

## Public Hearing

## Audience publique

### Commissioners / Commissaires

The Honourable / L'honorable J. Michael MacDonald,  
Chair / Président

Leanne J. Fitch (Ret. Police Chief, M.O.M)

Dr. Kim Stanton

## VOLUME 21

### Held at :

Halifax Convention Centre  
1650 Argyle Street  
Halifax, Nova Scotia  
B3J 0E6

Wednesday, May 11, 2022

### Tenue à:

Centre des congrès d'Halifax  
1650, rue Argyle  
Halifax, Nouvelle-Écosse  
B3J 0E6

Mercredi, le 11 mai 2022

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Mr. Joshua Bryson

Counsel / Conseiller

Ms. Patricia MacPhee

Counsel / Conseillère

Ms. Sandra McCulloch

Counsel / Conseillère

Mr. Jeff Waugh

Counsel / Conseiller

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Halifax, Nova Scotia

--- Upon commencing on Wednesday, May 11th, 2022, at 9:33 a.m.

**REGISTRAR DARLENE SUTHERLAND:** Good morning. The proceedings of the Mass Casualty Commission are now in session, with Commissioner Michael MacDonald, Commissioner Leanne Fitch, and Commissioner Kim Stanton presiding.

**COMMISSIONER FITCH:** Hello, and welcome. Bonjour, et bienvenue. We join you from Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq. Let us begin by remembering those whose lives were taken or were harmed, their families, and all those affected by the April 2020 mass casualty in Nova Scotia.

Yesterday, during proceedings, Commission Counsel presented the Foundational Alert Ready in Nova Scotia. We also heard from witnesses, Paul Mason and Rodney Legge, both from the Nova Scotia Emergency Management Office, to help us better understand the Alert Ready system. You can read this and other Foundational Documents and supporting materials on our website, which is also where you'll find the commissioned reports, an archive of past proceedings, and much more information about our work in progress.

Rather than waiting until the end of our mandate, we are sharing our current understanding of the facts based on these documents and resources. We are working this way to help answer many of the questions many of the public had -- are asking. The Commission's Foundational Documents and source materials share the information gathered to date by the Commission through our investigation. These documents bring together and organise information from more than 50,000 documents, over 1,000 audio and video files, and interviews with more than 200 witnesses. So far, we have tendered more than 2,000 exhibits into the public record.

The ongoing public proceedings are another transparent and shared resource. During these proceedings, we are all able to hear from witnesses, experts, and others to help build our shared understanding. Similarly, the

1 commissioned reports, roundtables, and upcoming small group sessions are ways for  
2 all of us to explore the broader context, causes, and circumstances surrounding the  
3 mass casualty and doing this together.

4                   Ultimately, this work is intended to help us arrive at clear findings  
5 and provide a basis for strong recommendations in our final report. It is only through  
6 meaningful and implementable recommendations that we can collectively help to make  
7 our communities safer. As you know, we welcome your thinking and suggestions  
8 through the public submissions process available on our website.

9                   Today, we'll continue to examine issues related to public alerting as  
10 we hear from another witness, Michael Hallowes. We will also hear submissions later  
11 from Participants on this topic.

12                   I will now ask Senior Commission Counsel, Rachel Young, to  
13 introduce Mr. Hallowes. Thank you, Rachel, and thank you for being here with us again  
14 today.

15                   **MS. RACHEL YOUNG:** Good morning, Commissioners,  
16 Participants, people of Canada, Nova Scotia, and beyond.

17                   Before we call the witness this morning, I did just have a couple of  
18 items of housekeeping, Commissioners.

19                   As I suspected I might be doing, I had entered as independent  
20 evidence a couple of exhibits that were already filed as supporting documents, and so  
21 to avoid duplication I wonder if we could just remedy that now.

22                   So the Registrar has advised me that COMM Number  
23 COMM000992, which was marked as an exhibit yesterday as 1306, had already been  
24 marked as Exhibit 1255. And document COMM0043675, which was marked yesterday  
25 as 1307, had already been marked as Exhibit 1282. So if we could just discard or  
26 exclude the documents marked as 1306 and 07 yesterday, since you already have  
27 them, and leave those exhibit numbers open to the next two exhibits, please.

28                   **COMMISSIONER MacDONALD:** Thank you.

1                   **MS. RACHEL YOUNG:** Michael Hallows will be joining us from  
2 England. He's appearing by Zoom. If he could be brought up on the screen, please.

3                   Good morning, Mr. Hallows.

4                   **MR. MICHAEL HALLOWES:** Good morning, Rachel. Good  
5 morning, Commissioners. Good morning, Participants too.

6                   **MS. RACHEL YOUNG:** I wonder, would you prefer to be sworn or  
7 affirmed by the registrar today?

8                   **MR. MICHAEL HALLOWES:** I'm very happy to be sworn. I have  
9 my Bible with me.

10                  **MS. RACHEL YOUNG:** Okay.

11                  Go ahead, Madam Registrar.

12 **--- MICHAEL HALLOWES, Sworn:**

13 **--- EXAMINATION ON QUALIFICATIONS BY MS. RACHEL YOUNG:**

14                  **MS. RACHEL YOUNG:** Mr. Hallows, you're here with us today  
15 virtually, and you'll be with us tomorrow as well for a roundtable on alerting I  
16 understand?

17                  **MR. MICHAEL HALLOWES:** Thank you for the invitation. I will.

18                  **MS. RACHEL YOUNG:** And Madam Registrar, if we could please  
19 bring up Mr. Hallows's curriculum vitae on the screen.

20                  Commissioners, Commission Counsel is tendering Mr. Hallows as  
21 an expert, and I'd like just go through his qualifications if I may. His curriculum vitae is  
22 COMM0055670. If that could be made an exhibit, please?

23                  **REGISTRAR DARLENE SUTHERLAND:** That's Exhibit 1306.

24 **--- EXHIBIT NO. 1306:**

25                  (COMM0055670) - Curriculum Vitae of Michael Hallows

26                  **MS. RACHEL YOUNG:** Mr. Hallows, I understand that you've  
27 been an independent consultant since 2017; is that right?

28                  **MR. MICHAEL HALLOWES:** That is correct.



1 **MS. RACHEL YOUNG:** And you're based in the UK now?

2 **MR. MICHAEL HALLOWES:** I am.

3 **MS. RACHEL YOUNG:** And as a consultant now, I gather that you  
4 advise European governments on public warning systems?

5 **MR. MICHAEL HALLOWES:** Yes, that is correct.

6 **MS. RACHEL YOUNG:** And from 2011 to 2017, you worked in  
7 Australia. Can you please tell the Commissioners what brought you there and what  
8 your various roles were in Australia?

9 **MR. MICHAEL HALLOWES:** I had served 30 years as a -- as a  
10 detective at New Scotland Yard, and was appointed as the Emergency Services  
11 Commissioner for the State of Victoria following the Victorian Bushfires Royal  
12 Commission that ended in 2010, which recommended major reforms to the state's  
13 emergency management arrangements. And I was brought in as the regulator, the  
14 Commissioner for all of the emergency management services in that state.

15 **MS. RACHEL YOUNG:** How did you come to specialise in public  
16 warning systems?

17 **MR. MICHAEL HALLOWES:** That's a very good question. What  
18 happened was that when I arrived, my office, the emergency -- Office of Emergency  
19 Service Commissioner had already chosen to lead for Australia on the development of  
20 what became known as the location-based solution. So Phase 2 of Australia's national  
21 public alerting system known as Emergency Alert, I took charge of that in terms of its  
22 design, its delivery, negotiations on contracts with suppliers, negotiations across all  
23 jurisdictions in Australia, and then ultimately, its implementation in 2012, and its ongoing  
24 operational use, its monitoring of performance, reporting, and its expansion using new  
25 technologies. And that led to my appointment as the National Director of Australia's  
26 Emergency Alert Program in 2014.

27 **MS. RACHEL YOUNG:** Have you ever testified in court as an  
28 expert witness in public warning systems?

1                   **MR. MICHAEL HALLOWES:** No, I have not had that opportunity  
2 before.

3                   **MS. RACHEL YOUNG:** The Mass Casualty Commission retained  
4 you as an independent expert to explain and provide examples and comparisons  
5 between the present Canadian approach and best practices and principles on the  
6 following topic, and I'm just going to read these out to you:

7                   Key principles of system design and governance with respect to  
8 public alert systems; how the priorities and preferred outcomes for communities and  
9 emergency services organisations can be incorporated into the design and  
10 governments -- governance of public alert systems; key principles of inter-agency  
11 collaboration and inter-operability in effective emergency and critical incident response,  
12 including with respect to public communications and education; and with respect to  
13 those things, the best practices and useful models from other countries outside of  
14 Canada; a description of the successful application of principles within other country  
15 systems, and how the present Canadian approach compares with best practices and  
16 principles.

17                   Do you have expertise in those areas?

18                   **MR. MICHAEL HALLOWES:** Thank you. I do.

19                   **MS. RACHEL YOUNG:** Are you qualified to provide expert opinion  
20 evidence in those areas?

21                   **MR. MICHAEL HALLOWES:** I understand that I am.

22                   **MS. RACHEL YOUNG:** Commissioners, I would ask that  
23 Mr. Hallowes be accepted as an expert witness in the areas described.

24                   **COMMISSIONER MacDONALD:** Thank you. So confirmed.

25                   Thank you, Mr. Hallowes.

26                   **MS. RACHEL YOUNG:** And if the Participants had any questions  
27 about Mr. Hallowes' qualifications? No?

28                   Okay.

1                   And I understand, Mr. Hallowes, that you prepared some notes that  
2 you wish to have with you as an aide memoire, so do you have those in front of you?

3                   **MR. MICHAEL HALLOWES:** I do, and I would be delighted if I  
4 can. I'm hoping this is not a memory test. When you get to my age and the greying, it  
5 would be very helpful to be able to refer.

6                   **MS. RACHEL YOUNG:** Commissioners, this document was  
7 disclosed to Participants as a Rule 47 detailed anticipated evidence, although every  
8 point in there may not be put into evidence. It's not my intention to make these notes an  
9 exhibit, but I'd ask your permission to have Mr. Hallowes be allowed to just have them in  
10 front of him to refresh his memory since he will be referring to his own work over a  
11 number of years in a number of countries.

12                   **COMMISSIONER MacDONALD:** Thank you. Sounds reasonable.

13                   **MR. MICHAEL HALLOWES:** Thank you.

14                   **MS. RACHEL YOUNG:** I understand, Mr. Hallowes, that in  
15 addition to doing presentations in several different countries you've written some white  
16 papers on this topic. Is that correct?

17                   **MR. MICHAEL HALLOWES:** Yes, indeed, I have.

18                   **MS. RACHEL YOUNG:** Can you describe those for us?

19                   **MR. MICHAEL HALLOWES:** Yes.

20                   The white papers were on assisting European governments in their  
21 understanding of the expectations and requirements in meeting the European directive  
22 under Article 110 of the *European Electronic Communications Code* of 2018 that  
23 requires all 27 member states to put in place a public warning system.

24                   My white papers walked them through the stages of design through  
25 to delivery and successful implementation covering such areas as requirements,  
26 concepts of operations, the establishment of correct governance, a design authority and  
27 moving through that into standards, funding arrangements, regulation where required  
28 and moving in finally onto the operationalization of the system, including the

1 preparedness of the emergency services organizations who would be using the system  
2 alongside the essential component of community education.

3 **MS. RACHEL YOUNG:** And in addition to your present retainer  
4 with the Mass Casualty Commission, can you give us an idea to the extent that it's not  
5 confidential what other consulting projects you're working on right now?

6 **MR. MICHAEL HALLOWES:** I'm not working on any others. I've  
7 given my exclusive time to you.

8 **MS. RACHEL YOUNG:** And you -- I understand you do  
9 presentations to various European agencies and Canadian agencies regarding public  
10 warning systems?

11 **MR. MICHAEL HALLOWES:** I have been doing so, yes.

12 **MS. RACHEL YOUNG:** I'd like to discuss your knowledge of the  
13 background of Canada's public warning system and Alert Ready.

14 I understand you've had some experience and involvement with  
15 Canadian setup of the systems.

16 **MR. MICHAEL HALLOWES:** Yes, I have.

17 **MS. RACHEL YOUNG:** Can you describe that -- an overview of  
18 that back to your earliest involvement, if you would?

19 **MR. MICHAEL HALLOWES:** My earliest involvement was in 2008.  
20 I was invited as a speaker from London at the Canadian Interoperability Technology  
21 Interest Group, so their second conference in Toronto, and I spoke on the UK's  
22 approach to multi-agency communications interoperability, which was a program I led  
23 for the UK across all of the responder and second -- first responder, second responder  
24 agencies in the country. That was my first.

25 It continued after my arrival in Australia. I was invited again to  
26 present to CITIG, which was their 8 conference. That was in Ottawa, and my role there  
27 from Australia's point of view, they called it bragging rights, but it was to assist the  
28 membership of CITIG with what we had achieved from my office's leadership to deliver

1 Australia's national public alerting system, which we call Emergency Alert, and I gave a  
2 presentation on our approach and our successful design and delivery, and then its use,  
3 which has been quite extensive.

4 **MS. RACHEL YOUNG:** What is CITIG? Can you please tell us  
5 what that acronym stands for and what that body is?

6 **MR. MICHAEL HALLOWES:** It's the Canadian Interoperability  
7 Technology Interest Group, and to my knowledge from meeting its members, it is made  
8 up of some very good people who represent the Chiefs of police, fire and paramedics  
9 and other senior officials from the Emergency Management Organizations in Australia  
10 [sic].

11 **MS. RACHEL YOUNG:** We heard yesterday that, ultimately,  
12 Canada adopted a system known as Alert Ready. Are you aware of what Alert Ready  
13 is?

14 **MR. MICHAEL HALLOWES:** I am, yes.

15 **MS. RACHEL YOUNG:** Can you just describe the gist of that to us,  
16 please?

17 **MR. MICHAEL HALLOWES:** The Alert Ready website describes  
18 the system. It is supported through the -- through the NAADS system. You've probably  
19 heard that acronym from before, but the way in which it works is that an Emergency  
20 Management Organization as a government issuer will send a message that is then  
21 broadcast through the NAADS and then distributed through television, radio broadcasts  
22 and, more recently, through the wireless public networks.

23 **MS. RACHEL YOUNG:** Are there conditions that need to be in  
24 place for alerts to be received on a wireless device?

25 **MR. MICHAEL HALLOWES:** Yes, there are. Most definitely.  
26 That's first and foremost the device that the recipient would have needs to be  
27 compatible with the technology, which is cell broadcast. The Australian -- sorry, the  
28 Canadian system uses the 4G long-term evolution network, so it does not use the

1 earlier 2 and 3G, and therefore your device must be compatible with 4G and you must  
2 also be within 4G coverage area for the system to be able to reach you and for you to  
3 be able to access it.

4 **MS. RACHEL YOUNG:** Who are the stakeholders for Alert Ready?

5 **MR. MICHAEL HALLOWES:** My understanding from the website  
6 is there are four. There are first the government issuers, those authorized to access the  
7 system directly. There's the Pelmorex, who is the commercial supplier of the National  
8 Alert Aggregation and Dissemination System, called NAADS.

9 In addition to that, there are the Alert distributors, which is the  
10 wireless service providers for the cell phones as well as the TV and radio broadcasters.  
11 And fundamentally, it's hugely important because they can't, in this particularly, the  
12 public as the recipients of the Alert message.

13 **MS. RACHEL YOUNG:** Whose responsibility is public alerting in  
14 Canada and how does that differ from who it is in Australia, if at all?

15 **MR. MICHAEL HALLOWES:** From my reading of this and my  
16 personal experience since being invited to be involved in 2014, it's predominantly been  
17 the Emergency Management Organizations across Canada. It's only very recently that  
18 the Royal Canadian Mounted Police have been given direct access.

19 That is quite different to the Australian approach and in many other  
20 countries where it is every organization that has a legal responsibility to warn the  
21 population of an emergency that threatens life, livelihoods, health, property. They all  
22 have direct access to the system.

23 **MS. RACHEL YOUNG:** We will get into this in more detail later,  
24 but can you describe at a high level what the benefits of a centralized model are versus  
25 the pitfalls?

26 **MR. MICHAEL HALLOWES:** By having a hub within each  
27 jurisdiction as the Emergency Management Organization representing all the others in  
28 the world of public warning, you have the benefit that you have an expertise that will be

1 developed, a high degree of proficiency, familiarity and confidence due to their more  
2 frequent use of the system.

3 Ideally, you will also see knowledge sharing between the federal,  
4 provincial and territorial state representatives to build knowledge and confidence  
5 whenever the system is used for the first time for a new type of emergency. And that --  
6 having it centralized in each federal, provincial, territorial environment builds also trust  
7 and confidence that when you need the service, it will be there and you will have a  
8 response that is timely to your needs.

9 It also means that you're going to constantly stay ahead of what is  
10 required for an effective public warning in terms of messaging and developments of,  
11 hopefully, good practice across the country.

12 **MS. RACHEL YOUNG:** So you were involved somewhat in the  
13 early days, and can you describe your understanding of the original intent for national  
14 public alerting in Canada and how that's evolved?

15 **MR. MICHAEL HALLOWES:** Like many countries, and it was the  
16 same in Australia, the genesis for Alert Ready was the realization that nationally  
17 Canada needs a public warning system to deal with the onset of major emergencies  
18 dealing with natural disasters, so floods, tornadoes, bush fires, wildfires. That was very  
19 much the nascence in people's thinking. It's only once the system became established,  
20 and certainly in Australia when I reviewed the system two years in, we quickly identified  
21 from the public's response that their expectation was that they wanted the national  
22 public alerting system to be used by every emergency service with a responsibility to  
23 warn for any type of emergency that threatened their lives, their livelihoods, their  
24 property, or their health. And that radically transformed very quickly in our first two  
25 years our thinking, which I was delighted to bring to Canada in 2014 and '15.

26 **MS. RACHEL YOUNG:** When you speak about Australian public  
27 opinion, I take it you were privy to some research on that?

28 **MR. MICHAEL HALLOWES:** Indeed. I commissioned as the

1 Commissioner and National Director, a national survey done for us by Ipsos, and that  
2 was completed in December 2014. What that showed for us was we had gone out to  
3 every community in Australia who had experienced a public alert and every emergency  
4 service organization that had sent an alert to get a real-life hands-on experience  
5 feedback on their feelings about the success of the system.

6 **MS. RACHEL YOUNG:** We will have a look at that document later.  
7 Just to finish up on the origin of alerting in Canada, we heard yesterday that the CRTC  
8 has involvement in regulating alerts. How would you describe the approach to  
9 developing alerting in Canada and how is that different than it's been elsewhere?

10 **MR. MICHAEL HALLOWES:** By comparison it is very different.  
11 So to have a national project that is delivering an emergency management and  
12 emergency service capability by an organization that is not on the front line of the  
13 consequences of implementation is very unusual. In Australia, my office was  
14 responsible for the oversight of the performance of the emergency services sector and  
15 emergency management sector. Therefore, it was only right, because we were  
16 accountable for the use of that system operationally, that it should be led by an  
17 emergency management and emergency service organization. And our governance  
18 was focussed around accountability and our stakeholder group was led by ourselves,  
19 alongside a federal minister, and the federal minister's senior officials, who would be the  
20 equivalent of deputy minister. So to find in Canada the design was being led by the  
21 regulator for radio television broadcasting is exceptional. I don't know of any other  
22 country that has taken that approach. The traditional approach that I have found across  
23 Europe and also in Australia is that it must be led -- it has been led by a public service  
24 that is accountable for the operational usage of the system, not the relationship with the  
25 distributors.

26 **MS. RACHEL YOUNG:** What was the impact of the lead being  
27 taken by a broadcasting regulator on the role of the considerations of technology in  
28 alerting in Canada?



1                   **MR. MICHAEL HALLOWES:** Again, a most unusual approach. So  
2 when I came to Canada in 2014 for the CTIC conference and then again for an  
3 excellent summit led by Tim Trytten from Alberta Emergency Management, what I found  
4 was surprising that there was no design authority that I could recognize, there was no  
5 approach to developing with stakeholders, in particular, the emergency services, the  
6 concept of operations, and there was no development of the operational requirements  
7 of the user community who would ultimately be firing up the system to warn their  
8 communities. Now I have not seen that before and I commented quite robustly that  
9 from my experience, Canada should look at the established process that has certainly  
10 worked for me that we begin with the people, as in what are the expectations of the  
11 public from a national public alerting system, what are the requirements of their  
12 protectors, the emergency services organizations, in delivering against those outcomes  
13 and expectations.

14                   On the processes, what are the business processes and rules  
15 within those organizations entrusted to deliver those alerts to make sure that the  
16 optimize how they are used, which fits into this concept of operations, and then and only  
17 then do you go to market with a valuation criteria against which you would test your  
18 technologies. What I found was that CRTC, the Defence Research and Development  
19 Canada and one of the service providers were dictating their technology was going to  
20 be sole broadcast. And when I asked for the valuation criteria against which they  
21 reached that decision, I was firmly told that we're doing it this way, and effectively, the  
22 requirements will be retrofitted into what the technology can deliver, not choosing which  
23 technology actually meets the requirements and expectations on the people and  
24 process. A very unusual approach.

25                   **MS. RACHEL YOUNG:** And how did the lead taken by a broadcast  
26 regulator factor into privacy considerations that might come into play in a public warning  
27 system in Canada?

28                   **MR. MICHAEL HALLOWES:** There were two presenters, myself

1 and one from Norway. We both had first-hand leadership experience of using a system  
2 that is using a technology called location-based SMS. We explained how the use of this  
3 technology does not invade personal privacy. It is able to quite lawfully process the  
4 metadata that is automatically generated between every cell phone handset and the  
5 network, and that that data is then provided as a series of anonymized aggregated  
6 totals on screen to the operator. And therefore, there is no invasion of privacy.

7 However, in the ---

8 **MS. RACHEL YOUNG:** Okay.

9 **MR. MICHAEL HALLOWES:** --- subsequent documents, we found  
10 that privacy had been misinterpreted to have other consequences that we knew  
11 factually were not correct.

12 **MS. RACHEL YOUNG:** We will be talking about a number of  
13 presentations you've made over the years in a number of conferences, so when you talk  
14 about this conference, which one do you mean?

15 **MR. MICHAEL HALLOWES:** In specifically, the National Public  
16 Alerting Summit of 17<sup>th</sup>, 18<sup>th</sup> of February 2015.

17 **MS. RACHEL YOUNG:** And that was in Canada?

18 **MR. MICHAEL HALLOWES:** That was in Edmonton.

19 **MS. RACHEL YOUNG:** And when you refer to SMS, can you just  
20 tell us what that stands for? Is that the same thing as a text messaging system?

21 **MR. MICHAEL HALLOWES:** Indeed. Sorry, yes, it's a Short  
22 Message System, SMS.

