



Public Administration and Constitutional Affairs Committee

Oral evidence: Government Emergency Alerts, HC 1683

Tuesday 18 July 2023

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Members present: Mr William Wragg (Chair); Ronnie Cowan; Jo Gideon; Mr David Jones; John McDonnell; Tom Randall; Lloyd Russell-Moyle.

Questions 1-78

Witnesses

I: Lord Harris of Haringey, Chair, National Preparedness Commission.

II: Roger Hargreaves, Director, COBR Unit, Cabinet Office.

Examination of witness

Witness: Lord Harris.

Q1 Chair: Good morning and welcome to the Public Administration and Constitutional Affairs Committee. Today the Committee is holding a one-off session on the Government's emergency alert system, following on from the much-publicised test that took place in April. Our witnesses this morning are spread across two panels. Our first witness is Lord Harris of Haringey, who is the chair of the National Preparedness Commission. Lord Harris, good morning. Would you like to introduce yourself for the record?

Lord Harris: Good morning and thank you very much for inviting me. My name is Toby Harris. Among other things, including being a Member of the House of Lords, I chair the National Preparedness Commission. I will explain what that is if you want, but otherwise I am happy to go straight into questions.

Q2 Chair: We will go straight into questions; I am sure the nature of the commission will emerge in the course of answering them. Lord Harris, you have been calling for some time for the introduction of a national emergency alert system. Briefly, why do you think it is so important?



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Lord Harris: Crudely, it has the potential to save lives. The most prominent example is from May 2019, when the authorities in Odisha, in India, sent 2.3 million messages to warn of Cyclone Fani. That dramatically reduced the loss of lives, compared with other recent cyclones in India; maybe tens of thousands of lives were saved as a consequence. That is one example.

It is used in Mecca during the Hajj. Most recently, 4 million messages were sent out to help to manage the enormous crowds.

It was introduced in Australia following the bushfires in February 2009, which killed 173 people and led to compensation payouts by the Victoria State Government of 794 million Australian dollars to people complaining that they had not been warned of where the fires were. I believe that in the seven years after it was rolled out, there were no forest fire deaths in that state and there were 1,500 activations and 15 million alerts.

Those are three examples.

Q3 **Chair:** Are there any key points to learn from the systems used in other countries, do you think?

Lord Harris: I think there are a number. For example, it could have saved lives at Grenfell. Michael Dowden, who was the LFB watch manager, had a torrid time at the inquiry. I have no doubt in my mind that all the firefighters on the scene did everything that they conceivably could have done in the circumstances, but one line stood out to me from what he said. He said: "For me...to facilitate and change a stay-put policy to a full evacuation was impossible" because he couldn't communicate with the residents in the 20 floors above the fire. By comparison, under the system that they have now adopted in Australia, there was an evacuation exercise in a 37-storey Department of Justice building in Melbourne, and in less than 10 seconds it identified more than 5,100 mobile phones in the building, with 97% of them reached. What was more important was that it was possible to see how many of them had responded to the alert once it had been sent. That was using slightly different technology from the one currently adopted in the UK, and I can explain—

Q4 **Chair:** Would you mind explaining that difference?

Lord Harris: I am not an expert; I suspect there are experts whom you will be able to ask about this. I think, essentially, there are two systems. Cell broadcast is the UK model, and that is particularly suitable for wide-area alerts. It has a greater speed of delivery—perhaps tens of thousands of messages per second. It is suitable for a wide-area emergency. That might be a flood, tsunami or tornado. Okay, we don't always have those, but it's that sort of thing. And there is a location-based SMS system. That is slightly slower. It provides thousands of messages per second, rather than tens of thousands. But it is much more precise in terms of the geographical area. Rather than just sending a broadcast from a cell mast to everyone in the vicinity and it then bouncing off and turning up in all sorts of other places, you can draw a line on a map and identify where you want the messages to go. In the Grenfell example, the watch commander,



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if he had had control of it, would have been able to draw a line around Grenfell Tower to deliver that. It is much more precise geographical data.

It also provides situational information, so how many mobile phones there are and what they do. I can give another example; it also enables you to identify how many are UK phones or how many are phones registered overseas. When I was in Portugal in 2018, I received a message on my phone telling me about forest fires in the area that I was in. That was in English because the system they had used had identified that that was possible. So, there are a whole number of extra things you can do with the SMS based system, and some countries are now adopting a dual approach so that they can do both, depending on the circumstances.

There is a particular problem with the cell broadcast system, in that it is incompatible with being used in, if you like, a terrorist emergency. The advice is "Run, Hide, Tell" and, following the Utøya incident, I think that the National Police Chiefs' Council made that absolutely explicit, saying, "It is better to hide than confront. Remember to turn your phone to silent and turn off vibrate." That does not automatically work with a cell alert system, and, as we discovered in Mumbai, noises from people's mobile phones attract those who are trying to kill them to their direction, so it is a serious issue from that point of view.

Chair: That is very helpful; we are grateful for that explanation.

Q5 **Lloyd Russell-Moyle:** You have worked widely, of course, with experts on civil emergencies and senior officers from emergency services. How much support is there from those experts—from people working on the ground—for the emergency alert system, and particularly the two different kinds of emergency alert systems?

Lord Harris: I suspect that I am a bit nerdish on this, and that the level of understanding and knowledge about the two systems among many of the people I have spoken to is fairly vague. Those who do seem to know a lot about it favour a dual approach because there are sometimes occasions when you just want to get a general message out to as many people as possible, and others when you want to target that with more specific advice. But, by and large, the view has always been that it is helpful. When the Cabinet Office trialled it in 2013, the report on the trials said, "emergency responders are still very keen to see the implementation of a national mobile alert system." Unfortunately, that didn't happen.

Q6 **Lloyd Russell-Moyle:** Apart from the terrorist incidences that you mentioned, are there other concerns that they express to you in terms of the operation of the system?

Lord Harris: Do you mean specific systems or either?

Lloyd Russell-Moyle: Particularly the system that we have adopted—the new system that we will operate. Have there been concerns expressed from the sector or industry?

Lord Harris: I think that there is a potential for the message to go wider than you really want it to, because it does what it says: it just broadcasts



in particular cells, and that can have implications. There were examples from, I think, the 2018 California wildfires, where the—sorry, no, not that example, that’s for another thing. There have been examples where the message has reached too many people. They evacuate and clog the roads, then making it more difficult for the people in the area that you’re really concerned about to get away. That is one of the concerns with it.

Since I mentioned the wildfires, perhaps I could just cover that. That was in California in 2018. It was an instance where there were a thousand people reported missing, and, because the authorities did not know where those people were, it took two weeks before they finally knew that 83 had died and the rest were actually safe. Now, with the SMS-based system, you would know where they were and you would be able to assess that much more quickly. That obviously has implications for both rescue and families and loved ones.

Q7 **Lloyd Russell-Moyle:** Is there any distinction in terms of concern from different kinds of services? Does the fire service raise different concerns or needs from the ambulance service, for example?

Lord Harris: They will all have slightly different operational needs. What is important is that there is a proper process of sharing protocols as to how they are used. It has to be clear who can actually authorise it and make use of the system. When you talk to people, there are all sorts of different uses in addition to things like floods and wildfires. As I mentioned, it could be used for active shooters, provided you were not broadcasting where people were.

