UNITED STATES
FEDERAL COMMUNICATIONS COMMISSION

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COMMERCIAL MOBILE SERVICE      )
ALERT ADVISORY COMMITTEE       )
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Pages:     1 through 90

Date:      May 16, 2007

Place:     Washington, D.C.
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FEDERAL COMMUNICATIONS COMMISSION

COMMERCIAL MOBILE SERVICE   )
ALERT ADVISORY COMMITTEE   )

                              Commission Meeting Room
                              (TW-C305)
                              445 12th Street, S.W.
                              Washington, D.C.

                              Wednesday,
                              May 16, 2007

        The parties met, pursuant to notice of the

Commission, at 10:00 a.m.

        PRESENTATIONS:

        David Ostmo
        Director of Operations at KABB/KMYS-TV in San
        Antonio, TX

        Kay Chiodo
        Deaf Link, Inc.

        MEMBERS:

        Erika Olsen, (FCC Chairman Martin's Designee)
        Federal Communications Commission

        Derek Poarch (FCC Chairman Martin's Designee)
        Federal Communications Commission

        Ann Arnold
        Texas Association of Broadcasters

        Ralph Aubry
        Battelle

        Dale Barr
        National Communications System

        Eugene Beraldi
        City of New York

        Cheryl Blum
        Telecommunications Industry Association

            Heritage Reporting Corporation
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Art Botterell
Contra Costa County, CA

Marcia Brooks   (via Telephone)
WGBH National Center for Accessible Media

Stephen Carter
Qualcomm, Inc.

Edward Czarnecki
SpectraRep

Brian Daly
Cingular Wireless

Amar Deol
Nortel

Ed Erlich (alternate)
Nokia

Robin Erkilla
Intrado

Mark Erstling (alternate)
Association of Public Television Stations

Maria Estefania
Alliance for Telecommunications Industry
Solutions, Inc.

Eddie Fritts
Global Security Systems, LLC

Dale Gehman
Poarch Band of Creek Indians

Stephen Hayes
Ericsson, Inc.

Gary K. Jones
T-Mobile USA

Rob Kubik
Motorola

Kevin McGinnis
National Association of State EMS Officials

Anthony Melone

Verizon Wireless

Richard Mirgon
Association of Public Safety Communications
Officials

Jay Pabley
Sprint Nextel Corp.

Mark Paese
National Oceanic & Atmospheric Administration

Billy Pitts
NTI Group, Inc.

Art Prest
Rural Cellular Association

Patrick Roberts
Florida Association of Broadcasters

David Robinson (alternate)
Syniverse Technologies

Doug Rutledge
Alltel

David Webb
Federal Emergency Management Agency

William Wertz
Michigan Association of Broadcasters

Ann West Bobeck
National Association of Broadcasters

FCC PERSONNEL:

Lisa Fowlkes
Deputy Chief, Public Safety & Homeland Security
Bureau

Jeffery Goldthorp
Chief, CSAD, Public Safety & Homeland Security
Bureau

 1   P R O C E E D I N G S

 2   (10:00 a.m.)

 3   MR. POARCH: Thank you very much for being

 4 here today. I'm Derek Poarch, the new chief of the

 5 Public Safety Homeland Security Bureau here at the

 6 FCC, and it's my pleasure to welcome you here today,

 7 and again thank you for all of the hard and dedicated

 8 work that you're doing on this effort.

 9   It's my pleasure at this time to introduce

10 Erika Olsen from Chairman Martin's office, who will

11 give opening comments.

12   MS. OLSEN: Good morning. And on behalf of

13 Chairman Martin, I'd like to welcome you to this third

14 meeting of the Commercial Mobile Services Alert

15 Advisory Committee. Thank you for being here, and for

16 giving your valuable time to help bring effective

17 alerts and warnings to the millions of Americans who

18 use commercial mobile devices.

19   It's a testimony to the importance of this

20 task that so many experts from the wireless industry,

21 state, local, and tribal governments, the broadcast

22 industry, and other providers of technical systems and

23 services continue to make such a great contribution of

24 their time, skills, and energy to this endeavor.

25   Five months ago the Commission first

1 welcomed you all to the first meeting of the advisory

2 committee, and at that time we anticipated that the

3 recommendations the advisory committee would bring to

4 the FCC next October will allow us to conduct a

5 thorough and successful rulemaking.

6   The measure of success will be voluntary, yet

7 widely deployed systems, through which all Americans

8 would be able to receive emergency alerts regarding

9 impending disasters or emergencies through their

10 wireless devices. We're now at the midpoint of our

11 task that Congress has given to us, and today each one

12 of the advisory committee's working groups will give

13 us a report on the progress they are making toward the

14 production of the set of recommendations that is due

15 in October.

16   We continue to be impressed with the

17 enthusiasm, skill, and spirit of cooperation, with

18 which the committee members approach this complicated

19 and essential public safety task. We're looking

20 forward to hearing today's presentations, and the

21 insight they will give us into the recommendations

22 that will be presented to the Commission in less than

23 five months from now.

24   I want to thank you again for your time, and

25 it's my pleasure to designate Chief Poarch as the

1 Chairman's Designee for the rest of the meeting.

2   MR. POARCH: Thank you, Erika.   At

3 this time I'd like to recognize Ann Arnold from the

4 Texas Association of Broadcasters, who will introduce

5 our presenters today. Ann?

6   MS. ARNOLD: Thank you so much.   I'm

7 delighted to be able to present two of our Texas stars

8 today. I asked for them to be on the program because

9 I think they can bring you some information and some

10 ideas about how things can be done that you may not be

11 aware of. They have some answers to some problems

12 that we just keep talking about over the years, and

13 haven't really solved. So I am delighted to present

14 Kay Chiodo and David Ostmo. As I said, they're two of

15 our Texas stars.

16   David is one of those rare engineering

17 wizards. He is actually Senior VP of Engineering for

18 Sinclair in Texas, and he not only is able to make all

19 the systems work, he can explain them in

20 understandable and even humorous terms, and he's one

21 of my allies from the EAS ward (phonetic) Texas.

22   Kay is a CEO of a homegrown Texas

23 corporation called Deaf Link, who has some incredible

24 operations that are going to be helpful in solving the

25 problems that we keep talking about. So, Kay and

1 David, if you'll come forward?

2   MR. OSTMO: Good morning, everyone. I'm

3 David Ostmo. I'm the Director of Operations for KABB

4 and KMYS in San Antonio, Texas. I am also Regional

5 Engineering Director with the Sinclair Broadcast

6 group, based in Hunt Valley, Maryland.

7   This morning I will be providing an overview

8 of EAS, describing the evolution of the legacy system,

9 describing it's capabilities and its limitations.

10 There is a lot to talk about in a short amount of

11 time, so I'm just going to jump right in.

12   First of all, what is EAS? Well, tangibly,

13 it is a wireless network that connects radio stations,

14 television stations, and cable systems to rapidly

15 disseminate emergency information. But intangibly EAS

16 is a partnership of emergency managers, law

17 enforcement, the National Weather Service, and the

18 electronic media to rapidly disseminate emergency

19 information.

20   The emergency managers, law enforcement, the

21 National Weather Service are really the information

22 providers. The electronic media, well we're are the

23 distributors.

24   Across the country, about 80 percent of EAS

25 activations are weather-related. The second most

1 common type of EAS activation is the Amber Alert. But

2 the primary mission is to provide the President with

3 the capability of addressing the public during

4 national emergencies.

5   It is this primary mission that confuses a

6 lot of people into thinking that EAS is an antiquated

7 relic of the Cold War, when in fact, EAS is the third-

8 generation system to provide the President with the

9 capability of addressing the public.

10   The first system was introduced back in

11 1951, when Harry S. Truman authorized the creation of

12 CONELRAD. CONELRAD is a contraction for the control

13 of electromagnetic radiation. Obviously that catchy

14 name was thought by the engineer, and not anybody

15 normal.

16   CONELRAD operated very differently than the

17 paradigm we're used to today. When an alert was

18 received on a CONELRAD receiver such as this one, all

19 the televisions stations would sign off the air. All

20 of the FM stations would sign off the air. Most AM

21 stations would sign off the air. The only stations

22 that remained on the air were designated stations at

23 640 and 1240 on the a.m. dial.