23 **MS. RACHEL YOUNG:** Now I'd like to turn to asking you about  
24 system design and I believe you're going to be talking about this more tomorrow at the  
25 round table. Can you please explain for the Commissioners to orient them, the key  
26 principles of system design and governance with respect to public alert systems?

27 **MR. MICHAEL HALLOWES:** Certainly. From my experience of  
28 doing this in Australia and guiding European public safety agencies, fundamental to the

1 start of your design for public alerting system is you got to get your governance rights.  
2 And as I say, my experience and that of elsewhere where I've been assisting with this is  
3 the project is led by a senior public official who ultimately has responsibility for the  
4 successful operational use of the capability once delivered, what some people in  
5 program management call a senior responsible owner. And the governance structure  
6 that that individual builds around them is the stakeholder community. So one of their  
7 first functions is the stakeholder identification. And in public alerting, that is traditionally  
8 the organisations with a responsibility in law for alerting the public and warning them in  
9 times of an emergency.

10 That stakeholder group then forms a working group as part of the  
11 Design Authority, who then develop the Concept of Operations. And I'm sure you'll ask  
12 me some questions on that. And from that Concept of Operations, which there are  
13 seven steps, we, in Australia, and I've -- doubtless other countries do the same,  
14 determine a series of Guiding Principles for what you expect of the system as the  
15 national capability for public warning, and from then, you then distill, as we did in  
16 Australia, 10 Guiding Principles against which you will then evaluate the available  
17 technologies.

18 **MS. RACHEL YOUNG:** And so what is a Design Authority? Is that  
19 a person or a group?

20 **MR. MICHAEL HALLOWES:** It's a group. It's a group who takes  
21 charge of the whole development process. So ideally, it's a -- it's a body of people from  
22 both inside and outside the organisations who have all the necessary skills and  
23 expertise in specific operational requirements and the enabling technologies, and they  
24 will consider, investigate, and advise on best practice for the design of a well-  
25 engineered solution that addresses, to the best that the technology can at the time, all  
26 the operational and technical challenges and requirements that you have set out in your  
27 General and Guiding Principles.

28 **MS. RACHEL YOUNG:** So on Guiding Principles for Public

1 Alerting Systems, I gather you have presented in Canada about this in the past. You  
2 mentioned the February 2015 summit in Edmonton?

3 **MR. MICHAEL HALLOWES:** Yes, that's correct.

4 **MS. RACHEL YOUNG:** And I think you give a -- you give a similar  
5 presentation in 2014 to the Canadian Association of Chiefs of Police?

6 **MR. MICHAEL HALLOWES:** That is correct.

7 **MS. RACHEL YOUNG:** Although we're not going to look at those  
8 slides today; we'll look at the 2015 slides. And then -- so we'll -- after the summit, did  
9 Canada change its position on having a technology-led model?

10 **MR. MICHAEL HALLOWES:** No.

11 **MS. RACHEL YOUNG:** And I understand that you would have  
12 been in Australia at that time; is that right?

13 **MR. MICHAEL HALLOWES:** That is correct.

14 **MS. RACHEL YOUNG:** Okay. And you were sent a  
15 communication indicating what Canada's position was after the summit?

16 **MR. MICHAEL HALLOWES:** I was. You're referring to the  
17 technical advisory note?

18 **MS. RACHEL YOUNG:** Yes. Perhaps we could have  
19 Madam Registrar bring that up on the screen. It's COMM0057411. It is a Government  
20 of Canada Technical Advisory Note called Public Alerting Over Long-term Evolution, or  
21 LTE Wireless Networks, Technology Overview, dated April 22nd, 2015.

22 So what is this document?

23 **MR. MICHAEL HALLOWES:** It's effectively a -- the combination of  
24 a piece of research done by Defence Research and Development Canada in terms of  
25 their view, their perspective on the technologies available. I think you'll find from  
26 reading it, it's very much saying that this is a technology-led project for Canada.

27 **MS. RACHEL YOUNG:** And so do I understand that this document  
28 was generated essentially in response to the summit of February 2015, or in the

1 aftermath of it?

2 **MR. MICHAEL HALLOWES:** It was generated very quickly after, I  
3 think the 22nd of April. The workshop run by Tim Trytten was in February, the 17th and  
4 18th.

5 **MS. RACHEL YOUNG:** And so to your knowledge, has there been  
6 any change between 2015 to the present day in terms of the technology-led approach in  
7 Canada?

8 **MR. MICHAEL HALLOWES:** No, there has been no change.

9 **MS. RACHEL YOUNG:** I'd like to take you to another presentation  
10 you made more recently, in May of 2021. So with, I think, some of your updated  
11 thinking shown. That would be COMM Number...

12 Sorry. Madam Registrar, can I just get the exhibit number for the  
13 previous, 57411?

14 **REGISTRAR DARLENE SUTHERLAND:** It's 1307.

15 **MS. RACHEL YOUNG:** One-three-zero-seven (1307). So it would  
16 be on to new exhibit numbers after this.

17 **--- EXHIBIT NO. 1307:**

18 (COMM0057411) - Government of Canada Technical Advisory  
19 Note: Public Alerting Over Long-term Evolution, Technology  
20 Overview, dated April 22nd, 2015

21 **MS. RACHEL YOUNG:** Could we please have COMM0057413 on  
22 the screen?

23 So this is a document called, "A More Effective Public Warning  
24 System (PWS) for Canada in 2023", end quote. And this is a PowerPoint presentation  
25 of yours to the Canadian Association of Chiefs of Police, May 12th, 2021. Is that  
26 correct?

27 **MR. MICHAEL HALLOWES:** That is correct.

28 **MS. RACHEL YOUNG:** And I apologise to Participants. I think on

1 the Rule 46 summary it said May of 2020, but it should be May of 2021.

2 Could this be made an exhibit, please, Madam Registrar?

3 **REGISTRAR DARLENE SUTHERLAND:** It's Exhibit 1348.

4 **--- EXHIBIT NO. 1348:**

5 (COMM0057413) - PowerPoint presentation by Michael Hallowes,  
6 to the Canadian Association of Chiefs of Police on May 12, 2021:  
7 "A More Effective Public Warning System (PWS) for Canada in  
8 2023"

9 **MR. MICHAEL HALLOWES:** May I just ---

10 **MS. RACHEL YOUNG:** And -- yes.

11 **MR. MICHAEL HALLOWES:** --- sorry, comment on there? I think  
12 you've got some notes pages there. I'm fairly confident that is the slide deck that is  
13 relevant. The notes pages may be a repeat of some previous presentation I have done,  
14 and may not necessarily be directly relating to Canada. Forgive me.

15 **MS. RACHEL YOUNG:** So the text at the bottom would be your  
16 speaking notes?

17 **MR. MICHAEL HALLOWES:** Yeah, they would be, but they may  
18 not -- they may be generic. It's the content of the slide deck that's really important.

19 **MS. RACHEL YOUNG:** So we'll focus on the slides.

20 Madam Registrar, if I could have you go to the second last page. It  
21 should be slide 43.

22 So Mr. Hallowes, there's a graphic on the screen here. Can you  
23 see that?

24 **MR. MICHAEL HALLOWES:** Yes, I can.

25 **MS. RACHEL YOUNG:** It looks like a bullseye to me. Did you  
26 create that?

27 **MR. MICHAEL HALLOWES:** I did. If you were to play it, it builds,  
28 but, yeah, one phase at a time, starting with the actual red ring aiming for your target,

1 which is in effect a public warning system, and each of those coloured bands are the  
2 sequential processes to go through to get it right.

3 **MS. RACHEL YOUNG:** I'm not sure if we have the technological  
4 ability to do that today, so I'll just read them from the outside in. So we've got Guiding  
5 Design Principles; Operational and functional requirements, on the outside. So is that  
6 your starting point or why do you have that on the outside?

7 **MR. MICHAEL HALLOWES:** That is your starting point because  
8 you go very broadly with your stakeholder group to get that absolutely right.

9 **MS. RACHEL YOUNG:** And then the next layer in is Policy,  
10 Regulation, Standards and Funding. And so is that because that's what needs to be put  
11 in place once you've got your Guiding Principles?

12 **MR. MICHAEL HALLOWES:** Indeed, because that affects -- once  
13 you know what you wanted to achieve, you will find, as we did, you're going to have to  
14 set the policy, the regulation, and standards to underpin that as a framework. And in  
15 your conversations with the market, you will understand what the funding requirement  
16 will be, and you need to you look at your options for funding, whether that should be  
17 from the subscriber, as it is in Canada, or it should be from the state.

18 **MS. RACHEL YOUNG:** And then we have Operational readiness  
19 and integration is the next level in.

20 **MR. MICHAEL HALLOWES:** That's correct. So that's your  
21 business processes, your business rules for the issuer authorities.

22 **MS. RACHEL YOUNG:** And the next one is Community education.  
23 Why is that in there?

24 **MR. MICHAEL HALLOWES:** That is an essential part. The public  
25 are fundamental to the success of your public warning system; therefore, the public's  
26 ability to understand the urgency of the message as a recipient and to know what they  
27 need to do in response to stay safe and not place any additional burden on the  
28 emergency services, is part of the most critical element to success. And is what is done

1 prior to the launch, because we want to involve the public in trials to get their reaction,  
2 and if necessary, tweak the system before the actual go live.

3 **MS. RACHEL YOUNG:** So does that mean, for example, if an  
4 alarm goes off but nobody knows what it means, it doesn't help?

5 **MR. MICHAEL HALLOWES:** Oh, absolutely. And my  
6 predecessor, when he was interviewed by the Victorian Bushfires Royal Commission,  
7 made a very good point about public warning. And he said, "Warnings are for the  
8 informed." Meaning, quite profoundly, that if you have not educated the public, it's just  
9 more noise in the background. Educating the public to wake up and realise we have a  
10 very serious incident that affects your life, and you will have been prepared through a  
11 solid community preparedness and education program, increases the chances of the  
12 public doing the right thing.

13 **MS. RACHEL YOUNG:** And Madam Registrar, can we have the  
14 graphic back on the screen, please?

15 At the core of that bullseye you had PWS. What does that stand for  
16 and why is it in the middle?

17 **MR. MICHAEL HALLOWES:** It's a -- it's a European term for a  
18 wireless public alerting system or a national public alerting system. The common term  
19 in Europe is a Public Warning System.

20 **MS. RACHEL YOUNG:** So you were giving this presentation to a  
21 police audience last year; is that right, in Canada?

22 **MR. MICHAEL HALLOWES:** That's correct.

23 **MS. RACHEL YOUNG:** And so what were you essentially trying to  
24 convey to them?

25 **MR. MICHAEL HALLOWES:** Well, fundamentally, what had  
26 happened in 2015 is I had brought with me from Australia a document called the  
27 National Telephony Warning System Guidelines, which was effectively our roadmap  
28 and blueprint for how we had approached the development of a public alerting system.



1 And I was only too happy to share that with representatives. And there was a breakout  
2 session which was led by SOREM, the Senior Officers Responsible for Emergency  
3 Management, and I was disappointed because a representative of the Canadian  
4 Association of Chiefs of Police had wanted to be involved in that setup, effectively, an  
5 attempt at establishing a design authority and was excluded. So, for this 2021  
6 presentation, I wanted to show how my thinking from my worldwide experience would  
7 now inform, hopefully, the development of a design authority looking to the future of  
8 what can now be done based on international learning to take Canada into the next  
9 generation of national public alerting systems.

10 **MS. RACHEL YOUNG:** I understand that after you gave this  
11 presentation to the Canadian Association of Chiefs of Police, they issued a resolution  
12 the following month; is that correct?

13 **MR. MICHAEL HALLOWES:** That is correct. It's 2021-06.

14 **MS. RACHEL YOUNG:** And, Madam Registrar, could we see that?  
15 It's COMM-0043481, if that could be brought on screen, please, and made an exhibit?

16 So we'll see it in a minute on screen, but it's called the review --  
17 sorry, it's called "Review of the Communications Interoperability Strategy for Canada:  
18 Prioritizing the National Public Alerting System."

19 **MR. MICHAEL HALLOWES:** Yeah, that's the document. I have a  
20 copy of it in front of me as well.

21 **MS. RACHEL YOUNG:** And so, in a nutshell, are you able to tell  
22 us what the response was from the Canadian Association of Chiefs of Police after your  
23 presentation?

24 **MR. MICHAEL HALLOWES:** They were able to finish their crafting  
25 of this document, which was fundamental to their wanting to demonstrate that lessons  
26 had been not only identified, but learned from the mass casualty events, and they were  
27 proactively wanting to influence the design authority and their leadership in the future of  
28 Canada's national public alerting system.

1                   **MS. RACHEL YOUNG:** Madam Registrar, what's the exhibit  
2 number for that document?

3                   **REGISTRAR DARLENE SUTHERLAND:** 1349.

4 **--- EXHIBIT No. 1349:**

5                   (COMM0043481) - Review of the Communications Interoperability  
6 Strategy for Canada: Prioritizing the National Public Alerting  
7 System –

8                   **MS. RACHEL YOUNG:** And so I apologize for jumping around  
9 chronologically, but just staying on the same theme of wireless networks and public  
10 alerting policy, I wanted to have a look -- I think you mentioned some work you did in  
11 2015. So if we could see COMM-0057411, that's the document called "Public Alerting  
12 over Long-Term Evolution LT Wireless Networks Technology Overview, dated April  
13 22<sup>nd</sup>, 2015." So we've -- actually, we've made that one an exhibit, I think. Okay. So  
14 this is the -- sorry, this is the Government of Canada note. So was there a shift  
15 between that Government of Canada note in 2015 saying there was going to be no  
16 change to the technology to that approach to the response of the Chiefs of Police in  
17 2021?

18                   **MR. MICHAEL HALLOWES:** That was and remains, I believe,  
19 their goal, to shift that thinking. Because there had been no concept of operations going  
20 back to 2015, that the requirements, which is an evolving process, had not been  
21 considered for how the emergency services might want to use the system operationally,  
22 and there have been huge advances in multiple countries in their use of the system  
23 which needs to inform Canada's future approach. And that paper, the 2021-06  
24 resolution is aimed at, for the first time, getting CACP's active participation as a  
25 stakeholder in the process.

26                   **MS. RACHEL YOUNG:** Madam Registrar, could we see the  
27 bottom of page 10 of this document, the Government of Canada document?

28                   And so I won't make you read them all, Mr. Hallowes, but we see

1 starting at the bottom of page 10 carrying on to page 11, you do talk about the -- or this  
2 document does talk about the guiding principles there. So those were the ones that you  
3 helped design for Australia's system; is that right?

4 **MR. MICHAEL HALLOWES:** Yes, they are. They reflect the work  
5 that was done by ourselves in Australia first that we were only too happy to share with  
6 SOREM, and a gentleman, Tim Trytten, I believe he's in the room, remember working  
7 on Canadianizing our document to make it a living, working document for your country.

8 **MS. RACHEL YOUNG:** And we see that you're cited there in  
9 footnote 15. And Mr. Trytten, who you mention, will join us tomorrow at the round table.

10 Moving on then from the guiding principles for public alerting  
11 systems to the concept of operations, which is an idea that we see come up again and  
12 again in your work. Can you please explain what the concept of operations document  
13 is, and I believe the lingo is ConOps that we hear people referring to?

14 **MR. MICHAEL HALLOWES:** Yes, I'm sorry for the lingo. I believe  
15 it's the military who like to shorten everything. It's called ConOpos, but, yes, concept of  
16 operations. It's an integral part of the design process. It's fundamental to getting it  
17 right. And this is the document that's developed by consensus amongst the  
18 stakeholders to describe the characteristics of the proposed public alerting system from  
19 both the user and recipient perspectives. Now the content will set out the individual and  
20 collective operational and functional requirements based upon recognized use-case  
21 scenarios. The concepts of operations are widely used, as I said, by the military,  
22 government services, emergency services and emergency management organizations  
23 to help document from the very beginning everyone's understanding of how a new or  
24 existing technology that needs to be approved will either be employed or adapted to  
25 achieve desired outcomes and then an end state. The finished concept of operations  
26 document then informs the technical specifications for the technology procurement, and  
27 it goes on to provide the basis for what would be your standard operating procedures  
28 that set out the rules. But in a federal, provincial territorial type constitution it's normally

1 only guidance, it's very strongly worded guidance to ensure consistency in how the  
2 system will be used in times of emergency. It also forms the basis for the training and  
3 training manual for future users. So the concept of operations is a hugely important first  
4 step in getting it right.

5 **MS. RACHEL YOUNG:** Who are the users?

6 **MR. MICHAEL HALLOWES:** It varies. So in Canada, as I've said  
7 before, you have your government issuers who are authorized to have access, but you  
8 actually have more organizations than those who have to use the designated  
9 government issuer as their conduit to get access to the system in order to have their  
10 message sent. For me, that is an unusual process, because I'm used to those  
11 organizations with a responsibility to warn having unfettered direct access, because the  
12 time required is essential.

13 And if I may seek your indulgence, the way in which I've been  
14 describing this to get people to understand the concept, we used in Europe the term  
15 reverse 1-1-2. So for you it would be reverse 9-1-1. When you dial 9-1-1 as a member  
16 of the public, you have an expectation your call will be answered, you will be taken  
17 seriously, and that the appropriate response capability will be dispatched to your  
18 location because you are the person who is telling the emergency services what is  
19 happening, where it is.

20 In reverse, it is -- can be that the emergency services at the point  
21 where they are receiving the 911 calls realize that a situation is now escalating to one  
22 that you in the command and control centre have enough information to realize that the  
23 public are not aware there is a very dangerous escalating situation, so you now need to  
24 put the 911 system in reverse to alert them to respond.

25 And that explanation, I have found, has worked well with  
26 government organizations in realizing the value that when the scale of a disaster or the  
27 scale of an emergency exceeds the capacity and capability of the emergency services  
28 to respond in the traditional way of knocking on everyone's door as you can do this now

1 remotely and automatically and if you have the right technology, you will be presented  
2 back with a series of facts, in particular in Australia, vital to me as the Commissioner to  
3 be able to see from the system in near real-time, so in less than 10 seconds, how many  
4 cells phones and, therefore, a reliable indication of people, are actually within the  
5 warning area, once I send the alert, how many of those people's devices have  
6 successfully received the message and then, by watching the data, which is all  
7 anonymized, how many of those people have then followed my instruction to evacuate.

8                   And that data proved critical for emergency services in Australia to  
9 understand how many people, where they were, were they reacting and, if they weren't  
10 reacting, where were they, how could we reach them, and with what resources to  
11 rescue them.

12                   So that explanation, I hope, helps with the importance of an  
13 effective reverse 911 capability.

14                   **MS. RACHEL YOUNG:** Yes. I just want to clarify the terminology  
15 because yesterday we were discussing reverse 911 with representatives of the Nova  
16 Scotia Emergency Management Office and when they talked about reverse 911, they  
17 meant literally the same as a 911 call, but only for landlines, that that -- there would be a  
18 capability for the landline phone provider to supply potentially phone numbers that  
19 correspond with civic addresses and send to people in a geographic area, but it sounds  
20 like you're talking about a broader concept of reverse 911 which would include cell  
21 phones.

22                   So you just mean authorities to the people versus the other way  
23 around. Is that correct?

24                   **MR. MICHAEL HALLOWES:** Indeed. So the system first  
25 developed before my arrival in Australia did exactly that. If you drew on a mapping  
26 system connected to the platform for public alerting a polygon, it would naturally capture  
27 from the database run by government that anonymized your name but it had your  
28 landline telephone registered against your address. If you were in that polygon, you got

1 the call.

2 The challenge for me was that that excluded every non-resident  
3 and every visitor from the system, so we needed a cell phone capability that detected  
4 from the system every cell phone that was within the network coverage of this same  
5 polygon. And by virtue of your registration, which is then anonymized and aggregated  
6 together with all the other cell phones registering the warning -- in warning area, you got  
7 the alert.

8 **MS. RACHEL YOUNG:** Yes. And for those who are interested in  
9 more detail, you do have diagrams showing the circles and polygrams [sic] on maps in  
10 your slides that people can peruse in the exhibits.

11 So you've been talking about this for quite some time, at least 10  
12 years, I believe.

13 Madam Registrar, could we have document number COMM057417  
14 on screen, please?

15 This is the National Telephony Warning -- sorry -- National  
16 Telephony Warning System Guidelines dated November 2012, version 1.4. And this is  
17 from Australia. Is that correct?

18 **MR. MICHAEL HALLOWES:** Yes. It was produced by my office  
19 as the national roadmap and guidance on use of our system and how we reached that  
20 decision.

21 **MS. RACHEL YOUNG:** Could we just start at page 1, please,  
22 Madam Registrar, so we can have a look at the title page?

23 And so who is the author of this document?

24 **MR. MICHAEL HALLOWES:** One of my staff, signed off by myself  
25 as the Commissioner.

26 **MS. RACHEL YOUNG:** And now I would like to go to page 5,  
27 please, Madam Registrar.

28 So on page 5 and going over to page 6, we see 14 guidelines. So I

1 understand this is the whole approach to public alerting set out here?

2 **MR. MICHAEL HALLOWES:** Indeed. It was our template for all  
3 the features as the guiding principles.

4 **MS. RACHEL YOUNG:** And if we go down to the bottom of page  
5 6, the next page, we see 10 principles to evaluate technologies. And so is this what you  
6 came to Canada asking if they had done and found that they -- it wasn't done that way  
7 because there was already an assumption about which technologies would be used?

8 **MR. MICHAEL HALLOWES:** That is correct. It had not been  
9 done.

10 And what was really troubling is if you look at the first bullet point,  
11 the choice of technology that CRTC/DRDC was recommending did not comply with our  
12 overriding expectation. And you can see that was it should be accessible to, non-  
13 discriminatory and reach the vast majority. And I had classified for Australia the vast  
14 majority was 95 percent of cell phone numbers.

15 The cell broadcast technology at that time was not compatible with  
16 every handset. It would only work on the 4G network when you were in the coverage  
17 with a compatible device. And I know from the first tests of Alert Ready in 2018 all of  
18 my warnings were borne out by the results of those tests, that it was not reaching the  
19 vast majority because Canada's choice of technology was discriminatory, it did not  
20 provide access or reach to the vast majority of cell phone users, and that is still the case  
21 today.

22 **MS. RACHEL YOUNG:** So let's unpack those considerations a  
23 little bit.

24 I believe there's a roundtable tomorrow afternoon that will be  
25 discussing these ideas further, but in terms of discriminatory, so you're saying, first of  
26 all, it would only work with more recent technology. So for example, if someone had a  
27 10-year-old cell phone, it wouldn't reach them? Is that correct?

28 **MR. MICHAEL HALLOWES:** If it's not 4G compatible and it -- and

1 it has not had its software upgraded to the latest operating system and it is not within  
2 4G coverage, it will not work. It will not receive an alert and will not be capable of  
3 keeping you safe.

4 **MS. RACHEL YOUNG:** And do language considerations come into  
5 play here in terms of the language of the alerts?