You could do structural fires like in Grenfell, gas leaks or water contamination. You could even do missing children, and there are some examples around the world where people put out missing children alerts in that way. There are also public health alerts; various countries experimented with putting out alerts in different ways during covid. I gather that in China, which is probably not always the best example to choose, you got an alert to tell you that you were now locked down, and that was, again, quite precisely defined.

Lloyd Russell-Moyle: Thank you. You have covered some of the future questions, I suspect.

Lord Harris: Sorry.

Lloyd Russell-Moyle: No, it’s very good. Thank you.

Q8 **Mr Jones:** Lord Harris, you mentioned that a Cabinet Office report 10 years ago recommended the implementation of a mobile alert system. Do you know why it took 10 years for it to be introduced?

Lord Harris: I can only speculate. Clearly, the emergency services thought it was a good idea. The views of the public were very supportive—I think 85% felt that it was a good idea and that they would like messages telling them to take specific protective action.



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I rather suspect it was one of those traditional arguments as to who in Government was responsible for taking it forward and who was going to pay for the initial development. It seems to have been ping-ponging backwards and forwards between different Government Departments. Was this a Cabinet Office matter? Was it a DCMS, or whatever iteration it was at the time, matter? Or was it somewhere else—the Home Office or the Health Department? It just never got resolved.

Other countries were busy adopting it. I think Australia started in 2009, the USA in 2012 and Netherlands in 2012, as well as France. I mentioned Portugal. There were a whole number of countries, in fact, all over the world. In fact, I think from last year, it has been an EU requirement that every country in the EU should have such a system.

Q9 Mr Jones: You mentioned a number of international incidents where it has proved helpful, and you said it would have been helpful in the Grenfell case. Can you think of any other major UK incidents over the past 10 years where a mobile alert system would have been particularly helpful?

Lord Harris: There are a number of possible examples. You may remember the panic in Oxford Street a few years ago when there was what was thought to be an incident in Oxford Circus station, which then led to panic and big stores on Oxford Street being evacuated. Most of the information for this was from word of mouth or Twitter. I was actually near the area at the time, and if you followed the Metropolitan police Twitter account, it was apparent fairly early on that the Metropolitan police did not think there had been a shooting incident in Oxford Circus, and they were starting to hedge the message. But the point is that you could have reduced the level of panic by this general broadcast, because not everyone is on Twitter, and they certainly do not look at it if they think they are running away from something. That would be one example.

I think you can look at more or less any emergency, and the ability to communicate directly with the public, provided the advice is sensible and useful, is good. If there has been a major fire as a consequence of which there are major disruptions, it is about being able to get the warning out in the vicinity to people who might be affected—even at the lowest level of saying, “Yes, the emergency services are aware of this. Don’t ring 999 just to tell us it is going on, because we are doing something about it.”

Q10 Mr Jones: You explained the two types of mobile alert system—the SMS and the cell technology—and the difference, that the SMS is far more focused. That was the system that I think the Cabinet Office was originally proposing to implement 10 years ago. Do you know why it changed its mind?

Lord Harris: Again, I do not know; I can only speculate. I think it might have ended up taking advice from technical experts in a company that delivered one system rather than another.

Q11 Mr Jones: That is probably fair enough. You also indicated—at least, I infer this from what you said—that you think that there should be a dual



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approach, because SMS is far more focused. In the Grenfell case, that would have been the appropriate one to use, but with a big flooding problem, we might use the other technology. Do you still think that the Government should be pursuing that dual approach to mobile alerts?

Lord Harris: I think that that is where they should go. I am pleased they have got as far as they have. It has taken 10 years to get there, so I am delighted they have done that. I am delighted that there was a test. A test is what it is meant to be—to test and see what worked and what did not work—and it appeared that one network was less good than others. There was also the interesting experience of the Welsh message, which perhaps was misspelt—

Mr Jones: Yes, it was.

Lord Harris: A colleague from a committee I am on was in Wales on the day of the test. He noted the spelling mistake. The following day, he was travelling down to London for a meeting and he got the message again.

Mr Jones: Yes, I did too.

Lord Harris: Because it was bouncing in the ether or some such thing—I don't understand. The ideal situation would be to say that this was a test, and not apologise for it. It was to find out whether it works and what the problems are. We will be testing it every year or whatever simply to make that right. I would hope that the Cabinet Office has a flexible enough arrangement to extend it and to look at other models, or extend them. One of the big providers has bought up companies so that it can offer either, but I do not know whether it is the one that the Cabinet Office uses.

Q12 **Tom Randall:** Lord Harris, in an emergency alert system, who should decide when alerts are issued? What should an alert message say, in your view?

Lord Harris: I think we need to work that out before the emergency. There is clearly a concern that these message systems might be overused and that the public therefore get fed up with them, and don't take any notice. We have to have a reasonable threshold and that has to be cleared. I would not like to see a protocol whereby something has to go from the local person who thinks it is needed right the way up through their own organisation, then nationally, with someone in the Cabinet Office having to say, "Yes, that's okay. Yes, you can press the button." The protocols need to be worked out well in advance.

I think we need to provide actionable advice, by and large. What am I supposed to do? I mean, we are all used to the terrorism alerts, so what does it mean to my personal behaviour if that moves and is "Severe", as opposed to "Serious", or whatever the wording is? I am old enough to remember Flanders and Swann—I don't know if anyone else is—and they had a routine about travelling by air. Michael Flanders described arriving at the airport where a big sign says, "Beware, low-flying aircraft." He asked, "What are you supposed to do? Take your hat off?" The advice has



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to be clear so that people think, "Oh, right, something is happening. I need to stay where I am. I need to stay indoors," or, "I should leave my premises and go in this direction rather than that direction." That is the sort of advice that is needed. Or it might be, "We're expecting heavy flooding in this area. Get your sandbags out," or whatever else it might be.

It is about the specific nature of the advice. You ideally do this in a wider context where the public are used to alerts—where they have trust in the system of alerts, and trust in the people who might be sending them out, which opens up another interesting debate—but you need to build it in over quite a long time so that people are used to it. In Japan, people know what to do in the event of an earthquake alert or an earthquake; they have their grab bag and so on. I am not sure that we are quite as well prepared in this country.

- Q13 **Tom Randall:** Talking about people getting fed up with a system, I had a few constituents who were fed up with just having a test on their phone.

Lord Harris: There will always be some.

Tom Randall: I wonder about the scope of when an emergency alert should be used. We have talked about extreme weather events. We have talked about the potential for severe fire or flooding. Is there a limit, in your view, to the range of circumstances in which this should or should not be used?

Lord Harris: As I say, I don't think it should be, "Oh, my goodness, here is today's emergency alert!" That is just going to breed contempt. A number of countries use it for missing children or missing vulnerable people, and I think there is an interesting debate to be had about that. What I would like is for there to be some sort of public discussion. Now we have got it over the line and there has been the test, I would hope that there would be a lot of discussion—I am sure there is—about what the protocols should be, what the circumstances are and how far you move it. Again, is the purpose of the alert time-critical? Do you want people to do something now, or is the nature of the alert something where you think, "Okay, I'll remember that next week"? That is the wrong sort of way to use the system.

