10.</p> <p>12 In the middle of page 5 of your statement, you say, 13 after the reference to the crowd and the police 14 attendance:</p> <p>15 "I also made the decision to make the incident 16 'pumps 10' as the fire was rapidly developing beyond the 17 flat, on the outside of the tower."</p> <p>18 Do you remember where you were standing when you 19 made that decision?</p> <p>20 A. I couldn't give an exact location, but just from my 21 recollection, for most of that incident I was around the 22 east elevation of that tower, around the start of the 23 grassy verge.</p> <p>24 Q. Did you discuss that decision with anybody?</p> <p>25 A. Not that I can recall. There may have been traffic</p> <p>Page 155</p>
<p>1 ladder with a watch manager in charge solely to manage 2 the fire survival guidance procedure, because it's its 3 own specific task, and that is additional to any 4 attendance that has already been made.</p> <p>5 Because of understanding that, I thought at that 6 time, and that was the thinking with Brett Loft, the 7 most important thing at that moment in time was to have 8 a real strict control measure, and rather than 9 Brett Loft take over and me delay time in handing over 10 to Brett Loft, the most vital and most time-critical 11 thing was for him to take ownership of the fire survival 12 team calls with the team leader of command unit A.</p> <p>13 Q. Just on that last answer, you say you would mobilise 14 a command unit, a station manager and a pump ladder with 15 a watch manager in charge solely to manage the fire 16 survival guidance procedure.</p> <p>17 Did that happen?</p> <p>18 A. If the policy and procedure was followed, that was 19 something that the control operator would've managed. 20 That's not something we manage at the fire ground; that 21 is done by the control centre, which that night was at 22 Stratford.</p> <p>23 Q. Right. You refer to a pump ladder with a watch manager 24 in charge, and I just wonder whether it was that that 25 happened or whether it was command unit 8 with Brett</p> <p>Page 154</p>	<p>1 going into the bridgehead or coming back from the 2 bridgehead, which wouldn't be uncommon, because 3 obviously you give that authority to whoever was in 4 charge of that resource, that bridgehead or -- and if 5 they need additional resources, then they are your eyes 6 and ears internally within that building, so that would 7 help you to come to that decision. But I don't recall 8 any traffic being sent or received.</p> <p>9 Q. Let's see if I can prompt a recollection.</p> <p>10 Mr O'Keefe's contemporaneous notes and his statement 11 record that -- it's his recollection, I think, we'll 12 examine it with him -- he told you of the sudden spread 13 of fire and urged you to make pumps 10. Is that right?</p> <p>14 Do you remember that?</p> <p>15 A. I don't remember that, but that may be a true account of 16 what happened and that's generally something that 17 happens. If that decision has been, you know -- or that 18 role has been given to an officer at the bridgehead, and 19 that's going to assist me to make, or an officer in 20 charge to make, attend for further resources, then yes. 21 That was his task, to resource the bridgehead with BA, 22 and if more resource was needed, to come through myself. 23 But I cannot recall receiving that traffic, but that's 24 not to say it didn't happen.</p> <p>25 Q. He was at the bridgehead at this time, or by this time,</p> <p>Page 156</p>

1 and you were on the outside. I know you can't recall
2 whether that's what happened, but if that is what
3 happened, do you remember having any impression about
4 what he could see on the inside of the building that you
5 couldn't see because you were on the outside of the
6 building? Do you remember having an impression or
7 thought about that at the time?

8 **A. Not that I can remember, no.**

9 Q. Okay.

10 Now, according to the short incident log -- I don't
11 need to go back to it with you -- the time of the making
12 of the make-up to pumps 10 was 01.24.09, would that
13 agree with your memory, roughly?

14 **A. Could you just repeat that, sorry?**

15 Q. Yes. According to the short incident log, the message
16 to make pumps 10 was sent at 01.24.09. Would that agree
17 with your memory, roughly?

18 **A. As I say, I don't have a distinct timeline in my memory
19 of that night. The only way I can refer to it would be
20 back either to my statement, and that was taken from
21 Vision, so that would be correct, yes.**

22 Q. Do you have a recollection about being asked for
23 additional BA wearers at about that time?

24 **A. I don't have an actual recollection of that, but that
25 would be potentially part of the thought process in**

Page 157

1 **you know, hopefully we would be able to put that fire
2 out with the further resources that were going to come
3 in attendance.**

4 Q. And a similar question to one I asked before: is it
5 normal procedure for a watch manager to be incident
6 commander at a 10-pump fire?

7 **A. No, it's not.**

8 Q. And who, in terms of rank, would normally make the call
9 to make pumps 10?

10 **A. Again, I have referred to it, me as a watch manager
11 would be given that authority to request that resource
12 if I felt it was adequate and I would need that resource
13 and there was justification for it, but the assumption
14 is that I wouldn't resume command of a 10-pump fire for
15 a long period of time.**

16 Q. And what about having an assistant commissioner as
17 monitoring officer at that point. Would that be
18 something you might expect?

19 **A. Yes.**

20 Q. Did you have any expectation that an assistant
21 commissioner would arrive soon?

22 **A. I had an expectation there would be senior officers very
23 soon, yes.**

24 Q. What did the fact that you were still in command as IC,
25 despite the rate of escalation of the make-up, tell you

Page 159

1 **terms of further resourcing the incident.**

2 Q. Right. You see, Mr O'Keefe says -- we'll obviously
3 explore it with him as well -- he sent an urgent request
4 for additional BA wearers to you because there were now
5 numerous calls for rescue on many floors.

6 Do you remember that?

7 **A. No, I don't.**

8 Q. So we're now at 01.24 and we've gone from six pumps to
9 10 pumps in 11 minutes or so -- 01.13 six pumps and
10 01.24 10 pumps.

11 Was that an increase in demand for appliances that
12 you had ever experienced before?

13 **A. Not at that time, at that short timescale, no.**

14 Q. No. So did you realise even at that point, 01.24, that
15 you were dealing with something beyond your own
16 experience?

17 **A. That's a fair assumption, yes.**

18 Q. What did that tell you about the nature of this fire?

19 **A. It's something that I, as an incident commander, have
20 never witnessed before, and I'm sure that many people on
21 the fire ground had never witnessed before either.**

22 Q. Did you have any thoughts about how you were going to
23 bring this fire under control?

24 **A. I can only refer back to my statement in terms that, you
25 know, later on I was still -- with all good intent that,**

Page 158

1 about the way the fire was behaving?

2 **A. It was behaving in terms of an -- particularly for me as
3 an incident commander, in an unprecedented scale. It
4 was something I never witnessed before. You know,
5 having to make those very quick decisions in that
6 dynamic stage -- and, you know, the dynamic stage
7 generally in an incident will be something that, you
8 know, you can get on top of, you can handle it with the
9 resources you've got, but that just kept the dynamic
10 stage of that incident for, you know, a long time, and
11 trying to resource it to try and get it under control
12 was very, very, very difficult.**

13 Q. Now, at this point in time -- about 1.24 -- when you
14 make pumps 10, do you remember where the fire had spread
15 to on the east elevation of the tower?

16 **A. Not at that time -- it's difficult to put a timeline on
17 exactly at 1.26 where I remember the -- where that fire
18 was developing to.**

19 Q. Right. We do have video evidence, but I'm not going to
20 show it to you.

21 But would you take it from me -- just for the
22 purposes of these next few questions -- that at that
23 point, about 1.24, the fire was rapidly spreading to the
24 top of the east elevation? That's what the video
25 evidence would show. Is that something that you

Page 160

40 (Pages 157 to 160)

<p>1 remember?</p> <p>2 A. I remember it rapidly developing up the side of the</p> <p>3 eastern elevation, but I would not have any reference to</p> <p>4 time.</p> <p>5 Q. Right.</p> <p>6 A. But from obviously your statement then that would be</p> <p>7 true, yes.</p> <p>8 Q. And seeing the extent of the height of the flame plume</p> <p>9 at that point, having made pumps 10, did you have any</p> <p>10 thoughts about if callers were calling for fire survival</p> <p>11 guidance, what guidance they should be given? Did you</p> <p>12 have any thoughts or ideas about that?</p> <p>13 A. I can't remember at that point in time, no.</p> <p>14 Q. Did you have any thoughts about the stay-put advice and</p> <p>15 whether that was safe advice to give if callers called?</p> <p>16 A. I would say not at that point, but I think it's</p> <p>17 important to clarify, I think around that sort of time</p> <p>18 I only had six -- from looking back at the Vision log,</p> <p>19 we had six fire appliances in attendance at that time.</p> <p>20 From my understanding, most of them, you know, were</p> <p>21 consumed in terms of the BA resource at the bridgehead.</p> <p>22 For me, at that moment in time, to facilitate and</p> <p>23 change a stay-put policy to a full evacuation was</p> <p>24 impossible. I didn't have the resource at that time.</p> <p>25 We're looking at 20 floors above the fire floor with</p> <p style="text-align: right;">Page 161</p>	<p>1 statement. If you look with me, together we'll look at</p> <p>2 page 6.</p> <p>3 In the middle of page 6 you say:</p> <p>4 "Between 01:25 and 01:28 I received information from</p> <p>5 WM Brian O'KEEFE, who was on the Bridgehead at this</p> <p>6 point that we had reports of one person not able to</p> <p>7 leave the property on the 11th floor and another on the</p> <p>8 16th floor."</p> <p>9 Now, I'll go on with the rest of that in a minute,</p> <p>10 I just want to ask you about that evidence.</p> <p>11 The time you give us there is between 1.25 and 1.28.</p> <p>12 My question is: when you were doing your statement, how</p> <p>13 could you be so precise?</p> <p>14 A. I think from when I made that statement with the</p> <p>15 Metropolitan Police, it was between -- those are two</p> <p>16 times -- I didn't record any times at the incident, but</p> <p>17 referring back to the Vision, that was the time of two</p> <p>18 different make-ups. So that's the only real point of</p> <p>19 reference I have, is referring anything back to when</p> <p>20 I made the incident up.</p> <p>21 Q. Right. I see.</p> <p>22 You had reports of one person not being able to</p> <p>23 leave the property on the 11th floor and another on the</p> <p>24 16th floor, as you say there. You go on to say:</p> <p>25 "This wasn't because of the fire itself, but was due</p> <p style="text-align: right;">Page 163</p>
<p>1 just six fire engines in attendance, one central</p> <p>2 staircase. It's something I've never experienced as</p> <p>3 an incident commander before. As I said, I was very,</p> <p>4 very, very much out of my comfort zone, I just don't</p> <p>5 know how that could have been done with the resources we</p> <p>6 had in attendance at that moment in time.</p> <p>7 Q. The thoughts that you've just articulated in your</p> <p>8 evidence just now, were those thoughts that you had at</p> <p>9 the time?</p> <p>10 A. They're not thoughts that I had at the time. That's</p> <p>11 a reflective thought that -- you know, I've had a lot of</p> <p>12 time to think and process the event which I didn't have</p> <p>13 on that night. I didn't have the time for those</p> <p>14 reflective moments. I was reacting in a way that</p> <p>15 I thought was best with all my previous experience in</p> <p>16 something that I'd never witnessed before, and -- you</p> <p>17 know. Yes.</p> <p>18 Q. I understand.</p> <p>19 Now, in the middle of page 6 of your statement --</p> <p>20 and I'm going to just ask you whether you're all right</p> <p>21 to continue?</p> <p>22 A. I'm fine to continue.</p> <p>23 SIR MARTIN MOORE-BICK: Are you okay for a bit?</p> <p>24 A. That's fine.</p> <p>25 MR MILLETT: Okay. Let me just focus you onto your</p> <p style="text-align: right;">Page 162</p>	<p>1 to them having mobility issues and illness."</p> <p>2 Now, can I show you a more contemporaneous record.</p> <p>3 It's bundle of documents tab 2 and it's the record of</p> <p>4 a PRC meeting which you had on 3 July 2017.</p> <p>5 Mr Dowden, will you forgive me, I've made a mistake.</p> <p>6 It's LFB00003117, if we can get it up on the screen.</p> <p>7 It's tab 24 of the bundle.</p> <p>8 The first page is a typed document:</p> <p>9 "PRC Chairs brief -- Grenfell Tower (14th June 2017)</p> <p>10 "...</p> <p>11 "Welcome to participants."</p> <p>12 And it's a note of a meeting on that day at which it</p> <p>13 looks as if the incident commanders who were present on</p> <p>14 the night all attended, running from you, G271, all the</p> <p>15 way up to Dany Cotton; do you see that?</p> <p>16 A. Yes.</p> <p>17 Q. Do you remember being at this meeting?</p> <p>18 A. Yes, I do.</p> <p>19 Q. What does PRC stand for?</p> <p>20 A. It's performance review of command. So we have two</p> <p>21 procedures we have following any severe incident of four</p> <p>22 pumps or above, any make-up. So the first one is PRO,</p> <p>23 performance review of operations, and that's for all who</p> <p>24 attended the incident, from firefighters up, to</p> <p>25 basically discuss the incident, have a debrief.</p> <p style="text-align: right;">Page 164</p>

<p>1 The PRC is purely for the incident commanders and 2 decision-makers in terms of a debrief on how the 3 incident went in terms of incident command, and that 4 will inform future practice in terms of any learning 5 outcomes. 6 Q. Right. And if you go on in the document, please, to 7 page 5, you can see that this is some manuscript which 8 says: 9 "PRC - Grenfell Tower. 10 Time 0800 hours, 3/7/17. 11 "ICI - Mike Dowden." 12 The first question is: is that handwriting yours or 13 is it the handwriting of somebody you don't recognise? 14 A. That's not my handwriting, no. 15 Q. Do you remember how the meeting went? Was there 16 somebody taking a note of what you were saying? 17 A. All PRCs would be chaired by someone, and this meeting 18 was chaired by Tom George, director of operations. 19 Q. Right. Okay. And you can see a signature at the bottom 20 of that page, "T George". So do we think that that's 21 his writing? I mean, I don't know if you know. Maybe 22 you don't know. 23 A. I can only assume by the signature that that is his 24 writing. I've never seen his writing before. 25 Q. It won't matter very much. I just want to ask you one</p> <p style="text-align: center;">Page 165</p>	<p>1 Q. Okay. Do you know where Watch Manager O'Keefe got the 2 information from that there were people on the 11th and 3 16th floors with mobility issues? 4 A. I don't know exactly. I can only presume that was from 5 people within the tower, other residents within the 6 tower, within those floors or the flats on that floor. 7 Q. Do you remember when Watch Manager O'Keefe told you that 8 there were people on the 11th and 16th floors who 9 couldn't get out because they had mobility issues? 10 A. At what time? 11 Q. Yes, roughly. 12 A. Again, I don't have a specific timeline of events on 13 that. The only way I could reference it is when I have 14 the make-ups as I put in my previous statement -- sorry, 15 my MPS statement. So I can't actually be specific on 16 the time. 17 Q. So summarising it, is this your evidence: sometime 18 between, as you say, 1.25 and 1.28, between the 19 make-ups, Watch Manager O'Keefe told you that there were 20 people on the 11th and 16th floors who couldn't get out 21 because they had mobility issues, sometime between that 22 time? 23 A. That's correct, yes. 24 Q. Now, at that time, did you ask him where he got that 25 information from?</p> <p style="text-align: center;">Page 167</p>
<p>1 or two very short points about the content of the 2 document at this stage. 3 If you turn to the next page, you can see that at 4 the top, it says: 5 "FF Bills -- told him to set up ground monitor -- 6 make it ready." 7 About six lines down from that, do you see it says: 8 "WM O'Keefe at BH -- told me people on 11th and 16th 9 floors that couldn't leave -- non-ambulant." 10 So my first question is: is that a recollection that 11 you had independently of what happened on the night or 12 what Watch Manager O'Keefe told you? 13 A. That will reflect in terms of my statement that was the 14 same -- that's what I refer to in my statement in terms 15 of the traffic I received from Watch Manager O'Keefe at 16 the bridgehead, that we had reports of an individual on 17 the 11th and 16th floor that weren't trapped by the fire 18 itself, but one due to illness and one due to injury. 19 Q. Right. 20 Did you use the expression "non-ambulant", do you 21 remember? 22 A. I may have done in the PIC. I may have done. I can't 23 remember. 24 Q. What did you mean by that? 25 A. People that have mobility issues.</p> <p style="text-align: center;">Page 166</p>	<p>1 A. I cannot recall that conversation happened. Again, it 2 may have done, but I don't have a recollection. 3 Q. What did the information that he was giving you about 4 non-ambulant people on those floors mean to you at the 5 time? 6 A. I suppose at that moment in time there was potential for 7 further fire spread or compromise of, you know, 8 compartmentation internally within the building. That's 9 a really important piece of information because I had 10 reports that they would need assistance to get out of 11 the building. 12 Q. So what did you do with the information? 13 A. I had it written -- because I remember it was quite 14 a clear direction from Watch Manager O'Keefe, I had 15 an IC's notepad, so I remember scribing that down on my 16 IC's notepad, and this may not be a true account of what 17 actually happened that night or whether this is 18 a reflection I've had since, but I have a vague memory 19 of could we get a BA crew to monitor these two 20 individuals on the 11th and 16th floor. I can't 21 100 per cent confirm whether that's something I gave 22 clear direction on on the night or whether that's 23 something that post-incident I have been polluted with. 24 So I can't confirm that. 25 Q. Do you remember whether the fact that there were people</p> <p style="text-align: center;">Page 168</p>

<p>1 who needed rescuing on the 11th and 16th floors told you</p> <p>2 anything about how the fire was behaving inside the</p> <p>3 building?</p> <p>4 A. I've got to be clear, my understanding is it wasn't that</p> <p>5 they needed rescuing; it was that they weren't able to</p> <p>6 leave the property by themselves. So from my</p> <p>7 understanding, it wasn't that they needed rescuing; it</p> <p>8 was a case of, for information purposes, if we needed to</p> <p>9 rescue -- that they would need a rescue if that part of</p> <p>10 the building was involved. That was my understanding at</p> <p>11 that moment in time.</p> <p>12 Q. Was Watch Manager O'Keefe saying anything to you about</p> <p>13 evacuation?</p> <p>14 A. Not that I can remember at that time, no.</p> <p>15 Q. One more question, Mr Dowden.</p> <p>16 Do you remember anybody saying anything to you at</p> <p>17 that stage about somebody needing rescuing on floor 18?</p> <p>18 A. No, I don't.</p> <p>19 MR MILLETT: Mr Dowden, thank you very much. It's very</p> <p>20 nearly 4 o'clock.</p> <p>21 Mr Chairman, I have more questions, but I am going</p> <p>22 to turn to a slightly different topic forward in the</p> <p>23 night. That might be a convenient point?</p> <p>24 SIR MARTIN MOORE-BICK: We are going to stop now, Mr Dowden.</p> <p>25 I'm afraid that Mr Millett does have more questions we'd</p> <p style="text-align: right;">Page 169</p>	<p>1 INDEX</p> <p>2 MICHAEL DOWDEN (continued)1</p> <p>Questions by COUNSEL TO THE INQUIRY2</p> <p>3</p> <p>4</p> <p>5</p> <p>6</p> <p>7</p> <p>8</p> <p>9</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p> <p style="text-align: right;">Page 171</p>
<p>1 like to have your help on, so I hope you're going to be</p> <p>2 able to come back tomorrow. Is that going to be</p> <p>3 possible?</p> <p>4 THE WITNESS: That's possible, yes.</p> <p>5 SIR MARTIN MOORE-BICK: Right, thank you.</p> <p>6 Mr Millett, what time do you think we should start</p> <p>7 tomorrow?</p> <p>8 MR MILLETT: I think if we say 9.30, that would be helpful.</p> <p>9 SIR MARTIN MOORE-BICK: Would that cause you great</p> <p>10 inconvenience, to start at 9.30?</p> <p>11 THE WITNESS: No, I can be in attendance.</p> <p>12 SIR MARTIN MOORE-BICK: Would that be all right?</p> <p>13 THE WITNESS: That's fine.</p> <p>14 SIR MARTIN MOORE-BICK: All right. We'll finish now.</p> <p>15 Please remember not to talk about your evidence to</p> <p>16 anyone overnight, and we'll resume at 9.30 tomorrow.</p> <p>17 THE WITNESS: Thank you.</p> <p>18 SIR MARTIN MOORE-BICK: Thank you very much. You leave us</p> <p>19 now.</p> <p>20 (Pause)</p> <p>21 All right, thank you, everyone. 9.30 tomorrow.</p> <p>22 (4.00 pm)</p> <p>23 (The hearing adjourned until Wednesday, 27 June 2018 at</p> <p>24 9.30 am)</p> <p>25</p> <p style="text-align: right;">Page 170</p>	