6 **MR. MICHAEL HALLOWES:** It's a dilemma. And I'm coming from  
7 a country where we have multiple languages. And in Australia, it troubled me, too, that  
8 we were using just English. But in talking to communities affected, we realized very  
9 quickly that they saw the emergency alert capability as a community alerting capability  
10 and that there was, by the culture of the way in which Australians have behaved for  
11 generations, a shared responsibility.

12 And we found, quite remarkably, that even though we were sending  
13 emergency alerts in English, non-English speakers were using Google Translate directly  
14 from their device to find out what this message was. And it is -- it has always concerned  
15 me about are we discriminating through language and then find that the majority of  
16 people actually problem solve for themselves in these environments, plus others around  
17 them, in an emergency, start to react and take people with them, so that's really  
18 important to understand, that unless you're at home and in isolation that way, people  
19 will do things because you've done the community education program that's effectively  
20 reached them starting in Australia from children to senior citizens with a website that's in  
21 30 languages.

22 So we've done absolutely everything we could to ensure we  
23 covered off the language consideration.

24 But if I may just finish on that point, if you have to translate  
25 everything into multiple languages before you'll send it, you risk not sending it at all and  
26 the information is too dated for it to be relevant. So it's often, may I say, best  
27 endeavours in the language that is hopefully the dominant one for where you are  
28 sending your alert.



1                   **MS. RACHEL YOUNG:** Was it part of the public education  
2 campaign to advise community members to look out for other members of the  
3 community who might not speak English?

4                   **MR. MICHAEL HALLOWES:** Absolutely. And that was delivered  
5 by local firefighters, who went to schools to help people understand. And children are  
6 wonderful at wanting to do the right thing, and they would go home with their leaflets  
7 and tell their aunties and uncles and parents what this all meant and the lesson they'd  
8 had and the key messages.

9                   **MS. RACHEL YOUNG:** In terms of the differential access to  
10 alerting, Australia's similar to Canada in that there are large rural areas that are thinly  
11 populated. How does that factor into assessing whether the technology is appropriate?  
12 For example, if there's uneven cell phone reception.

13                   **MR. MICHAEL HALLOWES:** Well, the beauty of the Australian  
14 system is that it was neutral as to the technology generation. It uses, as many other  
15 countries are doing, SMS, which is a global standard for messaging, and it's a useful  
16 vehicle for taking an alert to people.

17                   In Australia, we invested hugely in increasing coverage into rural  
18 areas on whichever generation was effective, and certainly along the main  
19 transportation routes and the main areas of population. There is now at least 3G; 2G  
20 has been shut off. There's at least 3G and works to deliver 4G as well, as all part of the  
21 national responsibility for recognizing, as came out in our 2014 review with IPSOS, that  
22 the public expects to be warned by those it has entrusted to reach them in times of  
23 emergency with that warning.

24                   **MS. RACHEL YOUNG:** So you told us that you brought this  
25 message to Canada in 2014. And I believe you chaired that programme, and you  
26 mentioned that the CRTC was there, representatives from SOREM, but that the CRT  
27 excluded emergency services. Is that -- do I have that right?

28                   **MR. MICHAEL HALLOWES:** You're kind to think I chaired it.

1 There were far more able people there from Canada who actually led the discussion in  
2 the breakout group. I was merely offering some guidance that had worked for me in  
3 Australia, as a basis for those discussions.

4 **MS. RACHEL YOUNG:** So you were a presenter rather than a  
5 chair?

6 **MR. MICHAEL HALLOWES:** Very much a presenter. I had done  
7 my presentation, and very kindly the audience members, let's have a breakout session.  
8 Mr. Trytten led that, to my recollection. It was unfortunate that when a representative of  
9 the Canadian Association of Chiefs of Police asked for representation in the room,  
10 CRTC insisted that it was -- actually all those seats were already taken by SOREM.

11 **MS. RACHEL YOUNG:** How do you know -- how do you know  
12 that?

13 **MR. MICHAEL HALLOWES:** I was in the room.

14 **MS. RACHEL YOUNG:** You were in the room? Okay.

15 You provided the Commission with a document on this topic called,  
16 "Guiding Principles for Multimodal Public Alerting Systems (Canadian Proposed Mobile  
17 Alerting Guiding Principles)"; that's COMM0057415.

18 Could that be an exhibit, please? And may I have the exhibit  
19 number, please, Madam Registrar?

20 **REGISTRAR DARLENE SUTHERLAND:** So the exhibit number  
21 for the previous document was 1350, and this document will be 1351.

22 **--- EXHIBIT NO. 1350:**

23 (COMM057417) National Telephony Warning System  
24 Guidelines dated November 2012, version 1.4

25 **--- EXHIBIT NO. 1351:**

26 (COMM0057415) Guiding Principles for Multimodal  
27 Public Alerting Systems (Canadian Proposed Mobile  
28 Alerting Guiding Principles)

1                   **MS. RACHEL YOUNG:** And if we could have that onscreen,  
2 please?

3                   Mr. Hallowes, who created this document?

4                   **MR. MICHAEL HALLOWES:** The actual author is Mr. Trytten, who  
5 negotiated the discussions with his stakeholder group to get that document produced,  
6 and he kindly kept me informed through its iterations. That is the last one I have seen,  
7 which is draft number 4.

8                   **MS. RACHEL YOUNG:** And so is this work coming out of the 2014  
9 programme you were talking about?

10                  **MR. MICHAEL HALLOWES:** Yes, it's the 2014-2015 summit. So  
11 2014 was CITIG that kicked this off; 2015 was Mr. Trytten's excellent summit, and the  
12 document you had on screen there, that exhibit, is the summary of that work. And you'll  
13 find when you do a comparison between the Australian and this document, the  
14 Canadian document, there are huge similarities, but there is one that is quite striking,  
15 and that is the first guiding principle on page 4 changes the meaning of the Australian  
16 one, which was non-discriminatory, to qualify it by saying that is supported by the  
17 Canadian wireless service provider. And, similarly, when it comes to number 7, the  
18 Australian one says does not encroach on the privacy of individuals, and the Canadian,  
19 to limit the technology choices, adds to that, in respect of identifying reporting on the  
20 location of the device when it is detected within network coverage within the defined  
21 alert area. That completely stopped Canada from being able to take advantage of an  
22 existing technology that was non-discriminatory, accessible to (inaudible) and reaches  
23 everyone with a cell phone, anywhere in Canada.

24                  **MS. RACHEL YOUNG:** So this is a draft document. Are you  
25 aware of whether it was finalized and exactly what came out of it?

26                  **MR. MICHAEL HALLOWES:** I only have it third-hand as to what  
27 happened. I have no personal knowledge, but I had a no from the author what  
28 happened to that document.

1                   **MS. RACHEL YOUNG:** And we will be speaking to Mr. Trytten  
2 tomorrow, so perhaps it can be discussed at the roundtable.

3                   **MR. MICHAEL HALLOWES:** Yeah.

4                   **MS. RACHEL YOUNG:** I want to ask you about another document  
5 you created more recently, which is COMM number 0057394. It is called, "Effective  
6 Cell-Phone Based Public Warning Systems: Getting it Right," dated July 8, 2021.

7                                 Could that be made the next exhibit, please, and brought  
8 onscreen?

9                   **REGISTRAR DARLENE SUTHERLAND:** One three five two  
10 (1352).

11 **--- EXHIBIT NO. 1352:**

12   (COMM0057394) Effective Cell-Phone Based Public  
13   Warning Systems: Getting it Right," dated July 8,  
14   2021

15                   **MS. RACHEL YOUNG:** So this is another presentation of yours, is  
16 that right, Mr. Hallows?

17                   **MR. MICHAEL HALLOWES:** Thank you, it is.

18                   **MS. RACHEL YOUNG:** Who did you give this presentation to?

19                   **MR. MICHAEL HALLOWES:** I gave this to representatives of the  
20 Council of Canadian Emergency Management Organization, at their invitation. It was a  
21 Webinar, like the CACP one in May.

22                   **MS. RACHEL YOUNG:** Where was that?

23                   **MR. MICHAEL HALLOWES:** I did it from home; and forgive me, I  
24 think it was coordinated out of St. John's.

25                   **MS. RACHEL YOUNG:** Of course, at this time we're into COVID,  
26 so everybody was attending remotely, I guess, or at least you were?

27                   **MR. MICHAEL HALLOWES:** That's correct.

28                   **MS. RACHEL YOUNG:** So what was the context of this gathering -

1 - virtual gathering?

2 **MR. MICHAEL HALLOWES:** It was a very neat segue. So having  
3 presented a similar Webinar to CACP in May, at least one of those who had heard my  
4 presentation wanted me to share it, in the context of emergency management  
5 organizations, in July. And you'll find the slide deck has a number of similarities, and  
6 I've tried to tailor it to an emergency management organization, rather than just a police  
7 environment.

8 **MS. RACHEL YOUNG:** Madam Registrar, if we can have that on  
9 screen again and just go to the next slide, please, page 2?

10 And so here we see these are similar principles to what you've  
11 been talking to us about.

12 **MR. MICHAEL HALLOWES:** Indeed. So that utilizes a piece of  
13 work that was borrowed by Canada, and also myself as the Director of Interoperability in  
14 the UK, called the Interoperability Continuum, and it has five strands of concurrent --  
15 and this is very important; it's concurrent activity.

16 Those stands are divided into five lanes, as you can see at top is  
17 governance. You have to have governance right; you need to have your standard  
18 operating procedures, which is your document set that underpins everything; the right  
19 choice of technology, and your location of that technology; and critical with anything  
20 new, you need to train and exercise your people to build proficiency and confidence,  
21 based upon effective training. And from the public's point of view, the blue lane at the  
22 bottom is critical to their safety because once you've developed the system, their  
23 expectation is you'll use it.

24 **MS. RACHEL YOUNG:** So that

25 **MR. MICHAEL HALLOWES:** And the interesting ---

26 **MS. RACHEL YOUNG:** So that blue line is called, "usage"?

27 **MR. MICHAEL HALLOWES:** Usage. And that is the critical bit  
28 upon which the public will judge success because, as we've identified through my 2014

1 survey of Australians after two years of running the system, we found that 71 percent of  
2 the people surveyed -- and so this is every community that have received a warning --  
3 their expectation was that they would receive a warning now for any type of emergency  
4 to a police crime in action, harm reduction, not just the traditional bushfires, floods and  
5 tempests that the system had originally established to provide the service for. And that  
6 was one of the key messages I brought to Canada in 2014 and then 2015, and has  
7 been fundamental to my conversations out, moving away from the emergency  
8 management type environment, which can be a slow burn, you know it's going to be a  
9 bad day in terms of weather, to one where it is a police crime in action that is  
10 unpredictable, it happens, it unfolds quickly, and you need to get the message to start  
11 remote door-knocking very, very quickly.

12 **MS. RACHEL YOUNG:** So speed is of the essence in these  
13 situations, I gather. And ---

14 **MR. MICHAEL HALLOWES:** Absolutely.

15 **MS. RACHEL YOUNG:** And so have you been a part of  
16 discussions about the impact -- the balancing in between speed of delivery and the  
17 impact of different languages being spoken?

18 **MR. MICHAEL HALLOWES:** It has -- it has come up in multiple  
19 conversations, particularly in Europe, where you can imagine there is a very multi-  
20 cultural, as there is in Canada, plus you've got international visitors.

21 **MS. RACHEL YOUNG:** Right. And so we're still in the general  
22 world of Concept of Operations at the moment, and you talked at the very outset about  
23 how there needs to be a Concept of Operations document that is used. Is there a  
24 Concept of Operations document in Canada?

25 **MR. MICHAEL HALLOWES:** No.

26 **MS. RACHEL YOUNG:** If we could to go to slide 24,  
27 Madam Registrar. It might be page 25. I think this is -- this is actually the page I  
28 wanted here. Thank you. So it's page 24, and I think -- I think it's slide 24.

1                   So this has got the heading, Concept of Operations, and you've  
2 identified seven critical questions to assist in develop the ConOps, or Concept of  
3 Operations. So you've got, Why?, Who?, When?, Which?, What?, Where?, and How?,  
4 and I noticed that the slide after that goes on to explain Which? But I — I want to stay  
5 on this slide, Madam Registrar — but I want to ask about Who?, number 2.

6                   So this is a critical question asking Who?, and you have Primacy  
7 there in brackets. So what does that mean? Can you explain that concept, please?

8                   **MR. MICHAEL HALLOWES:** In Australia, emergencies have been  
9 categorised to ensure that there is one of what they call Control Agency who has  
10 primacy for the response to it, and also, in that, the planning and preparation. So  
11 understanding, so there is no duplication of effort, and therefore the risk of something  
12 falling through the gaps, in Australia every type of emergency has a Control Agency that  
13 is clearly set out, and that's why it's essential in the Concept of Operations in  
14 determining the scenario, who it is will take responsibility, and therefore, who needs  
15 direct access to the system because they are that Control Agency to alert the public.

16                   **MS. RACHEL YOUNG:** And does the person whose responsibility  
17 is need to know it's their responsibility?

18                   **MR. MICHAEL HALLOWES:** Oh, absolutely. And in Australia, it's  
19 documented. Forgive me, I couldn't tell you what the document is, but it is well known.  
20 And some of the things are very obvious, like bushfire, a construction fire is the fire  
21 department; crimes in action are clearly the police, and harm reduction as well; and then  
22 health, et cetera, floods are clearly articulated and set out with clear delineation as to  
23 which emergency service or emergency management organisation is -- has the primacy  
24 as the Control Agency.

25                   **MS. RACHEL YOUNG:** And so you're talking about types of  
26 emergencies there. And I take it there should be a quick way of identifying which type  
27 of emergency is presented; is that right?

28                   **MR. MICHAEL HALLOWES:** Yes. And it's -- many are very

1 obvious.

2 **MS. RACHEL YOUNG:** Have you had discussions about the best  
3 way to get that across when time is tight?

4 **MR. MICHAEL HALLOWES:** From my own operational  
5 experience, it has been very evident that it is a policing matter, or it is a policing matter  
6 to coordinate on behalf of a number of other agencies, which is when this whole multi-  
7 agency capability kicks in, and the need for doctrine about how that is worked. And it --  
8 as it's -- very often it is the police who act as the coordinator in any major incident on  
9 behalf of all the emergency services, it tends to fall upon the police to be the alert  
10 authority, the issuer.

11 **MS. RACHEL YOUNG:** What is your opinion on whether it's most  
12 effective for alerts to be issued directly by police services leading an emergency  
13 response in a scenario such as an active shooter, or for them to request from a  
14 government agency, like an emergency management office, that the emergency  
15 management office issue the alert?

16 **MR. MICHAEL HALLOWES:** I'll give one analogy to say it has to  
17 be the police. In my early days as a -- as a young bobby, I would often be handed a  
18 bullhorn and told to tell the public, as I stood on the corner, what they needed to do  
19 because I had immediate access to the information, I knew what was happening around  
20 me, and I was listening to it being discussed on my radio. The same applies here. That  
21 if you are the organisation that holds the information and intelligence that the situation is  
22 escalating, well you need to issue an alert. In the interests of time, and time will be  
23 critical, it has to be the role of the police to have direct access for them to craft the  
24 message according to the principles of the common alerting protocol, and to take  
25 responsibility for getting that message to the public in the area affected, and then  
26 monitoring the success of that message in the public's reaction. So if it's an evacuation,  
27 or stay indoors, you should start to see, as the police, that behaviour being reflected in  
28 the population's reaction.



1                   **MS. RACHEL YOUNG:** So that's really where the rubber hits the  
2 road so to speak with getting the message out. So turning back to the upper echelons  
3 of these considerations, to governance.

4                   In your documents you talk about the difference between directive  
5 and partnership models of governance. Perhaps I could bring up a presentation you  
6 gave on July 8th of 2021. I believe this is the most recent one we have.

7                   It's COMM0057394. If we could bring that on the screen, and could  
8 that be made -- oh. Sorry, we made that an exhibit already, I believe, Madam Registrar.

9                   **REGISTRAR DARLENE SUTHERLAND:** That was Exhibit 1352.

10                  **MS. RACHEL YOUNG:** One-three-five-two (1352). And if we  
11 could see slide 22.

12                  Can you explain the difference between directive and partnership  
13 models of governance?

14                  **MR. MICHAEL HALLOWES:** Certainly. So in a directive approach  
15 to governance, the user/stakeholder groups leads the program to delivery the capability.  
16 It sets the operational requirements. It chooses the technology that will deliver against  
17 them. It sets the policy, and it will choose whether to use regulation, or some form of  
18 volunteer -- voluntary approach. It sets both the technical and operational standards. It  
19 monitors contractual compliance, and it takes charge of system administration, change  
20 control, continuous improvements and upgrades. So that's what the directive one is, it's  
21 government owned and led.

22                  Now, did you want me to explain the partnership model?

23                  **MS. RACHEL YOUNG:** Yes, please.

24                  **MR. MICHAEL HALLOWES:** So the partnership model is how  
25 Canada has approached this. So Canada has worked with the supplier. So the  
26 supplier gets its funding from subscribers. That need diminishes the influence of the  
27 other stakeholders in terms of the emergency services organisations because the  
28 governance is a partnership where the supplier and the distributors can choose how

1 they want to handle the processing of messages, alerts, along with the development of  
2 changes and upgrades to the system. Because if it's going to affect the bottom-line that  
3 it requires investment to improve the technology to keep pace with next the generation  
4 or capability requirements, they can choose to say no. Whereas in the directive one, it  
5 comes down from government, "This is a condition of your licence." "It is a condition of  
6 your responsibility to deliver against the requirement for alerts." It's quite a different  
7 model that Canada has from any other country.

8 **MS. RACHEL YOUNG:** So the supplier in Canada is Pelmorex?

9 **MR. MICHAEL HALLOWES:** That is correct. And ---

10 **MS. RACHEL YOUNG:** And so -- no, go ahead.

11 **MR. MICHAEL HALLOWES:** Pelmorex shares the governance, as  
12 I understand it.

13 **MS. RACHEL YOUNG:** And so the alert system in Canada is  
14 privately owned essentially?

15 **MR. MICHAEL HALLOWES:** It's another, if I may say,  
16 extraordinary, and I mean that in terms of it's unique. I -- there is no other country in the  
17 world that I know where the supplier owns the system. In every other country, it is  
18 government owned and led. And certainly, in Australia, ultimately, it's owned by the  
19 Attorney General from the Federal Government, who then has delegated their running  
20 of the program to the equivalent of a Deputy Minister Public Safety Canada would be  
21 the equivalent, who has delegated day-to-day running to the Department of Justice and  
22 Community Safety in Victoria, and that's a legacy because Victoria led -- my office led  
23 the design to delivery of the original system. But in the Australian framework, it is all led  
24 by those held to its frontline delivery. In Canada, that's very odd that you've put the  
25 commercial supplier in charge of delivering the capability. For me, they would be a  
26 stakeholder held to account contractually in a different governance relationship.

27 **MS. RACHEL YOUNG:** And so other than what you've discussed  
28 so far, have you identified any other complicating factors due to Canada's approach to

1 governance?

2 **MR. MICHAEL HALLOWES:** Well, as a result of it, Pelmorex has  
3 not sought to have a concept of operations. There is no standard operating procedure.  
4 No one takes national responsibility at government level for its performance, its  
5 effectiveness. There is no national working group made up of emergency services  
6 organizations who want change, who want a review of technology. That is not built into  
7 the current governance model, to my understanding of what I have observed and what  
8 I've read.

9 **MS. RACHEL YOUNG:** So what are the rules and responsibilities  
10 in the common setup for governance structure of an interdepartmental and interagency  
11 governance boards?

12 **MR. MICHAEL HALLOWES:** I've drawn diagrams of this for  
13 stakeholder groups in Europe. All of them have at the very top the Minister who is  
14 accountable, and then whoever they have then delegated within normally their own  
15 department, who will make sure this gets done. But in that governance framework, the  
16 people with primacy in influencing decisions are those on the frontline who will be using  
17 the capability. There will be other stakeholders who provide legal and technical  
18 knowledge. And towards the bottom, and quite deliberately at the bottom, are bodies  
19 such as the regulator and the supplier. They do not have a controlling influence. They  
20 may have the ability to manage trade-offs around technology and requirements, but  
21 they do not have the final say.

22 **MS. RACHEL YOUNG:** Commissioners, I'm finishing a section.  
23 I'm happy to carry on. I just wanted to canvass to see whether anyone else wanted a  
24 break because we've been going for an hour-and-a-half.

25 **COMMISSIONER MacDONALD:** Yes, thank you, Ms. Young. It's  
26 appropriate to take a break at this time. And thank you so much, Mr. Hallowes. We're  
27 going to take a break now for 20 minutes and we'll come back at that time. Thank you.

28 **REGISTRAR DARLENE SUTHERLAND:** Thank you. The

1 proceedings are now on break and will resume in 20 minutes.

2 --- Upon breaking at 10:56 a.m.

3 --- Upon resuming at 11:19 a.m.

4 **REGISTRAR DARLENE SUTHERLAND:** Welcome back. The  
5 proceedings are again in session.

6 **COMMISSIONER MacDONALD:** Thank you. Ms. Young,  
7 whenever you're ready.

8 **MICHAEL HALLOWES, Resumed:**

9 **MS. RACHEL YOUNG:** Good morning again, Commissioners.

10 **COMMISSIONER MacDONALD:** Thank you. Mr. Hallows, hello  
11 again.

12 **--- EXAMINATION IN-CHIEF BY MS. RACHEL YOUNG (Cont'd):**

13 **MS. RACHEL YOUNG:** Good morning or it's good afternoon to  
14 you, Mr. Hallows, in England.

15 **MR. MICHAEL HALLOWES:** It's morning now. It's good morning.

16 **MS. RACHEL YOUNG:** I'm going to turn now to asking you about  
17 interagency collaboration and interoperability. Can we start by having you define those  
18 two terms, please?

19 **MR. MICHAEL HALLOWES:** Goodness me. They are huge  
20 subjects.

21 **MS. RACHEL YOUNG:** Well, just letting us know what they mean  
22 would be a good start.

23 **MR. MICHAEL HALLOWES:** Okay. So I'll try and throw  
24 something out there and hopefully it lands correctly in your interpretation as well as  
25 mine. I'm speaking as a former practitioner.

26 So interoperability is the capability of organizations who work and  
27 cooperate and collaborate effectively by understanding each other's roles and  
28 responsibilities so that they complement each other. So a very simple one would be in

1 an emergency, the police have a role and responsibilities, similarly, the fire and rescue  
2 services and the paramedics. They all have distinct roles. But for them to succeed as a  
3 collective, they need to be able to interoperate, and that requires doctrine, manuals and  
4 training, exercising, and it needs enabling technologies, which is where the CITIG, the  
5 Canadian Interoperability Technology Interest Group, was leading, or has been leading  
6 Canada to get the most effective capabilities for joint operations.

7 **MS. RACHEL YOUNG:** And what is interagency collaboration? Is  
8 that something different?