24   In fact radios produced during that era were

25 required to have the triangular Civil Defense System

1 emblazoned across the dial to help the listeners at

2 home find the CONELRAD stations. The reason why they

3 limited the amount of stations transmitting emergency

4 information was to prevent Soviet bombers from honing

5 in on civilian radio signals for navigational

6 purposes; but then someone realized that the Soviets

7 had other tools available to them, like maps, and they

8 decided to try a completely different approach.

9   In 1963 during the Kennedy Administration,

10 the Emergency Broadcast System made its debut. The

11 Emergency Broadcast System spread out the emergency

12 messages all across the dial. It included

13 participation by television stations as well. It was

14 configured around one local primary station, feeding

15 news and official information to the other stations in

16 the market. This is called the "Daisy Chain." This

17 type of approach is still in use with EAS.

18   As I said, it included broadcast television,

19 and it also authorized use of the system for

20 community-based emergencies. CONELRAD required

21 presidential authority for any type of activation.

22   Cable systems did not participate in EAS,

23 and one of the reasons why: Cable really wasn't a

24 significant player back in 1963. But in 1989 when the

25 1989 when the Berlin Wall fell, a significant amount

1 of viewers were watching cable televisions channels to

2 see that event. And shortly thereafter, the Soviet

3 Union collapsed, and a lot of people considered the

4 Cold War over at that point.

5   In 1995 the Emergency Alert System made its

6 debut, and by 1997 EBS, the Emergency Broadcast

7 System, was completely phased out in favor of EAS.

8 EAS includes cable systems in addition to radio and

9 television. The EAS receivers monitor multiple

10 sources for incoming messages, so it's not just one

11 local primary station feeding the rest.

12   So even if one station was off the air, the

13 other receivers would be capable of receiving news and

14 official information from other sources. It's

15 compatible with NOAA Weather Radio. Both EAS and NOAA

16 Weather Radio use same or specific area message

17 encoding.

18   Here is how EAS, or the specific area

19 message encoding works. It includes the information

20 you see here, formatted in this type of a format.

21 Now, I'll explain real quick how this all works. I'm

22 sure everybody has heard of the Morse code, where

23 letters are represented by dots and dashes. Well, in

24 a coded transmission, the person who translated open

25 text into dots and dashes was called the encoder. The

1 person on the other side was called the decoder.

2   Now, one of the things that telegraph

3 operators or a lot of people who sent telegrams

4 learned is that it was expensive to send long, lengthy

5 messages. So they started to condense the messages,

6 and they came up with abbreviated messages, or

7 abbreviations, to further encode the message. So

8 barrel was abbreviated like bbl, bushel was bu, lonely

9 telegraph operators could announce their availability

10 with SWM.

11   So there's really two levels to the

12 transmission encoding: The abbreviation encoding, the

13 transmission encoding, which is the actual dots and

14 dashes on the other side. The dots and dashes are

15 translated back to abbreviations. The abbreviations

16 are expanded out to full text.

17   So, over the years, the whole process was

18 replaced by computers, which transmit digitally with

19 dots and ones and zeros instead of dots and dashes.

20 The encoders and decoders were later embedded on

21 chips. The chips could be embedded in a device that

22 we see here, and voilà, we have the EAS encoder and

23 decoder, otherwise known as an ENDEC. That's really

24 what the encoder-decoder consists of.

25   There are 3 parts of the EAS message. First

1 part is the squawk, squawk, squawk, that you hear a

2 the very beginning, transmit three times for

3 redundancy. It's the EAS header code, sounding very

4 much like the AFLAC duck.

5   Now, after the duck squawk is the oral

6 portion of the message. The oral portion of the

7 message contains an actual oral description of the

8 event. Once the oral portion of the message is done,

9 it is followed by the end-of-message codes, three more

10 squawks, three more appearances by the AFLAC duck.

11   So, this is what is enclosed in the EAS

12 header code. Let's dissect this a little bit. First

13 of all, the first three characters, the originator

14 code. Who is actually originating the event? We can

15 see the different possibilities here, such as the

16 National Weather Service, civil authorities.

17   And here are the required event codes.

18 These are the codes that all broadcasters are required

19 to participate in. The Emergency Action Notification,

20 which would be a presidential activation, and the

21 required tests.

22   All local stations and cable systems are

23 required to transmit the tests, and the national

24 emergency messages. All state and local messages are

25 strictly voluntary.

 1   Now, here are some of the local event codes

 2 that a station could voluntarily elect to pass

 3 through, such as the child abduction emergency, or the

 4 Amber Alerts. The events codes vary based on the

 5 emergencies defined by that particular area. Volcano

 6 warnings are included, which only pertain to limited

 7 parts of the country. For example, blizzard warnings,

 8 tsunami warnings: These would be really specific to a

 9 particular area.

10   The next part of the same character string

11 is the location code, which is a FIPS (phonetic)

12 location code. It works like this: The first digit

13 is set to zero. The second digit is the state code.

14 For example, Texas is 48. The county code is next.

15 Bear County, where San Antonio is located, is 029, so

16 the whole string is 048029. Here are the FIPS codes

17 for the major counties, covering some of the other

18 areas in the country.

19   The next is the time code, valid in 50-

20 minute increments for the first hour and then 30-

21 minute increments after that. So how long is this

22 emergency message valid. The date codes are

23 automatically inserted by the encoder as well as the

24 identification sign.

25   So here's an example of how it would work:

1 The National Weather Service has issued a tornado

2 warning for Bear County effective for the next 45

3 minutes on the 244th day of the year, which is

4 September 1st, at 1502, which would be 3:02 p.m. by

5 NOAA Weather Radio. Now, from this character string,

6 an automatic crawl could be generated. It could be

7 the characters are received at the EAS decoder, which

8 can expand out this encoded message to the following

9 crawl that you see here, which would appear across the

10 top of the screen.

11   Now, the other cool thing is that the same

12 translation or different software that it can also be

13 automatically translated into Spanish for Spanish

14 television stations.

15   All television stations are required to

16 broadcast all emergency message information visually

17 and orally. This is an important thing. The

18 information must be the same. One of the things about

19 EAS, it's noncompliant in that respect, and I'll

20 explain. It does not include the same content. For

21 example, if an Amber Alert was issued through EAS, the

22 crawl that would be generated would look like this:

23 Civil authorities have issued a child abduction

24 emergency. There is no provision for the name of the

25 child to be automatically crawled.

1   There is no provision for the license plate

2 number, or an inscription of the abductor. This is

3 the only information that is included. But more

4 important is the tornado warning.

5   This is another example. The crawl would

6 look like this. If the oral portion of the message

7 included instructions that you should take immediate

8 shelter, go to the center portion of your house, then

9 the oral portion of the message is including

10 information that the hearing-impaired would not be

11 capable of receiving. The automatic crawl generated

12 by EAS can only generate the information that you see

13 here.

14   The FCC has fined stations in San Diego and

15 other places across the country for transmitting

16 emergency information with different information

17 visually and orally, not having all of the same

18 information contained visually. So, as I said, EAS is

19 noncompliant in that respect, and it is something that

20 is a big concern to television stations, because at a

21 lot of stations right now to make sure that

22 information is compliant, the master control operator

23 on duty must retype that message to expand it out,

24 which results in delay, to have all that information

25 together.

1   So we're either delaying the message, or in

2 stations where the master control operator is not

3 there, where a station is unattended and automated,

4 the stations are really stuck with passing EAS

5 through, or not participating at all. If an

6 unattended station is relying on EAS for emergency

7 information and they risk the possibility of a fine

8 for passing through emergency information that is not

9 visual and oral, they may find it easier to withdraw

10 from local participation, since it is not a

11 requirement for local participation. And even if the

12 information was in the captioned environment, would it

13 still reach the deaf community.

14   Kay Chiodo is next. She will explain the

15 importance of using other technology to reach the

16 hearing-impaired.