A				
Abell 16:20	additional 3:25	allocated 24:5	anyone's 123:25	April 19:7
able 14:5 31:24	7:10 73:1 109:16	33:14	anyway 28:13	Apter 134:23 135:3
32:16 39:3 45:18	154:3 156:5	allow 10:22 13:8	128:4,23	area 12:16 27:9
58:1 74:16 77:13	157:23 158:4	28:25 29:16 44:1	AOV 132:12 134:6	58:19 62:10 67:15
97:11 118:2 124:9	additions 4:1	44:5 66:2 69:1	apart 34:14 48:23	97:13 108:10
143:18 144:9	address 2:18	75:10 93:19	128:16	127:20 132:8,9,15
150:3 155:6 159:1	addressed 2:16	allowed 14:8	apologise 146:23	134:3 136:9,10
163:6,22 169:5	adequate 159:12	allowing 58:11	apparatus 32:11	areas 67:8 69:2
170:2	adjourned 170:23	allows 7:21 10:18	52:1 85:16	132:18
absolutely 17:20	adjournment	10:21 12:1 26:25	apparent 5:17	arrangements 6:3
25:18 36:2 82:18	104:17 122:7	27:2,7 30:3 50:7	apparently 65:16	arrival 6:19 13:13
95:25 116:12,13	adopt 37:9 44:14	66:5 143:15	appendix 2:13 3:11	25:21,25 28:3
116:18 119:14	64:15	alludes 21:14	appliance 8:20,21	30:24 36:2 40:1
acceptable 1:19	advice 60:11	alongside 27:1	8:25 13:25 14:24	42:9 51:22 108:4
access 9:13 12:7	147:16,16,17,22	ALP 84:18	15:10 32:14,25	149:5 150:18
40:19 50:12,20	161:14,15	amend 4:3	33:2 34:25 35:25	arrive 13:15,21
57:3,14 65:7	advised 82:12	amended 83:15	36:11 38:15 44:9	14:16 60:1 108:5
130:13 131:5,9,13	aerial 73:1 80:4,4,6	84:15	66:5 73:2 83:1	149:3,13 159:21
131:18,22 149:22	80:9,12 83:16,22	amending 3:17	125:23 143:13	arrived 14:22
150:13	84:11,15,16,18	amendment 83:16	144:8,10	42:22 46:23 51:19
accessing 7:5	108:17,21 144:8	84:12 108:17	appliances 8:24	54:14 73:17 85:15
accord 41:12 94:25	144:10,12	amendments 3:11	13:21 16:18 35:11	149:8
121:21	aerials 72:8	3:12,25	35:12 37:3 41:15	arrives 149:14
account 60:19,25	affect 60:8 67:21	amount 8:6 29:15	42:5 49:6,14	150:6
73:9 91:12,12	67:23 70:20 90:17	31:9 41:1,15	51:13 84:24 85:1	articulated 162:7
156:15 168:16	91:19 105:7 110:5	105:8 146:14	149:24 150:13	aside 5:15 113:2
accurate 73:8 76:9	afraid 15:7 169:25	147:1	158:11 161:19	asked 30:10 54:17
accurately 75:13	afternoon 6:21	Andy 42:21,22	appliances/officers	64:23 73:18 82:24
112:9	32:18 124:14	129:23,24 130:2	52:20	84:16 86:1,16
ACM 113:10	agencies 31:13,24	134:19,22 135:3	applied 95:20 96:5	87:2,24 105:3
act 13:10	agents 5:3	135:18	96:19 98:10,13,15	106:15 107:17
action 39:16 60:19	aggressive 63:22,24	angle 46:18	98:20 101:3,9,14	109:16 112:7
60:25 135:5 146:7	64:15	answer 94:14 114:7	105:23	124:2 141:16
actions 112:14	ago 100:15 110:23	142:14 145:10	apply 12:17 76:23	143:2 157:22
116:17 134:2	150:16	146:21 150:16	97:21	159:4
activate 132:21	agree 112:10	154:13	applying 144:1	asking 2:10 47:7
activity 49:24	121:24 157:13,16	answered 95:24	appoint 138:5	aspect 71:11
actual 48:8 72:13	aim 90:13 98:2	answering 2:6	appreciate 92:12	assent 6:6
74:17 157:24	101:23	answers 30:2	116:5	assess 25:23 39:22
actuate 44:18 128:7	aimed 92:15 96:23	anybody 54:18	approach 3:20	39:24 99:23
133:14 134:11	100:19,20 102:7	73:5,11 75:6	approached 29:14	144:25
136:6,9	aiming 97:9	92:23 93:16	appropriate 80:14	assessed 27:11
add 11:15	air 76:25	118:15 122:14	102:10	assessment 20:23
addition 80:4	alight 106:19	129:21 138:1	appropriately	21:1 26:11,16,25
	allocate 148:10	155:24 169:16	133:19	27:5 28:5,8,11,13

28:21,24 29:4,5 29:13,17 81:25 108:7 assigned 36:17 assist 38:18 130:17 156:19 assistance 109:11 136:23 168:10 assistant 142:12 159:16,20 association 4:20 assume 24:9 102:14 107:10 142:11 165:23 assuming 92:4 101:20 assumption 3:2 6:14 56:3 88:22 120:2 158:17 159:13 assumptions 15:19 56:23 assurance 134:23 attached 16:12 attack 10:5 144:1 attacking 56:24 64:16 attempt 143:19 attempts 151:7 attend 41:24 42:7 42:11 133:19 156:20 attendance 8:6 35:25 41:7 83:25 109:1 142:2,22 143:10 147:24 148:14,24 149:24 151:14,21 152:19 152:20 153:21 154:4 155:14 159:3 161:19 162:1,6 170:11 attended 68:15 69:4 164:14,24 attends 152:21	attention 123:25 135:7 attract 153:20 audio 47:13,24 77:20,22 78:10 100:13 122:11 audiovisual 101:18 augment 7:18 9:3 11:25 49:25 authority 4:20 133:20 141:24 142:5 153:19 156:3 159:11 automatic 132:3,5 132:12,16,19 automatically 132:6,12 available 3:3 7:5 12:10 17:7 36:15 42:12 65:24 148:10 aware 4:10 6:10,13 16:5 17:6 25:25 26:4 42:14 53:19 56:22 68:15 69:3 69:5 113:10,13 114:8 116:15 137:19 138:8,13 139:9 147:13 148:3,17,19 149:5 149:9 150:18 awareness 28:23 31:23 63:14	12:8,11,15 18:13 21:22 22:3 24:24 26:21 30:16 31:3 32:12,16 36:5 39:13 43:12,22 44:23 45:14 49:2 49:21,24 53:7 55:18 56:10 57:25 61:9,25 62:5 63:2 64:1,12 68:18 70:10,18 71:6,14 71:22 72:15 79:18 85:13 90:3 97:19 97:24 99:21 100:5 102:6 106:9 111:7 114:21 115:7 120:1,14,19 124:24 127:8 129:13 135:21 136:12 137:4,14 140:8,20 141:16 145:12 150:16 151:22 155:9 156:1 157:11,20 158:24 161:18 163:17,19 170:2 background 48:8 48:10 77:20 backup 12:20 65:5 Badillo 46:2,3 ball 64:6 bar 49:21 105:12 105:14 base 35:7 72:10 97:1,2,6 100:20 100:22 based 6:24 11:17 31:18 72:22 120:12 124:24 basic 6:23 basically 27:2,7 32:4 109:5 126:24 143:15 164:25 basis 112:9 Batterbee 53:10	54:6 87:12 bay 44:4,6 beacons 35:25 bear 15:8 20:12 93:12 bears 46:24 beg 90:24 beginning 13:13 94:8 110:9,17,22 111:5 behaving 79:12,13 99:15 110:9 111:5 120:20 133:7 137:1,9 160:1,2 169:2 behaviour 137:17 believe 19:25 33:3 41:3 51:9 53:21 54:16 59:12,13 72:18 74:13 82:23 92:24 105:12 114:13 115:7,14 125:14 126:13 127:19,23 128:15 129:22 140:3 believed 30:9 benefit 1:13 112:19 benefits 57:12,20 57:23 best 17:9 112:23 121:4 133:17 145:6 146:18 162:15 better 38:17 46:13 63:13 64:7 77:23 beyond 31:16 58:6 58:9 60:18,23 84:25 89:14 90:2 155:16 158:15 BH 166:8 big 146:12,25 Bills 16:19 40:21 73:7 82:24 136:23 139:25 140:15 141:2,10 166:5	Bisby 75:3,12 93:4 93:15 bit 2:14 10:18 20:4 22:1 23:10,18 30:16 52:10 63:13 65:20 68:18 79:1 79:2 85:4,7 91:14 95:19 108:23 117:18 121:15 127:7 141:2,17 143:7 145:11 162:23 bits 126:1 blanks 139:3 146:25 block 4:19 7:1 8:1 11:7 17:17 18:2 29:20 33:8 41:16 49:1 56:8 58:7,18 60:1 70:15 74:10 88:14 106:17 107:3 145:13 blocks 6:15 17:4 60:13 64:8 blown 45:7 blue 35:25 blurs 146:25 board 8:9,10 46:1,1 46:5,6,7 bold 35:21 book 108:25 borne 2:24 bottom 6:2 20:13 21:21 52:11 98:1 106:10 165:19 box 23:4 131:18,20 132:18 branch 77:3,3,6 105:16 breach 68:20 88:16 99:24 breached 86:25 88:6,21 91:18,23 110:4 breaching 87:4
--	--	---	--	---

break 1:18,20 43:4 43:7,10,15 68:5 71:2,4,9,19 86:4 102:11,12 103:16 103:19,23 104:1,6 104:12 123:9,20 123:23 124:19 130:12 break-glass 131:20 breaking 87:14 145:12 breaks 1:14 breathing 32:11 51:25 85:16 Brett 151:15,16,17 151:18 152:20,24 153:3 154:6,9,10 154:25 155:2 Brian 51:9 153:8 163:5 bridge 10:20 87:21 bridgehead 10:13 10:14,15 11:5,14 32:3,4,10 40:9 51:16 52:15,22 53:5 55:4,6,12 57:7,15,17 58:8 59:6,14 61:11 68:22 85:16 87:23 111:13 118:7,17 118:21,23 119:3,3 146:6,12 153:10 153:17 156:1,2,4 156:18,21,25 161:21 163:5 166:16 brief 52:21 62:23 164:9 briefed 32:1 52:12 briefly 134:13 Brigade 3:2 11:21 11:24 21:5 29:11 32:12 34:17,19 36:10 38:4 41:11 44:3 47:14 58:12	58:15,22 59:16 83:7 125:10 126:22 133:18 142:4 153:19 Brigade's 7:2 bring 57:12 61:25 64:11 135:7 158:23 broke 105:2 broken 85:24 86:19 98:6 106:13 brought 59:16 60:3 Brown 45:24 53:10 53:11 54:6 87:12 building 3:19,22 4:10 5:1,11 6:11 7:20,21 8:2,20 10:1,2,9,16,21 11:1 14:9 15:13 15:19 16:3,3,11 17:14,25 18:3,8 29:20 30:1,11 36:23 40:23 41:5 46:10 47:1 50:3,8 53:18 54:23 57:8 57:19 58:1,11 61:22 63:14 65:17 69:2,10 70:17 72:19 76:24 79:17 81:21 86:6 88:4 88:19 89:11 91:20 94:1,15 98:19 99:10,12,20,23 100:4 103:8 110:6 111:14,17,20 112:7,11 113:1,5 113:8,14 114:3 115:19,24 116:16 117:2 118:1,14,14 118:18,20 119:21 119:25 120:6,13 120:15,20,23 121:1,3,6 128:18 131:21 132:14,23 133:7,11 136:18	137:3,17,20,21 138:14,17 139:7 139:10,22 140:4,7 144:16 147:7,21 152:14 156:6 157:4,6 168:8,11 169:3,10 buildings 10:22 15:20 18:3 bullet 6:1 25:10 26:9 30:19,20 35:20 bundle 2:12,13 19:5 20:6 24:18 35:16 45:4 68:3 83:6 106:23 121:17 125:1 134:14 140:20 164:3,7 burning 29:22 79:15 94:1,24 96:4 98:11,18 99:3,11 112:10 burns 99:17 110:14 116:2 busy 126:6 button 44:18 buttons 126:16,18 126:20 <hr/> C <hr/> cab 38:24 call 3:21 13:18,22 14:16 34:4 47:13 47:18,20,22 48:16 54:14 75:1 76:8 81:8 83:18 132:12 141:21,23,24 148:15 159:8 called 31:4 37:13 133:24 147:18 161:15 caller 48:2 callers 147:12 161:10,15	calling 147:12 161:10 calls 7:11 150:19 150:25 151:6,10 151:25 152:3,5,14 152:16 153:2,7 154:12 158:5 cameras 45:9 capability 143:15 capable 59:15 60:3 carbonaceous 62:6 carbonation 132:15 care 57:19 carefully 47:17 caretaker's 130:14 carry 38:15,16 57:2 71:24 146:19 carrying 56:25 case 10:18 36:12 37:1,4,14 41:4 46:13 52:3 53:8 57:5 59:12 60:18 60:24 82:19 95:8 95:9 133:15 169:8 casting 55:18 casualties 56:6 57:18 casualty 57:19 cause 18:7 170:9 CCTV 45:9 cent 45:24 73:8 76:9 168:21 central 162:1 centrally 22:16 centre 95:7 154:21 certain 5:10,19,19 8:6 12:13,16 23:4 29:7,15 41:1 49:17 certainly 60:22 86:12 122:10 cetera 10:3 98:3 chaired 165:17,18 chairman 1:7,17	2:3 42:25 68:5 71:2 75:15 93:6 93:20 97:22 102:10 104:4 105:3 124:8,23 169:21 Chairs 164:9 challenging 12:5 52:5 chance 103:10 change 9:9 12:13 61:24 80:18 89:2 147:22 161:23 changed 79:21 80:5 changes 29:24 channel 32:8,8,10 32:11 52:24,24 117:13,14,15,16 117:20,23 118:2,3 118:12,19 153:12 153:12,13,14,14 charge 9:5,21 16:17 32:3 35:7 38:25 49:8 50:7 51:10,11 52:12,22 66:4 84:22 85:8 129:14 141:19,25 142:24 146:13 152:23 153:9 154:1,15,24 156:4 156:20 charged 7:23 66:19 charging 49:10 Charlie 53:9 76:11 87:12 92:25 134:20 chart 21:8 check 4:6,7 23:4 54:17 checked 113:18 Chelsea 5:2 choices 112:18 choose 1:22 27:8 choosing 108:7 chose 27:12
--	---	---	--	---

chosen 27:20	come 11:13 17:22	148:11,13,16,24	communal 132:9	15:21 40:12,15
Chris 32:2 52:21	18:13 26:21 30:16	149:3,6 150:6	132:15	41:4 70:11 88:16
61:4 62:4 63:15	53:1 56:10 60:4	151:2,21 152:18	communicate	88:18 99:5,24
65:1 87:19,23	61:8 62:4 67:12	153:6,12,25	32:16 34:17,18	147:7 168:8
91:12 96:10 114:6	71:14 79:7,18	154:12,14,25	35:9 118:2,12,15	compartments 86:9
114:21 115:7,16	86:21,22 88:11	159:14,24 164:20	119:1 126:4	competent 63:10
117:23 118:7	93:10 95:23 97:19	165:3	communicated	63:16
Chris's 92:8	99:21 100:5 106:3	commander 7:13	119:3,4,8	complete 57:23
chronological	118:22 120:22	7:25 15:24 17:8	communicates	completely 58:12
83:10	122:6 129:1,2	18:6,16 22:6,7,14	34:19	58:15
chunk 21:2	132:9 140:25	23:10,21,22 24:10	communicating	complied 15:19
circumstances	151:22 156:7,22	26:1,2,5 27:7 28:9	34:15 36:10 118:1	compromise 67:11
142:3	159:2 170:2	28:16 29:12,25	communication	168:7
cladding 16:4,5	comes 35:2 42:13	30:4 31:8,15	31:7,10 55:4	compromised 10:4
113:9,10,13	88:13 96:4 125:4	36:13 38:18 39:14	117:23	10:19 58:17,20
clarify 153:18	comfort 120:18	44:25 45:14 52:19	communications	61:19 62:6,10,14
161:17	162:4	54:10 55:5 62:3	30:23 32:7,11,12	computer 126:25
clear 4:5 8:17 28:2	comfortable 31:9	64:4 74:7 80:17	37:22 38:3,10	concerned 15:21
34:20 35:13 36:2	74:2 80:1 81:5	88:20 108:24	43:23 55:15	38:10 80:21 88:21
63:5 66:12 81:23	coming 2:5 31:7,10	109:5,8 135:9,11	community 25:16	96:8
85:25 95:25	34:1 44:2 78:18	138:16,16 142:8	compartment	concierge 17:6
101:16 117:25	88:6 94:1,24	142:11,15 145:17	10:12 11:19,20,22	condition 131:4
119:2 133:5	95:16 98:12,19	146:19,24 148:25	12:6,14,21,24	conditions 12:4,13
141:10 168:14,22	99:3,11,22 112:7	149:18 158:19	13:3 15:4,15	12:17 62:23 63:15
169:4	112:10 113:1,5	159:6 160:3 162:3	27:15 32:6 40:9	86:11 117:5
clearer 141:2	125:10 145:3	Commander's 25:22	47:12 48:25 53:4	132:24 133:15
clearly 131:23	146:15 147:2	commander's	53:8 60:9,18,24	147:21
clip 93:3,5,7,15	152:15 156:1	12:19	61:6 62:2 64:9,13	conducting 3:9
95:20,23 96:1,17	command 18:18	commanders 27:3	65:8,17 67:12	confident 103:5
96:22 101:1	19:6,13,19,22,25	27:3 118:10	74:3,9 81:6,11	confirm 7:16 30:12
clock 71:7	20:20 21:4,15,16	164:13 165:1	85:20,23,24 86:4	44:15 48:7 76:13
clocks 71:7	23:16 25:8 30:23	comment 78:8	86:5,11,19,22,24	77:13 91:25 93:1
close 37:14 75:13	31:2,3,18 32:8,20	82:14 101:11,21	87:4,25 88:5,11	106:6 134:11
150:8	32:23 33:2,15,19	144:11,12,15	88:14 89:13,14	155:6 168:21,24
closed 130:11 131:5	33:22,24 34:3,18	150:3	90:2,4,6,9,14,18	confirmation
CM 54:23 61:18	34:20,23 35:1,2,4	commercial 33:9	91:17 92:17,18	111:12 134:8
106:15 113:18	35:16,23 36:4	commissioner	96:11,20,20 97:5	confirmed 11:22
co-ordination	38:1,14,14,17	142:12 159:16,21	98:2,5,16,21,23	30:7,11 47:8,10
155:4	42:2,3 43:23	commit 10:15,16	99:9 103:7 106:12	50:6 51:8 53:5,6
co-ordinator 138:5	52:16,18 55:23	27:14,25 39:19	110:3 111:15,19	69:22 89:24 155:7
155:3	58:21 107:23	40:6,8	111:23 114:22,25	confirming 125:10
colleagues 112:22	117:14 118:3,4,5	committed 63:21	115:4,10 120:4	confuse 33:6
column 20:17	118:12 127:13	108:9	132:10 137:6,7,25	confusing 47:24
107:8	129:12 141:5	committing 27:19	145:13	connect 49:18
combustion 132:14	147:25 148:5,11	32:5 52:23	compartmentation	connected 50:4