The other important point is that we live in a social media world. I mentioned Twitter and the Oxford Circus thing. If the authorities don't fill that vacuum, plenty of other people will. Sometimes that will be wrong, and sometimes it will be maliciously wrong or confusing. The need for the authorities to have the ability to say something on which the public can say, "Okay, that's the definitive answer. I can respond in this way," becomes important. But I think you need to work out all those protocols. I assume that is part of what's going on. I won't say that that is why it took 10 years, but I would like to think that some of that time was spent trying to work that out.

- Q14 **Tom Randall:** We have talked a bit about the terrorism aspects and how having a mobile phone making a noise is not necessarily a good idea in



the case of a terrorist event. Do you think this alert system could play a broader role in that sort of scenario?

Lord Harris: The ideal is a message to all of us saying, "There is a suspicious package in Victoria station. Please don't go to Victoria station." That is useful in the event of something happening. The message saying, "Do not leave, and shut the doors," may be important. Essentially, it means barricade yourself in. You could have a situation in which you said, "Please leave your premises and turn left." Arranging that might be slightly complicated, but it could tell people to move in one direction. The risk with that, of course, is that we have had plenty of terrorist incidents in the past where the aim of the terrorists has been to drive people, particularly the emergency services, into a particular location and then to detonate another device. However, it is often better to have someone to provide some advice, recognising that there will sadly be occasions when you may give the wrong advice, but you are doing it in the best of faith.

Q15 **Tom Randall:** We are talking about a mobile phone alert system. Do you think there are any situations in which there are other strategies for warning people that might be more effective than this sort of system?

Lord Harris: At the moment, the certainty is that virtually everyone in the country is carrying one of these phones, so it is an extremely good means of communication. I have colleagues at the other end of the building who keep their mobile phones switched off unless they want to use it, which has its benefits, but the chances are somebody else's phone will give them the alert and that person will be alerted in that way. At the moment, I think that is very valuable. But you do not have a single strand of trying to communicate in this way; you will need to use social media, but recognising that not everyone is on it, and simply to combat some of the nonsense, misinformation and disinformation that will occur there. Old-style sirens may have a place. You may want to use broadcast messages on radio and television. All those are things that you should do, but recognising that it's a changing world. At the moment, this is a very valuable and important route, but let's not forget all the other mechanisms that we would have used in the past.

Q16 **Lloyd Russell-Moyle:** I was wondering whether there are other countries to learn from—countries that have used this, which has numbed its use. I think about when I have been in the US, in New York, where you get quite regular alerts. There's a flooding alert, and I know that I ignore it. Is there any research on where countries have overused it and that has reduced its effectiveness?

Lord Harris: I am sure there is research, but I am not sure I've seen it. I think that's why you have to have a clear protocol on when you use it, what the circumstances are and—this comes back to the SMS versus cell broadcast area—how specific it is. If you have a flash flood alert, tell the people in the flash flood area; don't tell people a mile and a half away. That's the nature of it: the more sophisticated and targeted you can be, the better, so that it is a message that is relevant to me and tells me what I should do, not the fact that there is something going on over there that,



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frankly, is not going to affect me one way or the other. I might be curious about it, but you can do that through social media, the Nextdoor app or whatever your personal choice.

Lloyd Russell-Moyle: Whatever the latest invention is that week.

Q17 **Ronnie Cowan:** That is actually my point. What will be the next media invention? Are we looking at WhatsApp, Signal or Instagram, which would be the first port of call for a lot of people, just to get the message out to as many people as quickly as possible?

Lord Harris: Yes. I accept that the emergency alert, once it arrives, is on your screen. If it is the cell broadcast, it has made a noise. That is more desirable than saying, "Oh, I must check my WhatsApp." That is why various people—I have talked to some of them—have developed app-based systems. Well, first, you have to have opted in. You may or may not switch it off. I saw a very specific and very interesting one about an app for a shopping centre. Obviously, this was designed also to tell you what the best offers were, and where, but it also included security information. However, most people, I suspect, would not opt into it, would not keep it on and would not look at it. This is an alert, and it's meant to reach you. If you get it through WhatsApp, Instagram or whatever it might be, that's not necessarily as instant.

Q18 **Ronnie Cowan:** But it's not an either/or. It is a belt-and-braces approach, covering the whole gamut.

Lord Harris: Yes. I think that's why I certainly would not tell the Metropolitan police or other forces to stop using Twitter and to just rely on this. First, it is not appropriate for many of the messages they put out through those routes. However, you should not rely on those routes to reach everyone. These methods can reach 80% or 90%-plus very easily and very quickly.

Q19 **John McDonnell:** In the run-up to the national test, various stakeholders expressed a range of concerns, largely, I think, to try to make it as successful as possible. Those concerns were based on the issues around wider communication systems, trust, and diversity and equality. What do you think the Cabinet Office needs to do to ensure that the public have trust in the system? There is also the other issue you have raised about people actually knowing what to do in the event of receiving an emergency message.

Lord Harris: The emergency message should contain the advice as to what to do. It is all very well saying to people, "There is a flood. Activate your personal flood plan." Most people might not have a personal flood plan. Therefore, you advise them as to what they ought to do.

There are obviously concerns, particularly about the cell broadcast system in terms of the noise and, especially, survivors of domestic abuse, who might have a phone for those purposes. There is an interesting issue about covert human information sources for the police in terms of being embedded in nasty groups. The important thing is that if the messaging is



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good over a long amount of time, it is possible to switch off the sound on the emergency alert if you have that degree of vulnerability. If, for example, you have a secret mobile phone for the best possible reasons, you can turn off the emergency alert on that and have your normal mobile phone operating. As I say, other people would be there. But people need to know that.

I spent some time trying to work out how to switch off the emergency alert system on my phone and I couldn't, despite feeling that I was reasonably competent to find out how to do it. In the end I just gave up, but for those people for whom it is life-preserving, I think that is important. It is about that level of public information to ensure that people who might have that vulnerability—and those, for example, who are issued with a mobile phone for those purposes—would be part of the warning, and part of how you deal with it.

There then is the question of how you engage trust. I think that is about the circumstances in which you use the alert, and the fact that it is not used for other messaging. We are into the very difficult question of whether people trust politicians and public services at the moment. This would be potentially a way of rebuilding trust if people thought, "Actually, this advice is timely. It tells me what to do, and I'm prepared to act on it." That will build up over time.

Q20 John McDonnell: Do you think there was sufficient explanation of the system before the national alert?

Lord Harris: I thought the explanation was quite good. It was the first time. There will always be people who say, "No, I don't want it," and people did struggle. I think the Cabinet Office tried to provide guidance on how to switch the thing off, but because of the sheer multiplicity of mobile phones and their different systems, that was difficult to follow. At least I couldn't follow it. Maybe I'm not typical.

Q21 John McDonnell: Is the Cabinet Office doing enough to ensure that the alerts go to the hardest-to-reach communities? The example we were given was older people, who may be less likely to have smartphones. I think that's questionable. There are those in more rural areas with weaker mobile coverage and others—obviously, those with English as a second language.

Lord Harris: Text-based systems are the most likely to get through where there is weaker mobile coverage. Also, they are not reliant on having the most up-to-the-minute systems. If you have a prehistoric system or you have kept your phone from 15 years ago, maybe that would be an issue, but I think that could be dealt with.

With the issue of languages, there may well be ways in which people could register to receive messages in different languages, in the same way the Portuguese worked out that I was likely to receive a message in English rather than Portuguese. I do not know how you would do it, but I think it would be possible. It is something you would need to develop over time. It would require people to register their phone, which they may feel uneasy



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about in terms of giving their phone number to the authorities. At the moment, when you get one of these messages, the authorities do not know who you are; all they do is send the message. Even with the phones that can track where people have moved, they do not know whose mobile phone that is. All they know is that it is a phone with certain characteristics, which has or has not moved.