17   MR. POARCH: Thank you David. If you'll

18 stay with us for just one second. Before Kay comes

19 up, I want to give the committee opportunity to ask

20 David any questions, but before we do that, we have

21 two committee members that should be on conference

22 call with us, and I just want to confirm that they've

23 been able to get in. Marcia Brooks?

24   MS. BROOKS: Yes, I'm here.

25   MR. POARCH: And Marion Dunn-Tutor?

 1   (No reply.)

 2   MR. POARCH: Okay. Marcia's with us.   If

 3 you would please, before you ask your questions, if

 4 you give your name, so that the tech folks and the

 5 court reporter can identify who is speaking. Are

 6 there any questions at this time for Mr. Ostmo?

 7   ANN ARNOLD: Could I ask you a question?

 8   MR. OSTMO: Yes?

 9   ANN ARNOLD: How many stations are opting to

10 going out and carrying the message as much as they've

11 got to be able to alert the general public and risk

12 the fine, or just stop doing EAS at all?

13   MR. OSTMO: Well, I'm most familiar with the

14 San Antonio area, where I'm the EAS coordinator, and

15 so far all of the stations in my particular area are

16 risking a fine and continuing the crawls, but they

17 have all expressed concern about continued

18 participation because of that. They are very

19 cognizant of the fines that have been received at

20 other stations across the country.   Yes?

21   DALE BARR: Can you articulate a little bit

22 the provisions that are made for preventing the

23 spoofing of an EAS message?

24   MR. OSTMO: Well, the information is

25 received for most of the local stations in the --

1 well, first of all let me back up. To make sure that

2 I understand your question, when you say "spoofing,"

3 this would be an erroneous message that would be

4 generated?

5   DALE BARR: Correct.

6   MR. OSTMO: Well, the messages would be

7 coming from the local primary stations in that

8 particular market. The stations, the local stations

9 monitor the local primary, the LP1 and the LP2. And

10 they retransmit the information that comes from them.

11 The LP1 in our particular market, we have verification

12 procedures in place, so that if an emergency alert is

13 called to that particular station, they will verify

14 that information with the originating agency.

15   We have security codes in place to make sure

16 that the person is who they say they are. The codes

17 are only released to the people who need to know that

18 particular type of information.

19   MR. POARCH: Any other questions?

20   MALE SPEAKER: David?

21   MR. OSTMO: Yes?

22   MALE SPEAKER: So you're no longing using

23 the red envelope, I guess, anymore. Right?

24   MR. POARCH: No. We have disposed of our

25 red envelopes, and we did not look at the contents.

1   (Laughter.)

2   MR. PITTS: You're using the same codes.

3 Would you be able to do this with CAP protocol? These

4 stations attempted to --

5   THE REPORTER: Excuse me. This is the court

6 reporter. I really need you to identify yourself

7 prior to speaking. Otherwise, we won't know who you

8 are.

9   MR. PITTS: I'm sorry. Billy Pitts. My

10 question is: You're using the same code that you're

11 translating here. Has there been an effort to try the

12 CAP protocol? And if CAP protocol were used for

13 emergency messages, what would you need to do to

14 essentially replicate this type of system?

15   MR. OSTMO: CAP protocol has the extended-

16 text capability, where it would have the, with an

17 Amber Alert, for example, the ability to give the

18 child's name, a description of the vehicle. The

19 receiver, depending on which system is used for that,

20 would have the ability through software, to pull out,

21 extract that information, and in theory generate a

22 crawl from there.

23   If the information is delivered in a

24 "packetized" information to the station, the station

25 should have that ability to pass it through. Again,

1 it depends on which system would ultimately be

2 adopted.

3   MR. PITTS: Thank you.

4   MR. POARCH: Anyone else? Thank you, David.

5   MS. CHIODO: Good afternoon. My name is Kay

6 Chiodo. I'm CEO of Deaf Link from San Antonio, Texas,

7 and I'm very appreciative of the opportunity to be

8 here and tell our story.

9   First of all, Deaf Link is addressing the

10 inclusion of Americans with Disability into emergency

11 preparedness, and I'm sure most of you are aware there

12 is over 30 million Americans. We're talking deaf,

13 hard of hearing, blind, and those who are deaf and

14 blind. About 11 percent of our population. Their

15 disabilities affect how they receive information.

16   And first of all, I want to address deaf.

17 As I'm sure many of you all know as well, their

18 primary language is ASL. It has no roots in English.

19 It's actually the second most taught foreign language

20 in our nation, and I think is stated as the fourth

21 most used language. So, for in order for many of them

22 to receive information, the crawls that are going

23 across the bottom of the TV screen during an

24 emergency, for many of them it's just not going to be

25 a successful way of informing them.

1   As far as blind, well I have been told by my

2   blind friends, when they hear the beep going across

3   the TV, the beep-beep, they aren't real sure. They

4   know there's something important, and they're not real

5   sure if they should just duck, or start praying.

6   And as far as hard of hearing, in some areas

7   late-breaking emergency information is not always

8   available in captioning. As far as deaf-blind, well,

9   they have little or no access at all. I have a friend

10 who is deaf-blind, and she has two children, age 12

11 and seven, and she says the majority of the population

12 feel that she has a keeper, and if she did would be

13 more than happy to let them keep the kids.

14   But she does everything from cook dinner,

15 and she says unfortunately she does do laundry. She

16 just doesn't drive them to school, and she gets out of

17 helping them with most of their homework. When her

18 husband travels, she depends on someone giving her

19 information to keep her and her family safe.

20   And I will tell you a story about Rita and

21 Katrina. When Rita was heading for Houston -- she

22 lives in Houston -- that just wasn't something that

23 was going to happen. So, we have listened to this

24 population and developed a system we hope that you all

25 will approve, on giving them information.

1   I'm going to show you a video that we made

2 with consent of the state of Texas. It's now

3 something we use across the state. We are contracted

4 with the Department of Governors' Division of

5 Emergency Management for the state of Texas, to inform

6 Texans with Disabilities, and this is being played

7 throughout our state. It's made its way across our

8 nation, and we're getting a lot of pressure to bring

9 it to you, and that's again why we're very thankful

10 for the opportunity to show you this.

11   And I was told this would take a moment to

12 load, and I wasn't supposed to do any offcolor jokes,

13 but this will explain so much more than I would be

14 able to tell you. Again, it's visual; it will show

15 you how it's done.

16   (Video plays.)

17   "NARRATOR: Many Americans have witnessed

18 images of the devastation left behind by Hurricanes

19 Katrina and Rita. The harrowing experiences of

20 persons with disabilities during these events have

21 left us with haunting testimonials.

22   (People talking in background.)

23   NEWS REPORTER: It wasn't the wind, the

24 rescue helicopters, or the calls for help that woke up

25 George Taylor. He couldn't hear any of those things.

1 George got out when he felt the cold water creeping up

2 the side of his bed. On top of the building, he kept

3 waving his arms. Help never came.

4   MR. TAYLOR: So I took some wood and other

5 things and made a makeshift raft to get my family out.

6   NEWS REPORTER: He didn't know where to go,

7 where to get help. Even when people gave him written

8 directions, George couldn't understand.

9   NARRATOR: To fully integrate people with

10 disabilities in the National Emergency Preparedness

11 effort, President Bush signed an executive order in

12 2004, directing the government to address the safety

13 and security needs of people with disabilities. As a

14 result, the state of Texas has taken aggressive steps

15 to remove communication barriers and provide a more

16 equitable and accessible system of educating,

17 informing, and protecting our citizens.

18   Deaf Link, Incorporated is proud to be a

19 part of the Texas Division of Emergency Management

20 Team, and their dedication to improving emergency

21 preparedness for over 2 million Texans with

22 disabilities. Texas addresses a national

23 misconception, that text captioning provides equal and

24 effective communication access for all persons who are

25 deaf. When emergency information is provided in an

1 English text format on a website or captioned on

2 television, that information is not equally accessible

3 for the majority of deaf persons.

4   Closed captioning best serves persons that

5 are hard of hearing, or late-deafened, who read,

6 write, speak English, and once had some degree of

7 hearing. For the majority of persons who are deaf,

8 captioning is not a viable means of communication, nor

9 does it apply to persons who are blind or deaf-blind.