conscious 16:10 64:10 65:6 100:1 133:14 138:20 consciously 28:20 consequences 58:22 consider 40:11 99:4 138:4,7,18 consideration 17:15 considering 137:16 consistent 77:9 constructed 103:9 construction 10:25 11:1 consumed 34:11 36:24 138:23 139:1 161:21 contact 17:17,19,24 18:7,10,10 113:21 contacted 51:3 72:4 113:18 114:6 151:4 contacting 119:18 contained 15:15 43:25 61:6 74:3 74:11 81:6,10 85:19 86:19 contemporaneous 82:8,13 156:10 164:2 content 166:1 contents 25:2 contingency 10:18 52:7 72:24 80:1 continue 62:11 97:8,21 100:24 104:23 108:13 162:21,22 continued 1:10 147:17 171:2 continuous 26:14 contractor 5:1 127:23 control 7:9 8:9 31:4	31:6,10,15 32:12 32:16,19 33:18 34:1,6,15,17,19 35:9 36:10 38:4 38:17 39:4 41:11 44:3 46:1,5 48:9 48:12 56:4 57:11 57:21,23 58:21,23 59:16 60:3 88:23 100:3 106:16 107:10 109:4,6,14 125:10,13,15 126:22,24 135:13 136:22 138:19 143:4 144:9 147:12 148:8 151:3 154:8,19,21 155:7 158:23 160:11 convenient 1:16,22 1:24,25 43:3 71:2 169:23 conversation 18:11 51:5 87:18 90:22 106:1 114:11 115:5 125:23 168:1 conviction 116:13 cool 89:10 Cornelius 76:11 92:25 93:2 105:24 correct 13:20 38:8 38:24 41:8,9,13 41:15 44:4 53:13 55:14 62:16,18 63:8 65:15 66:17 66:20,24 67:2 76:25 77:7 85:12 107:6 118:24 125:20 127:4 129:9 135:15,24 136:5 148:1 157:21 167:23 corrected 41:11 correctly 10:2	Cotton 164:15 could've 59:5 103:11 119:12 COUNSEL 2:2 171:2 counteract 86:6 couple 11:18 30:19 38:21 68:4 125:22 132:1 course 18:8 19:21 19:22 123:16 133:2 courses 19:25 Court 137:13,14 145:20,21,24 covered 14:3 16:4 covering 40:14,18 40:22 41:3 76:8 76:19,22 77:12 85:17 86:1,8,17 86:23 87:2 88:24 89:3,4,6,9,17,23 90:3 91:22 92:22 93:25 94:15 95:3 95:15,20 96:10,13 99:2 100:2 102:7 102:15,25 103:4,5 105:4,6,9,13,22 covers 38:1 crew 9:23 12:6,8,9 12:12,17,20 19:17 32:2,9 36:16 37:12 51:10 52:12 53:7,10,25 54:15 54:16 55:22 57:12 61:4,18 64:20,22 64:23 65:3,5 66:15,18 67:13 76:12 85:15 87:9 87:11,13,20 89:5 89:16,18 90:23 91:1,22 92:13,22 96:9,13 107:17 111:12,14 113:19 113:21 114:11,14	116:11,20 119:18 143:10 144:22 168:19 crews 5:22,22 8:5 10:16 11:24 12:2 12:16 40:7,8 51:25 52:23,24 59:13 61:25 63:21 64:12 65:7 91:16 109:24 110:2 114:22 146:7,10 cross 28:12 crossed 111:8 crowd 155:13 CU 38:5,11,13 149:3 CU8 149:2,19 150:2,4,18 151:10 current 18:24 19:7 CUs 149:13 <hr/> D <hr/> damage 25:14,15 Dan 16:19 40:21 73:7 82:24 133:24 133:25 136:23 140:15 141:2 Daniel 87:12 Danny 45:24 53:10 53:11 139:25 141:10 Dany 164:15 data 130:16 dated 134:21 Dave 51:11 106:15 107:17 126:9 Davies 51:11 106:15 107:18 126:9 day 2:6 28:12 164:12 deal 81:15 dealing 74:2,9 81:5 91:7 115:10 158:15	debrief 164:25 165:2 debris 99:19 decide 25:24 39:23 39:25 decided 132:22 133:2 decision 20:18,20 20:20 28:25 36:6 39:18,21 52:3,9 61:24 62:11,21 63:6,16 72:6,17 72:21 73:3,5,12 100:1 109:9 121:21 125:17,18 126:2 144:21 152:24 153:3,8,11 155:15,19,24 156:7,17 decision-makers 118:11 165:2 decision-making 19:13 21:4,7,15 26:17 27:1,11 108:12 120:11 decisions 81:15 91:9 112:14,17 138:15 143:6,9 145:6 160:5 declared 26:13 142:10 decrease 86:10 dedicated 8:25 34:25 153:13,14 default 120:14 defensive 27:23 degree 85:4 delay 59:5 62:1,1 64:11,12 137:5 148:14 154:9 delivering 24:3,5 Delta 27:17,23 demand 158:11 denotes 83:21 depending 30:2
---	--	---	--	---

36:14,20 50:9 69:21 85:6 102:18 105:9 depends 9:10,25 77:10 deputy 142:12 Des 89:24 92:21 describe 49:9 112:1 described 49:3 describing 29:4 description 115:23 130:14 131:3 designate 37:11 126:8 designated 34:6 44:20 designed 70:9,10 despite 159:25 detail 6:22 7:7 79:18 151:22 detailed 13:12 115:22 143:11 details 4:5,7 11:13 92:11 detector 132:8,11 determining 9:18 Develop 30:22 developed 142:23 142:25 developing 88:2,5 88:10,11 99:9 119:21 136:17 137:24 138:11,24 145:4,15,22 147:3 155:16 160:18 161:2 development 17:22 79:6 80:5 96:3,8 96:25 146:3 develops 111:15 dialogue 30:6 diesel 33:10 difference 38:9,13 different 2:22 31:12 42:25 50:25	71:3 73:4 77:5 86:15 91:11 107:21 115:12 153:13 163:18 169:22 differently 60:14 difficult 1:12 9:8 13:4 31:16 34:10 40:24 46:16 48:20 58:3,5 69:9 70:16 74:15,18 77:10 86:3 91:25 95:1 96:24 120:1 121:7 124:1 129:10 139:3 144:11 147:5 150:11 160:12,16 difficulties 50:19 50:22 150:13 dig 115:25 145:10 direct 86:21 directed 85:15 135:12 direction 62:9 91:8 135:17 168:14,22 directly 34:17 35:9 45:20 90:17 92:18 118:6 140:8 153:8 director 20:9 21:25 24:23 47:15 75:11 78:1 94:4 100:8 134:23 165:18 disagree 78:7 disclosed 83:6 discovered 117:20 discredit 119:7 discuss 71:10 138:1 155:24 164:25 discussed 92:16 discussion 49:3 91:21 128:3 dismounted 14:24 15:10 disorientating 60:15	display 39:2 disruption 25:16 distance 57:6 59:8 140:8 distinct 157:18 distressing 122:13 DMM 25:24 39:21 document 21:21,25 83:4,9,18 106:24 134:13 164:8 165:6 166:2 documents 45:4 106:23 121:17 125:1 134:14 140:20 164:3 doing 2:8 24:22 49:24 97:9 109:5 116:10 163:12 door 53:19 54:2 66:21 87:12 doors 40:17 58:19 Dorgu 45:21,22 Dowden 1:7,10,11 1:25 2:4 6:21 15:5 18:7 20:12 30:15 43:8,22 50:16 68:5 71:1,9 71:21,24 72:2 74:19 75:9,23 92:9 93:12,22 94:12 103:22 104:5,19,22 105:2 107:4 116:19 122:1,18 123:12 123:14,25 124:9 124:24 127:6 134:13,18 135:11 136:3 140:24 142:14 144:17 151:23 164:5 165:11 169:15,19 169:24 171:2 downward 86:13 144:19 DRA 26:11,12,12	26:16 draft 12:15 drafting 126:13 drain 77:1 drawn 137:12 drencher 143:21 driver 16:19,21,23 34:5,14 36:11 37:16 38:25 44:20 73:7 82:24 84:9 136:23 140:15,16 141:3 drivers 16:18 36:24 40:21 49:14 50:14 DRM 68:10 dry 7:20 8:17,19 9:3,6,22 11:25 14:6,8,11 36:25 49:8,10 50:1,7 61:12 62:22,24 63:6 64:24 65:12 65:21,25 66:2,6 66:13 67:4,7,9,18 68:11 69:21,25 70:1,5,9 due 119:20 136:17 163:25 166:18,18 duties 146:19 dynamic 15:23 17:16 20:23 21:1 26:11,15,25 27:5 28:5,8,11,21,24 29:3,13,16 31:21 33:1 34:9,10 36:21 53:23 84:7 91:9 108:6 138:11 145:5 160:6,6,9 dynamically 27:10	125:19,21 136:8 136:12 141:17 152:19 early 24:10 34:8 39:16 40:5 41:3 51:6 54:8 61:5 103:25 117:19 124:5 135:6 ears 32:4 156:6 ease 57:18 east 15:1,2,12 54:11 72:19 76:2 76:15 140:6 155:22 160:15,24 eastern 140:3 161:3 easy 50:12 effect 65:23 66:1 105:8 114:19 116:9 135:25 146:2 effective 30:22 102:5 effectively 65:11 75:24 85:2 134:21 Egan 133:24,25 eight 109:19 110:18 110:20 115:6 121:10,12,19,25 136:13 137:23 139:8,24,25 140:13,23 141:21 142:9,10,15 143:3 144:25 147:23 150:6 eight-pump 142:1 either 36:13 42:1 59:11 60:2 77:11 77:11,13 80:8 105:23 122:15 131:17 133:16 151:4 157:20 158:21 elapse 93:19 electronic 53:20 electronically 54:2
---	--	--	--	--

elevation 15:2 50:2 53:18 54:11 72:20 140:4 155:22 160:15,24 161:3	10:10 38:16 49:6 49:17,19 56:5 57:2 59:6 143:14 143:14	exercise 1:12 exhaust 66:10 exhausted 36:24 existing 3:1,10,16 exit 88:25 exited 98:23 exiting 69:18 89:10 139:21 140:11	explore 20:4 30:16 82:9 84:19 88:9 92:3 158:3 expose 60:16 exposed 145:1 expression 166:20 extent 161:8 exterior 16:3 74:12 75:5 76:24 87:3 88:4 89:7 96:2 97:9 98:9,14,19 100:10,12 101:23 113:23 115:17 120:23 121:5 137:1 138:19 143:4 144:20 145:12,22	facilitate 16:23 19:23 34:5,10 38:17 40:24 52:20 161:22 facilitated 21:5 32:13 40:21 49:13 50:14 84:9 133:9 facilitating 33:15 36:25 facilities 69:13 fact 24:22 56:20 60:20 61:1 75:25 159:24 168:25 factors 9:9,18,24 50:10 facts 18:14 fail 40:15 failed 41:4 60:20 98:5 99:8 106:13 111:16,19 136:3 137:7 failure 40:11 64:3 99:4 fair 63:9 73:15 83:8 87:5 91:13 92:9 95:5 103:10 114:7 158:17 fairness 90:12 fall 120:14,19 falling 78:21 80:25 81:8 99:19 113:22 114:3,9 familiar 19:2,2,9 19:10 24:10 128:9 128:10 familiarisation 8:11 53:21 127:19 familiarising 21:7 fan 128:17 far 15:20 38:9 94:23 149:21 150:10 fast 12:22 fault 55:10 fear 146:20
ember 79:5 embers 79:7 81:8 emergency 17:17 emerging 139:19 employ 6:15 en 7:4 41:13 51:23 encountered 135:10 endpoint 77:3 engine 7:18 9:16 49:16,18,22,25 50:6 engines 50:15 162:1 ensure 69:6 102:6 entered 54:23 entering 45:23 69:18 entire 2:6 25:2 entirety 77:15 entrance 11:2 14:14 45:10,10,23 50:3 53:17 54:1 entries 20:10,16 22:24 23:19 24:1 108:14 entry 9:23 10:11 11:19 12:6,21 20:8 21:22,23 23:11,13 27:15,22 40:9 46:1,4 53:8 62:2 64:9,13 83:18 89:18 108:15 137:6 envelope 16:4 113:14 137:20 environment 62:7 108:10 132:15 environmental 25:15 equipment 8:7	escalation 159:25 escaped 123:24 essence 64:9 essential 39:16 establish 25:23 39:22,25 52:15 established 8:4 35:23 40:7 55:13 establishing 49:7 estimated 129:18 et 10:3 98:3 evacuate 138:16 evacuation 6:3,4,8 138:7 161:23 169:13 evening 105:13 event 52:2,8 60:8 72:23 79:24 82:21 96:15 115:3 128:7 128:21 162:12 events 98:25 127:7 147:4 167:12 everybody 122:5 Everyone's 91:9 evidence 1:4 30:17 71:10,12 74:21 83:5 104:12 124:1 150:20 160:19,25 162:8 163:10 167:17 170:15 evident 12:14 120:25 exact 47:4 86:3 89:8 102:21 125:25 133:17 135:23 155:20 exactly 55:19 114:20 122:8 160:17 167:4 examine 156:12 example 118:25	expect 2:18 9:7 131:4 134:17 137:9 142:7 159:18 expectation 3:2,7 3:13,15 7:24 65:18 70:10 159:20,22 expected 5:11 110:10 111:6 131:16 expecting 148:5 experience 18:6 28:17 58:10 59:25 60:4 88:13 105:5 110:11 111:7 112:21 120:19 129:1 131:2,16,17 137:12 145:7,16 145:24 150:5 158:16 162:15 experienced 145:8 145:12 158:12 162:2 experiences 28:21 137:9 explain 26:22 52:16 55:25 56:14 74:6 81:9 82:22 83:19 106:20 107:19 108:23 128:20 140:13 explained 61:13 108:1 explanation 56:2 84:6	external 16:6,10 40:14 41:4 70:13 79:16 86:7 88:17 89:9,14 91:19 99:7,10,15 100:4 110:5 111:16,20 113:8,14 120:6 121:2,2 137:3,20 137:25 145:2 extinguish 27:23 144:5 extinguished 115:2 extinguishing 115:1 extra 8:9 extract 128:2 132:7 extraction 135:12 extractor 127:10 128:17 extremely 2:8 34:9 70:16 eye-opener 64:3 eyes 32:4 156:5	face 46:20 facia 88:3 91:19 110:5 114:3

feasible 69:24 70:2 70:5	45:2 47:7,10,14 48:22,25 49:5,14 49:16,17,22,25 50:6,14 51:8 53:3 54:18,24 55:8,20 55:23 56:24 57:1 57:4,5,8,12 58:2,4 58:6,6,11,12,15 58:17,19,22 59:16 60:1,9,12,17,23 61:3,6,12,19,19 62:5,12 63:3,21 63:23,25 64:6,14 65:4,5,9,17 67:17 69:4,12 70:7 74:2 74:9 75:3,5,12 76:2 78:18,18,22 79:7,12,20 80:6 80:10 81:5,9,20 83:7 84:22 85:10 85:18,23 86:4,7 86:13,17,18,24 87:4,14,21,25 88:5,10,11,13,21 89:9,14 90:18 91:7,16,17,23 93:15,16 96:3,8 96:25 97:1 98:4 98:15,21,23 99:9 99:14 100:3,6,21 103:1,4,7,7,12 105:13 106:12 108:24 109:25 110:2,3,9 111:5 111:15,17,23 113:19 114:16,17 115:1,10 116:1,8 116:14,21 117:10 117:14,16,19 119:21,24 120:3 122:12 123:7 124:3 125:15,23 126:6,8,12 127:17 128:21 131:9 132:10,23 133:11	133:18,19,19 135:9 136:17 137:1,17,24 138:19 139:10 140:7 141:19 142:1,1,4,23,25 143:4,10,12,20,23 144:1,1,6,9,22 145:2,4,12,20,22 146:4,16 147:2,11 147:13 149:10,16 149:24 150:18,24 151:5,9,12,25 152:2,5,14,16,21 153:1,7,15,19,19 154:2,11,15,20 155:16 156:13 158:18,21,23 159:1,6,14 160:1 160:14,17,23 161:10,19,25 162:1 163:25 166:17 168:7 169:2 fire-engineered 128:5,9 firefight 7:22 70:12 firefighter 12:21 13:2,5 16:19,20 19:17 27:4 36:14 45:20,20,23,24,25 46:2 53:11,11 56:14 73:7 76:7,8 76:10,11 82:24 89:24 92:21,24,25 105:23 111:14 116:22,24 118:13 118:25 119:5 140:15 firefighters 8:9 12:23 27:21 52:6 54:6 62:8 65:11 69:18 76:5 82:10 86:9,11 90:4,5,9 97:9 117:25 118:8	120:9 132:25 133:16 164:24 firefighters' 40:19 firefighting 2:11 11:16 12:2,5 13:3 17:23 18:9 33:9 38:15,16 40:25 56:3,20,21 57:13 58:25 59:3,4,10 60:7,8,20 61:1,21 62:12 64:22 66:7 66:8,18 67:21 68:9,20,20,25 70:11 146:10 fires 10:8 40:16 57:16 86:6 first 2:17 8:5,21 12:12 13:21 14:24 18:22 19:1 24:16 24:20 25:10 29:7 29:12 49:15 61:15 62:23 65:2,23 72:9 76:22 83:5 87:11 90:20 91:23 92:2 94:14,17 96:1 98:14 101:12 111:10 121:5 122:24 130:7,15 133:18 135:3 139:9 143:9 148:23 149:3,9 150:18 152:1 164:8,22 165:12 166:10 five 9:16 31:15 37:6 37:6 fix 106:21 fixed 121:14 128:4 flame 145:1 161:8 flames 88:25 121:2 flaming 112:7 113:22 flammable 113:9 flashover 12:15 flat 11:21 15:12	29:15 30:7,8,13 45:2 47:9,12 48:4 52:14 53:12 60:19 60:24 64:13 67:8 74:4,10,11,12 85:18 86:17 87:13 89:18 91:18,24 99:5,6 103:12 105:25 106:4,18 110:4 132:10 139:13 145:13 155:17 flats 11:3 67:15 106:17 107:3 132:8 144:25 152:16 167:6 flexibility 85:4 flights 66:15 floor 10:18 11:6 12:1,1,3,10,11 15:3,4,11 30:8 34:17 40:22 41:2 45:2 47:8 51:8,16 52:15 57:6,8 58:4 58:6,19 59:7,8 61:12,19,19,25 62:5,10,12,14,21 62:24,25 63:3,22 64:21,22,24 65:3 65:4,5,9,9,13,14 66:8,14,19,22,23 66:25 67:4,5,14 67:16,17 69:25 70:2,6,7,12 79:5 82:11 87:21 88:24 91:18 102:25 103:1 106:19 110:4 132:2 139:11,15 144:19 146:10 161:25 163:7,8,23,24 166:17 167:6 168:20 169:17 floors 10:4,6,17,19 10:20 11:3,9 41:1
------------------------------------	---	---	---	--