Q22 John McDonnell: So there needs to be a campaign for certain groups within society to register in that way?

Lord Harris: Essentially, if such a system was available.

Q23 John McDonnell: Should it be harder to opt out of receiving the emergency alerts on your phone?

Lord Harris: If you had built the trust, I hope you would not feel that you were not going to allow them. It probably should not be so easy that you might forget you have done it. I would certainly not want phones to be issued with the default that you were not receiving it. The default should be the other way around.

Q24 John McDonnell: The Cabinet Office used to receive advice on best practice from the UK's National Steering Committee on Warning and Informing the Public. That seems to have been inactive for the past decade. What difference do you think that has made, and should the Cabinet Office bring something like it back?

Lord Harris: As I understand it, that committee was looking at the full range of alerts and warnings, so it included the terrorism warning I mentioned before. It might perhaps have advised on our favourite covid alert levels—first there were five tiers, and then three. I cannot remember now how it works, and I am not sure I understood it at the time. The message has to be that there has to be a degree of consistency and understanding.

At the moment, we get weather alerts—red or amber messages about pollen count, temperature, high winds and so on. Again, I am not quite sure people understand those—“Oh, it's only amber. Should I be worried?” or “It's amber. Therefore, I need to do the following.” It is about linking it to what you are required to do: what is my change in behaviour if the terrorism alert goes up? I know what it is for people dealing with security or search regimes, but it is less clear for the individual. This has to be targeted as to what the message is that you are trying to convey.

Q25 John McDonnell: I take it that the role of the steering committee was to give regular advice to Government on how those issues should be addressed. That system is not in place at the moment. Should there be some form of body that is advising in that way?

Lord Harris: I would have thought so. But, for all I know, there is something that has replaced it.

Q26 Ronnie Cowan: To go back to something you said earlier, what is the situation if somebody is blind?



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Lord Harris: You would hear, assuming that you had not switched it off. Most people who are blind have systems for having the text message read to them.

Ronnie Cowan: Okay. I didn't know that.

Q27 **Jo Gideon:** Lord Harris, in response to your parliamentary question, in May the Cabinet Office disclosed that the total cost of the emergency alert system to date and over the next three years is £25.3 million. How confident are you that Cabinet Office is securing value for money for the service?

Lord Harris: I do not know what processes they went through. I am sure they went through appropriate tendering exercises and procurement processes. I think it depends how you place a value on this, in the sense of it is quite difficult to prove that you have saved lives. However, I would have thought that spending £25 million on a system that does save lives is potentially money extremely well spent.

Q28 **Jo Gideon:** You commented earlier about the selection of the IT partner. How much trust do you have in the IT partners on which the Cabinet Office is relying to help manage the systems?

Lord Harris: There was a lot of comment in the House of Lords about the use of Motorola, and Motorola's reputation is, in my view, very seriously sullied by the Horizon Post Office scandal.

Q29 **Chair:** Is it Motorola or Fujitsu, Lord Harris?

Lord Harris: Fujitsu. You are absolutely correct. Motorola is another story. I am sure these are a large companies, and it is a different bit. But this is a matter where the Cabinet Office do have to assure themselves that they are getting both the best service and the best advice, and I think there are a number of potential providers of the technology.

Chair: Lord Harris, thank you very much for your time and for sharing your expertise with us this morning. We are very grateful indeed. I should say that I was one of those contrary people who did turn their alert off.

Lord Harris: You managed to find a way.

Chair: I did, just about—I should share that for public disclosure in this session. But perhaps by the conclusion, following the appearance of the next witness before us, which is going to happen seamlessly as I talk, I will be persuaded to turn it back on. Lord Harris, thank you very much indeed.

Examination of witness

Witness: Roger Hargreaves.

Q30 **Chair:** It is my pleasure to welcome Roger Hargreaves, who is the director in the Cabinet Office with responsibility for the COBR Unit. Mr



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Hargreaves, could you just introduce yourself for the record?

Roger Hargreaves: I am Roger Hargreaves. I am the director of the COBR Unit in the Cabinet Office. The COBR Unit is responsible for horizon scanning up to six months out, and then the management of acute crisis that affects the UK and that needs to be dealt with from central Government.

Q31 **Chair:** By way of background, could you give us a brief summary of the changes that have been made to the Civil Contingencies Secretariat in the last year and the thinking that lay behind them?

Roger Hargreaves: The Civil Contingencies Secretariat was set up in 2001 and split into two halves last summer. The two halves are the COBR Unit, which deals with crisis and crisis operations and shorter-term horizon scanning; and a new resilience directorate, which looks at longer-term risk reduction, capability building and so forth. The rationale behind it—I was director of CCS—was that you always find yourself drawn towards the latest crisis, and that means that sometimes the longer-term capability building is put on the back foot. The change has resulted in a system that means we are able to deliver what we need to in terms of capability building and to concentrate on crises separately. It adds capacity to the system and, thus far, is proving effective.

Q32 **Chair:** As you have alluded to, you were formerly director of the Civil Contingencies Secretariat and are now director of the COBR Unit. What difference does that make to your responsibilities and the focus of your work?

Roger Hargreaves: I think we got to a place with the CCS where in my role as director I was being pulled in many different directions. I now have a narrower focus. It allows me to spend more time building up our capabilities, particularly around operational response; renewing a lot of our doctrine; and broadening our range of engagement, which is a task that always drops off because it is very easy just to hunker down and do the things at hand. But we are now able to be a bit more expansive, be a bit more open and have a lot more international engagement and a lot more work on renewal.

Q33 **Chair:** Can you give a couple of examples of that engagement? I accept that your appearance here is part of that, but is there anything concrete you could mention?

Roger Hargreaves: For example, we have completely overhauled our approach to international engagement. That was something that we had just had to leave to one side—there was not really the capacity—but now we are really motoring through a much more developed set of international engagement, which is really helping us to understand best practice internationally and import it into our own work. Another example would be that we are overhauling a lot of our doctrine and the guidance that exists within Government that looks at how we manage things internally, picking up the lessons from covid and so forth.

Q34 **Ronnie Cowan:** How serious does an incident need to be to trigger an



alert?

Roger Hargreaves: There is no defined threshold. It can be used on quite small geographical areas, but there are certain conditions that we apply. First, it should be the case that lives are at risk, not simply property. Secondly, it needs to be geographically bounded. Thirdly, there needs to be a specifically identifiable action that we can include in the message that people need to take. Fourthly, there needs to be an urgency. If those conditions apply, we would consider using the message.

Q35 **Ronnie Cowan:** How far out will it happen? Will I get a message on Monday that says, "Severe warning alert on Wednesday," or will I get a message on Wednesday saying, "Government alert"?

Roger Hargreaves: It depends on the kind of emergency. Obviously some, such as a terrorism event, arise very quickly and there is not necessarily notice. Weather events perhaps have more lead-in time and therefore present an option to decision makers around whether they want to issue something. Typically, if you think about a severe storm where we issue a red warning to the public, we will have a sense that we are going to face severe weather, but sometimes the red warning only crystallises a few hours before the event. Certainly when we had red warnings that affected the south of England about 18 months ago, they only really crystallised on the morning of the event, so it is maybe two or three hours out in that kind of situation.