10   The primary method of communication used by

11 the deaf community is American Sign Language, ASL, and

12 stands alone as its own unique language, having no

13 roots in English syntax. These are the reasons the

14 Texas Division of Emergency Management is utilizing

15 and implementing Deaf Link's Accessible Hazard Alert

16 System, AHAS, to provide access to emergency

17 information for persons who are deaf, hard of hearing,

18 blind, and deaf-blind. Within minutes of receiving

19 the state's emergency information or alert, AHAS

20 provides television stations in the affected area with

21 the same information in American Sign Language, text,

22 and voice for broadcast.

23   This same emergency information is then made

24 available on an individual basis through Deaf Link's

25 Accessible Hazard Alert System Individual

1 Notification, AHAS-IN, which sends emergency

2 information or notification of an alert to individuals

3 enrolled in the program in the modality based on the

4 recipient's disability. For the deaf, the alert is

5 made accessible as a video in American Sign Language

6 on the internet. Within minutes, a link to the video

7 is sent to the individual's e-mail or text-capable

8 wireless device. This alert can be viewed in video on

9 certain wireless devices with internet and video

10 capability.

11   For the hard of hearing, the alert is sent

12 in text via e-mail.

13   For the deaf-blind, the alert is sent via

14 e-mail for computers with Braille capability.

15   For the blind, the alert is sent via the

16 internet in voice format to their computer.

17   NEWS REPORTER: The center of Hurricane Rita

18 was located about 405 miles southeast of Galveston,

19 Texas.

20   NARRATOR: A text alert may also be sent to

21 cell phones with text voicing capability:

22   (Text voicing plays.)

23   "At 4 p.m. central daylight time the center

24 of Hurricane Rita was located about 405 miles

25 southeast of Galveston, Texas."

1   NARRATOR: During Hurricanes Katrina and

2 Rita, every Texas shelter had evacuees with special

3 communication needs that would remain unmet without

4 intervention. Critical information exchange during

5 new intakes, medical interviews, and social services

6 is lost without clear communication, causing unneeded

7 additional stress, anxiety, and frustration for the

8 evacuees and shelter staff.

9   To address this need, Deaf Link created

10 Shelter Link. Videoconferencing units are placed in

11 evacuee shelters, providing interpreting services,

12 using American Sign Language, as well as spoken

13 foreign languages.

14   The state of Texas with the help of Deaf

15 Link is setting the standard for the inclusion of

16 persons with disabilities into emergency preparedness

17 and response. For more information about how Texas

18 provides the most accessible emergency preparedness

19 system in the nation, visit Deaflink.com."

20   (Video ends.)

21   MS. CHIODO: Well, that is what we're

22 showing across Texas, and having grown up with deaf

23 and being in the business professionally for over 25

24 years, I'm still amazed at how many times we've run

25 into a situation where the hearing world doesn't

1 understand that captioning is not a complete solution

2 for many of this segment of our population.

3   And I think the best way for me to put it is

4 the gentleman that was on the video, Mr. George

5 Taylor, made a statement with one of our interpreters

6 for the new station. He said, "I don't want your

7 pity. Just give me access to the information. I'll

8 decide myself to either evacuate or to stay and die."

9   This, you know, was pretty profound to us.

10 We feel that we have a simple solution that we want to

11 show you. And again, he made a statement that we have

12 used over and over, that if they don't have access to

13 this information, we'll become part of your problem,

14 but then after that, we'll   become your casualties.

15 So we want to be able to give a timely access

16 solution to all disabilities, not just deaf.

17   Our accessible hazardous alert solution --

18 excuse me, I can sign this much better than I can say

19 it; I tried to get David to talk for me with his

20 broadcast voice -- is making this information

21 accessible to TV stations. Teaming with David Ostmo

22 in KABB in San Antonio, who's working with us now, we

23 put this information on our servers in all these

24 formats, making it available to the TV station within

25 the affected area to pull down, and to address quickly

1 what you had brought up about spoofing information,

2 that this is held on our servers and the TV stations

3 would have to have an access code to come in.

4   The information that we sign, the state of

5 Texas is making our service available even on the

6 county level, so that way if it's tornadoes, which, of

7 course, is a time-sensitive issue, those are

8 prerecorded. We do prerecorded information that's

9 there for the TV stations to pull down immediately,

10 and they do have to have an access code to get to our

11 servers for this information. And they are able to

12 strip this off.

13   We also have the TV stations say, well, if

14 we're airing this while we have a broadcaster on, they

15 can strip the voice from it and really manipulate it

16 to what works best for that end user.

17   The AHAS-IN program is an enrollment. In

18 Texas we have an outreach program. It's something

19 we're very proud of. Our deaf liaisons go right out

20 to the grassroots, bringing the people on, letting

21 them know that an AHAS alert is not going to be used

22 for anything unless it's life-threatening. This has

23 also been approved in Texas for Amber Alerts.

24   Even for something as -- I don't want to say

25 as simple as but as important as, boil the water. Who

1 is the last ones to know they should boil the water?

2 Or that there are shots available? I mean anything

3 that affects the quality of their life. So AHAS-IN is

4 proving to be an extremely important part of what

5 we're doing in Texas.

6   We take it a step beyond. In order to do

7 this, one of the first things we have to do is

8 educate. The state of Texas has taken their emergency

9 information and made it available on their website.

10 Our logo is there.

11   And I want to touch on a subject that's a

12 little bit touchy. I have different levels of deaf

13 friends. There's a term used, and it's called "high-

14 functioning," which I don't particularly care for, but

15 it's for the deaf that are able to read English. And

16 then again, we have what they call "low functioning,"

17 the deaf that are not really proficient in English.

18 Well, when it comes to Spanish in Texas, I'm

19 considered low-functioning. It's not my first

20 language. And that's something we're trying to make

21 clear with the deaf population. They need to stop

22 being embarrassed. That is not their language.

23   They have mainstream children in their

24 school systems. If you go into any school system,

25 you'll see an interpreter in that classroom. And I

1 don't know how many of you are aware of that, that

2 when a teacher is speaking -- for example today, we're

3 going to talk about a Spanish conquistador -- a lot of

4 times what's happening on their hands a majority of

5 the time is not English syntax, and it's a visual

6 language that was never meant to be written.

7   In San Antonio I watched in a classroom an

8 interpreter talking about exactly that sentence: The

9 now time right here beside me, the day, the sun going

10 down. That's a day. Spanish conquistadors. It was

11 amazing. It was the gunbelts. What is a

12 conquistador? A conqueror, a force person. Here's a

13 barrier. Force person.

14   So, when we did a group study -- and we

15 tried to do a mixture of high-functioning, low-

16 functioning -- well, it's amazing. One of my friends

17 who had graduated from Gallaudet, she said, trying to

18 trick me, we had used the sentence, shelter in place,

19 you're trying to trick me, you didn't tell me where

20 the place was. So, it's amazing that English is a

21 foreign language to the majority of these people, and

22 we hope to bridge that gap.

23   I want to show you on the next slide,

24 because this is embedded in here -- you all bear with

25 me, I have not done this by myself -- and this is how

1 Texas is educating the Texans with disability,

2 especially those who are deaf or blind. Okay? Didn't

3 work.

4   SPEAKER: It's not embedded.

5   MS. CHIODO: It's not embedded. Okay.

6 Well, if you go to the state of Texas emergency

7 website, and click on any of the logos there -- you

8 have to remember, a lot of my deaf friends do not

9 search the web. I can give them a web address, and if

10 you don't read English syntax, you do not search the

11 web. But if you look for that logo and you're given

12 an address, they have been clicking on these, and what

13 would happen, if you clicked on Smart Planning, it

14 comes up in voice and sign.

15   And it was amazing the response from the

16 deaf population. And their first was, do hearing

17 people, do they know that, do all the hearing people

18 know that, oh, yeah.

19   And I want to stress something that even I

20 was amazed about. My deaf friend said, well, I saw on

21 TV where they put up, you know, those orange barriers

22 when the water is high, she says, but I have a SUV."

23 She says, I can go through. I said, no. She goes,

24 no, I saw it on TV. The news showed and was talking

25 about people going through and how they're being fined

1 when their cars stall out. Just so happened the news

2 camera picked up when an SUV was going through.