56:7 57:4,7 58:2 61:11 65:21 70:1 70:13 102:20 106:17 117:6 119:1,7 146:8 152:15 158:5 161:25 166:9 167:3,6,8,20 168:4 169:1 flow 21:8 77:5 focal 38:5 focus 106:25 162:25 focusing 65:20 follow 3:14 65:10 100:11 150:17 followed 109:13 154:18 following 3:15 26:12 108:11 164:21 foot 109:22 foreground 76:5 forgive 75:9 164:5 forgot 44:18 formulate 27:8 30:3 126:10 forward 7:14 8:9 27:9 46:1,5,6,7 169:22 forwards 134:21 found 130:21,25 131:12,24 134:4 146:17 four 8:10,13,15 9:17 41:7 42:4 52:11 65:11 79:23 84:22,24 102:20 164:21 four-pump 41:6,21 41:24 fourth 15:3,4 30:8 40:22 41:2 47:8 51:8 57:6 58:4 62:14,20,23 65:13	66:8,19,22,25 67:5 88:24 FR 143:9 frequency 81:25 frictional 66:6 105:11,14 fridge 30:9 47:10 114:17 front 32:14 35:10 35:12 38:24 45:20 73:17 76:15 80:21 102:1 112:20 130:8 138:23 143:13 145:1,7 FRU 144:21 FSG 155:3,4 FSGs 153:11 Fulham 149:2,13 full 56:20 161:23 fully 7:23 function 32:24 33:3 34:21 35:8 functionality 56:21 57:10 functions 35:5 37:25 further 7:8,11 25:13 31:25 41:13 53:1 56:2 57:8 62:1 64:11,12 70:17 72:6 79:1 95:19 110:20 115:8,15,25 136:23 145:11 156:20 158:1 159:2 168:7 future 165:4	125:6,10 140:22 140:25 G331 54:14,15,18 72:4 83:14,19 84:4 85:17 86:1 86:16 108:16 G362 85:15 106:15 107:18 gain 152:13 game-changer 89:1 gaps 146:13 gases 89:10 gather 21:9 29:7,12 gathered 48:24 gathering 8:6 general 6:23 17:12 67:3 generally 12:8 37:4 37:5,16 42:4 44:20 49:12 50:14 58:20 65:2 67:8 79:16 109:1 117:19 118:3,10 118:18 130:10 131:7 133:8 141:25 142:20,21 148:19 150:5 156:16 160:7 gentle 116:6 gentleman 47:7 gentleman's 47:9 gentlemen 123:22 George 165:18,20 getting 57:18 59:5 85:5 114:20 125:23 146:7 girder 131:19 give 6:23 7:7 10:13 12:22 28:16 52:21 56:20 57:21,24 74:16 76:22 77:15 92:14,19 93:13 102:21 143:18 155:20 156:3 161:15 163:11	given 24:18 28:7 62:9 69:9,13,23 80:10 87:10 146:3 147:12,17 156:18 159:11 161:11 gives 25:3 57:3 giving 22:19,20,21 22:23 24:12 71:12 104:1 124:1 168:3 glanced 15:1 glass 130:12 glow 15:3,12 go 2:10 6:25 8:17 8:19 10:1,10 15:24 18:14 19:16 20:7 21:21 22:2,3 24:23 25:10 30:19 32:17 37:24 43:13 43:22 46:19 49:2 49:2 52:14 54:7 59:13 61:16 62:20 64:20 65:3 67:16 68:6 70:12,17 71:8 77:4 79:1 83:11 84:4 85:13 85:15 89:4 92:10 93:7 95:19 97:10 102:6 106:9,24 109:18 110:12 119:17 120:1 122:25 123:6,18 124:4,4,9,24 127:7 129:6 130:19 132:1,19 136:12 140:20 141:7,21 144:18 146:8 149:14,15 150:16 153:13 155:9 157:11 163:9,24 165:6 goes 36:20 84:25 94:18 95:22 96:2 126:11 132:13,13 going 1:4,13,17 5:15 6:18 13:12	18:22 21:24 22:2 30:15 31:23 32:18 39:13 42:25 43:10 44:23 47:13,16 49:10 56:10 58:6 61:9 62:17 67:10 68:5 70:18,20 71:3,7 73:15 74:20 75:1 77:14 77:20,24 79:18 87:21 90:3,4,6,8 91:10 93:3,23,25 95:16 96:17 97:19 99:3,21 100:5 103:24 105:15 113:3 114:15 115:6 116:6,16,18 118:15 119:7 120:3 121:7 122:1 122:19,22,23,24 122:25,25 127:6 134:11 141:16 143:6,8 144:16 146:6,12,20 151:22 153:11,16 155:10 156:1,19 158:22 159:2 160:19 162:20 169:21,24 170:1,2 Golf 13:14,15 14:2 14:16,21 16:14,20 16:21 32:23,25 33:3 36:6 51:10 51:11,19 76:12 83:22 84:3,9 107:15,23 140:16 141:3,5,15 good 1:3 7:16 14:16 18:1,4 37:8 40:18 43:4,19 44:14 45:18 69:14,20 73:2 77:14 95:15 112:23 113:20 114:24 115:11 146:18 150:1
---	--	---	---	--

158:25 grassy 140:3 155:23 grateful 2:4 great 170:9 Grenfell 4:21,25 5:4 6:8,20 13:22 14:3 15:1,2 16:7 17:2,7 26:1 28:3 30:5,24 31:22 34:9 36:3 40:1 41:14 42:9 45:10 50:2 54:12 57:5 58:3 61:3 67:7,19 68:15 69:4 70:1,6 75:6 80:13 82:1,5 93:16 122:12 127:17,18 128:12 130:3 131:12 134:25 135:6 149:23,23 150:12 150:12 164:9 165:9 ground 7:24 17:5 27:4 28:23 32:15 33:16,25 34:4,12 34:16 35:8,9 37:18 48:9 49:19 51:15 52:19 57:6 59:8 76:5,14 77:9 80:25 81:8 85:5 88:23 101:17 105:13 107:16 108:24 115:18 116:14 117:10,15 117:16 118:11 125:15 126:6,9,12 130:1 132:2 145:18 148:18 149:16 151:19 152:21 154:20 158:21 166:5 ground-floor 14:15 31:21 55:9 66:4 72:19 97:12 118:6	127:14 group 85:11 142:10 142:16 guarantee 30:13 guidance 147:11,14 149:10 150:19,25 151:6,9,12,25 152:3,5,14,16 153:2,7,15,20 154:2,16 161:11 161:11 <hr/> H <hr/> half 137:5 halfway 15:8 35:20 44:24 hall 45:10 hand 46:4 handheld 39:2 51:12 117:9,10,20 handing 154:9 handle 94:3 111:25 160:8 handover 129:24 129:25 handwriting 165:12,13,14 hanging 129:8 130:22 happen 12:9 13:8 34:8 59:10 70:21 102:15 154:17 156:24 happened 11:14 33:6 92:6,8 114:5 126:13 154:25 156:16 157:2,3 166:11 168:1,17 happening 49:11 81:13 111:13 119:24 120:5 123:7 138:14,23 139:6 happens 10:14 12:19 37:14 100:5	125:12 126:23 132:6 156:17 happy 27:21 53:8 62:11 63:21 71:24 104:22 112:5 126:14 hard 12:22 hazard 27:9,15,19 27:25 29:2,9 69:19 108:10 113:11 hazards 5:18 30:1 head 35:18 39:1 132:8,11 145:4 heading 37:25 68:8 Headlights 35:25 Health 20:23 hear 1:4 37:15 44:2 47:19 77:22 78:5 78:6 101:17 122:11,14 123:1 heard 77:19 101:8 hearing 1:4 170:23 heavy 82:10 height 39:1 80:11 80:11 102:14,22 143:16 161:8 helmet 45:16 95:8 help 8:7 13:5,6 27:9 74:21,22 76:17 121:4,9 132:4 139:23 149:25 156:7 170:1 helpful 30:15 170:8 helps 21:8 hi-visibility 44:25 high 10:1 84:13 101:4,8,12,18,19 101:21,24 106:18 high-rise 2:11 5:15 6:11,15,24 7:1,3 8:8 10:9,22 11:1 11:16 12:5 17:4 17:12 18:3 27:13 27:14 31:19 33:8	40:8,17 41:16 49:4 56:8 57:16 58:7 60:1,13 61:10,22 64:8 65:17 70:14 72:25 80:10 88:14 103:8 108:1,20 133:10 145:13 high-rises 41:7 52:4 high-visibility 45:13,17 higher 23:18 40:23 117:1 118:13,14 145:13 highlight 20:9 highlighted 90:12 Hippel 82:10 hit 79:5 hold 74:1,5 81:4,10 114:21 147:8 honest 57:9 72:25 95:2 102:20 143:6 hope 1:25 5:10 104:20 170:1 hopeful 5:10 hopefully 9:19 159:1 hoping 89:12 hose 8:10,13,15,20 8:24 9:1,6,22 11:25 12:10 14:5 45:25 49:21,25 50:1 61:18 65:24 66:14,15,17,23 67:4 68:13,24 69:16,25 77:1 101:3,9,13 105:8 105:10,11,14,17 105:19,20 144:19 hoses 49:20 50:4 65:12 70:14 hour 1:15,18,19 129:15 137:5 hours 72:6 165:10	house 8:22 housing 4:19 HP 83:14,20 84:12 108:17 hydrant 7:17 8:21 9:10,11 16:12 36:25 49:16,18,20 49:20 50:5,12,16 76:21 Hydraulic 84:14,15 <hr/> I <hr/> IC 25:21 38:4 39:14,18,20 159:24 IC's 168:15,16 ICI 165:11 ICP 34:4,22,23 35:17,23 36:7 37:12 38:1,3,7,10 38:13 39:9 44:3 84:4 151:4,5 idea 10:14 12:22 133:3,4 Ideally 36:11 ideas 161:12 identified 4:13 7:12 8:11 41:16 48:3 69:3,7 identifies 83:10 identify 8:23 11:10 33:2 36:1 45:12 45:18 46:11,18 48:6,13,18 76:4 ignited 120:23 121:6 igniting 120:5 illness 164:1 166:18 image 96:24 97:5 images 95:18 97:15 98:22 112:13 imagine 74:19 immediate 59:3 immediately 14:22 153:24
---	---	---	--	---

impact 59:3 105:6 137:16 impacting 68:21 implement 89:3 implemented 106:18 107:25 108:4,11,19 implementing 49:3 important 29:24 150:5 152:25 154:7 161:17 168:9 impossible 70:8 161:24 impression 152:1,6 157:3,6 incident 7:12,13,24 12:19 15:23,23 17:8,16 18:6,11 18:16,16,18 19:6 19:13,19,21,24 20:19,20 21:4,10 21:14,14,15,16 22:6,6,14 23:10 23:15,21,21 24:9 25:7,21,22,23 26:1,2,5,14 27:2,3 27:6 28:9,16,17 28:23 29:11,25 30:3,22 31:2,3,8 31:15,18,20,21 32:7 33:1,2,15,25 34:3,9,23,24,25 35:16 36:13,21 38:5,14,18,19 39:14,17 40:6 42:2,3,8 44:25 45:14 48:9 51:4 51:15,20,23 52:18 53:2,23 54:9,9 55:5 60:5,12 61:5 62:3 64:2,4 72:7 73:18 74:7 80:17 81:14 83:6,11,18 84:7 85:5,8 88:20	101:17 102:2 106:24 107:16,23 108:5,13,23 109:1 109:4,8,15 112:24 117:14 118:3,4,4 118:10,11 121:17 121:20 124:25 125:5 126:5 127:2 127:13 129:11,14 130:1 135:6,11 136:14,24 137:4,8 139:4 140:21,25 141:5 142:8,10,11 142:15,19 145:17 145:18 146:14,19 146:24,24 148:13 148:18,25 149:4 149:18 150:7,10 150:11 151:15,18 153:4,12 155:15 155:21 157:10,15 158:1,19 159:5 160:3,7,10 162:3 163:16,20 164:13 164:21,24,25 165:1,3,3 incidents 52:5 61:11 72:25 include 6:3 8:8 included 19:14 inconvenience 104:3 170:10 incorrect 84:2 increase 90:5 137:22 158:11 increasing 68:21 138:24 independently 166:11 INDEX 171:1 indicate 124:20 indicated 123:24 individual 4:14 44:17 136:9 166:16	individual's 127:22 individuals 28:10 168:20 inform 5:22 55:2 109:14 134:2 165:4 information 2:22 2:25 3:3,16 4:8,11 4:17 5:6 7:5,7,11 7:13 8:10 17:9 18:4 21:9 29:7,12 29:21 31:7,17 42:12 46:1,6,7 48:23,24 52:13 53:22 61:4 62:4 63:1 72:21 74:15 81:19 114:22 118:20,22 119:9 119:10 131:18 135:1 139:15 146:14 147:1,20 153:22 163:4 167:2,25 168:3,9 168:12 169:8 information-gath... 7:25 8:5 31:11 informative 106:16 107:2,2,11 109:3 109:14 110:23,25 111:2 112:3,12 122:21 124:25 125:4,5,15,18 informed 54:24 ingress 12:7 40:19 65:7 67:6 initial 12:6 16:2 18:16 19:15,17 26:11 28:4 31:11 31:20 34:24 35:23 36:3 38:1,7 39:19 43:23 64:22 65:3 67:13 83:21 91:6 92:22 107:8 initially 7:4 14:20 29:5 30:6 41:10	50:22 57:14 59:5 injury 25:13 166:18 inlet 8:18 9:3,22 14:8 inner 69:17 input 19:15,18 28:18 52:4 INQ00000009 45:6 INQ00000026 46:9 INQ00000044 46:20 inquiry 2:2,5 171:2 inquiry's 71:11 insert 45:14 inside 30:11 47:1 115:19 118:20 119:6 139:6,10 147:7 157:4 169:2 installation 128:5 instantaneous 120:11 instinctive 28:6 29:3 instruction 90:1 96:12 97:4 instructions 92:14 92:19 integrity 67:24 intending 55:12 intent 112:23 146:18 158:25 intercept 116:24 interested 56:11 interfering 132:23 internal 24:21 53:19 70:13 88:18 88:19 118:18 133:7,7 147:21 internally 2:14 7:22 9:25 35:19 138:14 139:12 146:8 156:6 168:8 interpretation 114:1	interrogate 5:7 investigation 135:1 involved 29:23,23 88:4 142:8 169:10 isolate 59:20 issue 57:9 105:15 130:20 150:14,15 issues 2:19 64:5 105:5 164:1 166:25 167:3,9,21 it'll 77:2 items 5:25 IUP 83:13,19 108:16 121:18 140:22
J				
jacket 45:17 Jamal 54:16,17 jerkin 45:13 jet 40:14,18,22 41:3 76:7,8,20,22,23 77:12 85:17 86:1 86:8,17,23 87:3 88:24 89:3,4,6,9 89:17,23 90:3 91:3,22 92:13,14 92:22,24 93:25 94:15,18,20,23 95:3,15,20 96:2,4 96:6,10,13,19,23 97:9 98:9,12,15 98:20 99:2 100:2 100:10,12,19 101:23 102:4,7,15 102:25 103:4,5 105:4,6,9,13,22 jets 40:25 66:7 70:19 job 86:23 jog 92:1 July 164:4 June 1:1 18:19 19:8 26:1 28:4 134:21 134:22 146:1				