Q36 **Ronnie Cowan:** Is this documented? Is there a book you can go to that says, "At this level, these criteria or this situation, this is what we do"?

Roger Hargreaves: Yes. There are quite detailed operational protocols about how we use the system, how we interface with stakeholders and how we work with the mobile network operators, but there is an element of judgment about whether this is the right tool to use.

One of the most important things about this system is that it is one tool in a much broader toolkit for warning and informing the public. If you take that red weather warning, for example, a lot of information goes out across traditional media and across social media to let the public know that we are heading for a period of severe weather, so you will watch the weather forecast and the red warning will be very prominent. There is a choice, then, about whether we would want to further amplify that with an emergency alert. We might or might not judge that that was a sensible thing to do, just in the same way that we might look at any other tool in the warning toolkit.

Q37 **Ronnie Cowan:** Does it leave the shores? Does this go out into the North sea, the Irish sea or the English channel?

Roger Hargreaves: Where the message goes to?

Ronnie Cowan: Where the message goes to, or what the problem might be. If a severe weather warning is happening in the North sea, are you contacting oil rigs and shipping?



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Roger Hargreaves: No. Anyone operating there makes their own provision in respect of weather information and other risks. This is designed to inform the general public about risks that they might face.

Q38 **Tom Randall:** Who is responsible for deciding whether to issue an alert, and who would they need to consult before making that decision?

Roger Hargreaves: The way to think about it, probably, is that this is just one choice that we might put to the usual decision makers in a crisis. If you take a national emergency, the key decision-making body is typically COBR, and in a COBR meeting we would have a communications item where we would discuss the information that should go to the public. As part of that discussion, we might consider whether an emergency alert was sensible.

There are certain circumstances where we would not necessarily go through that formal governance. I think a good example of that would be what we would do in relation to flooding. The Environment Agency issues small-scale flood alerts on a very regular basis through its own systems. In the present phase of operation, we have an agreement with the Environment Agency that will help it to use this system directly from the local operational level, as it would issue other alerts now. So there is no change, essentially, in governance and authority.

When Ministers approved the system, they did ask that if we were ever issuing an alert to more than 1 million people, it should always have ministerial sign-off, regardless of the circumstances. Obviously, if it is a very urgent thing, it is possible just to phone a single Minister and have that conversation, but more generally that might be through COBR. The other important element of sign-off is in relation to the other authorities that would be impacted. We would expect that if we were looking to issue a message, we would, as far as possible, inform local responders in the area in question.

If we were in a situation where an alert needed to be issued in any part of the devolved Administrations, we have an agreement with them about how that would operate. The devolved Administrations can ask for an alert to be issued on any matter of devolved competence if it falls entirely within their geographical area. Where it is a reserved or partially reserved matter, or where it spills across into two different bits of the UK, that decision is taken by UK Ministers in consultation with the DAs, but there is a carefully agreed protocol to manage that as well.

Q39 **Tom Randall:** Okay, so if I understand this correctly, if I get an alert on my phone about a national emergency or a large-scale event, that has come from the Cabinet Office—from COBR—and someone in that Department decided that. But if I have a local issue where I live—a local flooding issue, say—I will get a text on my phone that has come from the local agency without referral up to the Cabinet Office, subject to the protocol.

Roger Hargreaves: At the present time, it comes up to the Cabinet Office and is then issued out of the Cabinet Office to the agreed area, but in the



fullness of time, we are working towards a situation where we allow certain local responders access to the system so that they can issue it on a smaller scale.

Q40 **Tom Randall:** Is there a timescale for that process?

Roger Hargreaves: We are in a pilot phase at the moment. That runs from the point of test for the year from 2 April to next April. At that point, we are going to look at the protocols for use and at how they might be adjusted.

Q41 **Tom Randall:** When the Government are deciding where to send an alert and what that text should show, is that all set out in the protocols that you refer to?

Roger Hargreaves: Yes. There is no great magic to it. Even before this system, in any crisis you would have regarded public communications—warning and informing—as a very central element of what we did. It would be a big feature of any discussions by responders locally or nationally. This is simply a new tool for getting those messages out. A lot of the governance arrangements that existed before will still be absolutely relevant, and there is still a principle that we should try to deal with things locally, that the national level should support the local level, and that there should be communication and consultation wherever that is practical. Everyone has got comfortable with that way of operating, and we discussed it very extensively with the various interested parties.

Q42 **Tom Randall:** So in the event of a national emergency, you are confident that the COBR Unit and the National Situation Centre have the capacity to manage this alert system while maintaining their wider operations.

Roger Hargreaves: Yes. It has two-factor authentication, essentially. The message is constructed by our watchkeepers, which is a 24/7-365 capability. There is always a team of people on duty who are available to do this, among other tasks. It is then signed off by the duty director—a duty senior official—so you get that double-factor authentication. That is also conditional on the wider approvals that I mentioned, for example from Ministers.

Q43 **Tom Randall:** So far, we have had one message that has gone out worldwide. Can we talk about localised messaging? In your view, is the system built to handle potential need to do simultaneous warnings in different areas with different messages in each area?

Roger Hargreaves: Yes. It takes a very short amount of time. The user interface is very straightforward and it is possible to use it very quickly. That is a huge advantage over a lot of other systems that we might have access to, but it is the work of moments to deliver a message and get it out the door, and then you can turn to the next one. There is no limit on the usage. There are obviously operational choices about the sense or otherwise in having simultaneous messages running, but that is a wider policy question, rather than a limit on the system.

Q44 **Jo Gideon:** We heard from Lord Harris about the two systems. The SMS



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system is more focused on a very small area. Can you explain how this much larger system would work in a very local area? What is the smallest range of alert that you could send with that system? How would that work in the case of very localised flooding or a terrorist attack that very specifically affects a geographical location?

Roger Hargreaves: The smallest scale is an electoral ward, so it is really quite small-scale. We worked with local responders on this, and they are very confident that that is a scale that works from them. Essentially, when you use the system, you get a drop-down, and you can click on the areas you want to send it to. It can be delivered in a very targeted way.

Q45 **Jo Gideon:** When you say an electoral ward, is that a unit? If something happened on the border of three electoral wards, say, you would have to alert the three wards.

Roger Hargreaves: And you might put more relevant information in the message about the geographical area you wanted it to apply to. Through our testing, we found that it can be used in a very targeted way. When you use the system, it shows you the area it will apply to on a map. It shows you the core area of the message and the potential bleed areas on the margin, where the signal might reach from the cell towers. That gives you a very strong sense, when you are operating the system, of who will get the message.

Q46 **Jo Gideon:** There were successful trials of an emergency alert system in several areas in 2013, but the first nationwide alert was not issued until 2023. What accounts for the delay in implementing the system following those trials?

Roger Hargreaves: No one was willing to pay for it. We did tests of both cell broadcasting and location-based SMS. That flowed from a commitment to look at warning and informing in the 2010 strategic defence review. The tests were done of both those systems.

It is worth saying that at that point cell broadcasting, which is what we have ended up with, was a very new technology. Location-based SMS was more mature and looked like a better bet, but when Departments were asked whether they wanted to invest in this, there was not an appetite from them to contribute to that system. They were more confident in the other warning and informing mechanisms that they were paying for. They would essentially have had to drop tried and tested methods to go to a new system, and they were not keen to do that.