3   So, it's very confusing. Something as

4 simple as, turn around, don't drown. And working in

5 conjunction with the carriers as well as the broadcast

6 stations, we know we can open doors that's not been

7 opened before. We'd appreciate your help and your

8 support.

9   We have the outreach program. Again, this

10 is something we do in Texas. It can be done across

11 the nation. Educate them and show them how to use the

12 system. I appreciate your time so much, and thank you

13 for the opportunity.

14   MR. POARCH: Thank you, Ms. Chiodo. Are

15 there questions? And if so, again, I would ask that

16 you speak into your microphone and identify yourself

17 for the court reporter. Questions?

18   MR. WERTZ: I have a comment. My name is

19 Bill Wertz. I have a comment. First, that

20 presentation was excellent, Kay. But I am one of that

21 11 percent. Without my hearing aids, it's a very

22 quiet world.

23   This meeting, this group, is all about the

24 future of what we are going to do, and one thing I

25 think that perhaps was omitted in this presentation

1 was the use of technology. As we move forward, I can

2 go down to a store right now and buy a Bluetooth

3 device for my TV or for my radio that will send

4 directly to my hearing aids. I can also, in fact do

5 have the ability, this phone when it rings, rings in

6 my ears. It does not ring through the normal cell

7 phone. Again using Bluetooth technology.

8   My comment is just for the diversity in

9 looking at all options without getting into an

10 editorial. ASL is in direct conflict with cochlear

11 implant technology, which won't help all deaf people,

12 but will in fact help many of those people. And once

13 a cochlear implant is in my head, then my cell phone

14 or my radio or my TV is in my head. And my comment is

15 again meant with sincerity, just that I feel that that

16 was an omission on the part of the presentation,

17 because as a hearing-impaired person, that's very

18 close to my heart.

19   MR. POARCH: Thank you. Yes, sir.

20   ED CZARNECKI: You're working with Texas

21 Emergency Management. Are you working with Texas

22 Assistive and Rehabilitative Services?

23   MS. CHIODO: They're included on the panels

24 that we meet with, yes.

25   ED CZARNECKI: Okay. Just a thought. And

 1 following on Bill's comment that DARS may be able to

 2 present a lot of information or input on technology

 3 that DM may not be completely up to speed on. So that

 4 may another avenue you might want to see to fill in

 5 some of the gaps there.   Just a thought.

 6   MS. CHIODO: I appreciate that. Yes. DARS

 7 is an important part of what we're doing. Thank you

 8 very much.

 9   MS. ARNOLD: It's Ann Arnold. Isn't the

10 simpleness of your program something that you can

11 provide to each individual what it is they need? With

12 your outreach program, they can sign up, and then you

13 can provide the internet protocol with the language

14 for the cochlear. The translation can be whatever

15 those people, each individual needs, is that correct?

16   MS. CHIODO: That's correct. We on our

17 enrollment data, we tell you to tell us what modality

18 you need it in, and where you want it sent.

19   MS. ARNOLD: So, Bill, is there a modality

20 that can be translated over the internet or over a

21 phone line to use, so that could be what would come to

22 you when you signed up for the program?

23   MR. WERTZ: I'm sorry. Say again?

24   MS. ARNOLD: Is there a modality or some

25 kind of technology that she could send to you over a

1 phone line or over the internet, that would reach your

2 cochlear implants?

3   MR. WERTZ: Again, this is Bill Wertz. I

4 suppose that using Wi-Fi and other forms of wireless,

5 WiMAX that's coming, that yes, that would probably

6 likely to come in. The cell phone will in not the

7 too-distant future evolve to where it will be in your

8 ear. And it will also be your personal computer.

9   So again looking forward technologywise,

10 there is so much and so many opportunities that will

11 soon be available to us, I just ask that we consider

12 that. That's all.

13   MR. POARCH: Yes sir, Mr. Jones?

14   MR. JONES: Thank you. Gary Jones.

15   From what I've heard in the presentation, a very

16 good presentation, by the way, this is delivered to

17 the user on a high bandwidth medium. How do you see

18 this applicable to the very narrow bandwidth and very

19 information-limited wireless systems that we're

20 working on in this committee?

21   MS. CHIODO: Well, as far as the cell phones

22 go, if we're talking about the text messages for

23 someone who is hard of hearing and needs the text,

24 that because of the limitation of the characters,

25 sending a link to that person, and especially if their

1 phone is internet-accessible, they can click on that

2 link. And afterwards, if anyone like say I have one

3 on my cell phone that was sent to me yesterday, we can

4 give you the full information without limitation on

5 characters. And as far -- and I'm trying to address

6 your question -- for the deaf who need sign language,

7 that link is available if they do not have a phone.

8   A lot of deaf carry Sidekicks, which are not

9 going to have the ability right now to play a video.

10 We can give them that link, and if they are anywhere

11 near internet or a cafe, if they need to type this in,

12 it will come up and sign invoice for them, and that is

13 coming from our servers.

14   MS. ARNOLD: So in other words, the cell

15 phone, Gary, becomes an alert to tell them to tune in

16 or to get on a computer and go to that website and go

17 to that website, where they can get the message in the

18 form that they can receive it best.

19   MS. CHIODO: Basically, you know, if we

20 could have everything we wanted today, we would have a

21 common ground with the carriers. Right now I can get

22 an alert in sign and video on my cell phone, because

23 my tech people have formatted it to my Verizon, which

24 is a window-based, and I have that as well later, if

25 you'd like to see that on my cell. It was sent to my

1 yesterday, and we do alerts every two hours within our

2 call center. Our call center is 24/7.

3   And we do alerts every two hours, just

4 whether there's one in or not. That's what we do. We

5 pull them from NOAA and have them available, so they

6 send them to me as test alerts. But if I did not have

7 the video capability, I can go anywhere, go to my

8 laptop and type it in and get the same information

9 that the hearing world may be getting on their

10 television or on a radio station.   Did I answer

11 your question?

12   MR. POARCH: Yes, sir. Please.

13   MR. JONES: Thank you. Yes. Gary Jones

14 again. It sounds like, as Ann says, as a notification

15 device. The system that we're working on would

16 certainly be appropriate. But one of the concerns

17 that the wireless community has is that we do

18 something in that notification language that causes

19 the user to immediately begin to utilize his phone to

20 access the internet, for instance.

21   That immediately takes up the bandwidth that

22 we're using to send out these alerts to other people,

23 and that cause and effect, if you will, is a concern

24 to us. But your point of giving the user a

25 notification that says, you need additional

1 information, I think that's pretty consistent with

2 what we've been considering in the committee all

3 along.

4   We do have a very limited bandwidth, we

5 can't give a lot of information, but we can make sure

6 that they're told, seek other information elsewhere,

7 in one of these high bandwidth areas that you

8 describe.

9   MS. CHIODO: Correct. The URL -- and our

10 database is built only of disabilities, so we're not

11 talking the general population. So right now, the

12 video option is only with the cell phones that we have

13 formatted for ourselves. This is something that we

14 would have to work to be able to do video with the

15 carriers as well to work with them on the technology

16 for that.

17   But sending the URL would direct them to the

18 bandwidth, as I said, with the laptop or with their

19 computer at work, wherever. It would just be for the

20 disability group. It's not something we do as a whole

21 for the population.

22   MS. ARNOLD: So Gary -- this is Ann Arnold

23 again -- they would only be sending this, having

24 people use phones or computers to go back to get the

25 full information, to a limited number of people. It

1 wouldn't be the entire population, who'd then begin

2 mass-calling and overload your system.

3   MR. JONES: Gary Jones again. I'm not sure

4 that's true, because we, the Commercial Mobile Alert

5 Service, are sending out one message --

6   MS. ARNOLD: Uh-huh.

7   MR. JONES: -- that goes to everybody in the

8 affected area. It doesn't say, currently it's not

9 envisioned to say, for special needs, you have

10 something special to do. So I'm not sure that the

11 entire population doesn't get the message with the URL

12 that's only meant for the special needs folks.