9 **MR. MICHAEL HALLOWES:** We talk about intra and inter, so intra  
10 being within and inter begin amongst. And certainly, coming from a policing  
11 organization in the UK that is made up of 43 policing forces, all with different  
12 approaches, uniforms and kit, it's essential that there be intra as within the police, and  
13 then how we operate with our neighbouring, and then national capabilities with the other  
14 emergency services, and what we call the second responder agencies such as  
15 municipal, provincial authorities.

16 **MS. RACHEL YOUNG:** And why are these two things important to  
17 the success of public alerting?

18 **MR. MICHAEL HALLOWES:** Primarily, because there will be  
19 cause and effect. So you could have an emergency that could start as a fire, that is the  
20 first 9-1-1 call. You need fire brigade, fire service personnel when they respond and  
21 turn up at the scene to recognize this actually is a multi-agency approach, that it could  
22 be a crime, and therefore, requires a police response, and the police response will be to  
23 contain, to isolate, and then coordinate, to preserve a crime scene and protect the wider  
24 impact. And you have emergency medical services who will also have responsibility in  
25 dealing with casualty, management and evacuation. So that's the criticality of it.

26 **MS. RACHEL YOUNG:** So should these different agencies play a  
27 role in developing training manuals or policies?

28 **MR. MICHAEL HALLOWES:** Absolutely. And that was something

1 that we recognized in the UK, and I was appointed as the national director to run the  
2 multi-agency interoperability program because we had learned from the terrible terrorist  
3 events July 2005 on the 7<sup>th</sup>, you may remember, that -- we were very good individually,  
4 but combined, we were not showing an understanding of each other's roles and  
5 responsibilities and business rules. And so you could have a situation where, as we  
6 have seen more recently in a terrorist attack in Manchester, the fire service not able to  
7 go in until the police had said it was safe to do so, and similarly the ambulance, without  
8 realizing they actually have a role to play and police should be facilitating that role for  
9 the purpose of saving life. So absolutely, it has to be set out in doctrine that  
10 we can fall back on to understand what's working and what is not. And then train our  
11 people and embed that training through exercising, and then monitoring its success by  
12 seeing it reflected in the way in which we work together through day-to-day usage, and  
13 that's going back to the continuum you kindly put up on the screen.

14 **MS. RACHEL YOUNG:** I understand how that applies to  
15 emergency response, but how does it apply to public alerting?

16 **MR. MICHAEL HALLOWES:** There will be cause and effect. So in  
17 terms of one service that might not be the primary organization that will deal with public  
18 alerting, it needs to know that the situation they're dealing with is escalating to the point  
19 where, if it's a police one, the police are on the ball immediately for the public alerting.

20 **MS. RACHEL YOUNG:** At times in your talks, you've given an  
21 example of the Icelandic model for interagency collaboration and interoperability. Can  
22 you tell us about that and what its advantages are?

23 **MR. MICHAEL HALLOWES:** Iceland has a population of 300,000.  
24 It is a small country. It gets several million visitors though. And what they have realized  
25 in the rollout of their national public alerting system is that it's best placed within the  
26 command and control and communications and dispatching, so the equivalent of 9-1-1  
27 PSAP. The criticality of that is about time. So Iceland's approach has been that their  
28 staff who are taking the 9-1-1 calls and dispatching those people to respond and are

1 therefore getting the intelligence back from their frontline people, puts them in the very  
2 best position to realize when a situation is escalating to the point where an alert is  
3 needed. As I said previously, an incident can very quickly escalate to a point where it  
4 exceeds the capacity and capability of the people who first respond. And if your  
5 requirement is to start evacuating people, then you must get the message to them as  
6 quickly as possible, and today through cell phones, that's done remotely and  
7 automatically by an Alert Ready type capability.

8 **MS. RACHEL YOUNG:** Okay. Now I understand the connection.  
9 So you're talking about scenarios where it's not necessarily alert first, response later.  
10 It's the responders come, and they realize this is something bigger or something that  
11 more people need to know about, and they need to know how to get different  
12 information from different agencies and collect information to sound the alert. Is that ---

13 **MR. MICHAEL HALLOWES:** Yes, very --

14 **MS. RACHEL YOUNG:** --- correct?

15 **MR. MICHAEL HALLOWES:** --- yes, very much so. So the model  
16 that we applied in Australia works as much as the 9-1-1 call comes in as your first call to  
17 action. The appropriate capability, police officer, firefighter, is dispatched to the scene,  
18 who then acts as your intelligence gatherer to do a very quick assessment of what they  
19 have found on the instant ground and report that back. And as more human and  
20 otherwise technology sensors are adding information to this to create what we  
21 sometimes call the common operating picture, so your situation awareness, you can  
22 very quickly realize this exceeds your normal response capability to warn the public and  
23 you are going to need to invoke emergency alert to reach as many people as you can  
24 simultaneously in the area to get them the message which may be, first advice, this is  
25 what we know now, stand by for more; and a watch and act, which is this is our new  
26 understanding and you need to be ready for the very next message; and finally, here's  
27 the emergency alert. This is the action we need to take -- we want you to take. And in  
28 Australia, sometimes it was this exceeds our capacity capability. We are not coming.

1 That's quite devastating. We are not coming. So therefore, we need to give you the  
2 information you will need to stay safe.

3 **MS. RACHEL YOUNG:** So an example of that might be if a  
4 tsunami's coming, all you can do for people is say get to higher ground?

5 **MR. MICHAEL HALLOWES:** Yeah, and ---

6 **MS. RACHEL YOUNG:** Something like that?

7 **MR. MICHAEL HALLOWES:** --- your education program has  
8 already got people prepared that that can be the message.

9 **MS. RACHEL YOUNG:** Okay. You've told us about an  
10 organization called CITIG. Can you remind us what that acronym stands for, please?

11 **MR. MICHAEL HALLOWES:** Canadian Interoperability  
12 Technology Interest Group set up in 2007. I think it has -- or it no longer exists since  
13 about 2017.

14 **MS. RACHEL YOUNG:** It no longer exists, is that what you said?

15 **MR. MICHAEL HALLOWES:** I have a fear -- I may be wrong, but I  
16 haven't had any correspondence to say that it still exists. I may be wrong.

17 **MS. RACHEL YOUNG:** Okay. I understand they discussed or  
18 developed something called the Canadian Communications Interoperability Continuum.  
19 Are you aware of that?

20 **MR. MICHAEL HALLOWES:** Yes. We were talking about the five-  
21 strand diagram of the roadmap, effectively, before.

22 **MS. RACHEL YOUNG:** And so that's the same document or same  
23 concept?

24 **MR. MICHAEL HALLOWES:** That's the roadmap that we  
25 borrowed in the UK, we borrowed it in Australia, I took it there, and Canada borrowed it  
26 originally from SAFECOM in United States.

27 **MS. RACHEL YOUNG:** And so you've told us that you're a  
28 proponent of the police using the public warning systems themselves. I wanted to ask



1 you about some of the things we need to understand in order to either know how to --  
2 Commissioners would now how to best execute the system or understand what you're  
3 saying. If we can look at COMM-0057410, Madam Registrar, if we could show that on  
4 screen?

5 Mr. Hallowes, this is your presentation from 2015 called "Police Use  
6 of Emergency Alert for Crimes in Action and Harm Reduction."

7 And what exhibit number will that be, Madam Registrar?

8 **REGISTRAR DARLENE SUTHERLAND:** That's Exhibit 1353.

9 **--- EXHIBIT No. 1353:**

10 (COMM0057410) - Police Use of Emergency Alert for Crimes in  
11 Action and Harm Reduction

12 **MS. RACHEL YOUNG:** I suspect at this point it'll contain a number  
13 of ideas we've already spoken about this morning, but I wanted to ask you about one  
14 concept called the principle of subsidiarity, if we could look at slide 11, which is probably  
15 page 11? No, it isn't, so let's look at the next page. This is looking at active shooter  
16 scenario. I'm not finding the right page right now, but I'm not sure if there's a  
17 connection. Before you talked about primacy, is that connected to subsidiarity, or is this  
18 a different idea?

19 **MR. MICHAEL HALLOWES:** Subsidiarity is a European legal  
20 principle, in effect, that the decision that affect the community should be taken by the  
21 lowest common competent authority closest to the people affected. So, for example, it  
22 means that if the most senior person on the instant ground is a sergeant, then the  
23 sergeant should, as the competent authority to understand the situation they're facing,  
24 should be allowed to authorize the right action to then be taken.

25 **MS. RACHEL YOUNG:** Thank you. And we do have it on screen  
26 now. It's page 9 where it talks about authorization, so that means authorization of the  
27 alert itself?

28 **MR. MICHAEL HALLOWES:** Can I just add some context to this?

1                   **MS. RACHEL YOUNG:** Yes.

2                   **MR. MICHAEL HALLOWES:** So December 2014, over 2 days,  
3 there was a siege in the Linked Café in Sydney, and that revealed to me, as the  
4 Commissioner, that we had not anticipated in our thinking that emergency alert should  
5 be used for broader emergencies that threaten life than bush fires, wildfires, floods, et  
6 cetera, which is what we had done in the past. And within days of that, I was presenting  
7 to the peak body in Australia and New Zealand, which is the Australia/New Zealand  
8 Counter-Terrorism Committee, to pilot the use of emergency alert for the first time for  
9 crimes in action, so any form of crime which has an immediate threat to life and harm in  
10 terms of missing children. We had not ---

11                   **MS. RACHEL YOUNG:** And so that would include active shooter,  
12 for example?

13                   **MR. MICHAEL HALLOWES:** Absolutely. Active shooter, any form  
14 of crime in action with an immediate threat to life, and it meant we needed to change the  
15 mindset. So it was taking traditionally in Australia 40 minutes from first realization of an  
16 escalating event to getting it -- the message authorized and the alert sent. This pilot  
17 identified streamlining that process down to an average of now eight minutes.

18                   **MS. RACHEL YOUNG:** And so -- and you share these ideas in  
19 Canada subsequently?

20                   **MR. MICHAEL HALLOWES:** Indeed. I brought them with me for  
21 the 2015 summit in Edmonton. I don't think I had it ready for the December seating, but  
22 I definitely brought them with me. And I remember it's in my -- some of it is in my slide  
23 deck which you have.

24                   **MS. RACHEL YOUNG:** And so the principle of subsidiarity, this is  
25 going beyond should it be the police or an emergency management office issuing the  
26 alert. It's who within the police. And as I understand it, what you're recommending is  
27 that it be the lowest possible ranking officer down the chain, or at least the person in  
28 closest proximity to the emergency, not necessarily someone who is behind a desk

1 remote from the emergency; is that right?

2 **MR. MICHAEL HALLOWES:** Absolutely. But there's a  
3 fundamental first step in this. For that to work, you must have a concept of operation,  
4 you must have a standard operating procedure, and you must have embedded through  
5 training the very fact this capability exists and how it is to be used. It's the absence of  
6 that that then puts the frontline responder in considerable difficulty because they don't  
7 have the knowledge, they don't have the -- therefore, the familiarity or the confidence to  
8 use it because it's not been embedded in their standard operating procedures in the  
9 response to instance.

10 **MS. RACHEL YOUNG:** So this would be a training issue to make  
11 sure, again, the person whose responsibility it is, knows it's their responsibility, but we're  
12 not talking about just which agency, we're talking about, really, which individual?

13 **MR. MICHAEL HALLOWES:** It can come right down to the  
14 individual. If you are the frontline person that the public is turning to because you have  
15 all the visible signs and symbols of authority, you're wearing the uniform, then the public  
16 will expect you to make the decisions.

17 **MS. RACHEL YOUNG:** And that's back to your having a bullhorn  
18 example right on the street corner. And so what are the pitfalls of that, though? If it's --  
19 if it's a sergeant on scene or somebody on scene, who, they do know what's happening  
20 immediately around them, but if it's a larger event they may not have the full picture, are  
21 there dangers associated with getting the alert out from the person that's, perhaps,  
22 almost too close to the ground and doesn't have the bigger picture?

23 **MR. MICHAEL HALLOWES:** Organisations, police, fire, have  
24 built-in mechanisms to take away from the frontline responder the responsibility for  
25 actually issuing the alert. But we may give them a -- a policeman may give their frontline  
26 people a bullhorn to do something locally as a first response. But it is the control centre,  
27 that having had the request made to it by the frontline individual, who then takes  
28 responsibility for getting that message constructed, authorised, and sent on their behalf.

1 I wouldn't want to take the frontline responder away from their frontline duties, it should  
2 be once they flag up, "This needs to be done. I am now on the ground. I'm telling you  
3 this the warning area. This is what we know from here. Send a message." That should  
4 be done a matter of minutes.

5 **MS. RACHEL YOUNG:** Is it possible to coordinate, for example,  
6 that an officer who is right there might be telling the people who are right there one thing  
7 and then someone with a more birds-eye view might tell the broader public something  
8 else? For example, the person close to the scene saying to get out and the person  
9 further away is saying not to go in to an area?

10 **MR. MICHAEL HALLOWES:** There is always that risk, and that's  
11 why, you know, the control centre should be coordinating and passing back. And they  
12 may well be aware of factors outside the knowledge of the frontline individual, but from  
13 my personal experience, having been the frontline bobby, all the way up to the incident  
14 commander, that it's best endeavours.

15 I -- I'm always very concerned by something called the "paralysis of  
16 accuracy", whereby you wait and wait for the perfect situational awareness and you  
17 miss telling the public what they need to know right now, "And I'm sorry, if I got it wrong,  
18 I'll tell you I got it wrong, and I'll correct it." But waiting for this perfection of the  
19 information, it doesn't happen.

20 If we take the '07, '07 terrorist attacks in London, I was right there in  
21 the control room, it took us more than 60 minutes to work out that we were under attack  
22 from four coordinated terrorist attacks. That's the reality. In that hour, we said nothing  
23 to the public. We should have been able to say something that said, "This is what we  
24 are dealing with", where it is, our understanding, "We'll update you." Saying nothing in  
25 this day and age allows non-official channels, like social media, to then dominate, to the  
26 fill the gap with inaccuracies, unchecked information.

27 **MS. RACHEL YOUNG:** And so as I understand about what you're  
28 saying is it would be preferable to say, you know, at minute one we know something is

1 happening at Point A, and then an hour later, you know, we're not sure -- we wouldn't  
2 say we're not sure what's happening, but perhaps, it may have spread beyond Point A,  
3 we don't know, and then as more information is gathered, sending follow up alerts. Is  
4 that right?

5 **MR. MICHAEL HALLOWES:** Absolutely. And as I described  
6 earlier, the Australian escalation is advice, "We've just arrived. This is what we believe  
7 we've got. It looks like it's going to be dangerous. You need to do what -- whatever  
8 action we think you need to take, we'll tell you." A watch and act saying, "We've now  
9 got more information. It's escalating", and then the emergency alert, "So we know what  
10 we want you to do right now, and you must do it.", and your communication information  
11 program helps with that. And to continuously update as information adds new risk, new  
12 information, new intelligence, which might be it's a cancellation, or it's moved on and  
13 we're now drawing a new warning area to alert those people with what we know. As  
14 well as keeping people informed in the first warning area, we have now got information  
15 that says it's now a watch and act as opposed to an emergency alert. But it's a -- it's a  
16 constant iterative process of communicating.

17 And if you can imagine, an analogy would be like on the battlefield.  
18 You've got constant dynamics going on. Frontline soldiers are constantly  
19 communicating with each other because they hold the knowledge. The people they're  
20 trying to reach need to also be -- know, if they are civilians, what they're trying to  
21 achieve.

22 **MS. RACHEL YOUNG:** And so in terms of best practices, whose  
23 decision -- who makes the decision of what the advice is? For example, if there's an  
24 active shooter, shooting people in their homes, who decides? Is the advice "Stay in and  
25 lock your doors", or if the shooter is burning people's houses down, that could be  
26 dangerous, so is the advice to evacuate? Who's in the best position to make that  
27 decisions?

28 **MR. MICHAEL HALLOWES:** Each scenario will have its own

1 dynamics, its own features, and this is why training and embedding these types of  
2 decisions into your actions when it comes to alert is critical. And the person on the  
3 frontline needs to be flag up what is the most sensible-at-this-time action to take that  
4 needs to go in the alert message. And they may be that they will contradict later on. So  
5 you might be telling one group of people "We believe the situation has moved on", and  
6 you're taking -- telling another group of people further away, "The situation requires this  
7 response." But that's quite normal.

8 **MS. RACHEL YOUNG:** Is there a risk of alert fatigue where people  
9 are getting bombarded with messages and they start ignoring them because they can't  
10 follow the plot?

11 **MR. MICHAEL HALLOWES:** I -- as part of the researchers in  
12 2014, we did not find evidence of alert fatigue. I would not say it's a myth, but what is --  
13 there is very clear evidence that the public has an expectation of being warned. What  
14 they need from that warning is it to be actually to relate to them, so it's relevant. That  
15 the information is accurate, and that it is timely in terms of the time to impact, they have  
16 enough time to respond to it.

17 If you're using the same system that you would use for public  
18 alerting in a real-time emergency for other features, then sure, the public may find it  
19 tiresome when they hear the ping go off or the alarm that is another warning. So it's  
20 very important to differentiate between different types of warning that "Something is  
21 happening where we need your help", perhaps in terms of an Amber Alert, from one that  
22 is "This personally affects you right now where you are."

23 **MS. RACHEL YOUNG:** There are two other potential dangers I  
24 wanted to ask you about. So what about the danger of if there is an active shooter  
25 looking for people who might be hiding, and then an alert goes to their phone, is there  
26 not a risk that you're actually telling the shooter where the people are?

27 **MR. MICHAEL HALLOWES:** This is one of the points I make  
28 several times to Canadian audiences, is that your choice of technology cell broadcast

1 overrides the user's settings on their device. And here in the UK, the counterterrorism  
2 advice, which is the same for an active shooter, is "Run away, hide, switch your phone  
3 to silent, and then tell the emergency services where you are hiding."

4 Now, we know from the awful shooting episode in Utøya, in  
5 Norway, that young people, who were trying to hide from Anders Breivik, who was the  
6 gunman, had their hiding places revealed because their mobile phones either rang or  
7 pinged with an SMS. So we learned in Australia that our choice of system gave the  
8 user of the device the ability to still mute and silent an alert by simply turning the button  
9 on the side of their device to that setting. Whilst Canada's choice of technology has no  
10 such capability. It will override your handset settings that you have chosen, which  
11 would give away your hiding place and you have no ability to stop it.

12 **MS. RACHEL YOUNG:** And so if you're on the phone with 911, for  
13 example, trying to tell them what was happening and there's a shooter potentially  
14 looking for you, you'd have to choose between being able to speak to emergency  
15 services or to ditch your phone so that it wouldn't give your position away. Is that  
16 correct?

17 In Canada.

18 **MR. MICHAEL HALLOWES:** It would in those -- in that situation,  
19 absolutely, you would have to make that choice of turning -- of actually having to turn  
20 your telephone, your cell phone, off.

21 **MS. RACHEL YOUNG:** If it occurred to you.

22 **MR. MICHAEL HALLOWES:** If it occurred to you and you'd been  
23 told that in your community education program.

24 **MS. RACHEL YOUNG:** And you knew that. Yeah.

25 And as well, if the shooter had a cell phone, then presumably the  
26 shooter is getting whatever information, so if all the public are being told to go one way,  
27 the shooter's going to know that, too; right?

28 **MR. MICHAEL HALLOWES:** Yes. And that also is a huge

1 consideration.

2 It shouldn't stop you from sending the alert, but you must be aware  
3 in the content of the message that you are not giving an advantage to the shooter.

4 **MS. RACHEL YOUNG:** And so you're in a unique position  
5 because you've been on the front lines of emergencies and I note from your CV that  
6 you've been cited for bravery and you've dealt with hostage negotiations and now  
7 you're in a position to consider preferred outcomes.

8 You told us about community expectations, people are expecting to  
9 be warned, and now you've discussed the cycle of monitoring, review and evaluation  
10 after events.

11 Can you talk about the stage we're at now where it's -- we're all  
12 trying to process what happened and does that form a part of looking at how best to  
13 deal with public alerting?

14 **MR. MICHAEL HALLOWES:** Oh, indeed.

15 After every use of emergency alert in Australia, we would review,  
16 because my office had access to the data, the success of each alerting campaign.  
17 Similarly as we did with the Lynch siege, we looked at the vulnerabilities in the  
18 organization about its management of the incident to see how we could improve the  
19 situation because we -- we owe it to the population that we are going to learn, we're  
20 going to identify those lessons and we're going to implement them in the most effective  
21 way because in times of crisis, people want the police and the other emergency  
22 services to make sense of their misery through very meaningful public warnings and  
23 information and to -- there is an expectation that the organizations with that  
24 responsibility will take the learning, and not just from Canada, but as I've had the  
25 privilege of coming to Canada from Australia and the UK, to be able to pass on that  
26 learning because I don't want another colleague in the same situation as myself to have  
27 a bad day and nor in terms of the public they're trying to protect.

28 **MS. RACHEL YOUNG:** And you did talk about this -- this cycle of



1 learning in your presentation last year to the Canadian Association of Chiefs of Police  
2 that we've already made an exhibit.

3 That's COMM No. 0057413, if we could have that up on screen  
4 again, please, Madam Registrar.

5 This is the presentation called, "A More Effective Public Warning  
6 System for Canada in 2023".

7 And if we can go down to slide 34.

8 And so it's a little bit faint in the background. You've got a graphic.  
9 But it almost looks like a recycling logo. It says "Emergency Life Cycle" and the public  
10 warning system enables all five stages, plan, alert, respond, recover and lessons  
11 learned.

12 **MR. MICHAEL HALLOWES:** Yes.

13 **MS. RACHEL YOUNG:** And is that -- is that a model or a graphic  
14 that you came up with?

15 **MR. MICHAEL HALLOWES:** It's one of mine. Some people call it  
16 the "Emergency Life Cycle". I've seen it with just the first four components in what you  
17 called the recycling model, but actually, you're not recycling the knowledge in the fifth  
18 component, which is embedding the learning.

19 And embedding the learning means you may not have had a bad --  
20 you may not have had the best day, but here's a legacy you can turn around whereby  
21 you can improve the situation for the next person in your situation.

22 So the plan and prepare, certainly in the context of an Alert Ready  
23 scenario, having your concept of operations at the beginning and then your standard  
24 operating procedures and your training, you will -- you should have a separate training  
25 environment, so a technology environment which is safe for the user to play with to build  
26 their confidence in using the live system, and it should be totally separate, which is what  
27 most countries have done.

28 Canada does not have a training environment, so you only have the

1 live environment.

2 So in the planning and preparing, what we did in Australia is every  
3 time we had a new incident, we would start creating walk-down menus with templates  
4 for the wording to speed up the process for the next person who encountered such an  
5 emergency.

6 **MS. RACHEL YOUNG:** Do you mean to describe types of  
7 emergencies?