For about six or seven years, there was quite a small and technical community of interest who soldiered on and kept fighting the fight. There was probably only one public champion of it, and you have just heard from him. That is all to his credit, but there was not a huge groundswell that something had to be done; there was a sense that there was an opportunity.

In the intervening period, two things changed. First, cell broadcast technology matured and became a much more viable thing. Secondly, we



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had covid. At the start of covid, we needed to communicate with the public in a very quick and broad way. There was an attempt to do it—well, we did do it—using SMS, but it was really not very effective. That generated the need to get on and deliver cell broadcasting, which then started the work.

It is worth saying, just to give a bit of colour to the three years between the decision in early 2020 and 2023, that it takes about 12 to 18 months to do the design work and the technical development of the system. We had got to that point in 2021, including some public tests. We could potentially have launched it around the end of 2021, because towards the end you have a three to six-month period where you are pressing the final go buttons and doing the public communications.

That then ran into the Russian invasion of Ukraine. There was a lot of media reporting, and therefore a lot of concern in Government that were we to launch a new national emergency alert system that no one in the general public had heard of, just after a nuclear power began a European war, there might be alarm. Some of the media reporting on this was not necessarily based on evidence—it was quite sensationalist—so I think Ministers were concerned and wanted to give a bit of space between that event and the launch.

There was then a period of political uncertainty for the Government throughout 2022, and we waited for new Prime Ministers to arrive. Then the present Prime Minister arrived and wanted to push ahead, so we got on and went through that final launch phase in early 2023. It has been a rocky road at times, but a lot of the technical development has passed through smoothly. It has been the broader conditions for application of that development that we have been waiting for.

Jo Gideon: I was going to ask about the progress since summer 2021, but you have given me a very comprehensive explanation of what the delays were.

Q47 **Ronnie Cowan:** Why does the emergency alert system exclude 2G and 3G phones?

Roger Hargreaves: There was a lot of discussion, when the final bit of technical work was done after the decision in early 2020, about the range of the system—the specifics of the technical platform. 2G and 3G are essentially fading technologies. The world is largely moving towards 4G, 5G and now 6G. If you have a 4G platform, it has better functionality; it is just a more effective system. Rather than anchoring it in a technology that was fading, there was a view taken at the time that we should look forward to 4G and 5G.

Q48 **Ronnie Cowan:** I understand where you are going, looking forward to the development of technology, but at this moment in time, we are neglecting a lot of people who still rely on 2G and 3G technology. In some ways, we are cutting them out from the process. The advice from the Cabinet Office says, “If you do not have a compatible device, you’ll still be informed about an emergency as the emergency services have



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other ways to warn you when there is a threat to life.” What is that about?

Roger Hargreaves: It is a tool in the toolkit. This is something that did not exist. Before it existed, the emergency services and others had quite a wide range of means to inform all parts of the public that an emergency was occurring—whether that was radio or TV broadcasts, social media or telephone warning systems. Some parts of the country still have siren systems, occasionally the emergency services will use loudhailers or door-knocking, and so on. There is quite a broad range of different things that people use to deal with warning and informing the public.

Q49 **Ronnie Cowan:** I am not being facetious, but you cannot compare loudhailers and door-knocking to a message on your phone— particularly for people who live in more rural areas, which tend to have 2G and 3G. I think the figure UK-wide is 8% of UK land mass, and in Scotland it is 17%.

Roger Hargreaves: Well, 3G is being phased out.

Q50 **Ronnie Cowan:** Mobile UK disagrees with you. It says that in some cases, 2G services in particular may potentially remain for several years.

Roger Hargreaves: With 2G, yes, but 3G is being phased out. There is a trade-off there about whether you want the higher functionality from 4G and 5G, or whether you want to anchor it in 2G. The decision taken in 2020 was that it was better to go for the more modern platform. That is the trade-off: some reduced coverage, with some increased functionality. That was the decision that Ministers made when the choice was put to them.

Q51 **Ronnie Cowan:** My concern is that some of the sorts of emergencies we would have are almost certainly more likely to happen in rural areas, yet we are cutting them out from this technology. Floods, flash floods and landslides are more likely to happen in rural areas than in the inner city.

Roger Hargreaves: The Environment Agency and its counterparts in the devolved Administrations maintain other warning systems—telephone warning systems and so forth, which fill some of these gaps. There are then TV warnings, radio warnings and so on and so forth. Don’t get me wrong: there is absolutely a choice there. It is not a straightforward choice, but that is the one that Ministers took.

Q52 **Ronnie Cowan:** Denmark has now rolled out its system, which includes 2G and 3G.

Roger Hargreaves: And there will be a cost associated with that, too.

Q53 **Ronnie Cowan:** It is a cost of life. The system is designed to protect people’s lives—you said that yourself. Denmark has taken that on board and said, “This money is worth the security and safety of our population.” In the UK, we are saying that we have decided it is not.

Roger Hargreaves: What I am saying is that there is a variety of different tools that responders have that they can use.



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Q54 **Ronnie Cowan:** I am sure that they have those tools in Denmark as well, but in Denmark they have made the decision that they will respect people with 2G and 3G phones and protect their lives.

Roger Hargreaves: It is not always the case that those other countries have such a range of warning and informing systems. An example of that would be the experience of Germany and Belgium two years ago, when they had very severe flooding. They did not have the kinds of warning systems that we have around environmental risks. We already have a very strong warning and informing platform, and this is making it even better, rather than going from not having something or having quite weak systems and moving right up the curve.

Q55 **Ronnie Cowan:** Again, my point is that Denmark has looked at the situation and said, "People with 2G and 3G phones deserve the same level of emergency service as anybody else." We seem to have walked away from that responsibility when it comes to those people who cannot afford to upgrade their phones, who are more likely to have a 2G or 3G phone. People who are more impoverished or living in more rural areas will have 2G and 3G phones. We are saying, "We cannot get the message to you. Rely on the media or on somebody coming and knocking on your door or using a loudhailer."

Roger Hargreaves: 3G is being phased out. Anyone with a 3G phone, regardless of emergency alerts or anything else, will not be able to use it relatively soon.

Q56 **Chair:** Sorry to interrupt, Mr Cowan. I understand that this was a ministerial decision, but do you have an estimate of the cost difference between the system that we have adopted and a system similar to Denmark's, if it were replicated in this country? We know about the overall cost of the test and the system, but do you have that comparison of cost?

Roger Hargreaves: No, I do not have it to hand. It is worth saying that it is a cost-benefit trade-off. There is a high degree of functionality when you send messages on 4G phones—the pace, the content and the user interface are improved. I can write to you setting out the cost-benefit trade-off that was made, if that is helpful.

Chair: That would be helpful. I understand that there is a difference to the cost-benefit trade-off, but the pounds, shillings and pence would be of use to the Committee as well.

Q57 **Ronnie Cowan:** A final point on top of that: was an equality impact assessment carried out before it was decided not to support 2G and 3G?

Roger Hargreaves: I would have to check that, and I can include my answer when I write. Throughout the process, we have given a lot of thought to how vulnerable groups can access the system, and the impact where people are less able to do so.

Q58 **Mr Jones:** Mr Hargreaves, we are told that the test message reached 93% of smartphones. I understand that the system is one way, and you



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do not get a response from the smartphones, so how did you arrive at that 93% figure?