13   MS. ARNOLD: If you use the coding, it can

14 tell their machine that it's for them, and it doesn't

15 go to anybody else, and nobody else gets activated,

16 isn't that correct?

17   MS. CHIODO: Well -- this is Kay Chiodo --

18 again, how we address that -- that alert, that URL is

19 only going to be sent -- let's as an example in San

20 Antonio, if there's a chemical spill within a certain

21 given area code, we're going to pull up by area code

22 in that state, that area, and send that alert, that

23 URL, only to those people listed. It would be from

24 our servers, from us sending it out. Does that make

25 sense? I'm sorry. I want to be sure I'm explaining

1 that correctly. Yes?

2   MR. WEBB: Kay? This is Dave Webb. I'm

3 with FEMA. What I really think you're explaining is

4 an OPSCAN (phonetic) system for people with

5 disabilities.

6   MS. CHIODO: Thank you.

7   MR. WEBB: They call you. You would receive

8 the overall message, tornado warning, and then you put

9 out another message only to the disabled community --

10   MS. CHIODO: Correct.

11   MR. WEBB: -- on their phones, saying here's

12 the information.

13   MS. CHIODO: Correct.

14   MR. POARCH: Mr. Daly?

15   MR. DALY: Yes. Brian Daly.   So, as I

16 understand it, the information you would send would

17 come from your server, probably via an SMS text

18 message today to notify those individuals?

19   MS. CHIODO: Yes, sir.

20   MR. DALY: Yeah, okay. Okay. And it would

21 only go to that limited number that you would identify

22 within your database?

23   MS. CHIODO: Correct. Right now in the

24 state of Texas we do it by zip code, county, or

25 however they want it done. The possibility of doing a

1 nationwide alert, we hope that would never happen,

2 but within our database, it would be only the affected

3 area that the TV stations as well as the cell phones,

4 or any device, would get this information. Computer,

5 cell phone, whatever the designated as a place they

6 needed the information sent.

7   MR. DALY: Quick followup, if I may. Brian

8 Daly again.

9   Yeah, so it's a little bit different from

10 what we're looking at as a technology perspective

11 within this committee. We're looking at efficiently

12 transmitting to perhaps many, or an entire footprint

13 of population, and we're looking primarily at

14 broadcast methods for doing that, and able to

15 efficiently get those messages across. So the point-

16 to-point method, which you're discussing for the

17 limited population, is a little bit different from the

18 technologies we're envisioning.

19   MS. CHIODO: Well, I understand. I was

20 saying that if the cell phone providers needed to put

21 an alert out and it was within an area -- are you all

22 doing I'm assuming, and bear with me, I'm new to this

23 arena -- if you were doing a broadcast to an area that

24 had a hurricane heading that way, then you would give

25 us that same information that you're going to put out

1 to Deaf Link. And we will put it in the modality and

2 pull up that location or that area code or state, and

3 send that out. That's what we do in conjunction with

4 you.

5   MR. POARCH: Any other questions?

6   MR. WERTZ: Just one more. This is Bill

7 Wertz again. After this meeting, Brian Daly and Gary

8 Jones' groups, the CTG and UNG, are meeting, and one

9 of our issues is symbology. Is there anything within

10 your group that is an international symbology that

11 would say to a deaf person that, you do need to get

12 more information, that would be more narrow-banded,

13 acceptable within the current framework of the

14 technology? Is there international symbol for

15 distress, in essence, within the sign language?

16   MS. CHIODO: Right now with the community

17 such as deaf and deaf-blind, I'm going to say no.

18 Everyone recognizes the hurricane symbol that is being

19 used right now. But unless you can broadcast that --

20 and this is going to be an educational process, this

21 is a segment of our population that's not been

22 included in so many things. And to bring this right

23 down to the grassroots of how they're not included,

24 we're talking a segment of our population that has

25 never heard of Tupperware, Mary Kay, much less, you

1 know, preparing an emergency kit.

2   So, again, that's why the state of Texas is

3 using their website to educate. As with KABB, David

4 Ostmo, who just spoke, they are stepping a little

5 beyond that, and inviting the deaf population and

6 putting on their website, in sign, educational

7 information, what these terms mean, and what you do.

8   So it's going to be an educational process.

9 But to answer your question, right now, because it's

10 such a visual language, it's very limited. It would

11 be very limited on what you can do. As far as a full

12 inclusion that would include all segments of deaf, no.

13 I would have to say no.

14   MR. POARCH: All right, Kay, thank you very

15 much for an excellent presentation and for raising

16 issues that are certainly important to us and to a

17 large segment of our population.

18   At this time we'll move on to presentation

19 and discussions of the Advisory Committee Informal

20 Working Groups, and we'll start with the Project

21 Management Group and Jeff Goldthorp.

22   MR. GOLDTHORP: Good morning.   We

23 will do this a little bit different this time than we

24 did it last time. Last time I spoke last, and the

25 reason for that is because we had far fewer draft

1 conclusions to present to you. This time there are a

2 lot more. They are spread out amongst the different

3 working groups. So the working group leaders

4 themselves will talk about the draft conclusions that

5 apply to their working groups, and they'll be here to

6 take your questions about those.

7   I will restrict my remarks more to the, what

8 I'll call pure project management aspects of the

9 activity. As Erika said when we opened, we are at the

10 midpoint now. It's sort of the classic time in a

11 project when you swing from data collection and

12 analysis to production, and that's where we are. We

13 are not doing it as a hard cut. We have not said,

14 data analysis or data collection and analysis is

15 finished, it's time to start writing, period. But we

16 do have specific dates for getting pen to paper and to

17 get deliverables out the door. And I will talk to you

18 about the schedule that we have in mind in just a few

19 moments.

20   First of all just a word about the things

21 that have been going on since we met last time. When

22 we met last time, we went through a set of draft

23 conclusions from the PMG, and we talked about those.

24 So we have those high-level draft conclusions. We've

25 got some more lower level things to talk about today.

 1   We also had a set of more detailed questions

 2 and issues that each of the working groups have been

 3 addressing and working on and adding to. We're at a

 4 point now where it's probably time to stop adding to

 5 that list and drill down and answer all the questions.

 6 So that's where we are on that.

 7   We also, since we've met, we've defined a

 8 functional reference model, an architecture for the

 9 Commercial Mobile Alerting System. I'll go through

10 that architecture with you today. My reason for doing

11 that is to give you some context for what you'll be

12 hearing from each of the working group leaders. I

13 think it will, what they say will have more meaning

14 when you see the bigger picture. And I'll also go

15 through the drafting schedule with you today.

16   A lot of you have seen this already   ,

17 this picture, or some version of it. This is very,

18 very close to what's been circulating around amongst

19 the various working groups. It's been adopted by the

20 Project Management Group. And the importance of

21 having a reference model like this, is it gives you

22 terms and reference, it gives you a common language,

23 so that when we're talking amongst ourselves about

24 things like the B-interface or the C-interface or the

25 alert gateway, we can know what that means.

1   And there's a document that defines all of this

2 stuff that's available and has been reviewed by the

3 Project Management Group.

4   Let me just go through this thing, starting

5 from the left side of the picture and working my way

6 to the right. And I'll start top-down as well. When

7 we met last time, we talked about the idea of portions

8 of this architecture being administered by a

9 government entity. And the reason why that was

10 important was because there are certain things that

11 get done in this architecture, like authentication of

12 originators, like content management, alert content

13 management, like prioritization of alerts, that would

14 seem to be best administered by a government entity as

15 opposed to a private entity.

16   So those functions have all been embraced in

17 this box that we call at this point possibly

18 government administered, because it hasn't been voted

19 out by committee.

20   On the right side of the picture, we've got

21 the classic Commercial Mobile Service infrastructure

22 and handset technology, which will all be privately

23 administered. So, those two points are important to

24 make up front.

25   Now, another change from the very beginning,

1 and when we started out this process last December,

2 our model for alert origination was that the alert

3 interface group would essentially take inventory of

4 the alerting systems that are available out there, and

5 that we would then make a choice about which ones

6 would apply to the commercial mobile alerting system

7 that we would specify.