8 **MR. MICHAEL HALLOWES:** No, the content of the message, so  
9 to simplify the content of the message.

10 And then having sent the alert and dealt with the response to it, to  
11 then actively monitor the effectiveness of that alert, in Canada your technology does not  
12 allow you monitor the effectiveness of the alert other than from the incident ground from  
13 frontline personnel seeing the public react, whereas countries that use the location  
14 based solution with SMS, what they can see near real-time on heatmaps that are  
15 generated by the anonymous and aggregated data, they can see by repeating a  
16 process the movement of the people to confirm they are complying and if they don't  
17 comply, it does it mean that they stuck and they need rescuing and that's where -- and  
18 you then know where to send your resources.

19 And -- but taking all of that knowledge from not only Canada, but  
20 also from Australia and now 27 European countries are all building in time for the June  
21 2022 deadline an effective public warning system, there's a body of knowledge that  
22 needs to be built into the learning module to inform the planning and preparing for the  
23 next emergency so that we're ready.

24 **MS. RACHEL YOUNG:** What is the June 22nd deadline that  
25 you're referring to -- or June 2022, I mean?

26 **MR. MICHAEL HALLOWES:** The *European Electronic*  
27 *Communications Code* of 2018 directs every European member state, so 27 of them,  
28 that they must have an effective public warning system that uses the cell phone

1 networks in place by the last day of June this year.

2 **MS. RACHEL YOUNG:** When you mentioned that in Canada  
3 there's not a way to look at where people are, not who they are, but just that there is  
4 someone there based on location by using their phone, is that because we don't have  
5 the technological ability or is it because of privacy considerations?

6 **MR. MICHAEL HALLOWES:** First, you have the technology.  
7 Second, you haven't interpreted the privacy conditions to realize that it is quite lawful in  
8 an emergency for public safety authorities to process data to save human life.

9 **MS. RACHEL YOUNG:** Because it can be aggregated, as you  
10 mentioned.

11 **MR. MICHAEL HALLOWES:** Indeed. So it becomes impersonal  
12 and it is presented to the operator of the public alerting system as an aggregated  
13 anonymous total.

14 **MS. RACHEL YOUNG:** And so obviously, all the planning and  
15 training in the world doesn't guarantee that nothing bad will happen again, but if it does,  
16 as I understand it, you're saying it's very important to capture whatever learning there  
17 was to be had. Is that right?

18 **MR. MICHAEL HALLOWES:** Indeed. Continuous improvement,  
19 as it's termed, relies on capturing the good things as well as the not-so-good things and  
20 turning them into actions. And in Australia, I pioneered for emergency services  
21 improvement action plans with turnaround times where I, as a Commissioner, expected  
22 to see tangible improvements which almost every single one meant new training and  
23 embedding that and I would see it in the way in which the emergency services carried  
24 out their duties.

25 **MS. RACHEL YOUNG:** And as far as you're aware -- so Madam  
26 Registrar, could we have that graphic back, please?

27 I'm just looking at that Emergency Life Cycle.

28 And so in this cycle at the points 1 to 5, where is this Mass

1 Casualty Commission in this cycle?

2 **MR. MICHAEL HALLOWES:** Hopefully, in the stage where you  
3 are gathering -- as I'm hoping I am contributing to -- the evidence base for continuous  
4 improvement. So number five.

5 **MS. RACHEL YOUNG:** Lessons learned.

6 **MR. MICHAEL HALLOWES:** Lessons learned. And there's a big  
7 red arrow on my diagram that points, in the cycle, back into the plan "Come prepared".  
8 And that, as I've tried to articulate -- I hope I have -- may involve a radical review of first  
9 basics in the design of your national public alerting system, going back to having a  
10 concept of operations, a standard operating procedure, and having the right technology  
11 that delivers against the actual requirements and expectations of those who will both  
12 use and receive the messages, to train and exercise, and to see its effective use in the  
13 future.

14 **MR. MICHAEL HALLOWES:** And so, in other words, the lessons  
15 learned are captured, for example in the Commission's report, in order to fully be fruitful  
16 they need to be put back into the planning and preparation stage after that, is that right?

17 **MR. MICHAEL HALLOWES:** I remember working at a time when I  
18 was the operational lead at the Police Staff College in the UK, and I had a term which  
19 was "Nice shiny lies" and we were having reviews done of events which were not good  
20 days, and we were turning them into reports and we were leaving them with nice, glossy  
21 covers on coffee tables around headquarters, but we had done nothing to turn it into  
22 action.

23 And so one would hope that the approach that I brought to Australia  
24 of having improvement action plans that are time-based as in I am the regulator, the  
25 inspector, I want to see not only that you have documented the learning but you've  
26 turned it into an action plan where I will see there are milestones for when you will  
27 achieve success in an implementation. And from the public's point of view, the next  
28 time there is an active shooter, the reactions of emergency services and the

1 dissemination of alerting has taken full account of what comes out of the Mass Casualty  
2 Commission's evidence gathering.

3 **MS. RACHEL YOUNG:** What do you think are the preferred  
4 outcomes for emergency services organizations, such as police and fire departments, in  
5 terms of maximizing benefits from a national public alerting system?

6 **MR. MICHAEL HALLOWES:** I can speak from personal  
7 experience. It's a scary thing being entrusted with public safety, and therefore when  
8 someone gives me a tool that helps me do my job, my expectation is that that system  
9 will do what I need it to do. And it would be very good if in your development of that  
10 system, you had invited me to contribute my requirements to its functionality, and that's  
11 a critical part of this.

12 So the expectation of emergency services organizations is where  
13 you have -- can be a vicarious liability on the individual incident commander, this  
14 capability allows me to fulfil my obligations to public safety.

15 **MS. RACHEL YOUNG:** What are some barriers to more frequent  
16 use of public alerting?

17 **MR. MICHAEL HALLOWES:** We did a survey, as I say, in 2014  
18 with the communities that had been affected and the emergency services who had used  
19 it.

20 **MS. RACHEL YOUNG:** Just to stop you there; when you say "We"  
21 there, are you talking about your Australian experience now?

22 **MR. MICHAEL HALLOWES:** (No recorded response).

23 **MS. RACHEL YOUNG:** Okay, carry on.

24 **MR. MICHAEL HALLOWES:** Twenty fourteen (2014), as the  
25 Commission, I wanted this national review. And we looked at what were the barriers  
26 that had stopped us, or stopped individuals, from feeling confident to send out an alert.  
27 And some warned that it was a new system, it was put on a pedestal; it was not  
28 commonly used because it hadn't been embedded into their day-to-day operational

1 procedures. They thought it more intrusive than other means of alerting. And as I say,  
2 much of this is documented. And some thought we couldn't have Alert Ready as being  
3 a critical tool of last resort, without realizing the public's expectation was completely  
4 different.

5 **MS. RACHEL YOUNG:** And so how can these barriers be  
6 removed? What can be done to reconcile the top-down approach versus the public's  
7 understanding of what alerting is for?

8 **MR. MICHAEL HALLOWES:** Fundamentally, it comes down to  
9 training. And, you know, actually it goes right the way back to the concept of  
10 operations. One of the key groups that needs to be represented in the roundtable  
11 discussions in the development has to be the public because it's critical that the  
12 effectiveness of the capability is measured upon their ability to act on the information  
13 you give them. So training is important.

14 But, also, it's in the user interface of the system where you are --  
15 everything you need to make the decision is automatically there on your screen and you  
16 are simply doing a yes/no to reach your decision to invoke the system. You are not  
17 expected to go to a separate paper system to fill out a risk assessment; this is  
18 absolutely critical.

19 Everything you need as a decision-maker must be on the screen  
20 that you would use to make your decisions. And when you have ticked every box that  
21 says, yes, yes, yes, then you should feel confident that you can send the alert. But  
22 there should be no separate system that creates bureaucracy that's unnecessary when  
23 time is critical. So the user interface is essential on the technology, and the training in  
24 its use is vital.

25 **MS. RACHEL YOUNG:** And so we've got the importance of  
26 training, and I understand that. And is that something different than operational  
27 readiness? Can you explain that, in the context of public alerting, please?

28 **MR. MICHAEL HALLOWES:** Yeah. So you are going to train your

1 people, then you have to familiarize your people to understand that this new tool, if  
2 they've never seen it used before, the expectation is it will become commonplace.

3 **MS. RACHEL YOUNG:** And so in terms of the ongoing alert  
4 monitoring of how alerting is going, which is -- forms part of that emergency lifecycle  
5 that you talked about, I wanted to ask you about a document that you provided the  
6 Commission from the Social Research Institute from 2014.

7 Madam Registrar, this is COMM057416, if that could be made an  
8 exhibit, please?

9 This is the National Review of Emergency Alert Consolidated  
10 Report of Findings. And so this is something you were involved in generating in  
11 Australia; is that correct?

12 **MR. MICHAEL HALLOWES:** Yes, that is correct. That's the report  
13 that I commissioned; I think that's a draft. I have not seen since the end of my time in  
14 Australia, that actually being published on any website that you can access. So that is  
15 my electronic copy that I commissioned, my foreword.

16 **MS. RACHEL YOUNG:** And so you don't know whether there was  
17 a final version that was any different, or whether it was not published at all?

18 **MR. MICHAEL HALLOWES:** I can't find it on the internet, but I  
19 signed it off in 2014.

20 **MS. RACHEL YOUNG:** So certainly would have captured your  
21 thinking at the time, and you approved it; is that correct?

22 **MR. MICHAEL HALLOWES:** I signed it off, most definitely. I paid  
23 for it, too.

24 **MS. RACHEL YOUNG:** And how frequently did you recommend  
25 that these national reviews of emergency alerting happen in Australia?

26 **MR. MICHAEL HALLOWES:** Not to the extent of that particular  
27 one, but certainly annually, and something to the equivalent standard of the IPSOS one,  
28 not less than five years, but somewhere between two and five, because it's a very

1 iterative process; there is so much learning.

2                   So that was quite an exception for me because I want to evaluate  
3 the technology and capability that I am personally responsible for having introduced, so  
4 it made sense for me to want that to -- very early on in the second year of operation, to  
5 run such a review to identify; are we doing this right?

6                   **MS. RACHEL YOUNG:** Do you know if that's happened; if there  
7 have been annual reviews in Australia.

8                   **MR. MICHAEL HALLOWES:** What I did set up with my team was  
9 that we formed a working group that was facilitated by an outside organization that  
10 brought together senior representatives from each of the 38 user authorities from across  
11 the federal, provincial, and territorial jurisdictions in Australia, into one room to share  
12 their knowledge.

13                   So there is a working group that regularly gathers the information  
14 and shares it. It's not as thorough as the IPSOS review of 2014 but it's a way of  
15 gathering and sharing the learning to build into the continuous improvement cycle, that  
16 then gets implemented through training.

17                   And if I may say, Canada does not have such working group that  
18 gathers the information as a knowledge hub for the benefit of all users.

19                   **MS. RACHEL YOUNG:** That was going to be my next question.  
20 And are you aware of any national reviews of emergency alerting that are happening in  
21 Canada?

22                   **MR. MICHAEL HALLOWES:** I'm not aware of any. Forgive me if  
23 that's not correct and someone bangs the table, but I'm not aware of it.

24                   **MS. RACHEL YOUNG:** So you have talked about the importance  
25 of the public also knowing what the purpose of emergency alerting is, what they're  
26 supposed to do when they get alerts, and so what role do you see for public education  
27 in the degree of success of public alerting?

28                   **MR. MICHAEL HALLOWES:** It's fundamental. As I said earlier,



1 my predecessor, warnings are fully informed. People need to know, and what we did in  
2 Australia was identify that every household needed a leaflet drop. Every school child  
3 needed to have a leaflet that they could take home. Every community would be  
4 represented in terms of the websites reached through having it translated in all -- into 30  
5 common languages, that we ran every year TV and radio commercials. I haven't seen it  
6 anymore, but there used to be, on every outward facing government website, federal  
7 government website, there was a tickertape at the bottom that told you, if you're coming  
8 to Australia, be aware, we use emergency alert. So we did everything we could to  
9 make sure that not only citizens, but international visitors, understood from school  
10 children to senior citizen we have this capability. If you get a message, react to what  
11 you are told to do in the content of that message.

12 **MS. RACHEL YOUNG:** And you did give us an example of that  
13 leaflet. Madam Registrar, could we see COMM-0057409, please, on screen? And  
14 could that be made an exhibit, please?

15 **REGISTRAR DARLENE SUTHERLAND:** So the previous  
16 document is 1354, and this document is 1355.

17 **--- EXHIBIT No. 1354:**

18 (COMM0057416) - National Review of Emergency Alert  
19 Consolidated Report of Findings

20 **--- EXHIBIT No. 1355:**

21 (COMM0057409) - Leaflet

22 **MS. RACHEL YOUNG:** And so, Mr. Hallowes, I take it this is a  
23 leaflet designed to give to school children in Australia?

24 **MR. MICHAEL HALLOWES:** I actually designed it personally  
25 because I felt so strongly that we needed to start with children, and our Department for  
26 Education, together with the fire service in Victoria, put that together as part of a training  
27 package, as an educational package that a firefighter and a police officer would take  
28 into every school. And the -- my original intent was that a hundred percent of children

1 would get that leaflet in Australia before we launched it. We didn't achieve that. I think  
2 we got to about 60 to 70 percent, but it was fundamental that we reached as many  
3 people as we could.

4 **MS. RACHEL YOUNG:** And in the bottom left-hand corner there, it  
5 gives the emergency alert website and says that there's a video that's translated into 30  
6 languages.

7 **MR. MICHAEL HALLOWES:** That's correct. So on the website it  
8 comes up, you click on the TV commercial, you can select your language, and it comes  
9 up with subtitles.

10 **MS. RACHEL YOUNG:** So you said a firefighter might go into  
11 school, or, I assume, a police officer. And then would they tell the children what to do if  
12 they had family members who didn't speak English?

13 **MR. MICHAEL HALLOWES:** Yes.

14 **MS. RACHEL YOUNG:** I didn't get your answer.

15 **MR. MICHAEL HALLOWES:** Yes.

16 **MS. RACHEL YOUNG:** Okay.

17 Madam Registrar, can we please have COMM-0057410 on screen  
18 and can that please be made an exhibit?

19 And, Commissioners, I'm mindful that it's 10 past 12. We're almost  
20 finished, but it is going to take Mr. Hallowes into evening his time if we break for lunch --  
21 well, he'll have to stay around, but if we can just finish his direct examination, I'd  
22 appreciate that.

23 **COMMISSIONER MacDONALD:** Certainly.

24 **MS. RACHEL YOUNG:** Thank you.

25 **REGISTRAR DARLENE SUTHERLAND:** And that's been marked  
26 1353 previously.

27 **MS. RACHEL YOUNG:** Oh, it's already an exhibit. Thank you.

28 **MR. MICHAEL HALLOWES:** Commissioners, time is not my

1 barrier.

2 **MS. RACHEL YOUNG:** Thank you.

3 And so, yes, we've seen these slides before, so this is from 2015,  
4 your presentation. And we talked about different aspects of it earlier, but what I wanted  
5 to ask you about this time, if we could have a look -- perhaps it might be the last page.  
6 It's to do with the importance of members of the public having information. So that's not  
7 -- let's back up. It was the importance of members of the public having information to  
8 make decisions on what to do to stay safe. And so Madam Registrar might be able to  
9 help me find the right slide, but there's a graphic where you had the community deciding  
10 on the action it needed to take to stay safe. So is that a portion of how the whole alert  
11 system should work?

12 **MR. MICHAEL HALLOWES:** Yes, as a community alerting  
13 capability and the shared responsibility, it's very important that they react together as a  
14 community. It's not always about the individual.

15 **MS. RACHEL YOUNG:** To sum up then, to the extent you're  
16 aware of the approach to public alerting in Canada today, are you able to give us a  
17 sense of how it compares to the approach in similar countries such as the UK, the U.S.,  
18 European countries and Australia? You've told us some differences, and I just wonder if  
19 there's anything you wanted to add to that.

20 **MR. MICHAEL HALLOWES:** First and foremost, the approach in  
21 Canada's governance to the ownership and leadership of the ongoing capability, as I've  
22 said, is extraordinary. It should be, in my experience, it should be owned and led  
23 ultimately by the federal authority responsible for public safety. That is a fundamental  
24 difference. That the supplier and the regulator of telecommunications are obviously a  
25 stakeholder, but they are advisors. The fundamental principle in this is that you must put  
26 the public at the middle because they are the recipient of the alert. They need to know  
27 what to do because they want you to tell them how to act to stay safe, and the  
28 emergency services organization, emergency management organizations with that

1 responsibility to warn want an affective capability that does that. But they also, in my  
2 experience from Australia, will want a value set of additional tools that give them greater  
3 situational awareness that is inherent to the system. And by that, I mean, doing what  
4 countries like France, Australia, the Netherlands are now doing where they're  
5 developing a hybrid national public alerting system that takes the current technology  
6 that Canada is using and complements it with all the value-added feature set of  
7 location-based SMS, because they realize when there's an opportunity to broadcast and  
8 you don't need any reaction back from the public as in there's a tornado warning is very  
9 different in active shooter where you want to see how the public are reacting to your  
10 message in real time, not so many days later because you received an online survey to  
11 tell us how you've experienced the alert.

12 **MS. RACHEL YOUNG:** While you were speaking, Madam  
13 Registrar pulled up the slide I was looking for, which is on page 19 of the exhibit. So it  
14 was that square at the bottom where it says "community decides on action to stay safe."  
15 So you have that as an integral part of the dependencies in public alerting; is that right?

16 **MR. MICHAEL HALLOWES:** That is correct. That was why we're  
17 trying to illustrate the interdependencies that just sending an alert without having your  
18 other communication capabilities up to speed, so you can send an alert with a hyperlink  
19 to a website for more information, but if your website hasn't been configured for tens of  
20 thousands of simultaneous hits, your system may shut down because it thinks it's a  
21 denial of service attack, or if directing the public to look at that page and the information  
22 on that page is either not there or it's out of date. However, there will be occasions  
23 when you need to go direct to the alert and everybody else has to simply copy the alert  
24 and paste it into whatever medium channel you're directing the public to because time  
25 will be critical.

26 **MS. RACHEL YOUNG:** Based on what you've seen in other  
27 jurisdictions, can you please sum up for the Commissioners any areas you see room for  
28 improvement in the approach to public alerting in Canada?

1                   **MR. MICHAEL HALLOWES:** I fear I have made quite a few  
2 comments on that. I guess back to basics, if I may be so bold, about getting it right for  
3 the future, and that is in a project program management is get your design authority in  
4 place with your governance, get these -- the right people in the room to document your  
5 concept of operations. Get that standard operating procedures in place, and train  
6 people, and give them the confidence that they can use the system effectively to save  
7 the lives of Canadians and people like me, who love to visit you.

8                   **MS. RACHEL YOUNG:** Thank you, Mr. Hallowes. Those are my  
9 questions for you.

10                   **COMMISSIONER MacDONALD:** Yes. Thank you so much,  
11 Mr. Hallowes. We greatly appreciate your time and expertise. The process we are  
12 following here, because we have many Participants, is that once a witness gives  
13 evidence proper we will take a break and the various counsel will meet, Participant  
14 Counsel will meet with our Commission Counsel and determine what, if any, further  
15 questions may be asked of you. So that's what we'll do now.

16                   It happens to be 17 minutes after noon here in Halifax, so we will  
17 break -- break until 1:30 Atlantic time. And as Ms. Young has indicated, that's  
18 approaching dinnertime for you, and we greatly appreciate your staying on with us. So  
19 we'll come back in an hour and twelve minutes or so. So thank you very much,  
20 Mr. Hallowes, and we'll see you soon.

21                   **MR. MICHAEL HALLOWES:** Thank you.

22                   **REGISTRAR DARLENE SUTHERLAND:** Thank you. The  
23 proceedings are now on break and will resume at 1:30.

24 --- Upon recessing at 12:17 p.m.

25 --- Upon resuming at 1:50 p.m.

26                   **REGISTRAR DARLENE SUTHERLAND:** Welcome back. The  
27 proceedings are again in session.

28 **--- MICHAEL HALLOWES, Resumed:**

1                   **COMMISSIONER MacDONALD:** Thank you. Good afternoon,  
2 everyone.

3                   Ms. Young, whenever you're ready.

4                   **MS. RACHEL YOUNG:** Good afternoon, Commissioners. We had  
5 a productive caucusing session with Participants' Counsel. We do have two counsel  
6 who would like to ask Mr. Hallowes some follow up questions. So first will be Mr. Josh  
7 Bryson from Chester Law, who represents the Bond family; followed by Ms. MacPhee  
8 from the Attorney General of Canada, and then I may have some, or I will have some  
9 questions after that that Participants have asked me to ask, and any questions arising  
10 out of the Participants' questions.

11                   **COMMISSIONER MacDONALD:** Thanks so much.

12                   **MS. RACHEL YOUNG:** Thank you.

13                   **COMMISSIONER MacDONALD:** Good afternoon, Mr. Hallowes.  
14 I'm sorry, we were dealing with some matters and are back a little bit later than we had  
15 hoped, so thank you for your patience. We have -- we had a successful meeting with  
16 the counsel and there will be some follow up questions with you.

17                   Perhaps, Mr. Bryson, you can simply introduce yourself and your  
18 client, and Ms. MacPhee will also do the same, please.

19                   So two counsel for Participants, Mr. Josh Bryson and Ms. Patricia  
20 MacPhee, will be asking you some follow up questions, Mr. Hallowes, and beginning  
21 with Mr. Bryson.

22                   **MR. JOSHUA BRYSON:** Thank you, Commissioner.

23 **--- CROSS-EXAMINATION BY MR. JOSHUA BRYSON:**

24                   **MR. JOSHUA BRYSON:** Good afternoon, Mr. Hallowes. As the  
25 Commissioner indicated, my name is Josh Bryson. I represent the family of Peter and  
26 Joy Bond.

27                   **MR. MICHAEL HALLOWES:** May I begin by also expressing my  
28 sorrow at the huge loss of life that is the heart of this Commission. My condolences to

1 you and all the families involved.

2 **MR. JOSHUA BRYSON:** Thank you, Mr. Hallowes.

3 My first question is in regards to the 4G network issue that you had  
4 talked about in your examination earlier. Is that a reflection of the software that exists  
5 with Pelmorex, or can you please just elaborate on the problem that exists in Canada  
6 that prevents cell phones, other than 4G cell phones, from receiving alert messages?

7 **MR. MICHAEL HALLOWES:** Thank you for the question. I'm  
8 hoping that my knowledge is up-to-date. The Pelmorex NAAD system distributes the  
9 message and the wireless service providers have determined that it will be  
10 communicated, transmitted, broadcast over the 4G network. That's my read of the Alert  
11 Ready webpages. If I am incorrect, I'm sorry, but that's what I understood, that it is on  
12 the 4G LTE network that the wireless service providers have given over to the  
13 broadcast for compatible devices that also operate on 4G. I don't believe it has  
14 anything to do with the NAADs, it is down to the distributor, which in this case is the  
15 wireless service providers' choice of 4G LTE.