164:9 170:23 junior 152:22 justification 159:13 justify 141:25 142:6	27:5 28:8 36:12 37:2,10,12,17 40:15,24 41:20,23 42:10,18 48:2,13 52:4,4,8,20 55:6 56:12 57:1,8 58:25 60:10,13 62:6 63:12,14 64:5,7,7,8 83:1,8 83:24 84:5 86:8 88:3,18,22 89:8 91:6 92:6,16 93:10 96:7 97:4 97:11 99:16 100:2 101:23 102:16 106:3 107:9,13 109:4 113:7,8,9 113:14,24 114:1,2 114:23 115:11 116:15 117:1 118:8 119:5 120:3 120:8,17 126:9 130:14 131:2,9,9 131:11,23 133:4,5 133:20,21,22,24 136:2 138:14 139:6 140:1 141:10 142:14,18 144:12 145:8 146:15 147:1,3 148:23 149:25 150:4,9,10 156:17 157:1 158:25 159:1 160:4,6,8 160:10 161:20 162:5,11,17 165:21,21,22 167:1,4 168:7 knowledge 6:14 11:5,10 61:5 120:12,13,15 133:18 known 3:10 4:12 62:13 103:8,8 knows 92:3	L ladder 16:20 33:1 44:1 80:5,6,9,12 83:23 84:18 154:1 154:14,23 Ladies 123:22 laid 41:3 66:18 68:13 landlord 4:20 lay 69:15 lead 58:16 leader 148:24 149:15 151:2,21 152:18 153:5 154:12 leak 67:1 learn 151:9 learning 165:4 learnt 152:1 leave 57:16 75:7 113:2 153:24 163:7,23 166:9 169:6 170:18 leaving 58:11 75:19 79:22 82:1,4 lecturer 23:6 left 6:20 22:1 46:4 118:3 134:7 left-hand 14:15 20:17 50:3 lends 86:21 length 8:16,23 9:2 14:7 66:20 105:11 105:12,14,17,20 lengths 8:10,13,15 lessen 70:18 let's 43:11 72:3 89:4 103:16 109:22 113:15 121:15 156:9 letters 35:21 level 7:24 14:15 15:3,4,11 19:22 21:6 22:11,12,17 22:18,22 24:13	31:21 35:7 41:23 42:1,2,3,3 49:19 52:19 55:9 57:17 58:9 66:4 72:19 74:8 88:24 103:11 118:6 142:7 143:12,20 144:16 144:19,22 levels 37:2,4 42:1 LFB 18:23 19:5 59:9 60:3 85:9 129:18 146:9 LFB's 41:18 LFB00000048 18:24 24:19 LFB00000164 19:6 LFB000003117 164:6 liaise 18:1 31:24 32:9 52:23 153:8 life 25:9 26:5 27:22 29:9,11 lift 10:3 54:2,24 55:8,20,23,25 56:3,5,13,15,19 56:20,21,24 57:11 57:11,17,21,24 58:6,12,16,25 59:4,10,13,15 60:7,15,20 61:1 61:10 132:2 lifts 10:4 58:23 60:2,12 light 3:6 80:24 81:7 limit 31:13 limitations 40:25 line 32:14 35:10,12 77:1 81:2 111:9 143:13 line-ups 143:14 lines 29:18 31:6,9 31:10 52:11 68:24 97:25 106:10 114:21 128:7 132:1 136:20	166:7 link 38:3,10 linking 32:19 links 33:18 liquid 76:17 list 2:15,17 3:21 4:7 5:7,8,25 6:1 25:12 35:20 listed 25:17 listen 47:17 77:22 100:12 listening 109:7 litres 66:3,9,10,11 70:19 little 2:14 20:4 21:25 23:9,18 30:16 52:10 65:20 68:18 79:1,2 85:4 85:7 91:14 95:19 106:5 115:25 117:18 123:12 126:1 127:7 132:18 live 74:25 lobbies 66:22 67:19 68:21 lobby 45:10 54:2 62:14 67:1,5,8,15 127:14,18,20 132:8,9,18 134:3 135:10,14 136:9 136:10 local 4:20 7:17 11:4 11:10 19:22 22:12 22:17,18,22 24:13 locate 49:18 located 29:21 38:25 50:17 127:15 131:15 150:4 location 14:5 69:21 128:2 130:11 131:21 150:8,9 155:20 locations 75:18 Loft 151:15,17,18
---	--	---	---	--

152:20,24 153:3 154:6,9,10 155:1 155:2 log 13:18 83:6,19 106:24 108:14 121:17,20 124:25 125:5 126:25 127:3 129:14,19 136:14 140:21,25 157:10,15 161:18 logging 82:11 London 3:1 7:2 10:22 11:20,23 17:4 29:10 47:14 83:7 133:18 142:4 153:19 long 9:5,18,21 29:22 77:10 85:7 97:17 105:17 149:25 159:15 160:10 longer 1:20 83:9 104:1,6 123:12,13 123:23 142:21,24 look 4:5 5:20 7:3 16:3,8 23:18 24:16 26:9 28:21 30:17,20 31:4 35:14,18,20 38:2 39:14 45:3 68:2,6 72:2,3,4 74:22 75:3 78:17 83:4 91:14 93:23,24 94:14,18 96:18 97:3,23 102:4 108:13 110:1 122:16,22,24 127:17 129:20 135:2 136:19 163:1,1 looked 2:14 16:9 63:5 97:25 110:23 112:4 125:7 looking 2:17 3:24 4:3 19:1 21:12	22:20 29:9 54:11 55:18 59:19 68:18 73:15 75:22 77:8 83:17 98:22 102:17 108:15 111:7 123:1 127:12 130:15 140:7 144:5 161:18,25 looks 63:4 76:16 96:24,25 97:5 98:22 101:2 107:18 112:10 140:24 164:13 loop 94:4 losing 104:2 loss 66:6 105:11,14 lot 2:25 3:2 33:11 33:11 69:25 74:15 91:7,8,9 120:8,10 152:7 162:11 loud 44:4 louder 77:23 lower 10:4 52:10 144:19 Luke 75:3 93:4,15 lunch 103:25 104:2 104:6 105:2 luxury 37:1 <hr/> M <hr/> machine 9:1 33:7 33:12,14 34:6 107:22 141:6 machinery 127:9 madly 122:9 magnesium 79:14 99:17 110:14 116:2 main 7:20,22 8:18 9:7 11:6 14:11,14 25:3 32:13,14,19 33:16,18 34:1 35:11 36:9 38:21 45:23 50:3 53:17	54:1 61:15 68:11 70:9 109:7 126:19 136:10 maisonette-style 11:1 majority 6:15 54:8 make-up 41:10,18 85:6 109:12 137:22 143:2 148:8 157:12 159:25 164:22 make-ups 7:9 141:17 163:18 167:14,19 making 20:18,20 20:20 39:21 52:24 62:1 72:7 109:18 110:14 113:20 114:24 115:3,11 136:12 137:6 146:7 157:11 male 45:1 46:10,12 46:22 49:7 52:13 man 48:21 man's 47:4 manage 153:7 154:1,15,20 managed 154:19 Management 5:2 20:19 21:24 22:6 23:21,24 manager 19:17,21 21:15 32:2,9 35:7 41:25 42:2,6,10 42:16,21 51:10 52:12 53:7,10 54:15,16 55:22 61:4 84:21,23,25 85:2,8,11 87:9,13 89:5,16 90:23 91:1,22 92:13 96:9 107:17 111:12 113:21 114:11,14 116:11 116:20 119:18	129:22 130:2 133:12,24 134:5 135:18 141:18,23 142:3,11,16 151:15 152:20 153:4,25 154:1,14 154:15,23 155:3,4 159:5,10 166:12 166:15 167:1,7,19 168:14 169:12 managers 85:10 managers' 19:21 managing 5:3 153:15 manner 39:19 manual 132:17,19 132:22 133:2 manually 134:12 manuscript 165:7 March 21:23 22:5 markers 110:19 MARTIN 1:3,9,11 1:22 2:1 36:16 37:10,21 43:2,4,6 43:10,17,19,21 71:4,14,17,21 72:1 73:10 75:17 93:9,21 95:6,11 95:13 100:16 102:12,23 103:10 103:15,21 104:5,9 104:11,14,19,22 104:25 122:5 123:8,10,13,16,22 124:9,12,16,19,22 162:23 169:24 170:5,9,12,14,18 material 78:18,21 80:25 94:1,24 95:16 96:4 98:11 98:18 99:3,11,22 112:7,10 113:1,13 113:22 114:9 materials 137:17 137:20	matter 9:19 23:14 41:11 51:18 53:9 54:13 141:9 150:7 165:25 matters 2:15 5:6,8 maximum 37:2,5 102:14,17,19,20 105:4,7 MDT 7:6 106:19 mean 64:14,23 65:10 66:14,25 74:6 88:16 99:6 101:20 102:21 105:18 107:13,21 125:17 132:4 138:21 141:3 146:3 165:21 166:24 168:4 means 7:10,19 11:19 27:18 119:12 153:24 meant 61:24 142:23 measure 100:3 154:8 measures 4:1 mechanical 119:12 media 12:2 13:3 122:17 meeting 164:4,12 164:17 165:15,17 member 75:25 101:20,22,25 members 28:11 123:2 memories 130:7 memory 4:2 13:17 14:20 16:18 40:13 47:2 50:18 53:17 56:18 73:6 74:20 92:10,21 101:16 110:25 120:4 130:7 140:15 146:13 157:13,17 157:18 168:18
---	--	--	--	--

Merton 125:16 message 82:25 83:1 83:19 84:2 106:16 106:25 107:4,4,11 107:15,18,25 108:3,8 109:3,11 109:11,14 110:23 110:25 111:2 112:3,12 122:21 124:25 125:4,6,10 125:11,18,24 126:2,10,11,14,14 126:15,17,25,25 136:22 140:14,25 141:4,7,11 143:3 157:15 messages 33:16,25 34:6 37:20 39:10 44:2 83:10 116:21 117:4,21 MET00005713 134:15 MET00013830 83:7 MET00014885 47:15 meters 106:17,17 metres 8:16,22 9:2 70:22 105:19,20 Metropolitan 163:15 MICHAEL 1:10 171:2 mid-morning 1:20 middle 15:6 25:5 25:11 69:16 155:12 162:19 163:3 Mike 78:8,8 165:11 Millett 1:6,7,16,17 1:24 2:3 37:22 42:25 43:3,5,21 43:22 71:1 72:1,2 73:11 75:20 93:2 93:12,22 95:14	100:18 102:9 103:24 104:4,19 104:20 105:1,2 122:8 123:12 124:8,22,23 162:25 169:19,25 170:6,8 mind 15:25 32:19 55:18 86:21 mine 147:3 minimal 59:7 minimise 25:16 59:17 minimised 69:8 minimises 68:14 minimum 8:7,10 14:7 37:5 66:1 84:8 minute 66:3,9,10 66:11 70:19 75:10 110:23 125:24 150:16 163:9 minutes 1:18,19,21 9:19 43:11 71:6 71:15 97:21 100:14 109:2 123:10,14 125:22 125:24 137:8 158:9 mistake 164:5 mitigate 25:14,15 mitigating 50:10 142:2 Mm-hm 16:16 mobile 51:4 97:12 97:14,16 148:13 mobilisation 41:19 72:12 147:24 148:7 mobilise 153:25 154:13 mobilised 148:12 155:2,4 mobilising 72:16 mobility 164:1	166:25 167:3,9,21 mode 26:13 27:10 27:16 106:19,20 model 20:18,21 21:7,16 26:17 27:1,11 39:21 108:12 128:10 modes 27:17 molten 112:6 113:22,25 114:9 moment 15:22 17:20 28:23 30:17 36:23 40:5 52:17 53:22 56:11 69:13 71:2 74:17 80:17 81:13 83:3 94:20 95:4 97:20 98:12 98:19,23 99:21,22 100:6 101:17 102:2,11 103:13 107:22 108:25 110:21 111:7,10 113:2 120:16 126:6 137:11 138:10 139:21,23 144:14 145:25 151:11,23 154:7 161:22 162:6 168:6 169:11 moments 162:14 monitor 39:9 42:8 97:8 166:5 168:19 monitoring 42:8,11 42:15,18 84:24 85:1,11 109:6,14 142:13 159:17 MOORE-BICK 1:3,9,11,22 2:1 36:16 37:10,21 43:2,4,6,10,17,19 43:21 71:4,14,17 71:21 72:1 73:10 75:17 93:9,21 95:6,11,13 100:16 102:12,23 103:10	103:15,21 104:5,9 104:11,14,19,22 104:25 122:5 123:8,10,13,16,22 124:9,12,16,19,22 162:23 169:24 170:5,9,12,14,18 morning 1:3 28:4 61:13 108:2 112:4 129:16 136:14 mouth 87:1 140:5 move 9:13 27:9 95:5,6 97:10 106:22 moved 135:9 moving 7:14 40:17 MPS 167:15 multiple 7:11 151:12 152:8,9 153:1,11 Murphy 76:8 89:24 92:21 105:23 <hr/> N <hr/> name 22:3 23:20 127:22 149:16 natural 28:18 nature 133:9 158:18 near 149:21,22 150:6 nearer 141:14 nearest 148:10 nearly 169:20 necessarily 4:11,14 17:18 36:20 41:1 42:7 64:17 108:22 141:3 necessary 49:5 68:24 90:13 98:2 138:4 need 3:17 7:14,16 8:7,24 12:7 17:24 26:21 31:22 34:20 34:21 36:22 37:19	39:18 48:17 52:25 80:18 93:6 124:19 129:7 141:24 156:5 157:11 159:12 168:10 169:9 needed 53:19 65:6 79:21 109:12 142:5 156:22 169:1,5,7,8 needing 53:24 169:17 needs 39:8 109:9 negate 100:3 network 30:23 32:7 neutral 116:7 never 32:18 116:16 125:13 138:25 145:8,11 158:20 158:21 160:4 162:2,16 165:24 new-build 3:5 night 6:19 13:23 18:16 19:2 28:3 29:14 30:5 33:4 36:3 37:5 42:9 44:11,15 47:2 49:13 59:12,21 61:3 69:4,10 80:3 91:7,10 93:16 112:15,16,17 121:22 122:12 126:5 127:7 129:8 130:18 131:23 133:23 136:12 138:15 139:7 146:1 154:21 157:19 162:13 164:14 166:11 168:17,22 169:23 Nodded 6:6 noise 33:11 non-ambulant 166:9,20 168:4 nonexistent 70:23
---	---	---	---	--

70:24 normal 44:13 59:22 59:23,25 61:21 65:16 76:22 84:21 103:7 141:18,20 153:24 159:5 normally 9:21 17:13 44:19 64:16 141:22 159:8 North 10:24 13:15 17:5 89:25 note 3:12 16:10 21:1 82:7 164:12 165:16 notepad 168:15,16 notes 20:25 82:8,13 156:10 noticed 91:17 110:3 110:8,16,21 111:4 notified 42:7 142:12 November 18:25 number 9:9,17 12:25 13:1 18:19 29:10 50:10 81:25 83:10 94:12 152:4 numbers 15:7 numerous 158:5	obstructed 9:12 50:12 obstruction 68:14 69:7,14 obtain 16:12 49:15 obtained 52:13 obviously 4:8 5:20 7:14 9:9 11:20 12:17 23:3 29:10 36:22 42:17 51:8 52:23 55:7 57:15 60:11,13 65:4,7 76:25 77:1 83:25 84:1,6,8 85:5 87:20 99:8 107:15 111:17 115:9 118:5 119:8 120:9 120:24 126:5,10 134:9 138:9 148:6 148:12 150:8 156:3 158:2 161:6 occasion 21:3 22:8 71:5 127:16 occasions 18:19 occupant 48:3 occupants 58:10,18 59:17 68:21 82:4 occupier 31:12 occur 56:19 89:15 occurred 106:6 occurring 115:23 offensive 27:18 office 130:13,14 officer 4:14 23:3 24:3 35:6 38:24 41:24 42:8,11,15 42:18 51:9,11 63:10,16 84:24 85:1,11 107:20 108:24 126:7,8 130:1 133:11 142:2,4,13 151:14 152:21,22 156:18 156:19 159:17 officers 85:5 91:7	109:6,6,7,15 120:9 131:9 142:22 159:22 Official 134:25 OIC 135:11 okay 2:21 14:10 16:1 18:13 21:20 22:18 23:17 28:25 29:7,18 33:12 36:22 47:23 48:17 54:5,20 55:15 70:12 74:8 84:19 86:22 87:7 95:14 99:21 102:9 104:15 106:8 109:8 117:24 118:13 119:15 120:5 121:24 123:5,8 124:21 127:5 128:9 130:4 136:11 137:6 141:8 144:7,23 146:5 149:19 151:18,22 157:9 162:23,25 165:19 167:1 omission 135:5 once 1:14,18,19 8:4 12:5 30:10 40:7 47:24 50:4,6 53:5 54:6,23 55:13 77:2 84:25 96:18 oncoming 31:24 51:12 52:20 Op 107:8 open 58:18 66:23 130:8,22 132:12 146:3 opening 49:19 132:12 operable 9:11 50:13 77:6 operate 42:4 128:24 129:1 135:20	operating 31:14 127:10 135:13 operating' 135:23 operational 25:7,24 39:23 40:1,3,6 60:5 68:8 operations 32:3 60:8 62:12 66:9 67:21 68:20 164:23 165:18 operator 36:9,17 37:13 107:11 126:24 154:19 opinion 102:24 opportunity 14:6 57:2 opposed 79:22 101:14 141:11 OPSGrenfellTo... 134:20 optimum 31:14 orange 15:3 ORD 2:24 3:4 order 13:15 25:17 36:19 39:9 49:8 59:1,10,15 60:2,7 83:10 85:18 ordered 103:4 orders 91:8 ordinary 44:1 48:22 65:16 organisation 5:2 28:14 113:12 133:25 organisational 12:18 30:22 organisations 4:23 origin 60:9,18,24 92:17 145:14 original 79:23 129:18 135:11 originally 123:24 Oscar 27:17,18 106:20 Oscar.' 106:19	outcomes 165:5 outlet 8:18,19 14:11 49:21 50:1 67:9 69:25 70:14 outlets 67:8,19,20 67:23 69:22 70:6 output 70:18 outside 16:8,9 19:24 31:22,23 34:16 43:25 47:1 47:3 54:10 72:18 85:17 86:2,17 88:1,20 94:23 96:9 99:9 115:12 115:23 119:21,25 120:18 129:24 130:12 136:18 137:25 155:17 157:1,5 overall 25:24 39:17 39:23 40:3 overhang 85:7 overload 81:16 139:2 146:16 overnight 170:16 override 56:4 132:17,19 owner 31:12 ownership 153:6 154:11 owns 4:18 oxygen 111:18,19 111:21
O				P
o 69:18 O'Beirne 116:22,24 118:25 119:6 o'clock 104:1 124:6 124:14 129:16 169:20 O'Keefe 51:1,5,9 51:21 73:14 82:11 153:9 158:2 163:5 166:8,12,15 167:1 167:7,19 168:14 169:12 O'Keefe's 82:8 156:10 observe 32:10				pace 150:1 pacing 97:14 pad 135:21 page 2:14 15:5,6,8 19:1 20:7,14 21:21,22 22:2 23:18 24:21,23,24 25:11 30:19,20 35:18 37:24 39:13 44:23 52:10 54:21