8   That's one way to do this. The problem with

9 doing it that way is that when you take inventory of

10 something, the inventory always changes. The minute

11 you write down a list of things that are out there, a

12 week later there's a new thing out there, or a month

13 later there's something else out there.

14   So a better way to do this, we think, is to

15 adopt what's called a trust model approach. That

16 doesn't mean that you trust everything that everybody

17 sends to you. It means that you define a set of

18 policies and protocols for authenticating alerts and

19 for identifying who is authorized to originate and

20 send alerts into the system. That's the approach that

21 we're taking, and that is one of the main functions of

22 this alert aggregation function that I'm showing here.

23   I'm showing a number of sources of alerts

24 here. I'm not meaning to imply that there's been a

25 selection made as to what the policies will be for the

1 trust model. That is something that's yet to be

2 decided. This really is a policy issue. But that is

3 something we will need to come to grips with.

4   The alert aggregation function, in addition

5 to accepting all of these sources of alerts and

6 deciding or defining which ones will then be injected

7 further or deeper into the architecture, also deals

8 with issues like prioritization and other kinds of

9 policy issues. And then it meets this what we call an

10 alert gateway at this B-reference point in the

11 interface.

12   You're going to hear from David Webb from

13 the Alert Interface Group today, and at least to a

14 point a lot of the work that's getting done in the

15 Alert Interface Group is from the B-interface to the

16 left in this picture. That's not completely true,

17 because the Alert Interface Group will also have a

18 role to play at the C-interface, which is further

19 downstream. But just for purposes here, that is

20 reasonably true.

21   The Alerting Gateway is something that comes

22 into play almost as an adapter. You can think of

23 alerts that are coming out of this alert aggregation

24 function as almost being "platform agnostic," at least

25 in principle. You know, you can have alerts here that

1 would be destined for a wireless distribution, for

2 distribution over other platforms. The alert gateway

3 is what takes these alerts and adapts them for

4 delivery on wireless delivery systems, commercial

5 mobile service systems.

6   It include profiles, carrier profiles,

7 carriers that have chosen to opt into the system will

8 have profiles on this alert gateway. The gateway will

9 format alerts for delivery over the various carriers'

10 networks that have opted into the system. The alert

11 gateway will know where in those carriers' networks

12 they are equipped to deliver alerts, so that they

13 won't be sending alerts to places where the carrier is

14 not equipped to deliver the alerts.

15   So things like that will be done in the

16 gateway formatting, and adaptation for delivery over

17 the commercial mobile service provider's network.

18   C-interface is where, what I'll call the

19 trust model ends. In other words, everything within

20 that government-administered box is sort of within

21 what you might want to call a firewall. Once you get

22 past the C-interface, you're outside the trust model.

23 Alerts that make their way to the commercial mobile

24 service provider gateway are assumed to be

25 authenticated, and that C-interface will have to be

1 secured. They're going to encrypted links. But

2 you're outside the trust model, past that point.

3   And the commercial mobile service provider

4 gateway will take those alerts, will take the

5 information about location and make decisions about

6 which cell sites need to be activated, and so forth,

7 and deliver the alerts to the commercial mobile

8 service provider infrastructure. And that

9 infrastructure is the wireless cell sites and

10 infrastructure that actually delivers the alerts

11 through handsets, which is ultimately the device where

12 the alert will be received in various forms.

13   And it isn't just one form. As the user needs

14 group is discussing, there are multiple ways that the

15 alert can be conveyed to the mobile device.

16   Now, one thing that I will mention is that

17 the Alerting Gateway Group is primarily responsible

18 for what's happening between the B and the C

19 interfaces. The Communications Technology Group is

20 primarily responsible for what's happening between the

21 C-interface and the handset. And the User Needs Group

22 has been dealing with issues, I'll say primarily at

23 the handset, although it's not completely true,

24 because a lot of what happens at the handset also

25 depends on what can be done in the infrastructure.

1   So that's kind of a breakdown of where these

2 working groups have been focusing, and give you a

3 sense of some context for what you'll hear a little

4 later in the day.

5   We do have a drafting schedule now. This is

6 it. We will be meeting as a Project Management Group

7 today to finalize that schedule, and also to finalize

8 a framework deliverable that was presented to the

9 Project Management Group at our last meeting a few

10 weeks ago.

11   The framework deliverable is intended to be

12 a vessel. Right now I won't call it am empty vessel,

13 but there's a lot of white space in the framework

14 deliverable, and that's by design. So you got to

15 start with the frame to put content into and have a

16 pretty good idea of how you want to structure the

17 content before you actually start pouring information

18 into there. That's where we'll be after today.

19   The initial drafts of content for the

20 deliverable will start coming in at the end of this

21 month. Those initial drafts are not going to be

22 detailed requirements and specifications. They're

23 going to be outlines of areas where we expect

24 requirements to be produced, where the working groups

25 expect requirements to be produced, and where they're

1 available, draft recommendations.

2   There will also be areas that still need to

3 be hammered out. So those need to be identified, teed

4 up, and we need to have a plan in place by the end of

5 the month for getting those resolved. And there will

6 be some left. I mean we're not finished with the

7 technical work yet.

8   The way this schedule roles out, is it's

9 synchronized with the Project Management Group

10 meetings that we have every month. The next set of

11 inputs to the deliverable aren't due until the end of

12 June, so we have a month to get the second round of

13 drafts in. At that point we expect to have more

14 substantive content. It's going to start looking more

15 and more like a deliverable, at that point.

16   In the meantime we'll be having Project

17 Management Group meetings and if needed we'll be

18 having conference calls. Working groups will be

19 meeting to resolve the technical issues.

20   In the middle of July, what we've targeted

21 is to have all of the technical issues finalized. It

22 may not all be written up by the middle of July, but

23 there shouldn't be outstanding technical issues still

24 floating around by the middle of July. That's our

25 target.

1   If there are still issues to settle, we will

2 have to have a very specific plan in place to get them

3 done by mid August. August 9th we'll have our third

4 round of drafts, and then the final drafts will be in

5 hand by September 7th.

6   Now, there's a fair spacing between these

7 drafts in the summer, and that's just to account for

8 the fact that in the summer I expect a lot of you

9 folks will have other things on your mind. So we're

10 trying to jump into production early, aware of the

11 fact that when summer rolls around, you know, folks

12 are less available than they are at this time of the

13 year, early in the year.

14   Final draft of the deliverable will be

15 provided to me, to the PMG chair on the 7th of

16 September, and then we will have final recommendations

17 to this committee by the end of September, so that

18 you'll have some time to look at them before the vote,

19 which will happen early in October, in plenty of time

20 for us to meet our statutory deadline on October 12th.

21   Now, let me just say that when you get this

22 draft at the end of September, this will not be the

23 first time you'll have seen any of these things.

24 Since all of you are involved in the working groups or

25 one of the working groups, you'll be seeing all of

1 this stuff. So it should not come as a surprise. By

2 having these meetings, as we're having them now, we're

3 trying to keep you abreast of what's happening as

4 things develop, so that we can identify issues that

5 need to be worked in real time. So that's our

6 drafting schedule That's how we're rolling into

7 production.

8   Next step's for the Project Management

9 Group. Critical documents that we want to finalize

10 today are the schedule -- I just went through it with

11 you, I think it's pretty close to being nailed. We

12 will do that today, and the deliverable template,

13 which I think we'll spend more time talking about

14 today; resolve the technical issues by mid July, as I

15 mentioned, and then to be composing early drafts of

16 the text, so that we're moving out of the analysis

17 mode and into the drafting mode.   That concludes

18 my remarks.

19   MR. POARCH: Are there any questions for the

20 Project Management Working Group? Thank you, Jeff.

21   The next group, Alerting Interface Working Group?

22   MR. WEBB: Thank you, Mr. Chairman. On

23 behalf of the AIG, I'd like to give everybody a little

24 update on what we've been doing for the last couple

25 months. Some of this information you have seen

1 before, as I'm sure you'll see in the next couple of

2 slides. I just wanted to reiterate, and I want to

3 thank all the members of the AIG for putting their

4 time and efforts into this project.