16 **MR. JOSHUA BRYSON:** Okay. So that would likely be a problem  
17 for all provinces within Canada, then, all those that are using the Pelmorex software, to  
18 the best of your knowledge?

19 **MR. MICHAEL HALLOWES:** Forgive me, I don't believe it's a  
20 software issue with Pelmorex. I believe it's the choice, the decision of the wireless  
21 service providers that they will broadcast the alert that comes from Pelmorex's NAAD  
22 system via 4G to 4G compatible handsets.

23 **MR. JOSHUA BRYSON:** I understand. Okay, thank you. And do  
24 you have an idea of what percentage of cell phones that that may impact in terms of the  
25 number of cell phones that would not be receiving the message administered on the 4G  
26 network?

27 **MR. MICHAEL HALLOWES:** Back in 2017, it was nowhere near  
28 the vast majority. Forgive me, I'm not up to speed with where Canada is now, but I

1 believe the figure for the 2018 first test was somewhere around about 35-percent  
2 compatibility, which meant that 65-percent of cell phone users in the country did not  
3 receive the message via that broadcast channel, but they would have received it by  
4 radio or television, if it was turned on.

5 **MR. JOSHUA BRYSON:** Wow, 65-percent.

6 **MR. MICHAEL HALLOWES:** That -- forgive me, I don't have the  
7 figures to hand, but I do remember from the news reports I received here, it was a low  
8 figure.

9 **MR. JOSHUA BRYSON:** Okay. My next question is in regards to  
10 the resources that must be deployed once the national or provincial alert is issued, we  
11 have -- we have a few experiences within this province, and one experience in particular  
12 we had, the call-takers reported a very high volume of calls that generated, in fact, so  
13 many calls that 30-percent of them couldn't be processed. So how does Australia deal  
14 with that? Aside from educating the public, which I take to be a key component, but  
15 how do you address that issue?

16 **MR. MICHAEL HALLOWES:** It's addressed in two ways: One,  
17 through the Public Information Unit, which is alongside the State Control Centre. So in  
18 times of major emergency they take charge of the issuing of alerts. The alternative is  
19 via the PSAP, which has to somehow manage the sheer call volume. But  
20 fundamentally, as you mentioned, it goes back to the community education piece, and  
21 when necessary, in the content of the message.

22 **MR. JOSHUA BRYSON:** Okay. So do you have problems in  
23 Australia with the -- with the resources being overwhelmed due to the public alerts that  
24 are being issued?

25 **MR. MICHAEL HALLOWES:** In my time, Mr. Bryson, no, we did  
26 not experience that. We didn't find that people were calling the equivalent 9-1-1 system.  
27 There is a telephone number that the public had and there was a website that they  
28 could go to for more information, and the link to the website was always part of --



1 towards the end of my time, the link to that webpage was always part of the message  
2 content.

3 **MR. JOSHUA BRYSON:** Okay, thank you. I was also interested  
4 to hear that your national broadcasts include messages in the nature of harm reduction.  
5 Can you just give us some examples of what that may include, the subject matter of  
6 harm reduction?

7 **MR. MICHAEL HALLOWES:** The term was used as a generic to  
8 pick up, in particular, we had not been using emergency alert for abductions of children,  
9 so Amber Alerts, so that was the -- my meaning behind that. And in my slide deck that I  
10 used, and was exhibited earlier, that, I believe, is the principal example used, that I used  
11 around how we should change our procedures in terms of harm reductions in the  
12 context of Amber Alerts.

13 **MR. JOSHUA BRYSON:** I see. Okay, it's the broader. Yeah,  
14 understood. Thank you.

15 And just in terms of alternative forms of alerting the public to  
16 dangers, do you have experience in that or any views on, for example, using social  
17 media to keep the public informed and warn them of dangers?

18 **MR. MICHAEL HALLOWES:** So in my time as the Commissioner,  
19 I led on social media initially, and my challenge was that I found it to be a discriminatory,  
20 as in, it was not an all-inclusive. I couldn't see it as being a primary alerting channel.  
21 Nevertheless, experience from Tasmania, from a bushfire there, had led us to  
22 understand the importance of being able to monitor public social media channels to a  
23 point where we actually needed to have our own Twitter account that allowed people to  
24 follow us, as well as my team being able to monitor what was being said on the  
25 unofficial channels to correct what might not be -- be factually accurate.

26 One of the issues that I've commented on to other countries  
27 considering social media as an option, if we look, for example, at London, the Twitter  
28 following of the principal police service, the Metropolitan Police, is 1.2 million, which

1 nowhere near reflects the day-to-day population of the country. When you add visitors  
2 post COVID, it's somewhere round about 90 million. So the issue with social media is  
3 you have to be following, if it's Twitter, the right channel to get the official word and it  
4 can therefore leave a lot of people out of the communication, which is why we  
5 encouraged countries to look at the universality of having a cell phone broadcasting  
6 capability for alerts that was available and accessible to everyone who had their cell  
7 phones switched on and connected to the network.

8 **MR. JOSHUA BRYSON:** Okay. Thank you. You talked about the  
9 time it takes to issue the public alerting and I believe you gave the number of eight  
10 minutes. Can you give us a sense of what's occurring within these eight minutes?

11 **MR. MICHAEL HALLOWES:** I can give it firsthand, having  
12 watched it. So you have the 9-1-1 equivalent call comes in. The first unit is dispatched  
13 to the scene. It sends back its initial situation report of what it's finding. That is  
14 assessed by the controller, who, based on other senses, there could be more units  
15 arriving, will then decide that the situation is escalating, and will start the process of  
16 having the message content created, and it's the person also who will authorize it  
17 sending. So in crisis, that's what's happening. There is verification by the first unit to  
18 attend the scene, and that's on their complementary information coming in that can  
19 come from a range of other senses and sources that will determine if the message is  
20 sent. And the time is down to eight minutes.

21 **MR. JOSHUA BRYSON:** Interesting. So that actually starts with  
22 the time of the original 9-1-1 call that's factored into your 8-minute rough timeframe?

23 **MR. MICHAEL HALLOWES:** I'm thinking on that. I believe, yes, it  
24 is. It's from first notification and it's through the process of the initial responders giving  
25 their assessment. I can't -- I can tell you, this does not happen every time, but the best  
26 that's being done, that is the standard they're trying to achieve, is the 8-minute mark,  
27 not the 40 minutes that it was before.

28 **MR. JOSHUA BRYSON:** And how are the first responders?

1 You've given some evidence about the first responders are key in informing what the  
2 content will be for this public alerting. So how does that play out on the ground? When  
3 the first responders attend the site of, say, an active shooter scenario, they're relaying  
4 with the authorized user of the system, or can you give us a sense of how that's playing  
5 out?

6 **MR. MICHAEL HALLOWES:** First of all, as I say, to my  
7 knowledge, there has not been an active shooter in Australia where this has been used.  
8 So all I can tell you is the process that I advocated for was as I described. There is  
9 widespread knowledge of the system amongst first responders, not only as frontline, but  
10 also as control room supervisors that this is one of the capabilities in the toolbox.

11 **MR. JOSHUA BRYSON:** Okay.

12 **MR. MICHAEL HALLOWES:** And, of course, they're familiar with  
13 it. They've been trained in it. So they're ready for that as one of the options.

14 **MR. JOSHUA BRYSON:** Okay. And final question, just in regards  
15 to the pamphlet that was introduced as COMM-57409, it notes the system users uses  
16 the registered address and the actual location of the phone. Can you please just  
17 explain that?

18 **MR. MICHAEL HALLOWES:** So phase one of emergency alert  
19 was an address based. So to get ready for this -- it predates me -- everyone who had a  
20 telephone service, whether it was mobile or landline, the -- a lot of service providers had  
21 to capture the phone number and your address but not the name. The government then  
22 codified your address, so that it could be found on the mapping tool used for public  
23 alerting. When I arrived in 2011, the gap was that if you were not at home, but you  
24 were travelling through an area that was under threat, you would be excluded from the  
25 alert because you weren't at your registered address. And similarly, anyone visiting  
26 would find themselves outside of the warning group. So that's where we went towards a  
27 cell phone because it was the gap that we needed to fill whereby anybody, whether they  
28 be a resident, a visitor, someone transiting through on business, the registration of their

1 cell phone on the network in the warning area would mean that they had access to, and  
2 we could reach them with the system.

3 **MR. JOSHUA BRYSON:** I see. And the messages that are sent,  
4 you also have the ability to send what we're referring to as intrusive messages, meaning  
5 you can mute them, they pop up on your screen whether you have notifications turned  
6 on or off, and also non-intrusive, which would be in the form of, like, SMS messages or  
7 text messages?

8 **MR. MICHAEL HALLOWES:** Yeah, the initial rollout was always  
9 SMS. The next generation, which is I believe now rolled up, that's being delivered by a  
10 company called Everbridge, combines both the original SMS with enhancements as well  
11 as the cell broadcast. So the operator of the system has the choice. If it was a major  
12 disaster such as flood where you're not actually looking for data coming back, you  
13 would use cell broadcast. If it's an event where you need to know how many people are  
14 in the area and how are they reacting, then they would have the choice to use location-  
15 based SMS.

16 **MR. JOSHUA BRYSON:** Great. Thank you, Mr. Hallowes. They  
17 are questions that many of the families for the Participants had and thank you for your  
18 time.

19 Thank you, Commissioners.

20 **COMMISSIONER MacDONALD:** Thank you, Mr. Bryson.

21 Ms. MacPhee?

22 **--- CROSS-EXAMINATION BY MS. PATRICIA MacPHEE:**

23 **MS. PATRICIA MacPHEE:** Good afternoon, and thank you for  
24 allowing me to ask a couple of questions here. I'm Counsel for the Attorney General of  
25 Canada.

26 One of the questions I wanted to ask you about is you described an  
27 incident that happened in Sydney, Australia, I think it was a shooting at a café. And I  
28 think you said that it was following that incident that you immediately thought that this

1 public alerting system could be used in the policing context; did I get that right?

2 **MR. MICHAEL HALLOWES:** Absolutely correct, Ms. MacPhee.

3 **MS. PATRICIA MacPHEE:** So I take it up until that point in time,  
4 the public alerting had been used for natural disasters and that type of scenario as you  
5 earlier described?

6 **MR. MICHAEL HALLOWES:** That is correct.

7 **MS. PATRICIAL MacPHEE:** Okay.

8 **MR. MICHAEL HALLOWES:** And it was that gap in our realization  
9 of its broader use that made me write that paper to present it and bring the same  
10 learning to the meeting of the National Public Alerting Summit in Edmonton in February  
11 2015.

12 **MS. PATRICIA MacPHEE:** And can you tell me how the -- how  
13 Australia put that change into action? I mean, after this incident in Sydney when it was  
14 recognized that, you know, this public alerting could be used for policing situations,  
15 practically, like, how did that change come about?

16 **MR. MICHAEL HALLOWES:** Education to the users, that the initial  
17 genesis of the system was now being broadened to any life-threatening emergency.  
18 And my recommendation was that we should pilot that for six months and see how it  
19 goes. As I understand it, because obviously I'm not there anymore, it is still there as an  
20 accepted practice that emergency alert will be used for any type of emergency that  
21 threatens human life, livelihood and health.

22 **MS. PATRICIA MacPHEE:** And with that, did you have to broaden  
23 the number of authorized users, if I'm using the term correctly, because if you're now  
24 going to be using the public alerting for policing situations, were police agencies already  
25 authorized users of the system?

26 **MR. MICHAEL HALLOWES:** We had trained 1200 personnel  
27 nationally, representing all 38 emergency services organizations, which included the 8  
28 police forces for each of the states and territories in the Commonwealth.

1                   **MS. PATRICIA MacPHEE:** So there was no -- was there further  
2 training that took place after the incident in Sydney when you were broadening the  
3 scope of the use of the Alert Ready system?

4                   **MR. MICHAEL HALLOWES:** I can't say that for certain. All I can  
5 tell you, Ms. MacPhee, is that at the annual get-together of users or their senior  
6 representatives as a group in each state and territory, that was most definitely the --  
7 what we were sharing with them for the future.

8                   **MS. PATRICIA MacPHEE:** Okay. And so once you do this initial  
9 round of training, is the concept that now those organizations are doing the training  
10 within to make sure that all of the, say, police members how know to use the system  
11 and when to use the system?

12                   **MR. MICHAEL HALLOWES:** There is an expectation that when  
13 you bring people to the centre for the process of training, they will take it back as it was  
14 trained and not put their own interpretation on it. I have to keep my fingers crossed they  
15 did exactly as they were trained.

16                   **MS. PATRICIA MacPHEE:** And do you know how long it took  
17 following that incident in Sydney and this decision to broaden the scope of the use of  
18 the public alerting system, like, how long it took for that to actually roll out and become  
19 something that, you know, Australia was using?

20                   **MR. MICHAEL HALLOWES:** No, I don't know how long it took.

21                   **MS. PATRICIAL MacPHEE:** And with respect to the authorized  
22 users, are they limited to the geographic location to where they can issue an alert? For  
23 example, if a policing organization is in a particular city or in a district, do they have the  
24 capabilities to only issue an alert within those geographical boundaries?

25                   **MR. MICHAEL HALLOWES:** Ms. MacPhee, no. That was quite  
26 deliberate.

27                   That, because of redundancy and other issues that might be going  
28 on, the system can manage up to eight simultaneous alerts anywhere in Australia.

1 Each jurisdiction can be asked on behalf of another to send an alert if they have  
2 technical difficulties doing it themselves, so there's fully inter-state interoperability.

3 In Australia, unlike Canada, each of the eight states and territories  
4 in the commonwealth has their own individual police force and fire and emergency and  
5 rescue services, so they have the ability and authority to send alerts within the  
6 boundaries of their state or territory border. But going back to my first point, in crisis  
7 where another state may have challenges due to whatever it may be, power failure, they  
8 would be able to send a message on behalf of the neighbouring or any other state or  
9 territory at their request using their constructed message.

10 **MS. PATRICIA MacPHEE:** Okay. Thanks.

11 And can you tell me a little bit about the categories of authorized  
12 users?

13 I think you mentioned in the thirties that there was -- I think you  
14 mentioned a number somewhere in the thirties of who can actually access this public  
15 alerting system.

16 **MR. MICHAEL HALLOWES:** All 38 emergency services  
17 organizations, emergency management organizations, can use it.

18 It is normally -- it is traditionally -- it was the remit of the fire  
19 services because it grew out of the Victorian bush fires of 2009. It very quickly became  
20 the remit of the state emergency services, who deal with flood and tempest. And it's  
21 increased out from that since the episode in Sydney that it now includes police as well.

22 And there are -- as I say, there are only 38. When I say "only",  
23 that's compared to the Canadian makeup of emergency services organizations.

24 **MS. PATRICIA MacPHEE:** Since -- I'm going to use the year 2015  
25 because that's when you mentioned this incident in Sydney. Since ---

26 **MR. MICHAEL HALLOWES:** Sorry, '14.

27 **MS. PATRICIA MacPHEE:** Oh, sorry, '14. So ---

28 **MR. MICHAEL HALLOWES:** The alerting system was in '15.

1                   **MS. PATRICIA MacPHEE:** Okay. Thank you.

2                   Do you know any statistics about how often the public alert system  
3 has been used for policing uses since -- when it began in 2014 or '15, I would imagine?

4                   **MR. MICHAEL HALLOWES:** I just want to say, Ms. MacPhee, it's  
5 one of the pieces I have been writing regularly to former contacts that I have not had a  
6 response to.

7                   **MS. PATRICIA MacPHEE:** Do you know of any published  
8 statistics at all on that issue?

9                   **MR. MICHAEL HALLOWES:** Sadly, unlike the Alert Ready  
10 website, it doesn't give that level of information.

11                  **MS. PATRICIA MacPHEE:** So it doesn't break down the reasons  
12 the public alerts go out or the -- behind the reasons that they're being issued?

13                  **MR. MICHAEL HALLOWES:** Not that I have seen in my research.

14                  **MS. PATRICIA MacPHEE:** Okay. Does it keep track of the  
15 number of public alerts that go out by jurisdiction?

16                  **MR. MICHAEL HALLOWES:** Yes, it does.

17                  **MS. PATRICIA MacPHEE:** Okay. Like on a yearly basis.

18                  **MR. MICHAEL HALLOWES:** Most definitely, it does. That's  
19 because of the funding mechanism, so each state and territory -- unlike Canada's  
20 funding model, each state and territory pays a price for each message that is sent.

21                  **MS. PATRICIA MacPHEE:** Do you know if there's been a big  
22 increase in the number of alerts that have gone out since they started using it for  
23 policing purposes?

24                  **MR. MICHAEL HALLOWES:** Again, I don't have the data. All I  
25 can tell you is that when I finished my leadership role, we had used it in something close  
26 to, I think it was, 1,300 emergencies across the country to send somewhere in the  
27 region of about 11 million individual SMS, so an average of just under eight and a half  
28 thousand SMS per campaign.



1 I believe that figure is now much, much higher.

2 **MS. PATRICIA MacPHEE:** And when you were in your role, you  
3 were -- would have been using the system more for natural disasters and that was the --  
4 was the use of the system at that time? Is that right?

5 **MR. MICHAEL HALLOWES:** Yes, Ms. MacPhee.

6 That -- as I said, that was the genesis, and until the Lindt Café  
7 siege in 2014 -- if I advised you otherwise, certainly unwittingly, we had not recognized  
8 the broader capability it provided and, very quickly, it changed.

9 **MS. PATRICIA MacPHEE:** And you talked a little bit about a study  
10 in 2014 regarding the -- well, I think it was a study done of the public and their  
11 perception of the use of this system. And I think you mentioned that there was no  
12 evidence of alert fatigue at that time?

13 **MR. MICHAEL HALLOWES:** Absolutely no evidence. And you'll  
14 find it's a very detailed report. I believe it's an exhibit.

15 It was done by IPSOS on my behalf.

16 **MS. PATRICIA MacPHEE:** Okay. And just in broad terms,  
17 knowing that it's -- it is an exhibit, can you tell us a little bit about the sample used for  
18 that study? I mean, was it all of Australia and, you know, were they people similarly  
19 situated in the sense of how many alerts they had received over a standard set of time?

20 **MR. MICHAEL HALLOWES:** The reach that I asked IPSOS to go  
21 and survey was those communities who had actually received an alert during the two  
22 years of the system being up and running and the -- the senders of the information who  
23 had been involved in those campaigns. That seemed to me to be the most meaningful  
24 groups to go and ask.

25 **MS. PATRICIA MacPHEE:** And is there an idea -- do you know  
26 offhand whether there is an average number of alerts these people had actually  
27 received over a given period of time?

28 **MR. MICHAEL HALLOWES:** No. As you can imagine, across

1 Australia it varies as in what mother nature is doing on a daily basis and, there again, on  
2 an annual basis.

3 Some would receive more than others. But no, I couldn't tell you.

4 **MS. PATRICIA MacPHEE:** You spoke this morning about the  
5 technology that's employed in Australia, the use of the text messaging system to send  
6 out alerts. And I think you said that the technology there would allow a message to be  
7 targeted to a particular geographic location and that the authorized user who's sending  
8 out the message could then use that technology to determine if those in the target area  
9 had responded to the message.

10 I think, for example, if there was a fire and you sent out an alert that  
11 people should evacuate an area that you could use the technology to then determine if  
12 people had actually left the area or whether people should be targeting resources there.  
13 Did I get that correct?

14 **MR. MICHAEL HALLOWES:** That is correct.

15 So the way that SMS is configured naturally on the system set up  
16 by the wireless service providers worldwide is that I, when I send a message, will see  
17 that it's -- a successful delivery receipt comes on my screen. That same capability was  
18 given to us using emergency alert where the -- the operator draws the polygon, the  
19 polygon goes to the wireless service providers and comes back through an aggregator  
20 in less than 10 seconds and it shows you how many as a total cells phones there are  
21 within that area. When you send the message, the systems used by what was then  
22 three wireless service providers sends back the running total of those cell phones to  
23 which the system has successfully delivered the message.

24 What you can then do without sending alert is redraw the polygon  
25 repeatedly over time, which will show you what numbers of cell phones have remained  
26 within the warning area after you, for example, told them to evacuate.

27 The new technology will translate that data into a heatmap so you  
28 can visualize it in front of you.

1                   Back when I was in this, there was no such feature, but it's been  
2 one of the enhanced features that the use of location-based SMS now brings, which is  
3 why a country like The Netherlands, that previously only had cell broadcast, have now  
4 created a hybrid that gives them both options because of the value set.

5                   **MS. PATRICIA MacPHEE:** So if I'm getting this right, the message  
6 -- you have to send the text message in order to use that particular feature where you  
7 can actually tell if someone has now left that geographic area. Is that right?

8                   **MR. MICHAEL HALLOWES:** No, Ms. MacPhee. Sorry. It may be  
9 me that hasn't explained it.

10                   You don't have to keep sending the alert.

11                   **MS. PATRICIA MacPHEE:** Okay.

12                   **MR. MICHAEL HALLOWES:** All you need to do is keep sending  
13 the mapping polygon to the wireless service provider for their systems to keep sending  
14 back to you the running total of all the cell phones they can still see registering within  
15 your area. You don't then have to end them alert, so that is the advantage, that you  
16 don't need to send the alert. You keep requesting it, it will send you the data which  
17 hopefully is going in the right direction if it's an evacuation.

18                   **MS. PATRICIA MacPHEE:** Okay. Thanks for clarifying that.

19                   So would all authorized users have that ability, to use ---

20                   **MR. MICHAEL HALLOWES:** Yes.

21                   **MS. PATRICIA MacPHEE:** --- that kind of technology to determine  
22 if, you know, cell phones are in a particular geographic location?

23                   **MR. MICHAEL HALLOWES:** Absolutely. It's the first thing the  
24 system does when you draw the polygon and you press the send without the message  
25 it's send, it returns to you, as I say, in less than 10 seconds, total aggregated across all  
26 the wireless service providers with network coverage, how many cell phones they  
27 collectively can see registered on their network in that mapping polygon.

28                   **MS. PATRICICA MacPHEE:** So I'm curious if there is any

1 oversight in Australia regarding the use of this system. I'm just imagining -- I'm asking,  
2 actually, whether there's some kind of arm's length agency who can ensure that the  
3 system is being used, you know, in accordance with public alerting. I can see a lot of,  
4 you know, concern over the use of this system or all of these authorized users that  
5 you've described have access to this type of technology. So is there any kind of  
6 oversight to ensure that it's not being abused, misused?

7 **MR. MICHAEL HALLOWES:** Absolutely. So as the Commissioner  
8 and the delegated responsible owner and administrator of the system, my (inaudible)  
9 would see every single login of each individual authorized user and their use of the  
10 system, and it's all indelibly stamped so that we could see it. We can see the polygon  
11 they drew; we can see the message content; we can see the successful delivery, and  
12 there's more data that we can process as well around an audit.