61:15 68:7,19 72:2 81:3 83:11 91:14,15 97:24,24 98:1 106:10,25 107:2 108:13 109:20,22 113:16 121:17 125:2 130:19,21 136:16 136:21 140:21 155:10,12 162:19 163:2,3 164:8 165:7,20 166:3 paged 42:10 pager 42:8 pages 127:11 136:15 paint 109:5 pair 51:14 panel 127:20 128:2 128:17 129:7 130:8,8,10,12,15 130:21 131:6,7,13 131:20 134:3 135:13,20 136:6 136:10 paper 2:23 paragraph 15:7 38:2 39:14,15 61:15 63:20 68:7 68:10,12,19 72:3 81:2 135:4 136:19 136:20 paramount 12:18 pardon 90:24 park 9:12 14:3,19 parked 14:2 149:19 150:2 part 14:3 16:6,22 24:10 29:24 68:12 76:11 88:18,19 94:17 124:1 143:14 157:25 169:9 participants 164:11	particular 5:16 10:24 52:8 120:4 124:2 particularly 17:5 19:16 27:6 40:19 52:5 54:11 56:7 57:16 60:12 64:4 69:17 86:9 88:23 89:23 97:12 136:16 160:2 parts 54:8 139:4 party 5:12 passage 90:11 passed 135:10 pause 8:13 46:14 71:23 75:21 94:22 101:7 104:21 170:20 pausing 100:18 135:15,24 PDA 41:14 penetrated 145:1 people 4:23 8:1 13:6 44:2 49:24 74:25 75:10,18 78:7 84:19 122:6 122:12 139:21 140:11 146:2 158:20 166:8,25 167:2,5,8,20 168:4,25 perception 84:1 91:10 perfect 14:5 performance 164:20,23 performed 29:6 period 97:17 142:21 159:15 person 4:18,22 5:13,21 17:1,1,7 17:14,15,19,24 18:2,7,11 34:14 46:21 48:13,18 73:6 128:13,16	131:8,22 133:10 133:18,20 163:6 163:22 personally 14:23 personnel 9:15 27:14,19,25 29:1 37:8 41:20,23 52:6 56:6 57:2 58:1 68:22 84:8 108:9 151:10 personnel/equip... 58:8 persons 4:24 7:12 13:6 29:23 74:4 phased 6:3 phone 18:10 photograph 45:5 photographs 45:3 physically 39:8 72:17 PIC 166:22 pick 76:15 148:10 picked 148:9 picking 35:17 picture 45:19 46:9 46:10,11,13,20 109:5 151:24 pictures 95:7 piece 49:17,18 127:9 168:9 pieces 112:6 pinpoint 86:3 92:7 120:2,4 pipe 7:21 place 6:12 10:11,15 10:16 12:20 13:4 27:25 80:13 89:3 100:15 106:2 113:12 118:5 plan 6:8 7:14 25:24 27:8 30:3 39:17 39:23 40:1,3,6 59:9 60:19,25 61:7 72:24 96:11 plans 59:3	platform 84:13,14 84:15,18 play 47:13,16,18,23 47:25 48:5,15 78:1,19,23,24 94:4,8,17 101:2,5 played 47:21,22 48:16 77:15,17,21 78:3,20,25 79:3 94:6,10,19 95:21 96:17,21 100:17 100:25 101:6 123:3 playing 102:25 please 1:7 2:13 20:5 24:20 26:23 38:12 45:4 46:8 47:21 48:15 68:7 71:10 74:6 78:2 78:19,23,24 83:4 83:11 97:23 98:17 100:12,24 101:5 103:16 104:11 106:10 121:16 123:9,15 125:1 140:20 155:9 165:6 170:15 plug 11:25 12:9,10 49:20 61:12 62:21 63:6 64:24 65:3,8 67:13,15 69:24 70:14 plugged 50:17 61:18 62:24 65:4 66:14 plugging 63:2 plume 161:8 plus 80:9 106:17 pm 103:18,20 104:16,18 123:19 123:21 170:22 point 1:23 12:18,19 13:2,19 16:5,6,14 16:15,25 17:3,8,9 17:13,19,22 24:25	25:1,10 26:9 30:21 31:20 35:3 35:3,17,19,20 37:23 38:5 42:15 42:17 43:4 45:1 51:24 55:7,7,16 55:17 56:10 57:1 57:19 61:7,20 62:18 64:17 72:15 74:1,5,7,12 76:1,3 76:14 79:6,9,19 79:19,25 80:2,7,8 80:8,15,20,23 81:4,19,22,23,24 82:4 85:22,25 86:1,16 87:11,21 88:3 89:2 95:3 96:3 98:4,9,20 99:2,12,13 102:4 103:23 106:12 110:8,16 111:8 112:1 113:7,8,11 114:12,20 115:9 116:14,16,18 117:2,3,18,22,22 118:1 119:25 120:1,22,25 132:3 132:5,21 133:6,17 136:7,25 137:19 137:23 138:2,4,7 138:13,17,18,20 138:22 139:7 141:15 143:2 144:2,3,9,21,24 147:13,19 148:6 148:14 149:9,17 151:8,11 152:18 152:23,25 153:9 158:14 159:17 160:13,23 161:9 161:13,16 163:6 163:18 169:23 pointing 97:1 points 3:24 6:1,23 11:18 25:3 30:19
---	---	--	---	---

40:16 57:25 166:1 police 155:13 163:15 policies 18:22 19:14 21:12,19 22:13 24:11,17 108:8 policy 2:10,11,12 3:12 6:16,24 7:2,3 7:15 11:17 18:23 19:3,3,5,6,9 22:9 22:9,19 23:2 24:7 24:17,17,25 25:2 25:4 26:16,18,19 26:24 27:7 28:15 28:22 30:20 31:4 31:19 35:14,15,18 35:19 37:24 39:13 40:8 41:18,19 61:23 65:1 68:2,3 68:6,16,18 69:3,7 80:13 84:23 85:9 109:2 120:10 133:9,10 138:9 147:24 154:18 161:23 policy-based 21:10 polluted 168:23 populated 2:25 portably 39:6 portion 75:5 pose 90:4 posed 7:8 position 14:20 67:18,20,23 97:13 97:17 positioned 14:25 68:13 positive 39:18 possible 35:24 102:24 144:18 170:3,4 post-incident 168:23 potential 60:10	64:5 168:6 potentially 58:16 58:17 59:19 60:15 67:22,23 86:25 89:15 133:4 157:25 power 59:20 practicable 109:13 practical 24:5 practice 7:16 18:1 37:8 40:18 44:14 61:14 67:3 69:14 69:20 73:2 77:7 165:4 PRC 164:4,9,19 165:1,9 PRCs 165:17 pre-planning 8:23 11:5,11 14:4,7,10 14:10 precise 13:17 106:21 111:25 116:19 163:13 precisely 11:13 predetermined 41:6 147:24 153:21 premise 3:5,7,25 5:16 7:8 29:20 33:9 40:20 128:6 153:23 premises 2:16 3:9 40:18 131:18 preparing 80:10 present 48:11 148:25 164:13 presented 149:17 presents 69:10 press 126:16 press-to-talk 39:2 pressing 126:18 pressure 50:23 65:24 70:18 102:18 105:4,6,16 106:5,5	presume 76:7,19 167:4 pretty 131:23 144:22 prevent 25:13 previous 6:14 14:4 110:10 112:21 120:12,12,15,19 137:9 145:6 162:15 167:14 previously 69:1 92:16 111:6 112:15 primary 25:7 26:4 principle 12:23 67:9 prior 51:22 64:1 137:5 priorities 25:23 39:22,25 priority 25:17 27:22 109:11 153:1,5 private 4:20 PRO 164:22 probably 5:9 32:18 43:7 93:8 102:19 102:19 128:22 140:12 procedure 27:14 49:4 68:8 84:21 106:18 108:1,20 141:18 154:2,16 154:18 159:5 procedures 19:7,19 35:16 77:5 108:8 164:21 process 2:21 3:4,15 4:4 10:8 15:24 16:17 21:9 26:13 28:14 29:25 31:17 49:9 61:8 82:22 125:2,7 126:1 143:25 145:3 147:14 148:6	150:19,25 157:25 162:12 processes 5:16 products 5:19 132:14 professionally 13:9 13:10 progress 12:3 64:21 113:20 114:25 115:4,11 149:10 151:6,13 152:2 prompt 78:12 80:6 96:22 156:9 prompted 51:24 137:22 promptly 43:12 property 9:4 29:10 30:1 47:11 153:23 163:7,23 169:6 propped 66:23 protect 12:11 40:19 75:8 86:23 protected 11:2,7,8 66:16 67:6,6,10 67:14,16,24,25 68:25 132:13 provide 4:16 38:3 66:3 provided 51:2 57:1 73:14 114:14 provides 70:19 public 2:8 28:11 75:25 101:20,23 123:2 public's 101:25 Pugsley 134:20 pull 66:15 pump 8:18 9:6 16:12,19,21 32:20 33:1,3,10,11,15 34:3,23 35:23 36:4 38:1,7,22 43:23 44:1,1,2,4,6 76:21 83:23	107:24 141:5 143:13 153:25 154:14,23 pumping 8:20,21 8:25 32:14,25 33:2 34:24 35:11 35:12,24 42:4 66:4 84:24 85:1 pumps 41:7 72:7 72:21 73:12 78:13 79:20,22,25 80:9 80:20 81:24 82:12 82:22 83:14,20,21 84:22 108:16,20 109:19 110:18,20 115:6 121:10,12 121:18,25 136:13 136:24 137:23 139:8,24,25 140:13,23 141:19 142:9,10,15 143:3 144:24 147:23 150:6 155:11,16 156:13 157:12,16 158:8,9,9,10 159:9 160:14 161:9 164:22 purely 38:14,17 146:25 165:1 purpose 26:4 39:19 89:8 133:1 purposes 6:9 25:7 160:22 169:8 put 5:15,18 7:14 9:8 11:25 14:8 29:1 33:24 40:9 50:8 62:8 69:11 70:20 84:20 86:1 86:16 87:1,3 89:6 89:13,13,17 90:1 90:2,3,8,9 91:2,3 92:17 106:4 107:7 112:15 113:12,14 114:11,24 116:6 116:21 118:5,8
---	--	---	---	---

120:24 121:7 140:5,14 143:23 159:1 160:16 167:14 putting 12:16,23 13:2 86:8 87:25	34:11 41:11 64:10 142:20 144:13 quickness 50:11 quite 1:11 41:3 43:7 47:24 52:5 55:10 64:10 80:1 89:22 91:11 97:12 97:16 126:6 168:13	112:20 114:4 120:13,15,21 162:14 reaction 101:25 reading 130:16 146:9 ready 40:14 41:4 124:4 166:6 real 3:14 31:20 36:21 60:16 87:4 90:9 99:18 105:8 105:15 111:10 115:22 146:24 147:3 154:8 163:18 realise 158:14 realised 120:22 121:5 really 11:18 19:18 29:24,24 31:16 34:20 58:5,7 70:11 86:10 89:22 90:8,8 92:7 120:2 121:7 125:8 137:10 147:4,5 168:9 rear 44:9,9 reason 33:6 44:17 131:10 138:8 141:10 reasons 31:2 reassured 119:20 136:17 recall 53:24 54:4 54:19 56:2 63:1 78:14 82:2 91:5 96:6 102:8 106:1 115:24 116:4 130:18 134:8 138:3,20 139:3,17 139:20 147:4,9 150:22 152:12 155:25 156:7,23 157:1 168:1 recalled 135:5	recalls 87:10 recce 63:12 receive 20:1 33:25 39:4,9 119:10 147:20 153:22 received 41:13 55:22 61:3,17 62:3 125:11,15 126:22 134:9 148:8 156:8 163:4 166:15 receiver 39:3 receives 153:19 receiving 22:18 23:11 63:2 117:21 117:24 156:23 recognise 165:13 recollection 4:2 14:24 40:13 41:12 47:2 51:20 54:8 55:3,21 72:13,18 73:13 74:11,21 78:12 79:24 80:7 80:22 81:16,22 82:15,20 89:12 90:24,25 91:3 92:1,5 94:25 95:4 96:7,14,22 97:3 98:25 106:6 110:19 114:2,23 115:3 129:9 140:12 141:1 146:11 147:19 151:1,20 155:21 156:9,11 157:22 157:24 166:10 168:2 record 3:6 4:15 20:16 23:5,7 41:12 51:18 53:9 54:13 156:11 163:16 164:2,3 recorded 82:13 records 13:14 18:17 19:12 20:6	121:20 149:2 red 45:14 90:1 refer 3:11 5:14 10:24 11:20 22:13 28:15 34:22 51:7 57:25 79:14 99:15 111:10 112:13 120:8,10 137:24 146:15 154:23 157:19 158:24 166:14 reference 22:24 24:18 26:16 39:20 61:10 72:14 99:7 99:18,19,25 129:13 134:15 155:13 161:3 163:19 167:13 referenced 138:9 143:11 referencing 108:8 143:17 referred 72:15 105:10 107:23 136:8 144:3 150:21 152:19 159:10 referring 21:19 31:3,19 36:5 38:6 48:8 55:21 64:1 69:15 80:22 107:1 107:5 113:24 137:4,14 147:1 163:17,19 reflect 166:13 reflected 127:1 reflection 112:16 139:20 168:18 reflective 162:11 162:14 refresher 19:20,21 19:22,25 refurbishment 3:20,23 4:6 127:24
Q quantity 77:8 quarter 83:12 question 2:18 6:10 18:13 25:25 30:10 32:17 33:23 37:22 38:12 39:24 41:22 47:25 48:2,5 56:14 57:22 65:23 66:13 72:9 82:3 85:21 86:14 89:4 90:20 94:14 95:24 96:18 98:17 101:22 102:13 105:3 124:24 125:3 131:11 141:16 144:17 159:4 163:12 165:12 166:10 169:15 questioning 1:23 questions 2:2,7 5:7 6:18 13:12 29:16 29:18 35:15 38:21 47:6,19 65:22 68:4 74:23 77:24 94:13 100:9 125:8 139:5 146:20 160:22 169:21,25 171:2 queue 75:12 quick 10:5,8 85:6 91:9 112:18 148:6 160:5 quicker 24:22 57:3 58:2 quickest 14:6 quickly 13:8,9	R radio 32:13,15,19 33:16,18,22,25 34:1,16 35:8,11 36:9,17 37:12,15 37:19 38:21 39:1 39:3,10 43:24 51:3,12 53:25 54:24 55:2,4,10 55:11,16 61:17 64:25 109:8 113:18 116:23 117:4,8,9,10,20 118:9,15 119:4 126:19,20 153:15 radioed 87:13 114:15,16 radios 119:12 rank 84:25 85:1 133:12 142:7 159:8 rapidity 50:11 57:18 121:1 rapidly 138:11 155:16 160:23 161:2 rate 90:7 145:15 146:17 159:25 rates 77:5 reach 41:1 102:15 105:4,7,25 reached 80:11 react 60:14 137:3 reacting 79:13 81:12 99:15,17			

<p>regarding 81:20,25 regulations 15:20 reiterated 30:11 relate 137:2 relates 27:13 relating 21:9 relation 2:15 4:24 11:14 27:18 58:3 75:2 92:8 99:6 relatively 124:16 Relativity 24:18 relevant 5:6 relieved 38:5 127:13 129:11 142:15 rely 4:16 5:5 9:10 remain 31:20 36:1 38:4 52:19 60:9 remained 67:25 80:14 remains 100:15 remember 4:22 14:22 19:8 21:3 40:4 42:16,17,22 44:10 46:25 47:4 50:16,19,22 51:5 52:2 53:15 54:15 54:17 55:19 63:1 72:23 73:11,21 74:14 75:17 79:6 80:2 82:3,6,17 83:2 84:11,16 87:17,17,19 89:7 89:19,20,20,22 91:21 92:20 97:7 99:11,13 100:1 104:11 106:7 110:17 112:4,8 114:3,18,19,20 115:2,22 116:8,9 116:10,22 117:6 121:22 127:21,22 127:25 128:6 129:21 130:5,9,15 130:16 134:5,9</p>	<p>135:17 136:6 137:14 139:12,24 140:1,14 145:3,19 145:25 147:6 149:5,16,19 150:24 152:4 155:1,5,18 156:14 156:15 157:3,6,8 158:6 160:14,17 161:1,2,13 164:17 165:15 166:21,23 167:7 168:13,15 168:25 169:14,16 170:15 remembers 87:15 remind 122:5 reminded 71:10 remote 109:15 remotely 18:10 122:16 removed 39:5 repeat 33:23 38:12 41:22 57:22 60:21 70:4 75:2 93:6 98:17 122:10 157:14 repeated 145:24 replicating 143:21 replied 113:20 reply 30:14 report 51:16 127:2 reported 7:12 13:6 82:12 reporting 139:10 reports 139:9 163:6 163:22 166:16 168:10 request 51:14,25 83:22 142:5 158:3 159:11 requested 52:14 64:20 84:11 85:17 requesting 136:23 required 7:10 37:20 41:24</p>	<p>requirement 66:2 68:16 requirements 41:20,23 66:11 requires 85:10 rescue 17:23 56:6 56:25 57:13,17,21 57:24 133:20 143:10,12 158:5 169:9,9 rescuing 169:1,5,7 169:17 resemblance 46:24 resident 29:14,19 30:7 31:12 147:17 residential 6:15 11:7 106:16 107:3 residents 8:1 17:10 58:16,18 60:10,13 69:18 81:20 82:1 82:4 132:24 133:16 139:10,19 167:5 resist 70:21 resolve 112:23 resource 21:9 36:15 37:8 53:1 72:7 73:1 103:6 142:5,21 153:16 156:4,21,22 159:11,12 160:11 161:21,24 resource-heavy 52:6 resources 7:10 27:20,25 29:1 31:25 32:5 34:11 39:20 52:25 102:2 102:3 109:9,12,16 141:24 142:23 156:5,20 159:2 160:9 162:5 resourcing 4:1 9:15 35:3 36:20 74:8 110:20 115:8,15</p>	<p>153:10 158:1 respect 4:21 106:1 152:17 responding 136:4 response 13:22 47:6 146:9 Responsibilities 25:20 responsibility 5:22 26:2 27:4 36:13 126:12 152:22 responsible 4:18,19 4:22,24 5:12,21 8:1 17:1,1,7,14,19 17:24 18:2,8,11 29:19 63:15 127:24 131:8,22 133:10 rest 125:6 163:9 result 66:21 resume 103:17,25 104:7 123:11,17 159:14 170:16 returned 134:3 review 164:20,23 reviews 26:12 revving 33:11 ride 37:5 ridership 37:2,4 riding 37:6 right 2:1 3:18 6:17 8:17 9:14 16:24 17:21 18:13,20 19:11 20:3,15 21:12 22:4,19 24:8 27:20,24 30:15 32:17 33:5 34:7 35:6 36:8 37:1 43:17 44:6 44:10,16 45:15 46:3,7 53:14 55:10,12 60:6 62:13 65:12 66:12 71:9,14,21,24 75:20 77:18 78:15</p>	<p>80:19 82:16 84:4 84:10,13 85:9,9 87:16 88:8 92:1,4 92:19 94:7,21 95:13 96:16 97:2 97:22 98:15,20 101:1,7 103:15,17 104:9,14,22 105:17,21 107:12 109:17 113:15 115:17 122:2,4,9 123:10,18 124:10 124:17 126:16,20 127:5,21,25 128:25 129:8,19 140:6,10 147:15 147:23 148:4 149:1,11,25 150:10,15 151:3 151:22 154:23 155:8 156:13 158:2 160:19 161:5 162:20 163:21 165:6,19 166:19 170:5,12 170:14,21 rise 103:25 106:18 124:5 riser 9:3 11:25 14:6 14:8 36:25 49:8 49:11 50:1,7 61:12 62:22,24 63:6 64:24 66:2,6 66:13 67:4,8,9,19 69:21,25 70:1,9 risers 65:13,21,25 rising 7:20,22 8:18 8:19 9:7,22 14:11 68:11 70:6 risk 4:12 5:11,23 12:16 20:23 21:1 26:11,15,25 27:5 27:11 28:5,8,11 28:21,24 29:3,13 29:16 40:11 60:16</p>
---	--	---	---	---