Roger Hargreaves: There is a range of things. We talk to the operators to see whether the message went out successfully; they know whether it worked technically. We do sentiment analysis on social media to assess the extent to which the public are responding to the message. We did post-alert surveys, which collected information about who got the message and who did not. At the end of all that, we got an estimate of around 90%.

Q59 **Mr Jones:** So it is an estimate.

Roger Hargreaves: It is.

Mr Jones: Did you say 95%?

Roger Hargreaves: About 90%.

Mr Jones: Not 93%?

Roger Hargreaves: It is around 90%.

Q60 **Mr Jones:** What is the margin of error in each direction?

Roger Hargreaves: It is not a precise number, because this is self-broadcast; we push the message outwards. We do not need to collect anyone's data, and we do not need to interfere with people's lives; we just send a message out. For many people, that is seen as a big advantage in privacy terms. Through working with the operators, we came to a number of 93%. I tend to talk about around 90%, simply because 93% is a degree of accuracy that seems spurious.

Q61 **Mr Jones:** What percentage of phones did you expect the message to reach?

Roger Hargreaves: We would have hoped to get higher than that. The big drop-off in available phones was because on one of the networks, Three, the message did not go through to all users; it went to about 10% of its users in England. That was the main driving factor in the number falling below the 95% plus that we had hoped for.

Q62 **Mr Jones:** Have you any estimate of the number of phones that were switched off, or that were modified by their owner so that they—

Roger Hargreaves: We did surveys after the tests at Reading and Sizewell, and from the surveys that we did after the national emergency alert, it looked like less than 5% of people switched the functionality off on their phone. It was potentially something like 2% or 3%. We had feared it might go higher than that, so it is quite a satisfactory number in the grand scheme of things, from our point of view, in terms of the success of the test.

Q63 **Mr Jones:** You mentioned that you had problems with one of the operators, Three. How many phones were affected by that?



Roger Hargreaves: Potentially around 5 million phones.

Q64 **Mr Jones:** That is a big chunk.

Roger Hargreaves: It is a big number, but then there are a very large number of mobile phones in use. It still meant that the message got to, we think, well over 60 million handsets. That makes it far and away the largest public communications message ever carried out in the UK.

It is also worth saying that we did a national test quite consciously, to ensure that these things worked, so that if we needed to use this system in anger, we could be confident that it would work. In absolute fairness to Three, it understood immediately that it had not worked, and it was hugely co-operative with us. Its chief exec was straight in to see the Deputy Prime Minister to confirm that he would make every effort to fix the problem, and it has been very diligent in working to address this.

Q65 **Mr Jones:** Has it been fixed?

Roger Hargreaves: We believe so, now. We need to carry out some more technical tests, but Three has done the work that it needed to do.

Q66 **Mr Jones:** I think there were problems with Three in a previous test; isn't that right?

Roger Hargreaves: Yes. The way the system is configured, essentially there are three elements to it. You have an interface at the centre of government, which constructs the message and pushes it outwards. You then have, essentially, cell broadcast technology within each of the operators, which takes the Government's message and pushes it out across their mast network. Then you have the receiver, the handset. Those are the three elements of it. Each of the mobile phone operators could choose the way in which they designed and configured their element of the process—the receipt and then the pushing out. One or two operators, as we went through the testing phase, had various technical challenges, which they spotted, addressed and so forth. Three felt that it had spotted a problem and dealt with it, but when we did the national test it wasn't the case, so it has had to do some more work.

Q67 **Mr Jones:** But you are confident that those problems have been fixed now?

Roger Hargreaves: I will be fully confident when we have done the final operational tests. To keep a system like this working, we need to do continuous technical tests across the system that go to a very small number of specialist handsets. So, they are going on, but you cannot pick them up unless you are on those networks. They do not go to the public, but they help to prove the technical capability of the system. Even with what happened to Three, it was still massively successful from our perspective because it reached so many more people than any other comparable means of communication that we had previously had access to.

Q68 **Mr Jones:** Some people received an additional message the following



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day. What was the reason for that?

Roger Hargreaves: The test was a quite interesting exercise in public communication. We understood that, from a technical perspective, potentially the test would have little wrinkles thrown up, and so forth—learning points telling us something about people’s phones, and that kind of thing. A lot of the media coverage, because it is a necessary simplification of a technical matter, led people to believe that there would be one moment when everyone would get a message and that would be that. We understood that we were testing a system to see what it did. When you send something out to 60 million phones, you end up with things at the margin that are not as you anticipated, which are actually very small in number as an overall proportion; but, because the numbers are massive, it ends up affecting quite a few phones.

There were a variety of different issues. We sent a message to England, Scotland and Northern Ireland, and a second message to Wales. That was to accommodate the obligations in relation to the Welsh language. That meant that people who were crossing the border at just the right or wrong moment might have received two messages. There were a small number of cell broadcast towers where there was an issue with configuration. Essentially, we send a message saying “start broadcast” and it fires out for 20 minutes. For those 20 minutes your phone is constantly searching. When it picks up the message for the first time, it puts the alert on your phone. It has got a unique identifier, so when your phone picks up the same message 10 seconds later it does not send you a second broadcast.

After 20 minutes, we switched off the signal. In a real emergency we might leave it running for an hour, but we did it after 20 minutes. Most people will have got the message within those 20 minutes, but I think there were some cell towers where they did not get the second message to stop broadcasting. So, some people got it up to 24 hours later, but a very limited number. That presented a technical issue that has since been addressed.

The other thing that we learned from the process is that you have a very large number of different handsets, configured in different ways with different upgrades, and so forth. There were some people who, because of the unique way their phone was configured—they had a particular phone using a particular system in a particular location—there were just glitches or, for example, they triggered an automatic reminder on their phone which meant that if they did not dismiss the message the first time they got what appeared to be a second alert but was in fact just a reminder.

There are lots of things at the margins, none of which compromised the delivery of the message. We came away from the test thinking, “If we need to use this in anger, we will get a message to 60 million people at least, and that is a fantastic improvement. Will there be a tiny bit of noise in the margins? Do we need to manage border issues carefully?” It will be things like that, absolutely. That is what a test is for. The Government get criticised a lot for just launching stuff into the ether. Here we have tried to step through it and make sure it works.



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Q69 **Mr Jones:** I am pleased that you explained that, because I received my text message on the Sunday in north Wales, and the following morning I was travelling to Westminster on the train and as we crossed the River Dee into England I had a second alert, as did a number of other people on the same carriage. So you have solved a mystery for me.

Roger Hargreaves: You can imagine the delight of our special advisers as various MPs started tweeting that they had got a second message as they crossed the border.

Q70 **Mr Jones:** On another point, you mentioned the Welsh language. The message that I received spelled the word “ddiogel”, which means safe, as “Vogel”, which is a small ski resort in Slovenia. I was just wondering who drafted the Welsh text.

Roger Hargreaves: The Welsh Government approved it—

Chair: No further questions, Mr Jones.

Roger Hargreaves: But there is absolutely no responsibility to be attached to them. The explanation is actually very straightforward. When you put a Welsh-language message into an English-language system, pretty much every single word comes up with a wiggly blue line underneath to say that it requires spell-checking. Obviously it doesn't, because it is in Welsh. When you load the thing on to the system, if you do not have a space after the last full stop and then press return, it autocorrects the last word. That is why it was Vogel, with a capital V, because it was changing it to an English-language proper noun. That was the reason. The learning from that is to put a space after the last full stop.