13 And every user knows that we can see their access because it's --  
14 we need, two things; one to monitor the performance of the system, and secondly, to  
15 ensure that you remain current, because if you don't use the system after a certain  
16 period, you are dropped off the access curve.

17 **MS. PATRICICA MacPHEE:** Okay, thank you. I'm just curious  
18 also; are you familiar with the *Canadian Charter of Rights and Freedoms* that we have  
19 here in Canada?

20 **MR. MICHAEL HALLOWES:** Forgive me, no, not in any detail.

21 **MS. PATRICICA MacPHEE:** Okay.

22 **MR. MICHAEL HALLOWES:** Do you want to fill me in on my lack  
23 of knowledge?

24 **MS. PATRICICA MacPHEE:** No, that's okay. I was just curious.  
25 It's a constitutional document that sets out some basic rights and freedoms of  
26 Canadians and they have some obvious recourse. But I was just wondering if you're  
27 familiar with that document, whether you had something similar in Australia?

28 **MR. MICHAEL HALLOWES:** All I can tell you is that having set up

1 the requirements through our concept of operations work and realizing that we -- what  
2 we wanted to achieve required the lawful processing of cell phone data in the way I've  
3 described, there was a legislative gap that was filled. Because we all wanted the  
4 outcome that would give us -- and if I may -- just indulging moment, what was  
5 interesting in the IPSOS study was that having run the system for two years and invited  
6 people to comment on it, we asked that very question about privacy. Eighty-two (82)  
7 percent of the people who replied said that they, as a result of experiencing for real an  
8 alert, so 82 percent, said they now put their personal safety above any privacy  
9 consideration.

10 **MS. PATRICICA MacPHEE:** Okay, thank you.

11 I'm just going to ask you one other question. This morning my  
12 colleague, Ms. Young, asked you about -- I think it was a 2015 presentation that you  
13 gave in Canada. I'm just going to give the COMM number; it's 0057410, and I think it  
14 was marked as Exhibit 1353. And Ms. Young took you to page 19 of that document this  
15 morning.

16 Thank you, Madam Registrar.

17 **MR. MICHAEL HALLOWES:** Yes.

18 **MS. PATRICICA MacPHEE:** And I think that you were discussing  
19 this community involvement, as it appears in that chart. And I was curious if you could  
20 provide a little more explanation of what the community involvement would be; like, how  
21 that actually plays out.

22 **MR. MICHAEL HALLOWES:** The way in which we -- I think it's in  
23 a previous slide, but forgive me, we push information out. We expect the community to  
24 pull that information in, and then to respond as a community to what they have received.  
25 And whilst individuals will make their own decisions, in the community education piece,  
26 it was very much a broad understanding, an expectation that people would help their  
27 neighbour if they had not received the alert or did not understand the alert, that the  
28 reaction was to work together.

1                   **MS. PATRICICA MacPHEE:** Okay. Thank you very much. And  
2 those are my questions.

3                   **COMMISSIONER MacDONALD:** Thank you, Ms. MacPhee.  
4 Ms. Young?

5                   **MS. RACHEL YOUNG:** Thank you, Commissioner MacDonald.

6 **--- RE-EXAMINATION BY MS. RACHEL YOUNG:**

7                   **MS. RACHEL YOUNG:** Hello again, Mr. Hallows.

8                   **MR. MICHAEL HALLOWES:** Good afternoon.

9                   **MS. RACHEL YOUNG:** You mentioned, when you were talking  
10 about public education, that part of that education was to inform the public how they  
11 should not place an additional burden on emergency services during the time an alert  
12 goes out. And so can you tell us; ideally, what should the public be taught to do and not  
13 to do when they hear an alert?

14                   **MR. MICHAEL HALLOWES:** First and foremost, do not dial 9-1-1.  
15 That's not the response we are looking for. The response is to take heed of, and act  
16 upon, the instructions, the call for action that is in the message. And the message is  
17 very clear, and it will direct through a hyperlink to a web page that will add more  
18 information that you can probably squeeze down the pipe as an -- in an SMS. But every  
19 alert contains the link to seek more information, and where you'll find it.

20                   **MS. RACHEL YOUNG:** And so the public -- members of the public  
21 will be directed in the alert message, "Do not call 9-1-1 to seek information. Go here to  
22 this website for information"; is that correct?

23                   **MR. MICHAEL HALLOWES:** Yes. Initially, the challenge was that  
24 we didn't know how SMS would behave with what they call concatenated text. That if  
25 you send a text that is more than 160 characters, using the old 2G, you could find that  
26 the second part of the message would arrive before the first. And I have no experience  
27 of that.

28                   So very early on, we only sent SMS of 160 characters, which

1 therefore limited how much you could tell in the content. Today there is no such issue.  
2 But I don't have personal experience of how that has changed matters, other than  
3 messages are longer; not considerably longer but sufficient to get the message across  
4 and be compliant with the common alerting protocol. And any other pertinent  
5 instructions such as do not dial 000, as it would be in Australia.

6 **MS. RACHEL YOUNG:** Are you aware of any problems with too  
7 many people calling 000 in Australia during an alert?

8 **MR. MICHAEL HALLOWES:** I have no experience of it, and there  
9 were several comments that were made when I came to Canada about the PSAP,  
10 would be -- the Public Service Answering Point, would be overwhelmed, and all I can  
11 say is I have not seen that. There were also comments about the networks would  
12 become congested, they couldn't broadcast that many SMS. I have no evidence of that.  
13 We had no problem, with the average size of the campaign being 8.5 thousand SMS,  
14 using a distribution SMS centre at 500 per second, we had absolutely no trouble with  
15 congestion.

16 We had suggestions of people spoofing the number. I have no  
17 evidence of that.

18 **MS. RACHEL YOUNG:** What does spoofing mean?

19 **MR. MICHAEL HALLOWES:** It means that they try and  
20 impersonate the sender, or the sender's mobile phone number. We had -- I had no  
21 personal experience with that.

22 **MS. RACHEL YOUNG:** Do you mean people pretending to be  
23 sending an alert?

24 **MR. MICHAEL HALLOWES:** M'hm. But that would mean they'd  
25 have to have a contact sheet of numbers. But because emergency alerts are sent out  
26 across multiple channels simultaneously, it's very easy for a member of the public to  
27 pick up that this is not being corroborated. If someone did think to spoof a message, to  
28 mischievously do that, or maliciously, like Canada, it comes via multiple channels, it's

1 very easy to spot when someone might send a rogue message. But I have no  
2 experience of that happening.

3 **MS. RACHEL YOUNG:** If a lot of people do, nonetheless, call 9-1-  
4 1, or 000 to find out what's going on, or to provide information that is not critical, during  
5 those moments when there's an alert going out, is there a way to triage incoming calls  
6 from the public so that responders are able to identify what information is valuable and  
7 not, to both relieve any burden on staffing or the technical system, and also just to get  
8 the good information, not the bad?

9 **MR. MICHAEL HALLOWES:** I would say no, other than in Victoria,  
10 we had one PSAP for all the emergency services organizations with a central hub in  
11 Melbourne and a secondary at a place called Ballarat, and if the central hub got  
12 overwhelmed, it fell over to their colleagues in Ballarat. And that's a state with a  
13 population of some 7 million people in those days.

14 **MS. RACHEL YOUNG:** So that was an overflow of PSAP; is that  
15 correct?

16 **MR. MICHAEL HALLOWES:** It provides the same capability but it  
17 -- as the central hub, but it also can facilitate the overflow coming from that central hub,  
18 as well as performing its own role.

19 **MS. RACHEL YOUNG:** Are you aware of any systems where an  
20 alert can be sent out? Let's say it's a flood and the recommendation is to evacuate. Is  
21 there a way to have two-way communication so that an individual could indicate, for  
22 example, that they are, nonetheless, choosing to remain? Because you mention that if  
23 -- let's say you have a location-based service. You warn people; you can see that some  
24 people have not moved, and the flood is coming, and you have to decide if you're going  
25 to in to rescue them. You wouldn't know from looking at a dot on a map if that person is  
26 in trouble and can't leave, or if they're choosing to remain, for example, for fear of  
27 looting of their house.

28 **MR. MICHAEL HALLOWES:** Okay. So this was not available



1 when I was leading, but in my recent Webinars that I've done with -- on the international  
2 stage, I have done my research and the suppliers of the platforms now available,  
3 CANOT, allow the users or authorities to set up an SMS that contains instructions. For  
4 example, you can use it to dial 1, which means "I have received the message and I am  
5 complying with your instruction"; 2, "I've received your message but I'm choosing to do,  
6 shall we say, stay and defend"; and press 3, it means "I need help".

7                   So that capability exists; it is one of the options for SMS. It's not  
8 available with cell broadcast. I don't know of any country that has yet adopted it, but  
9 during the Webinars in 2021, 2021, when I was doing this, this was a big feature that  
10 the international suppliers of capability had developed in recognition of its advantages in  
11 emergencies of setting up two-way communication. And not just with people in-country,  
12 but also for citizens who are travelling in other countries to be able to reach them in  
13 times of disaster, like the 2004 Boxing Day tsunami, being able to reach their citizens in  
14 another country.

15                   And I speak from personal experience of having used the UK  
16 system to identify all of the UK citizens with their cell phone in any of the countries that  
17 was affected by that tsunami and sending them a message pertinent to the country they  
18 were in.

19                   **MS. RACHEL YOUNG:** And so that seems like it would require  
20 individual subscriber information, wouldn't it? How would you know if there's a US  
21 citizen in -- or a UK citizen in Australia, for example?

22                   **MR. MICHAEL HALLOWES:** Because the wireless service  
23 providers in Canada know exactly which country their subscribers are in, and that data  
24 is made available. You're already -- you were doing it during the COVID crisis, but  
25 when a Canadian citizen switch their cell phone on on arrival back in the country, that  
26 citizen then received the COVID isolation quarantine rules, because the -- one of the  
27 service provider had an arrangement with Public Health to say this cell phone is re-  
28 registering having returned to the country. It fits the profile that you've established, and

1 we'll send them the message. And there was a Bitly link in there. It's in the -- certainly  
2 in the CACP, if not the CCEMO presentation slide, what was happening.

3 So that data is naturally collected when you travel with your cell  
4 phone. When you first step off the plane, shall we say, in London, your cell phone  
5 connects to the British network, the British network asks the Canadian network, is this  
6 person credit-worthy; do they have all the roaming agreements? Yes, they do. In the  
7 UK, you now register on the visitor location register as someone who can use your cell  
8 phone, and in Canada, you're registering on the register that says you are now in this  
9 country and you're roaming.

10 So that data is naturally available to the industry, and it is then an  
11 option for governments and emergency services in times of crisis to lawfully ask for  
12 access and process it to send messages to those people.

13 **MS. RACHEL YOUNG:** And so it follows the device. It's because  
14 it's a Canadian internet -- or in my example, a UK internet provider sees that that device  
15 is abroad, rather than knowing anything about the particular individual and their  
16 citizenship; is that correct?

17 **MR. MICHAEL HALLOWES:** That's correct. It's all just digits, but  
18 it works off the SIM card, which has a country code built into it, identifies that you are  
19 not from this country, and you are now registering on the network, the home network.

20 **MS. RACHEL YOUNG:** I have one follow-up question from the  
21 questions Mr. Bryson was asking you. He asked you about the test in Canada, the Alert  
22 Ready system in 2018, and you told us that it did not reach a vast majority of Canadians  
23 because not everyone was on 4G at the time. And the question I had was; do you have  
24 any information as to whether fewer people received that in rural areas than in urban  
25 areas?

26 **MR. MICHAEL HALLOWES:** No, I couldn't tell you that. I do  
27 remember -- and it's in my first White Paper, which is on my website, a cartoon that  
28 appeared in one of your national papers that illustrated the sense of disappointment

1 amongst many Canadians because they had not been reached via their cell phone as  
2 expected.

3 One of the interesting things is that the message to advise people  
4 the system is going to be tested is sent by SMS so people will get that message, but  
5 then the actual alert goes via cell broadcast. So you can raise the expectation you're  
6 going to get it on your cell phone when, in fact, you don't have either a compatible cell  
7 phone or you may be not in coverage of the correct network.

8 **MS. RACHEL YOUNG:** Thank you, Mr. Hallowes. Those are my  
9 questions.

10 **MR. MICHAEL HALLOWES:** Thank you.

11 **COMMISSIONER MacDONALD:** Thank you.

12 Commissioner Fitch?

13 **COMMISSIONER FITCH:** Two questions.

14 Thank you, Mr. Hallowes. I don't know if you can see the  
15 Commissioners. Okay. Commissioner Fitch here.

16 Earlier in your presentation this morning, you had made reference  
17 to the SOREM group, the Senior Officers Responsible for Emergency Management,  
18 and I believe that you referenced a meeting in Canada; I think it was in 2015. Can you  
19 just go back over that for me? I'm not quite sure I captured it in my notes, that there  
20 was an interest in some police leaders or CACP attending? Does that sound familiar?

21 **MR. MICHAEL HALLOWES:** Yes, you're absolutely spot on.

22 So what I was describing was the National Public Alerting Summit,  
23 which was hosted by Alberta Emergency Management in Edmonton, 17<sup>th</sup>, 18<sup>th</sup> of  
24 February 2015. A very broad audience; a lot of wireless service providers, and  
25 speakers like myself with firsthand knowledge. It was intended to be a knowledge  
26 exchange to help CRTC and others begin the development of Canada's wireless public  
27 alerting services part of the Alert Ready framework.

28 There was a request after my presentation to have a breakout

1 discussion group, which would be chaired by SOREM, attended by many others,  
2 including myself. There was a request from a representative of the Canadian  
3 Association of Chiefs of Police that they should also be involved in that breakout  
4 session, and that was declined.

5 **COMMISSIONER FITCH:** Thank you. That's consistent with my  
6 notes, I just wanted to circle back on that. Thank you for clarifying that.

7 The other question I had for you, and perhaps I'm asking you to  
8 speculate but you may have firsthand knowledge on this. You had commented that  
9 having direct usage is not common in Canada. And recently, it's your understanding,  
10 that the RCMP does now have direct access to public alerting.

11 Do you -- can you share with us why you think that direct access  
12 would not be of interest to police agencies? What the downside would be?

13 **MR. MICHAEL HALLOWES:** For me personally, I can't see any  
14 reason why you wouldn't want access to the full toolkit in a crisis. I can't see. But I do  
15 understand the genesis of how that decision-making is sort of iterative because we did  
16 not include the police in Australia because the system was -- came with a mindset, this  
17 is for natural disasters, and that is the remit of the states and other emergency services.  
18 It was only once we had an example, which was the Lindt Café siege in 2014 that for  
19 me the penny dropped. And as a former police officer, I kick myself, which is why I  
20 straight away wrote the brief and took it to the peak body for policing, for both New  
21 Zealand and Australia, and made sure that we started the process of a change.

22 **COMMISSIONER FITCH:** Okay. Thank you very much. That's all  
23 my questions.

24 **COMMISSIONER MacDONALD:** Thank you.  
25 Commissioner Stanton?

26 **COMMISSIONER MacDONALD:** Thank you very, very much, Mr.  
27 Hallowes, for not just your time today, which takes you after hours in England, but also  
28 your time in preparing, but most importantly, for your interest in assisting us with our

1 important work. We very, very much appreciate it, and we look forward to seeing you  
2 again tomorrow in a round table format. So thank you so much for today.

3 **MR. MICHAEL HALLOWES:** Thank you. It is my privilege to be  
4 able to ---

5 **COMMISSIONER MacDONALD:** Thank you.

6 **MS. RACHEL YOUNG:** Thank you.

7 **COMMISSIONER MacDONALD:** Ms. Young?

8 **MS. RACHEL YOUNG:** Commissioners, I now have a number of  
9 documents to tender as exhibits for various reasons. The first one is left over from the  
10 Police Paraphernalia subject matter. Mr. Bryson in his written submission mentioned  
11 this document, and so I thought it would be beneficial to have that before the  
12 Commissioners. And it is COMM Number COMM-0048489. And that is an email from  
13 the Commanding Officer of PEI RCMP, dated April 29<sup>th</sup>, 2020. It's regarding information  
14 about officer safety bulletin, including information about police paraphernalia.

15 **REGISTRAR DARLENE SUTHERLAND:** That's 1356.

16 **--- EXHIBIT No. 1356:**

17 (COMM0048489)Email from Commanding Officer of PEI RCMP,  
18 dated April 29<sup>th</sup>, 2020

19 **MS. RACHEL YOUNG:** Next, Commissioners, there was some  
20 information gathered in Commission interviews or produced pursuant to subpoena that  
21 is relevant to the topic of Alert Ready; however, it didn't warrant being put before you in  
22 the form or oral evidence, so I'm seeking permission to file a number of documents that  
23 you will be able to read once they're filed.

24 **COMMISSIONER MacDONALD:** Thank you.

25 **MS. RACHEL YOUNG:** So starting with three transcripts of  
26 Commission interviews with people whose names you've heard this week who did  
27 speak to the Commission. So, first, there's the transcript of the Commission interview of  
28 Glenn Mason, M-A-S-O-M -- N. That's COMM Number 0053758.

1                   **REGISTRAR DARLENE SUTHERLAND:** 1357.

2    **--- EXHIBIT No. 1357:**

3                   (COMM0053758) Transcript of Commission interview of Glenn  
4                   Mason

5                   **MS. RACHEL YOUNG:** The transcript of Commission interview of  
6    Michael Bennett, COMM-0056395.

7                   **REGISTRAR DARLENE SUTHERLAND:** 1358

8    **--- EXHIBIT No. 1358:**

9                   (COMM0056395) Transcript of Commission interview of Michael  
10                  Bennett

11                  **MS. RACHEL YOUNG:** Transcript of Commission interview of  
12    Dominic Fewer, F-E-W-E-R, COMM Number 0054263.

13                  **REGISTRAR DARLENE SUTHERLAND:** 1359.

14    **--- EXHIBIT No. 1359:**

15                  (COMM0054263) Transcript of Commission interview of Dominic  
16                  Fewer

17                  **MS. RACHEL YOUNG:** The next document is an RCMP policy OM  
18    (rewrite TOC) - Chapter 2.15, Criminal Code Offences - Persons - Duty to Warn. That's  
19    COMM Number 0042985.

20                  **REGISTRAR DARLENE SUTHERLAND:** 1360.

21    **--- EXHIBIT No. 1360:**

22                  (COMM0042985) RCMP policy OM (rewrite TOC) - Chapter 2.15,  
23                  Criminal Code Offences - Persons - Duty to Warn

24                  **MS. RACHEL YOUNG:** The next document is COMM-0001387.  
25    That is called Medical Communications Centre - Major Incident After Action Report,  
26    Portapique Active Shooter, 18-19 April 2020.

27                  **REGISTRAR DARLENE SUTHERLAND:** And that was previously  
28    marked as 421.

1                   **MS. RACHEL YOUNG:** Okay. So we don't need that as a new  
2 exhibit.

3                   The next document is a VON, Victorian Order of Nurses Response  
4 Report to the Nova Scotia Critical Incident. That's COMM-0049653.

5                   **REGISTRAR DARLENE SUTHERLAND:** And that was previously  
6 marked as well, 478.

7                   **MS. RACHEL YOUNG:** Apologies, Commissioners. We did spend  
8 some time on the break trying to eliminate duplicates, but obviously we missed a  
9 couple.

10                  The next one is COMM Number 0057407, an email from Paul  
11 Vickers to Christine Carrier and Jason Mew, M-E-W, dated February 2<sup>nd</sup>, 2020, re  
12 Amber Alert Program, Alert Notifications.

13                  **REGISTRAR DARLENE SUTHERLAND:** 1361.

14 **--- EXHIBIT No. 1361:**

15                  (COMM0057407) Email from Paul Vickers to Christine Carrier and  
16 Jason Mew, dated February 2<sup>nd</sup>, 2020, re Amber Alert Program,  
17 Alert Notifications

18                  **MS. RACHEL YOUNG:** The next one is COMM-001008, Pelmorex  
19 National Aggregation and Dissemination System, official document, November 20<sup>th</sup>,  
20 2014.

21                  **REGISTRAR DARLENE SUTHERLAND:** And again, that was  
22 previously marked as 1259.

23                  **MS. RACHEL YOUNG:** Better twice than not at all.

24                  The next document is COMM-0043572.

25                  **REGISTRAR DARLENE SUTHERLAND:** And again, that was  
26 marked, sorry, as 1269.

27                  **MS. RACHEL YOUNG:** Okay. All right. We have -- this one I'm  
28 fairly certain is new. COMM-0056304. It's a webpage called Chronology National

1 Public Alerting Canada.

2 **REGISTRAR DARLENE SUTHERLAND:** 1362.

3 **--- EXHIBIT No. 1362:**

4 (COMM0056304) Webpage called Chronology National Public  
5 Alerting Canada

6 **MS. RACHEL YOUNG:** The next is an expert report,  
7 Commissioners, that I believe you may be hearing about tomorrow at the round table.  
8 It's COMM-0055672. That's an expert report on Communication, Interoperability and  
9 the Alert Ready System by authors Davis and McNeil, M-C-N-E-I-L, and it's  
10 accompanied by a number of source documents, if those could be filed as exhibits,  
11 please?

12 **REGISTRAR DARLENE SUTHERLAND:** So 16 -- sorry, 1363  
13 would be the report, and the source documents will be so exhibited.

14 **--- EXHIBIT No. 1363:**

15 (COMM0055672) Expert report on Communication, Interoperability  
16 and the Alert Ready System by authors Davis and McNeil

17 **MS. RACHEL YOUNG:** COMM-0023742, Sit Rep to COMM, C-O-  
18 M-M - NS Alert Ready System, H Division.

19 **REGISTRAR DARLENE SUTHERLAND:** 1364.

20 **--- EXHIBIT No. 1364:**

21 (COMM0023742) Sit Rep to COMM - NS Alert Ready System, H  
22 Division I

23 **MS. RACHEL YOUNG:** COMM-0056447, RCMP Ops Manual,  
24 Chapter 16.5 Public Alerts.

25 **REGISTRAR DARLENE SUTHERLAND:** 1365.

26 **--- EXHIBIT No. 1365:**

27 (COMM0056447) RCMP Ops Manual, Chapter 16.5 Public Alerts

28 **MS. RACHEL YOUNG:** 0057349, Letter Regarding National Public



1 Alerting System from Raymond Theberge, T-H-E-B-E-R-G-E.

2 **REGISTRAR DARLENE SUTHERLAND:** 1366.

3 **--- EXHIBIT No. 1366:**

4 (COMM0057349) Letter Regarding National Public Alerting System  
5 from Raymond Theberge

6 **MS. RACHEL YOUNG:** COMM-0057350, A Matter of Respect and  
7 Safety - The Impact of Emergency Situations on Official Languages.