62:8 68:21 69:3 86:11 87:4 90:5,5 90:9 99:4,23 108:6,10 113:10 144:25 risks 5:18 7:8 58:10 59:17 road 28:12 149:23 150:12 robust 3:8,14 role 16:22,22 18:18 21:24 22:6 23:1,3 23:21,24 24:7 25:6 26:5 34:25 36:14 37:17 126:8 135:10 142:11 156:18 roles 65:5 roll 100:8 roof 143:12,20 144:16,22 room 11:21 42:14 74:25 75:7 93:10 106:18 107:10 122:15 125:14 126:24 151:4 155:7 rooms 93:11 roughly 1:14 9:5 39:1 125:21 129:11 140:9 157:13,17 167:11 round 14:25 122:24 131:19 139:18 route 7:4 41:13 51:23 routes 68:25 rule 12:22,25 13:1 109:1 rules 15:20 run 49:21,25 68:24 78:16 93:5 running 67:5 95:2 164:14 runs 9:6	Rydon 128:13,16 Rydons 4:25 127:23 <hr/> S SAD 83:13 107:8 108:16 safe 10:15 11:24 27:8,12,20,21,24 29:1 40:7 65:7 108:7,11 140:8 147:17 161:15 safely 64:10 153:24 safety 4:1 12:17,21 20:23 133:11 134:23 save 25:9 27:22 29:11 saving 26:5 saw 14:22 52:8 63:5 81:15 87:3 91:23 92:2 98:11 99:18,22 112:14 112:20 113:1,5,22 113:25 129:7 131:25 132:3 136:13 145:22 saying 63:4 77:24 82:18 101:4,8,20 114:8 119:2,11 140:11 145:11 165:16 169:12,16 says 15:9 26:10 30:21 35:22 38:2 39:15 51:2 68:12 68:23 72:5 73:16 87:9 89:5,16 90:15 91:1,4 92:2 101:11 107:25 116:5,7 117:4 135:8,19 136:1 158:2 165:8 166:4 166:7 scale 160:3 scene 7:15 13:21	17:16,20 18:12 42:23 108:5 130:1 scenes 93:15 scheme 32:13,15,19 33:16,18 34:1 35:11 36:9 38:21 109:7 126:19 science 90:7 screen 6:5 20:5 75:23 110:1 125:2 125:19 135:21 164:6 scribing 168:15 search 17:23 56:25 57:13 111:18 138:5,16 second 12:8,9 23:11 51:16 52:14 59:7,8 68:12 102:12 secondly 94:1 105:22 seconds 75:14 83:15 93:19 108:18 122:18 Secrett 32:2,9 52:12,21 53:7 54:23 55:2,11,19 55:22 56:14 61:4 61:18 62:4,13 65:1 87:9,13 89:5 89:16 90:23 91:1 91:22 92:2,13 96:10 111:12 113:18,21 114:6 114:12,14 115:16 116:11,20 118:7 119:19 section 2:16 37:25 93:14 sector 135:9 138:15 138:16 secure 12:7 55:8 64:21 65:7 130:11 131:21	secured 54:3 Securing 68:8 security 53:20 see 4:6 5:25 6:5 8:2 15:3,9,10,12 16:2 18:17 20:15 21:23 22:1,11 23:11,19 25:5 26:9 33:18 35:22 37:25 45:18 45:25 48:5 68:10 74:12,14 76:2,16 77:8 78:17,21 79:2,4 83:12 86:14 88:1 90:15 90:19 92:1 94:15 94:20,23,24 95:20 98:7 99:2 100:18 101:1,2,9,13,13 106:10 107:2,8 108:14 112:6 115:17,21,25 119:22 121:9 122:2,11,14 123:1 123:6 125:4,6,18 126:11,16 127:3 130:22 131:4 139:19,23 141:8 145:10 148:22 149:13 156:9 157:4,5 158:2 163:21 164:15 165:7,19 166:3,7 seeing 15:18 82:4 99:11,13 115:12 145:7 161:8 seek 60:25 seen 51:24 79:11,12 79:16 80:24 87:8 94:13 97:7 98:18 98:22 101:12 102:1 112:13 113:3 116:6 119:1 134:17 137:2 138:1,25 145:17 165:24	send 39:3 53:3 82:25 106:15 107:18,22 109:10 125:18 126:2,16 141:11 sending 117:4 senior 129:25 142:1 142:22 151:14 152:21 159:22 seniority 142:7 sense 140:13 senses 132:11 sensible 93:8 150:9 Sensitive 134:25 sensory 81:16 139:1 146:15 sent 53:9 54:6 83:1 83:22 87:23 108:9 110:22 111:1 112:2,12 115:7 118:13 122:21 125:24 126:15 134:16,17 135:2 136:22 141:4,4 143:3 156:8 157:16 158:3 sentence 63:19 64:18 68:23 72:5 73:24 85:14 97:25 98:1 106:11,11 113:16 119:18 134:1 separate 11:8 26:18 26:19 32:24,24 33:14 34:21,22 35:4 96:6 sequence 94:13,16 94:17 97:7,19 sequences 93:25 122:19 serious 58:23 90:5 service 2:8 session 21:11 23:15 24:4,4,5,7 set 2:21 10:17,20
--	---	---	---	--

19:19 51:14 53:5 57:7 61:11 66:8 67:7 69:24 70:5 77:4 166:5 sets 8:8 76:21,21 setting 67:3 settings 77:5 seven 97:25 136:20 seventh 81:2 117:5 severe 164:21 shaft 132:13 sheet 42:13 Shepherds 137:13 137:14 145:20,21 145:24 shopping 2:15 3:21 5:6,8 short 43:15 71:19 83:6,9,18 103:16 103:19 104:17 106:24 108:13 121:17,20 123:20 124:16,25 125:5 129:23 136:13 140:21,25 157:10 157:15 158:13 166:1 shorter 1:14 shortly 95:23 129:24 should've 23:9 56:1 56:16 shouting 78:5,12 show 18:22 21:25 74:20,24 75:5 93:3,14 111:16 112:5 113:3 122:1 122:19,23 128:16 128:17 134:13,18 160:20,25 164:2 showed 127:25 shown 15:6 20:5 23:7 81:1,7 95:25 109:20 121:16 125:1 127:20,21	155:10 shows 13:18 20:17 76:1 93:15 side 14:14,15 15:1 15:12 50:3 76:2 76:16 109:10 134:10 140:6 161:2 signage 5:19 signal 77:15 signalling 122:8 signature 165:19 165:23 signed 135:2 significance 130:17 significant 52:2 72:23 134:25 signs 8:3 12:14 SIL 83:19 similar 110:13 116:2 151:13 159:4 simpler 82:3 simultaneous 49:23 65:24 simultaneously 151:20 single 2:19,20 3:13 28:12 67:24 70:14 SIR 1:3,9,11,22 2:1 36:16 37:10,21 43:2,4,6,10,17,19 43:21 71:4,14,17 71:21 72:1 73:10 75:17 93:9,21 95:6,11,13 100:16 102:12,23 103:10 103:15,21 104:5,9 104:11,14,19,22 104:25 122:5 123:8,10,13,16,22 124:9,12,16,19,22 162:23 169:24 170:5,9,12,14,18 siting 8:24	sits 21:16 38:25,25 sitting 39:8 situated 38:22 situation 39:22,25 110:8,16,21 111:4 138:12 situational 28:22 31:23 63:13 situations 60:14 six 6:1 9:16 37:2 64:1 72:21 73:12 73:20 78:8,13 79:20,22,25 80:9 80:20 81:24 82:12 82:22 83:14,20,21 84:25 108:16,20 137:5,23 141:19 141:21 158:8,9 161:18,19 162:1 166:7 six-pump 85:10 142:1 sixth 82:11 117:5 size 105:9 slightly 1:14,20 50:25 73:4 82:3 86:15 104:1,6 169:22 slot 121:18 122:19 slow 116:7 slowed 116:17 slowing 116:10 slowly 23:10 SM 132:2 134:2 small 11:18 59:5 75:4 131:19 132:18 smoke 62:7,15 63:5 66:25 67:6 69:1 81:20 82:10 127:10,14,17 128:2 129:20 130:6,20 131:13 132:3,4,7 133:5 134:3 135:12	snapshot 25:3 26:24 sole 126:12 solely 154:1,15 solution 128:5,9 132:23 somebody 33:21 48:11,12 126:4 131:12 165:13,16 169:17 soon 35:24 51:15 109:13 153:18,21 159:21,23 sorry 21:24 31:5 32:17 33:23 38:12 86:24 98:17 123:22 125:16 151:16 157:14 167:14 sort 3:24 4:2 5:14 7:3 14:15 19:18 25:3 39:1,1 41:25 77:4 105:15 114:3 129:23 131:19 136:7 137:10 151:13 161:17 sound 77:2 sounds 28:8 48:10 78:7 source 7:17 17:9 18:4 49:16 111:20 sources 7:5 31:7,12 south 14:14 50:2 53:18 spans 31:4,5,6,9,15 sparking 79:15 99:16 110:13 113:17 114:1,10 116:1 speak 17:13 36:18 speaker 43:25 44:4 speakers 44:16 speaking 16:25 48:4,10,12,13,19 49:6 73:11	specialist 143:13 specific 24:7 32:25 79:9 121:16 128:11 129:2,10 131:14 139:4 152:4 154:3 167:12,15 specifically 74:16 88:17 107:21 139:13 specifics 84:17 89:21 128:6 specify 141:6 speculative 144:17 speed 57:14 spell 124:16 spending 2:6 spitting 79:15 99:16 110:13 113:17 114:2,10 116:2 split-second 120:11 spoke 7:6 19:15 21:7 29:8 42:13 46:12,22,25 47:3 48:21 50:9 51:20 96:9 spoken 92:13 spray 76:23 spread 60:17,23 69:1 75:3,12 86:7 86:13,24 89:9,14 93:15 100:4,6 137:18 143:5 156:12 160:14 168:7 spread/loss/risk 25:13 spreading 54:18 85:19 121:2 160:23 staff 155:7 stage 17:16 31:21 33:1 34:24 40:11 51:6 84:7 143:25
---	--	---	---	---

160:6,6,10 166:2 169:17 stages 7:3 15:23 34:8 36:21 39:17 40:5 53:23 113:15 135:6 staircase 57:3 66:16,22 67:1,6 67:24 69:19 162:2 stairs 10:3 66:15 stairways 68:13,25 stairwell 11:2,8 59:12 67:10,12,14 67:16 133:5,15 stairwells 69:16 stamp 83:13 stand 54:7 63:17 164:19 standing 15:18 34:16 139:24 140:1 147:16 155:18 stands 95:18 107:14 start 2:4,10 6:19 47:17 75:22 94:16 100:11 138:18 140:3 155:22 170:6,10 started 79:7,10 87:22 99:13 starting 91:19 94:5 110:5 119:17 138:22 starts 72:4 109:22 134:19 state 81:20 stated 45:1 statement 15:5 36:6 44:23 49:2 51:2,7 52:10 54:21 55:19,21 61:9,16 63:19 64:18 72:3,10,14 73:14,24 79:10,14	80:22 81:1,9,17 85:13 87:10 89:5 89:16 90:11 91:1 92:8 97:24 98:24 99:16 106:9 107:5 107:17 109:20 111:11 112:2,15 113:24 114:14,24 116:5 119:16 127:11 129:6 130:19 136:15 143:11,17 144:3 146:9 150:21 151:2,12 155:9,12 156:10 157:20 158:24 161:6 162:19 163:1,12 163:14 166:13,14 167:14,15 states 65:2 84:23 static 97:13,17 stating 106:16 station 22:13,17 42:6,10,16,21 84:25 85:2,10 107:21 129:22 130:2 133:12,24 134:5 135:17 151:15 152:19 153:4,25 154:14 155:3 station-based 19:23 20:17 21:6 22:11 stations 2:24 status 13:18 51:3 108:25 148:16,20 stay 36:18 97:13 stay-put 6:11,16 80:13 147:16 161:14,23 stayed 97:8 137:7 stays 33:24 steady 115:4 steam 90:7	steps 69:6 75:7 93:18 102:6 122:15 133:22 Stern 54:16,17 82:10 Steve 134:23 stood 41:19 stop 47:23 77:16,18 78:4 85:19 86:12 86:24 89:9,14 94:11 123:4 169:24 storage 5:19 story 115:13 strange 28:9 130:10,21,25 131:1 strategy 6:12 59:9 61:22 64:15 89:1 89:2 Stratford 125:16 154:22 stream 75:1 101:3 101:9,13 stressful 60:14 strict 154:8 structure 30:23 31:3,18 38:18 52:16,18 struggle 147:3 stuff 99:19 subject 23:14 37:13 90:22 134:24 subsequent 26:12 substantial 3:19 successfully 112:24 sudden 156:12 sufficient 66:17 103:6 suggest 1:17 48:24 103:24 108:3 128:22 143:22 summarising 167:17 summary 6:23	11:16 24:25 25:1 25:2 35:19 63:9 SUP 107:3,13,14 125:6 supervisor 19:20 20:19,25 22:4,12 22:24,25 23:1,4,6 23:14,24,25 24:6 supplies 7:17,19 9:10,11 16:23 68:8 supply 7:19,20 9:4 10:10 11:22 12:3 12:24 16:13 36:25 49:7,15 50:5,7 53:6 59:20 64:21 69:11,22 70:20,23 111:18,19,21 supplying 9:3 33:7 33:10 support 64:20,22 64:23 supports 39:17 suppose 148:22 168:6 supposed 128:20 suppress 86:7 103:7 146:18 suppressed 111:24 sure 11:24 18:23 45:24 52:24 62:9 75:15 77:4,6 93:6 96:11 123:25 126:11 135:12,23 158:20 surrendered 4:9,12 4:17 5:12 30:2 48:23 53:22 survival 147:11,13 149:10 150:19,24 151:5,9,12,25 152:2,5,14,16 153:1,7,15,20 154:2,11,16 161:10	swapped 65:6 switch 132:22 switching 133:1 symptoms 8:3 12:14 system 2:21,23,24 27:12 40:7 53:20 72:12,16 108:7,11 127:1,10,14,17 128:20 129:20 130:6 132:7 135:12 136:2 143:22 systems 2:22 3:1 27:8,20 132:7 <hr/> T T 165:20 tab 2:12,13 18:23 20:5,6 24:17 35:16 45:4 46:8 46:19 68:3 83:5 106:23 121:16 125:1 134:14 140:21 164:3,7 tabard 25:22 45:1 45:14 149:18 table 1:8 tackle 8:7 tackling 6:25 10:8 63:22,25 91:16 109:24 110:2 113:19 115:10 tactical 26:13 27:10 27:16,16 106:19 106:20 tactically 88:23 take 9:5,18,21 10:6 13:17 20:5 37:19 49:17 56:4 57:10 57:11 58:20 60:19 60:25 69:6 71:5 75:7 80:25 85:2 93:17 102:6 104:6 109:19 113:15
---	---	---	---	---

122:15,16 123:9 126:24 127:6,8 133:22 135:9 150:1 151:3 152:22 153:4,5,6 154:9,11 160:21 taken 23:9 36:6,17 45:5,9 74:1,5 75:24,24 81:4,10 112:14 121:21 125:19 152:24 157:20 takes 37:17 136:13 talk 104:11 126:1 144:16 170:15 talked 119:12 talking 22:13 34:2 48:7,8 81:23 116:20 152:11 tally 51:19 tamper 131:10 task 70:8 97:10 154:3 156:21 tasked 107:20 143:19 taught 19:18 team 2:5 87:24 111:22 148:11,24 149:15 151:2,21 152:18 153:5 154:12,12 teams 32:10 65:11 tell 14:2 29:4 36:16 53:25 56:16 62:22 73:16 78:10 105:24 115:5,21 116:1,3 117:4 125:9 151:4 158:18 159:25 telling 116:20 135:3 Tenant 5:2 terms 4:1,24 7:11 7:15 8:24 9:15,24 10:8 17:12 24:25	28:25 32:1,7 35:18 36:24,24 47:7 48:9 49:10 50:11 51:13 52:6 56:24 57:10,13,21 57:24,25 67:3,24 69:10,14 74:16 78:17 79:13 85:7 86:4 89:1 92:7 99:8,14,19 100:6 102:21 108:7 109:4,12 110:19 111:13 112:22,23 113:9 114:25 119:8 120:14,19 121:1,5 128:23 131:14 138:23 139:1 143:21 145:6 146:6,7,13 147:20 150:9 152:4 158:1,24 159:8 160:2 161:21 165:2,3,4 166:13,14 test 74:20 76:22 77:3,4,9,10,12 92:10 testing 13:16 thank 1:9 2:3 6:17 11:12 13:11 24:15 28:2 35:13 37:21 43:6,13,20 51:17 65:10 71:1,16,17 71:25 93:21 94:7 94:11 95:13 103:15 104:8,13 104:14,25 105:21 124:7,8,15,21,23 136:11 169:19 170:5,17,18,21 thankful 2:8 theoretical 20:16 theory 21:10 33:13 33:17 34:5 37:19 39:11,12	theory-based 23:15 24:4 thing 22:17 28:6 29:9 59:19,22 80:1 86:5 89:22 132:16 152:25 154:7,11 things 4:7 10:2,11 13:8 25:12 26:7 31:4 37:13 46:4 59:11 60:17,23 77:11 93:23,24 94:2 113:12 131:17 138:10 think 1:12 6:7,20 13:14 14:2 16:25 18:15,17 19:1,15 19:25 21:24 22:9 24:23 27:24 28:7 29:3,8 34:20 36:4 45:25 46:2,22 48:18,20,22,23 53:24 59:20 61:16 64:1,3 69:15 71:5 73:6 76:1,1 81:1 83:4 84:12,17 87:22 88:14 90:12 93:9 95:9,11,24 97:16 102:10 103:10 105:3 108:1 112:1,6 113:6,22 114:5 119:11,24 120:2 121:10 123:4 126:5,7 128:2,13 129:11,14 138:21 138:24 142:14 143:4,8 144:10,18 146:25 150:17 151:11 156:11 161:16,17 162:12 163:14 165:20 170:6,8 thinking 52:7 56:12 90:20	103:14 116:17 130:9,16 138:20 143:23 144:4 154:6 third 26:9 64:24 65:9,13 66:7,14 66:21 67:4 81:2 107:1 thirdly 131:20 thorough 3:8 thought 15:16,22 15:24 16:6,10 29:25 61:8 79:21 81:12 88:4,10 95:2 112:22 137:2 143:25 144:5 145:3 146:5 154:5 157:7,25 162:11 162:15 thoughts 80:12 85:22 86:18,21 136:25 137:10,12 137:16 145:23 146:2 147:6,10,15 158:22 161:10,12 161:14 162:7,8,10 three 11:3 20:10,15 31:9,13 41:10 95:7 thumb 109:1 time 6:10,13 9:8,11 10:7 15:16,22 17:18,20 28:24 32:2 34:3 36:15 36:23 41:19 42:9 42:17,22 48:12 49:10,23 53:22 54:16 56:19,22,23 57:15 61:7 64:8 69:13 73:7 74:17 79:9,24 80:18 81:13,16 83:3,5 83:13 84:1 85:22 86:3,16 89:25 90:20 93:4,7 95:4	96:1,15 97:17 98:14,24 99:2 101:13,17 102:4 103:4,13 104:2 105:22 106:21 107:7,22 108:6 112:11 114:5 117:1,18 120:1,16 120:24 121:7,12 121:14,18,25 122:19,20,24 125:9,12,14,22 126:7 127:7 129:17,18,21,22 130:5 137:11,19 138:10 139:16,17 139:18,21,23 142:22 144:14,18 145:25 147:10,19 148:2,4 149:4,9 149:24 151:11,13 152:23,25 154:6,7 154:9 156:25,25 157:7,11,23 158:13 159:15 160:10,13,16 161:4,13,17,19,22 161:24 162:6,9,10 162:12,13 163:11 163:17 165:10 167:10,16,22,24 168:5,6 169:11,14 170:6 time-critical 154:10 time-specific 92:6 96:14 97:11 timed 112:5,9 timeline 95:2 112:16,19 157:18 160:16 167:12 times 39:9 96:6 117:9 129:10 163:16,16 timescale 158:13
--	--	--	--	---