Mr Jones: It was a lot of free advertising for the burghers of Vogel really.

Roger Hargreaves: They have yet to get in touch with generous recompense, sadly. Everything you learn from in a test like that.

Chair: That clarifies a number of matters.

Q71 **John McDonnell:** By the looks of it we have launched another conspiracy theory about the Slovenian infiltration of the Welsh Government. Moving on to international affairs, what have you learned from the design of emergency warning systems in other countries? There are two issues I want to raise. First, we have had a lot of reference to the United States today and about how the mobile alerts are supplemented by emergency messages on TV and radio. What consideration have you given to that practice? The other issue is to what extent the 2018 EU directive for all member states to introduce an emergency alert system influenced your own thinking.

Roger Hargreaves: To start with the second issue first, I don't think it has really. The experience of covid was far more formative. It showed that there was a problem with using SMS systems. Therefore, the work that had been done continuously in the background on cell broadcast had had its time come. The EU directive reflects a general sense that countries should have this technology. That is why you see more and more countries



adopting it. There are 20 or so with it, and another 10 with it in development.

Q72 John McDonnell: So it is becoming a standard?

Roger Hargreaves: It is increasingly becoming a standard thing that a mature, well-developed country has. We are going with the trend in that sense. In terms of lessons from abroad and the emergency alert capacity on your phone, I talked about the three elements to it. The receiving bit is an international standard. Phones all around the world come with the technology to receive emergency alerts. The middle bit, how the mobile phone operator makes it work, is particular to mobile phone operators. They will look at their experience internationally and will draw technical lessons within their organisations.

On the first bit, which is the interface that Government use, we have been fortunate in that we have been able to use the Notify system, which is a platform that the Government in the UK use, built by the Government themselves, to put messages out to the public. We were able to piggy-back on that. Other countries have had to spend more developing their own bespoke systems for this task, so there was not so much learning there.

I think the most fertile area is how you use it and how you use things, and what you do in emergencies. My own view is that lessons internationally are always a bit of a mixed blessing, because response to emergencies is so dependent on the institutional arrangements that you have, and the cultural attitude to risk and that kind of thing. So you can say, "Well, you know, look at all this stuff they do in Finland." That is because they have got Russia next to them and they have always had that outlook, so you cannot just translate it.

Consequently, it is a case of picking bits and bobs from countries, rather than a single example. But we have talked to most of the countries that operate systems already and they have told us various things. There are some patterns. There is a really important point about message discipline and message fatigue, which has echoed what we have seen through our own social research. People are very used to getting SMS messages, WhatsApps or whatever. The distinctiveness of it and the sparing use of it really help.

Then there are some interesting examples internationally of how it is used for other purposes. The US in particular use it much more broadly. The US is obviously a very fragmented system, so you have got counties issuing alerts, states issuing alerts, federal government issuing alerts, and they do it for all kinds of different things. Depending on who you talk to there, there are different views about whether people have got fatigue from all those messages or not. But there is certainly some interesting stuff about the kind of boundaries—where you might use it and where you start to run into difficulties.



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In our view, the US probably uses it too frequently and we would not want to mirror that. However, there are countries like New Zealand and Australia that have a broader range of uses than we presently have in this pilot phase, which I think we would look to.

Q73 John McDonnell: How do you develop those protocols and learn those lessons about how to develop them? And who is involved in that?

Roger Hargreaves: With the other countries?

John McDonnell: No.

Roger Hargreaves: With our work?

John McDonnell: Learning the lessons from other systems.

Roger Hargreaves: I have always taken the view that we have to be quite led by local responders in terms of what topics we want to move into. If you take terrorism, for example, it is really tricky. As Lord Harris mentioned, using this kind of system when you are telling people to hide is not particularly helpful. However, it might have a great utility if, for example, you had an incident in central London; you could tell outer London not to come in.

We have not got to a point with the police, because of their nervousness about the first point, where we say we will use it for terrorism. But we are talking to them. And as we get to the end of the pilot phase, I think we will reach some conclusions about the boundaries of where we might use it. My expectation is that we will end up with a situation where we use it quite sparingly, but for quite a long list of different issues, and we will do that in careful discussion with responders.

One of the questions that you asked Lord Harris was what recent examples have you got of situations where you didn't have it but you might have used it? There are a lot of recent flooding examples. We had the severe weather; the storms across the south of England, particularly. We also had the extreme heat warnings last summer, where it certainly would have been an option; whether we would have gone for it, I don't know. Obviously, we used SMS for Covid, but it was really not very effective and we would have been far better using this kind of system then.

Then there are some other interesting examples. About three weeks ago, we had a failure—a very short failure on a Sunday morning—of the 999 system. The reserve systems kicked in and it was fine. But if we had a protracted failure of that system, it would certainly be something that we would consider with Ministers.

Alternatively, there were the Salisbury poisonings. You had life and limb information to get to people really quickly in quite a defined area. That might well have been another slightly leftfield example, but one where this is a really useful tool to have, because then you have got the option of using it.



- Q74 **John McDonnell:** False alarms—can we ask you about those? In the reports we have received, there have been fairly high-profile examples of alert messages being sent out by mistake in other countries. The famous one is Hawaii in 2018, when residents received a false warning on their phones of an incoming ballistic missile attack. What systems are we putting in place to ensure that nothing like that happens here?

Roger Hargreaves: We have double-factor authentication of the messages, which means that they are approved twice; it is not possible for one individual just to decide that they are going to do something, send it off in error and put a message out. There is obviously the governance wrapped around it more generally, as well.

The Hawaii case is interesting, because essentially that was an exercise message that was inadvertently broadcast; they went through the authentication and then sent it, but just to the wrong list. A lot of that is about the design of the interface. Ours very clearly has training modes and things like that, which mean that you are sending a message on a closed loop. When we do the training, it is mildly nerve-racking. It says “training” across the top; you know it is training. You press the button, and then wait for everyone’s phones to go off—and they never do, because it is designed like that. Lots of stuff that is built into the way the system is designed, both in the governance and in the interface, is set up to prevent exactly that kind of thing.

- Q75 **John McDonnell:** The double factor—is that two people internally signing off?

Roger Hargreaves: Yes.

- Q76 **John McDonnell:** There is no external involvement?

Roger Hargreaves: No.

John McDonnell: We will see what the Slovenians send us next, won’t we?

- Q77 **Chair:** Are there any plans for another national test to make sure that any of the problems that were observed on the last occasion are properly addressed?

Roger Hargreaves: We would expect to keep doing the technical tests to make sure that the system is operating. It is international standard practice to do regular test messages.

- Q78 **Chair:** Might that be yearly or twice yearly?

Roger Hargreaves: There is a case for doing it every two years, but we do not have a ministerial decision on that. I think there was enough excitement and interest around the first test that everyone wants to let it bed in and then carry on with it. Other countries test not just their emergency alert, but often also their sirens, their broadcast systems and other things at the same time; some countries do it monthly. Every two years is probably what we would advise Ministers, but we are yet to get a view on that.



HOUSE OF COMMONS

Chair: That is helpful. Thank you for coming this morning and for sharing your expertise. We look forward to receiving some correspondence on those questions we raised earlier; that will be most helpful. Mr Hargreaves, thank you very much indeed.