8 **REGISTRAR DARLENE SUTHERLAND:** 1367.

9 **--- EXHIBIT No. 1367:**

10 (COMM0057350) A Matter of Respect and Safety - The Impact of  
11 Emergency Situations on Official Languages

12 **MS. RACHEL YOUNG:** COMM-0057368, Everbridge Mass  
13 Notification Alert System provided by Jennifer Jesty, J-E-S-T-Y. That's a PowerPoint  
14 presentation.

15 **REGISTRAR DARLENE SUTHERLAND:** 1368.

16 **--- EXHIBIT No. 1368:**

17 (COMM0057368) Everbridge Mass Notification Alert System  
18 provided by Jennifer Jesty

19 **MS. RACHEL YOUNG:** COMM-0057353, CityNews Halifax  
20 Twitter Capture "Emergency Alert" April 8<sup>th</sup>, 2022.

21 **REGISTRAR DARLENE SUTHERLAND:** 1369.

22 **--- EXHIBIT No. 1369:**

23 (COMM0057353) CityNews Halifax Twitter Capture "Emergency  
24 Alert" April 8<sup>th</sup>, 2022

25 **MS. RACHEL YOUNG:** COMM-0057392, Media Reports of  
26 Emergency Alerting. And this was prepared by the Mass Casualty Commission  
27 Research and Policy Team.

28 **REGISTRAR DARLENE SUTHERLAND:** 1370.

1 **--- EXHIBIT No. 1370:**

2 (COMM0057392) Media Reports of Emergency Alerting, prepared  
3 by the Mass Casualty Commission Research and Policy Team

4 **MS. RACHEL YOUNG:** 0057393, Exploring Attitudes Towards  
5 Wireless Public Alerting System in Canada. This is a consultant report prepared for the  
6 CRTC dated January 15<sup>th</sup>, 2021.

7 **REGISTRAR DARLENE SUTHERLAND:** 1371.

8 **--- EXHIBIT No. 1371:**

9 (COMM0057393) Exploring Attitudes Towards Wireless Public  
10 Alerting System in Canada. Consultant report prepared for the  
11 CRTC dated January 15<sup>th</sup>, 2021

12 **MS. RACHEL YOUNG:** COMM-0043871, National Public Alerting  
13 System: Common Look and Feel Guidance, Version 2.0 from Public Safety Canada.

14 **REGISTRAR DARLENE SUTHERLAND:** 1372.

15 **--- EXHIBIT No. 1372:**

16 (COMM0043871) National Public Alerting System: Common Look  
17 and Feel Guidance, Version 2.0 from Public Safety Canada

18 **MS. RACHEL YOUNG:** And finally, COMM-0057351, Social Media  
19 in Emergency Management Capability Assessment.

20 **REGISTRAR DARLENE SUTHERLAND:** 1373.

21 **--- EXHIBIT No. 1373:**

22 (COMM0057351) Social Media in Emergency Management  
23 Capability Assessment

24 **MS. RACHEL YOUNG:** Those were all the documents I had to file  
25 for now, Commissioners.

26 **COMMISSIONER MacDONALD:** Thank you so much, Ms. Young.

27 **MS. RACHEL YOUNG:** Thank you.

28 **COMMISSIONER MacDONALD:** Mr. VanWart, I understand the

1 next order of business is to hear from Participant Counsel on submissions regarding the  
2 Alert Ready aspect of our work.

3 Before I call on you, I wanted to address an outstanding request  
4 from last week that we heard from two of the Participants.

5 Specifically on May 4th, we heard from Mr. Bracken of Canada's  
6 National Firearms Association, NFA, and Mr. Giltaca from the Canadian Coalition for  
7 Firearms Rights, CCFR. As part of their submissions, two reports were submitted by  
8 the NFA and the CCFR, one authored by Dr. Gary Mauser and the other by Dr. Caillin  
9 Langmann.

10 We accepted these reports from these two organizations as self-  
11 represented Participants without going through a formal qualification process. Instead,  
12 the reports will be given the weight that the Commission deems appropriate.

13 Mr. Bracken, in submissions, also asked us to call Dr. Langmann  
14 as a witness in our proceedings. We do not consider it necessary to hear further from  
15 Dr. Langmann.

16 Thank you.

17 Mr. VanWart?

18 **MR. JAMIE VanWART:** Thank you, Commissioners.

19 Participants have been invited to make submissions with regards to  
20 the topic of emergency alerting. Those submissions can be done in writing, orally, or  
21 both. This afternoon we have three sets of submissions for you to present to the  
22 Commission.

23 First we'll be hearing from Josh Bryson from Chester Law, who  
24 represents the Bond family.

25 **--- SUBMISSIONS BY MR. JOSHUA BRYSON:**

26 **MR. JOSHUA BRYSON:** Sorry. I was just sorting out an exhibit  
27 number.

28 Thank you, Commissioners. I just have a few very brief comments

1 to make in regards to this stage of the proceeding, which is in regards to public alerting.

2 This topic has been divided into roughly three Foundational  
3 Documents. The other Foundational Document yet to come is RCMP public  
4 communications, so the bulk of my submissions on this topic will be at that point in time.

5 So I'm going to use just a few minutes here to look at the forward-  
6 looking mandate of the Commission in regards to after the event and the public alerting  
7 system.

8 So the Alert Ready based -- and we've had the benefit of hearing  
9 from the expert, Mr. Hallowes, today. That was very informative.

10 Alert Ready appears to be a very effective tool to advise a large  
11 part of the population of possible danger. All you need is a cell phone, whereas the  
12 social media tools require a lot more. It's a device, it's the application, it's then following  
13 the particular social media application and then it's accessing that particular application  
14 on your device to make sure that you're seeing the content.

15 It's not enough to just have Twitter; you have to actually be actively  
16 looking at Twitter and be looking at the accounts that you're following to actually receive  
17 the message.

18 So certainly there's a lot of steps along the way where the audience  
19 is going to dwindle.

20 So there are positive developments in the Alert Ready front. As we  
21 heard yesterday, RCMP now has an MOU with the EMO as of April 30th, 2021 to be an  
22 authorized user of the Alert Ready system, and there is an RCMP operational manual  
23 on the issue as of December 2020. But just two gaps I'd like to point out.

24 One is in regards to the necessary resources that will have to be on  
25 hand at the call taker stage to process these calls that come in as a result of the alert.

26 Now, Mr. Hallowes, perhaps, gives us some confidence that this  
27 may be alleviated by educating the public. And what I'm referring to is the April 24th  
28 use of the alert that generated a call volume that -- in the member report, there was

1 about 29 percent of calls were actually not even processed, and perhaps with some  
2 education given to the public that that problem will largely be alleviated. But if that  
3 emergency alert is going to be used tomorrow, there's been no education since this  
4 mass casualty and it's likely that the OCC is once again going to be flooded with calls.  
5 So that is a gap that should be addressed.

6 The situation -- the RCMP situation report says that -- and that  
7 report, the April 24th report, says that increasing the number of call takers in the short  
8 term is a challenge. That appeared to be a challenge at that time, and it hasn't been  
9 resolved in the operational manual, as it states that the resolution is to call in additional  
10 resources as needed. But it's not suggesting that the resource problem identified in  
11 2020 -- in April 24th, 2020 has been resolved at all by their operational manual.

12 So that's one of the gaps. Again, I'm modifying based on the -- I  
13 get to follow the expert in this field, so I'm modifying my submissions somewhat based  
14 on what we just heard moments ago.

15 The second gap that we -- that has become apparent is this issue  
16 in regards to the 4G network. That is new information.

17 It appears that alerts that are going out will not be received by all  
18 users of cell phones, which is obviously a problem, so that's a further gap that should be  
19 investigated.

20 So thank you very much for your time. They're my submissions.

21 **COMMISSIONER MacDONALD:** And thank you, Mr. Bryson.

22 **MR. JAMIE VAN WART:** Sandra McCulloch of Patterson Law,  
23 who is the law firm that represents several of the families most affected, will be making  
24 submissions next.

25 **COMMISSIONER MacDONALD:** Good afternoon, Ms. McCulloch.

26 **--- SUBMISSIONS BY MS. SANDRA McCULLOCH:**

27 **MS. SANDRA McCULLOCH:** Good afternoon, Commissioners.

28 And I just wanted to reiterate an emphasis I put on yesterday, that we represent --

1 Patterson Law represents a number of the families of those deceased victims and also  
2 a number of the individuals who have been named as Participants among those most  
3 affected.

4                   Commissioners, I wanted to open -- I was struck by Commissioner  
5 Fitch's opening remarks yesterday when she reminded the public of the Commission's  
6 invitation that it wants to hear from everyone who has something relevant to share. And  
7 so Commissioners, in that spirit, I wanted to open my comments today on the question  
8 of emergency alerting with my own story.

9                   It's completely insignificant compared to the stories of my clients,  
10 but it's directly on point with the topic of this week.

11                   On the morning of April 19 of 2020, I was at home with my family. I  
12 was outside playing with my then two pre-school aged children. I had my cell phone  
13 with me taking pictures while we played in the backyard.

14                   For context, I'm about eight minutes from the Petro-Canada in  
15 Elmsdale.

16                   I get a text message from a friend at 11:25 telling me of the  
17 direction to stay inside and lock doors, and that there was an active shooter in the area.  
18 She received a call from a friend of hers who had family who were RCMP members,  
19 and that -- and they conveyed a private alert to their loved ones.

20                   So Commissioners, that's how I learned about the mass casualty  
21 event, not through Twitter, not through Facebook, not through Alert Ready, but because  
22 I was lucky to have a friend who had a friend who had a member of the RCMP as a  
23 family member who was alerting their loved ones.

24                   So Commissioners, it's difficult to speak on the topic of emergency  
25 alerting in the absence of this more broad context of the communication that actually  
26 occurred with the public from the RCMP over April 19 -- 18 and 19 of 2020. Of course,  
27 Commissioners, we are aware that this topic will be presented in public proceedings  
28 tentatively in a few weeks' time, but in separating these two narratives I submit that we,

1 and the public, are this week working with only a portion of the, quote, what happened  
2 portion about emergency alerting in that we're missing some critical pieces that we will  
3 learn about later, including those that suggest a lack of knowledge or understanding  
4 about Alert Ready on the part of the RCMP over April 18 and 19 of 2020. That's difficult  
5 to understand.

6 At this point, though, we do have the benefit of evidence from the  
7 witnesses who came from -- to us from the Nova Scotia Emergency Management  
8 Office, Mr. Mason and Mr. Legge. We heard considerable commentary on their efforts  
9 over the past number of years to enlighten policing partners, including the RCMP, about  
10 Alert Ready's features and capabilities and the EMOs urging that those policing partners  
11 accept the ability to send public emergency alerts themselves.

12 We heard some pieces about the more technical discussion about  
13 alerting categories and definitions yesterday, but I would submit that we heard two very  
14 important things from these witnesses. We heard that active shooters have been  
15 presented as a Broadcast-Intrusive alert option to the RCMP by Mr. Mason himself a  
16 number of years ago. We also heard that the EMO mobilised on April 19th, 2020,  
17 independently, and was ready to go, that had an alert been requested to inform the  
18 public about the true nature of the risk that the perpetrator was bringing to life to Nova  
19 Scotia, and that Mr. Mason would have seen it issued.

20 Now, unfortunately, because of the postponement of the  
21 Commission's attention to the RCMP's public communication over April 18 and 19 of  
22 2020, we can't today meaningfully analyse what type of emergency alerting could have  
23 been carried out that day and what type of content ought to have been conveyed to the  
24 public that day, and at what times. But I think we can circle back to where this  
25 discussion needs to begin regardless.

26 Our public alerting system, Alert Ready, wasn't utilised on April 18  
27 and 19 of 2020. Rather, the RCMP's duty to warn the public was fulfilled largely, only,  
28 by social media messaging from which you will hear from us later, we would submit, is

1 largely -- is lacking in content and timeliness. From our clients' perspective, and indeed,  
2 they believe this is supported by much of the Nova Scotia public, Alert Ready ought to  
3 have been deployed.

4           We submit that had there been an emergency alert, I would not  
5 have been exposed, with my children, when the perpetrator was attempting to gas  
6 minutes from my home. I would have had the opportunity to have been safely tucked  
7 inside and watching for danger. But much, much more significant than that, had there  
8 been an emergency alert, quite likely individuals, like, Thomas Bagley, Kristen Beaton,  
9 Heather O'Brien, and Joey Webber, all of whom we know had a cell phone on their  
10 person when they encountered the perpetrator, would have had the similar opportunity  
11 to be safely tucked inside their homes and watching for danger. And I want to stress  
12 that I know there can be other names to add to that list, but those are names amongst  
13 our clients' broken stories that I know best.

14           I submit that we can't omit from our consideration of the topic of  
15 emergency alerting that the likelihood of an Alert Ready messaging, having struck Nova  
16 Scotians with the gravity of its message in a way much different than social media  
17 messaging, an Alert Ready message, one with a clear warning of the actual danger to  
18 the public, with clear instructions about what to do, we submit would not only have  
19 reached a broader public, but it would have better conveyed the seriousness of the  
20 warning. And I suggest that we heard from Mr. Hallows this morning, his example of a  
21 bullhorn, really puts -- brings that message to light.

22           I submit that an Alert Ready message would have enabled those,  
23 who relied upon social media messaging for information, to distinguish this horrific event  
24 from all of the other content that gets glanced at and scrolled past in social media  
25 messaging.

26           We've heard from Mr. Mason, and it will be borne by the existing  
27 evidentiary record, and likely future evidence, is that the RCMP and the Halifax  
28 Regional Police have, subsequent to April of 2020, been trained on the Alert Ready



1 system and have accepted trusted user status. So there now is some assurance that  
2 these policing agencies now understand what this system is and how they can make  
3 best use of it. But we submit that recommendations cannot stop there.  
4 Recommendations have to expand and to touch upon a few of the more substantive  
5 concepts arising out of what we've heard so far.

6           Commissioners, I would submit that just as the duty to warn is a  
7 legal obligation at common law, so too must it be an obligation to actively to consider  
8 whether to deploy the emergency alerting tools that we have as part of fulfilling that  
9 duty. And beyond that, an obligation to thereafter account for why or why not it was  
10 deployed.

11           Such an expanded duty by extension necessitates clear standard  
12 operating procedures to be had by potential requestors of emergency alerts, both those  
13 with trusted user status, who conceivably would require their standard operating  
14 procedures, or those without and continue to rely upon the EMO for their messaging.  
15 And we would submit that it's incumbent upon the Commission to suss out what  
16 features of those policies and procedures would be essential.

17           Furthermore, we submit that we must broaden and continually  
18 revisit the adequacy of the available alerting categories. We cannot have a critical tool,  
19 such as Alert Ready, outdated, or worse, we can't leave ourselves exposed to any  
20 suggestion that this emergency alerting tool was simply not deployable in an emergency  
21 event because it technically didn't provide the right category for that.

22           So to that end, there needs to be room for discretionary categories.  
23 You know, frankly, I think that it may be said that from what we have heard, civil  
24 emergency appears to be just that, and a good model of a discretionary category, but  
25 regardless, it requires further attention.

26           Commissioners, we look forward to meaningful discussions on this  
27 topic going forward with the -- with appropriate attention to both pros and the cons of  
28 this invaluable tool, and without undue consideration of the perceived cons, particularly

1 where there appears to be a lack of evidence to support such worries, when that  
2 hearkens back to some of what we heard from Mr. Hallows today.

3 And so Commissioners, those are the preliminary thoughts that we  
4 offer as we look forward to Phase 2 and Phase 3 considerations. But I do want to take  
5 a brief moment to conclude with some of the words that we have from Mr. Mason, and  
6 these come from his statement to the Mass Casualty Commission, COMM  
7 Number 54268, Exhibit Number 1280.

8 They're just a few lines, Commissioners, but I submit they are  
9 perfectly illustrative of what we describe as the problem that existed over April 18 and  
10 19, and should serve as at least part of the Commission's roadmap going forward on  
11 this issue. The discussion about public communications generally, and emergency  
12 alerting specifically cannot be meaningful without full attention to what happened on  
13 April 18 and 19, or what didn't happen on those dates. So to put it in Mr. Mason's  
14 words, and I'm taking from this -- his sentences at the bottom of page 24 of his  
15 statement to the Mass Casualty Commission when he says:

16 "But at the end of the day, it didn't cross their minds.  
17 On one hand, I mean, it hadn't been used by police  
18 before in that kind of scenario, so I can see it on some  
19 level, but on the flip side, having this system and  
20 having all the discussions and the tests and  
21 everything else for, you know, 10 years, I am a little  
22 surprised, especially where it went on for so long.  
23 Like, if it was over in an hour and it was just some,  
24 you know, frenetic burst of activity, I could see it  
25 more, but, and once again, I'm not trying to Monday  
26 morning quarterback, but I find it surprising you could  
27 have an event go on from, like, 10:30, or whatever, on  
28 a Saturday night 'til 11:30 on Monday, sorry, the

1 Sunday morning, and nobody thought about an alert  
2 until we called them. And then I know there was  
3 discussion in the media that we were working on a  
4 message, but that's not the case. And I'm sure we'll  
5 go through it in the timeline, but basically, we couldn't  
6 get a hold of anyone. I mean, once again, I mean, I  
7 understand it must have been extremely busy, so I'm  
8 not trying to be critical, but we couldn't get a hold of  
9 anyone to decide whether or not to issue an alert.

10 That's what happened.'" (As read)

11 Thank you, Commissioners.

12 **COMMISSIONER MacDONALD:** Thank you, Ms. McCulloch.

13 **MR. JAMIE VAN WART:** And finally, we'll hear from Nova Scotia,  
14 Mr. Jeff Waugh.

15 **--- SUBMISSIONS BY MR. JEFF WAUGH:**

16 **MR. JEFF WAUGH:** Thank you, Commissioners. We just have  
17 some brief comments on some additional context with respect to the Alert Ready  
18 Foundational Document, and this in addition to our written comments that were  
19 submitted on May 4th. And it's really a comment on the 9-1-1 call volume data, and it's  
20 a point of clarification, and it follows along Mr. Bryson's comments on resourcing.

21 Some 9-1-1 call volume data has been provided to the Commission  
22 comparing call volumes on the morning of April 19, 2020, to the Sunday morning the  
23 week prior to the mass casualty and the Sunday morning after the mass casualty. And  
24 similar information on call volume data, in or around the use of Alert Ready system after  
25 the Mass Casualty Commission could also be provided by EMO. And this data would  
26 allow the Commission to explore the question of whether issuing an emergency alert  
27 would overwhelm the 9-1-1 Public Safety Answering Points, or PSAPs.

28 It is anticipated that there may be some reticence from police

1 agencies to issue alerts based on an increase in 9-1-1 calls and a fear that an alert  
2 would overwhelm the system, and this is particularly so, given evidence in paragraph 56  
3 of the Alert Ready Foundational Document, from an RCMP briefing note, stating that  
4 29-percent of calls were not processed after the April 24, 2020 alert about the possible  
5 active shooter. It should be made clear, we submit, what exactly the RCMP says was  
6 overwhelmed. The report says the OCC was overwhelmed, the Operational  
7 Communication Centre. So this is a bit vague, in our view, because we heard evidence  
8 from Mr. Mason yesterday that the 9-1-1 call-taking system has never been  
9 overwhelmed. We also heard evidence just now from Mr. Hallows that he does not  
10 have any experience with PSAPs being overwhelmed after an alert was issued.

11                   It is noted that the RCMP PSAP has eight workstations, so up to  
12 eight call-takers available to be at those workstations, and they also have a backup  
13 PSAP of four additional workstations. The RCMP backup PSAP was not activated on  
14 April 18 or 19 of 2020. In any event, if a 9-1-1 call is routed to the RCMP PSAP, and all  
15 call-takers are busy, the caller will be rerouted to one of the other primary PSAPs as  
16 overflow.

17                   So the question remains, was it RCMP dispatch that was  
18 overwhelmed with respect to the amount of information that was coming in from  
19 numerous callers after those callers were patched over from the PSAPs, or was it the  
20 9-1-1 call-takers at the PSAPs themselves who didn't have capacity to handle the calls?  
21 EMO is of the view that, given the number of PSAP workstations and with the overflow  
22 capacity available, the 9-1-1 answering system would not be overwhelmed by the  
23 issuance of a public alert.

24                   So that is all to say that clarifying resource capacity in 9-1-1 PSAPs  
25 receiving the calls versus capacity issues in RCMP dispatch processing those calls is  
26 an important distinction to be made before the Commission's recommendations are set  
27 out.

28                   And those are our submissions. Thank you for your time.

1                   **COMMISSIONER MacDONALD:** Thank you very much,  
2 Mr. Waugh.

3                   **COMMISSIONER STANTON:** Thank you very much to  
4 Participants and their counsel for your submissions. We'll consider them carefully, as  
5 always. We recognise that other potential witnesses were suggested by Participants in  
6 recent submissions, and we wish to advise that where they have not already been  
7 scheduled they're still under active consideration.

8                   Thank you, of course, to Mr. Hallows for joining us today and  
9 providing broader context on public alerting. Tomorrow, we'll hear the next roundtable  
10 discussion, which include a range of perspectives focussed on public communications  
11 and alerting during emergency events.

12                   As has been noted by Ms. McColloch, there will be further Phase 1  
13 proceedings on public communications and alerting in a few weeks. We will continue to  
14 build the factual foundation and deepen our understanding of the causes, context and  
15 circumstances of the mass casualty. And so bear with us while we blend some of the  
16 Phase 2 activities with our ongoing Phase 1 work. We intend to hear more about what  
17 happened, while we also explore the issues we are required to understand in order to  
18 make meaningful recommendations.

19                   As we have said, if you have any suggestions on changes or  
20 research related to public alerting that could assist us in shaping recommendations, you  
21 can share those through the public submissions process on our website. Your  
22 submissions will help inform meaningful recommendations later in our work.

23                   Thanks again, everyone, and we'll see you here tomorrow morning  
24 at 9:30.

25                   **REGISTRAR DARLENE SUTHERLAND:** Thank you. The  
26 proceedings are adjourned until May the 12th, 2022, at 9:30 a.m.

27 --- Upon adjourning at 3:13 p.m.

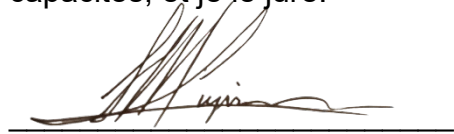
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## CERTIFICATION

I, Sandrine Marineau-Lupien, a certified court reporter, hereby certify the foregoing pages to be an accurate transcription of my notes/records to the best of my skill and ability, and I so swear.

Je, Sandrine Marineau-Lupien, une sténographe officiel, certifie que les pages ci-hautes sont une transcription conforme de mes notes/enregistrements au meilleur de mes capacités, et je le jure.

A handwritten signature in black ink, appearing to read 'S. Marineau-Lupien', is written over a solid horizontal line.

Sandrine Marineau-Lupien