timescales 9:25 timing 72:10,11 93:25 94:18 113:2 116:19 121:4 timings 72:11,13 111:25 143:18 tip 42:12 TL 84:18 today 1:5 112:13 141:17 told 6:24 18:15 63:7 82:9 87:13 89:6,17 91:3 106:4 114:16 116:7 124:12,13 134:6 150:24 156:12 166:5,8,12 167:7,19 169:1 Tom 16:20 165:18 tomorrow 170:2,7 170:16,21 top 54:21 91:15 109:20 110:1 113:16 130:20,23 136:16,21 150:11 160:8,24 166:4 topic 43:1 50:25 71:3 109:18 155:10 169:22 totally 32:23 touch 135:21 tower 4:21,25 5:4 6:8,20 10:25 11:4 13:22 14:14 15:2 15:11 16:7 17:2,7 26:1 28:3 30:5,24 31:22 34:9 36:3 40:1 41:14 42:9 45:10 49:1 50:2 53:15,16 54:7,10 54:12 57:5 58:3 61:3 64:2 67:7,19 68:15 70:1,6 73:18 74:9 75:6 76:2,16 80:13	82:1,5 93:16 119:6 122:12 127:17,18 128:12 130:3 131:12 134:25 135:6 137:4 139:19 141:14 149:21,22 149:23 150:1,12 155:17,22 160:15 164:9 165:9 167:5 167:6 track 47:25 traffic 5:9 7:9 37:20 39:3,4 41:13 51:13 53:7 55:22 61:17 62:4 64:25 87:19,23 92:6 96:9 114:20 115:7,15 116:24 117:24 118:9 119:7 146:5,6,11 153:15,16 155:25 156:8,23 166:15 train 144:4 trained 22:8,10,16 28:10 42:1,3 131:9 133:11,19 training 6:24 18:17 18:18 19:12,14,20 20:1,6,16,17,19 20:25,25,25 21:1 21:2,4,17 22:4,11 22:19,20,21,24,25 23:1,4,5,6,12,14 23:24,24 24:4,6 24:12,12 28:7,16 28:17,22 52:4 112:21 129:2 transmitted 118:21 transport 58:8 trapped 153:23 166:17 travel 59:8 Trellick 10:25 11:4 64:2 137:4	Trial 20:9 21:25 24:23 47:15 75:11 78:1 94:4 100:8 tried 55:23 136:3 trigger 75:1,2,15 93:7,13 97:20 100:14 122:10 triggered 72:24 trip 69:19 trucks 51:15 true 91:11,12 156:15 161:7 168:16 try 31:13,16 64:8 69:16 100:3 102:3 103:6 133:4 135:20 136:9 143:20,23 146:18 160:11 trying 55:8 69:15 94:2 108:23 111:17,25 134:10 136:6 141:2 145:5 146:17 147:4 160:11 tuck 69:16 Tuesday 1:1 tuned 117:13 tunic 117:10,11 turn 2:12 10:9 24:20 28:7 42:25 44:5,18 45:4 46:8 50:5 71:3 106:23 110:9,17,22 111:5 125:2 136:3 148:5 155:10 166:3 169:22 turned 30:6 40:5 44:10,13,16 60:17 60:23 144:12 turning 28:16 111:8 112:1 turns 108:24 twice 47:10,18 122:24	two 10:17,20 11:9 16:18 18:22 20:1 21:12 24:11 27:16 33:7 35:4,15 42:1 46:4 49:13,24 51:12 53:3 57:7 57:25 59:11 61:11 65:11,12,12,12,21 65:25 66:15 70:13 77:11 85:10,21 93:24 94:2 96:6 100:9 108:14 125:24 130:7 131:17 139:5 147:25 148:5 163:15,17 164:20 166:1 168:19 two-thirds 20:13 two-way 5:9 type 84:11 typed 164:8 <hr/> U umbrella 21:16 unable 55:23 unaffected 69:2 unaware 151:7 uncomfortable 75:6 79:11 87:22 93:17 99:14 100:7 110:15 111:11 116:3 119:17 120:18 122:13 138:12 uncommon 40:16 86:5 88:15 111:15 111:21 118:8,9 126:7 156:2 uncontrolled 58:12 58:15 underneath 20:24 23:23 83:12 140:7 140:8 understand 4:11,15 5:3 23:8 26:15	33:10 81:18 87:2 99:1 103:22 107:14 111:23 112:25 114:8 115:14 133:23 162:18 understandable 5:17 understanding 4:25 17:3 23:2 30:12 35:21 36:5 37:18 40:20 72:13 74:8,10 82:20,23 114:23 115:8 119:5 125:13 128:1,3,23,25 133:6 136:2 140:2 151:24 152:13 154:5 155:2 161:20 169:4,7,10 understood 75:16 undertake 26:11 28:4 68:25 undertakes 5:21 underwent 3:19 undue 62:8 unfortunately 121:8 unique 128:4 unit 32:20,23 33:19 33:22,25 34:18,21 35:2,4 38:14 131:25 143:10,12 148:11,11,13,24 149:3,6 150:6 151:2,21 152:18 153:6,25 154:12 154:14,25 units 128:18 147:25 148:5,16 unknown 12:3 unprecedented 146:16,17 160:3 upper 10:6 56:7 119:6
---	--	--	--	--

<p>upward 86:12 urged 156:13 urgent 158:3 urgently 135:7 use 8:20 10:3 39:5 55:12 60:11,12,15 65:21,25 66:13 70:1 106:19 136:7 149:8 153:12 166:20 usher 123:18 usual 77:7 142:24 usually 2:23 18:10 utilise 56:5 59:11</p> <hr/> <p style="text-align: center;">V</p> <hr/> <p>vague 168:18 valuable 119:9 vehicle 32:25 34:3 34:15,22 35:1,2 38:23 39:5 44:8 44:21 vehicles 9:12 35:4 vent 127:14,17 129:20 130:6,20 132:3,5,13 vents 132:14 verbally 126:19 verge 140:3 155:23 version 83:9 video 74:21 75:3,4 75:12,22,24 77:14 77:17,19 78:3,16 78:20,25 79:3 80:24 93:4 94:6 94:10,19 95:21 96:21 97:15 98:11 98:18 100:17,19 100:25 101:6 112:4,9 113:2 122:1,6,11,19,24 123:3 160:19,24 videos 124:13 view 1:12 12:18,19 74:7 93:18 95:15</p>	<p>115:9 124:2 viewing 93:17 Vision 72:12 127:3 127:4 129:14 148:9 157:21 161:18 163:17 visit 2:19,20 3:8,14 3:22 6:9,11,13 53:21 127:19 visits 2:16 4:21 8:12 14:4 visual 8:2 52:2,8 74:17 101:18 vital 154:10 voice 101:3,8,11 voices 77:22 volume 152:2,5 volunteer 5:5 VT 80:15 100:20</p> <hr/> <p style="text-align: center;">W</p> <hr/> <p>wait 75:9,14 122:18 waiting 93:22 walk 14:3 15:1 149:11 150:1 walked 14:25 walking 46:10 97:16 walkway 11:7 wall 69:17,17 135:13 Walton 42:21,22 129:23,24 130:2 132:2 134:2,5,19 134:22 135:3,18 want 2:7 11:15 13:6 26:22 31:13 43:11 47:18 48:12 55:1 56:11 58:5 62:7 63:12 64:6 64:11 65:21 68:11 77:16 78:17 85:21 86:8 87:1,8 91:2 94:12 95:25 98:8 100:7,9,11 106:21</p>	<p>113:4,4 122:14 125:7 127:8 133:14 140:5 150:8 151:23 153:18 163:10 165:25 wanted 64:4,6 72:4 83:17 89:6 111:12 118:25 131:12 141:6 wanting 96:10 wants 123:12 warm 146:1 warning 74:24 75:1 75:2,15 93:7,13 97:20 100:14 122:10 warrant 147:22 wasn't 4:13 5:11 16:5 17:6 56:1,15 56:19,22 97:13 103:2 110:9 111:5 111:24 113:13 117:20 134:11,16 137:8,19 138:13 138:13 147:13 155:2 163:25 169:4,7 watch 4:14 23:3 35:7 41:25 42:2 42:14 84:21,23 85:8 89:25 90:1 100:12 124:13 141:18,23 142:3 154:1,15,23 159:5 159:10 166:12,15 167:1,7,19 168:14 169:12 watching 74:25 75:18 122:16 water 7:16,18,19 7:21,23 9:1,4 10:10 11:22 12:2 12:24 14:9 16:13 16:23 33:8,10</p>	<p>36:22 38:16 49:7 49:15 50:5,8,22 53:6 62:17 64:2 64:21 65:23 66:3 67:11 68:8 69:11 69:12,22 70:17,20 70:23 76:17,19 77:2,8 87:25 90:7 90:10,13 98:2 102:18 103:11 105:3,6 106:4 143:20 144:1 wave 118:9 way 5:14 11:15,23 20:14 24:22 33:24 34:15 35:6,10 66:19 67:7 68:14 73:5 79:12 80:8 83:12 86:6,15 87:2 89:7,19 104:19 107:1 110:10,13 111:6 114:4 116:2,7,17 119:20 120:20 121:1 136:17 137:3,24 138:24 139:2 142:19,23 142:25 143:12 145:4 147:2 151:24 157:19 160:1 162:14 164:15 167:13 we'll 8:23,24 11:13 18:13 43:10 48:5 71:4,5,9,14 82:9 92:3 93:19 95:20 95:23 102:12 104:5,6,6 106:22 123:10,16,17 124:20 127:7 129:6 156:11 158:2 163:1 170:14,16 we're 7:15 13:5 22:13 34:2 36:2</p>	<p>42:1 61:16 69:9 69:23 73:15 79:18 81:23 93:14,22 94:2 97:19 100:5 122:22,24,25 127:12 158:8 161:25 we've 8:4 10:10,10 18:24 21:12 30:17 48:3 50:4,4 80:24 90:12 94:13 97:7 97:25 98:22 108:9 108:14 113:3,12 129:17 158:8 weak 40:16 wear 25:21 wearers 51:14,14 53:3 157:23 158:4 wearing 44:25 95:8 149:18 Wednesday 170:23 weeks 64:1 137:5 weigh 36:22 welcome 1:3 103:22 164:11 went 3:21 33:3 73:17 81:14 84:2 84:2 115:15 127:13 129:20 130:3 132:2,21 135:20 136:8 165:3,15 weren't 4:10,12 114:8 166:17 169:5 wet 7:22 Whereabouts 38:22 44:8 whilst 49:6 white 25:22 45:16 95:8 widely 22:1 window 15:4 78:21 79:8 86:5,25 87:5 87:14 88:6,6,7,12</p>
--	--	---	--	---

88:14,21,25 91:4 91:18,23 94:24 95:16,17 96:4 98:5,12 99:8 101:3,10,14,15 102:7 105:25 106:13 109:3 110:4 111:16,18 windows 40:17 137:7 146:2 witness 1:8 43:9,18 43:20 64:18 71:13 71:16,25 73:14,24 104:8,10,13,24 107:5 123:9,15 124:11,15,18,21 127:11 170:4,11 170:13,17 witnessed 158:20 158:21 160:4 162:16 WM 135:11 136:3 163:5 166:8 wonder 45:7 154:24 wondered 102:23 103:3 word 63:13 64:7 wording 135:23 words 47:5 87:1 89:8 114:19 116:9 134:7 135:25 140:5 152:15 work 5:5 15:7 27:1 27:8,12,21 33:11 33:17 40:7 62:20 69:9,12,23 71:11 108:7,11,22 128:21 143:15 144:13 worked 32:1 61:2 125:13 128:4 working 10:2 27:11 54:25 55:16,20 56:1,15 59:4	61:10 66:7 77:4 77:12 86:10 90:18 95:3 96:7 103:5 112:19 130:6 133:8 working' 135:22 works 9:20 23:2 37:19 56:4 128:8 worn 8:8 worsen 132:24 worsened 133:15 would've 16:9 22:12 23:15 32:1 36:9 42:14 51:22 53:17 55:6,8,11 56:3 57:9 62:1,8 66:17,18 68:17 69:5 82:24 111:6 119:2 129:15 141:11,15 154:19 wouldn't 2:20 4:14 6:13 22:10 43:7 74:16 77:13 80:17 88:20 97:11 107:14 141:25 143:18 144:2 149:22 150:3 156:2 159:14 writing 165:21,24 165:24 written 168:13 wrong 56:16 82:16 82:18 X Y yeah 97:14 139:2 years 20:1 yesterday 2:6,15 6:21 19:16 21:8 29:8 42:13 Z zone 27:15,19 28:1 29:2 120:18 162:4	0 0.2 105:11 00.59.24 13:16 00.59.28 13:16 01.00.21 47:14 01.12 112:6,11 01.12.04 76:6 01.12.15 93:4 94:5 01.13 158:9 01.13.39 108:16 01.16 110:24 112:3 01.16.02 107:7 108:15 125:5,9,19 01.19 137:23 139:7 139:18 143:3,25 144:9,24 145:23 01.19.35 121:18 01.24 158:8,10,14 01.24.09 157:12,16 01.30.48 149:4 01:25 163:4 01:28 163:4 0113 72:6 0119hours 136:22 0800 165:10 1 1 2:13 3:11 12:25 13:1 19:5 29:10 32:8 35:16 42:1,3 45:5,11 52:24 72:8 90:8 105:14 117:15,16,20 118:2,19 153:12 171:2 1,500 66:3,11 70:19 1,700 90:8 1.08 51:19 54:14 1.12 75:13 79:7 80:8 1.12.04 75:12 1.13 80:8 1.13.39 83:13 1.15 99:4 1.15.39 94:20	1.15.47 94:23 1.15.53 95:22 1.16 122:20 1.16.02 108:4 1.19 136:14 147:10 1.19.35 140:22 1.20 122:21 147:11 148:4 1.24 160:13,23 1.25 163:11 167:18 1.26 160:17 1.28 163:11 167:18 1.30 149:13 1.45 103:25 104:7 104:18 1.50 129:15,18 10 97:21 123:15 130:19 155:11 156:13 157:12,16 158:9,10 159:9 160:14 161:9 10' 155:16 10-bar 66:5 10-pump 159:6,14 10.28 43:14 10.35 43:11,12,16 100 45:24 73:8 76:9 168:21 11 18:23 24:17 158:9 11.20 71:18 11.35 71:6,20 11th 163:7,23 166:8,17 167:2,8 167:20 168:20 169:1 12 20:8,10,11,14,15 21:2 12.27 103:18 12.34 103:20 12.35 103:17 12.36 104:16 12th 144:19 14 18:19 19:8 26:1 28:4	14th 164:9 15 1:21 71:6,15 16 21:23 22:5 29:15 30:7,8,13 47:12 48:4 52:14 53:12 60:19,24 64:13 74:10,11,12 87:13 99:5,6 100:11 105:25 106:4 16th 163:8,24 166:8,17 167:3,8 167:20 168:20 169:1 17 83:11 106:25 108:13 121:17 125:2 140:21 18 18:25 45:4 134:22 169:17 19 2:14 23:19 24:1 46:8 134:21 2 2 24:23 30:20 35:18 42:2 51:3 104:1 129:16 148:16 164:3 171:2 2.15 123:19 2.20 123:11 2.25 123:17 2.43 68:19 2.50 123:21 20 46:19 106:17 109:2 137:8 161:25 20-minute 109:3 2014 18:25 19:7 2017 18:19 19:8 20:8,11 21:2,23 22:5 23:19 24:1 24:10 28:4 134:21 134:22 164:4,9 2018 1:1 170:23 23 8:16,22 9:2 83:5 105:19,20 106:23 121:16 125:1
--	---	--	--	--

140:21	21:13 22:9,21	800 3:12		
230 66:9	24:11,17 30:20			
238 19:6 21:13 22:9	45-millimetre 8:15	9		
22:21 24:11 35:14	9:22 105:12,20	9 20:5,6 68:7		
35:19	460 66:10	9.30 1:2 170:8,10		
24 21:21 164:7	4th 15:11 45:2	170:16,21,24		
24-hour 17:6	64:22 91:18	999 47:22 48:16		
25 20:7 106:17,17	106:18 110:4	147:12		
26 1:1 139:13				
27 170:23	5			
271 13:15 14:2	5 1:18,19 37:24			
16:14,15,20 32:20	39:14 43:11 91:15			
32:23,25 140:16	97:21 100:14			
140:17 141:1,3,4	106:18 109:20			
141:12,15 151:4	113:16 119:1			
272 13:14 14:16	123:10,14 136:15			
16:21 33:3,5 36:4	136:16,21 155:10			
37:11 107:15,23	155:12 165:7			
141:5,11	5-minute 102:11			
	5.5 39:15			
3	50 70:22			
3 13:18 15:5 24:21	6			
44:23 52:10 72:3	6 32:10 52:24 68:19			
108:25 134:14	72:7 106:10 119:1			
148:20 153:14	139:15 162:19			
164:4	163:2,3			
3/7/17 165:10	633 2:10 6:24 7:2			
30 75:14 93:19	7:15 11:17 61:23			
122:18	65:1 68:2,6,16			
331 51:1,10,19	69:3 133:10			
54:13 76:12 83:22				
84:3,9	7			
341 20:18,21 26:16	7 37:25 119:1			
362 51:11	7(2)d 2:16,19,20,20			
3rd 64:21	3:8,13 4:3 6:9			
4	7.2 68:7,10			
4 2:12 54:21 61:15	7.4 38:2			
68:3 72:2 81:3	70-millimetre 9:1,6			
97:24,24 98:1	105:10,19			
106:10 109:22	73-millimetre 8:22			
124:6,14 136:15	75% 106:19			
169:20	8			
4.00 170:22	8 154:25			
40 83:15 108:17	8' 136:24			
431 18:23 19:3				