5   We've done quite a bit, and we've got quite

6 a bit more to go. Our current status: We have

7 tentatively defined the requirements on what you saw

8 in the slides from the PMG was the A-interface, and

9 we've collaborated with the User Needs Group and the

10 technology group on opt-out criteria. We're also

11 doing some work with them on prioritization issues.

12   Our next step is we need to look at the

13 Common Alerting Protocol fields, given the limitation

14 of characters what fields would best inform the public

15 of what the emergency is, the nature of the disaster,

16 whatever the message that we're trying to purvey.

17 There are several methods to this, and of course there

18 will be a lot of collaboration with the other groups

19 as we come to this conclusion.

20   We're also looking, as I said earlier,

21 methods of prioritization by urgency, severity, and

22 certainty, if those are required, and one of the

23 projects that our group is working on this afternoon

24 and tomorrow is the trust model that Jeff talked about

25 in the PMG briefing.

 1   The latest conclusion that we have arrived

 2 at, we put out our recommendation that we should use

 3 at least the event code and the location, the

 4 expiration, and instruction as a minimum message that

 5 will be broadcast or sent over the Commercial Mobile

 6 Services Alerting System. And that's kind of the

 7 minimum. If there's more characters available, more

 8 space, and as the CTG and AGG give us that

 9 information, we can build a more robust message at

10 that point.

11   From our March meeting, we have not heard

12 any contrary remarks to the recommendation that CAP be

13 used as a message standard, so we're moving along with

14 that conclusion that we're building everything off of

15 the CAP format.

16   Milestones. As I mentioned earlier, the

17 Alert Authorization Security, that's part of the trust

18 model, who can send alerts to which locations, how.

19 All those things need to be defined, and that's our

20 main target for the next two days. Geo-targeting

21 specifications. We're going to the county level. Can

22 we go -- you know, how are we going to -- state level,

23 county level, multiple counties? We need to look at

24 information. We need to collaborate with the CTG and

25 AGG on how that will, how we can pull all those

1 together in a CAP format and produce a message that is

2 viable to that population. And then, we're already

3 started working on our final recommendations to meet

4 the first milestone in June for the deliverable.

5 Thank you, sir. Any questions?

6   MR. POARCH: Any questions for Mr. Webb?

7 Thank you, sir. Alerting Gateway Working Group,

8 please?

9   MR. MELONE: Thanks Derek. Good morning. On

10 behalf of the Alerting Gateway Group, I'd like to

11 present the status of the progress we've made at this

12 point. My name is Anthony Melone, and it's a pleasure

13 to be here.

14   I'd like to start by talking about our

15 mission statement. And quite frankly, you'll see four

16 bullets here. And if we look back to the reference

17 model that Jeff showed in his discussion, we're really

18 very simple what the Alerting Gateway Group is all

19 about. We have the B-interface, we have the

20 C-interface. Those two pieces are very critical with

21 our group to define and work with the two groups on

22 the other side of Alerting Gateway to define what is

23 coming in. And those are the first and third bullet

24 points of our mission.

25   Once those are defined, then it becomes, the

1 principle of the Alerting Gateway is: How do we

2 translate from what's coming in from the alert

3 community and what's going to the service providers.

4 Jeff used the term "adapting," "adaptor," you can use

5 the term "translator," et cetera. But that is

6 essentially what the Alerting Gateway function and our

7 group's mission is: To create that translation in a

8 way that functionally this product can be built, can

9 deliver, and can contribute to a working system.

10   Again, I'd like to thank the participation.

11 Countless hours have been spent by members, not only

12 of this committee, but also people behind the scenes.

13 Many meetings, lots of contributions. And I'm sure

14 many more hours and contributions will come over the

15 next several months. So my appreciation to this

16 entire group.

17   So let's focus on progress since the last

18 update. First of all, on the architecture and

19 functional reference model, obviously so important

20 that there's agreement and consensus on that

21 functional reference model for further progress. As

22 Jeff mentioned, we also in the Alerting Gateway Group

23 maintain the position that was proposed that the

24 Alerting Gateway function be part of that trust model

25 and likely part of a, under the control of a

1 government entity. We feel their best positioned to

2 carry out that function.

3   In addition to that, we confirm general

4 agreement among our group with some of the PMG and CTG

5 working group assumptions and requirements. And the

6 significance of that is that it allows us in the

7 Alerting Gateway Group to move forward with the work

8 that we need to do. We are not debating the different

9 requirements or the different expectations, so now we

10 can get busy at working to deliver those to meet the

11 needs of both entities.

12   In terms of initiating our work product,

13 Jeff talked about establishing that framework

14 document. We also established our framework document

15 within the Alerting Gateway Group that will feed into

16 the overall deliverables of the committee. Within

17 that frame, there are some initial draft conclusions

18 that were established.

19   As David mentioned, on reference point B, we

20 have concluded that CAP will be the protocol coming

21 in. Obviously there are more details to be fleshed

22 out around that. But the basic foundation is there

23 and agreed to.

24   In addition to that, conclusions on the

25 C-interface as well, working with Brian Daly's group,

1 and developing the parameters, the information that

2 the service providers will need, coming to some base

3 agreements on that, and again being able to build the

4 translator that takes what's coming in, and provides

5 it in a form that service providers need.

6   In addition, we talked about security

7 requirements. The C-interface is outside the trust

8 model, at least that's the current position, and I

9 believe that will be the ultimate position. But we

10 still need security between the Alerting Gateway and

11 the service providers, and at this point in time, the

12 Alerting Gateway Group has concluded that standard

13 security protocols are very likely to meet the needs

14 there, and more detail will occur flushing out what

15 those protocols would be.

16   And then, of course, we identify the

17 additional deliverables. There is still lots of work

18 to be done between now and the October timeframe and

19 the next couple pages we'll talk about some of the

20 specifics on that.

21   First, pretty obvious, in order to build the

22 system, it has to be scalable, and to be scalable,

23 there needs to be some estimate of the volume. So

24 some work that's taking place with both the AIG and

25 the CTG is getting a good feel for what volume of

1 alerts are likely to come through. In terms of files

2 and file formats, size, et cetera, those, again, all

3 to aid in the sizing and capacity management of the

4 Alerting Gateway.

5   Carrier service profiles and work around

6 being able to build the information in the Alerting

7 Gateway that's going to categorize the capabilities of

8 the various service providers, again so we can meet

9 the needs of the translation from what's coming in

10 from the emergency alert community to the service

11 providers and being able to tailor that information to

12 the capabilities of a particular service provider.

13   And then reporting and logging requirements.

14 Obviously there is going to be information needed by

15 both the AIG and the CTG, and those requirements have

16 to be fleshed out and make sure they're available and

17 defined in this output product.

18   And then the last page talks about kind of

19 the core meat of the Alerting Gateway that's

20 functioned. And it's really broken into two separate

21 tasks: One for the text base alerting, and then one

22 for audio, video, and multimedia. But it's

23 essentially the same process. It's taking the inputs

24 coming in at the B-interface, the outputs at the

25 C-interface for these two different types of alert

1 messages, and being able to map and create all the

2 protocol mapping that needs to occur inside that black

3 box so that the specifications are in enough detail

4 that the functional element can be built and can be

5 deployed.

6   So that's what we have ahead of us. It's a

7 great deal of work, but I feel like we've made

8 significant progress and are aligned and very

9 optimistic that, you know, a solid work product will

10 be developed.

11   MR. POARCH: Are there questions for the

12 Alerting Gateway Working Group? Thank you, sir.

13 Communications Technology Working Group?

14   MR. DALY: Thank you and good morning. I

15 appreciate the opportunity to be here this morning to

16 give an update on the activities within the

17 Communication Technology Group. Again, my name is

18 Brian Daly of AT&T, formerly Cingular.

19   Reported back in December timeframe, the

20 Communication Technology Group was given a mission by

21 the committee. And that mission is to develop the

22 technical standards for devices and equipment, as well

23 as the technologies that could be used by those

24 operators that are electing to transmit commercial

25 mobile alerts.

 1   In addition, we have to realize that

 2 commercial mobile alerts isn't going to be a flash cut

 3 and available immediately. So we need to come up with

 4 a process that will allow providers to transmit alerts

 5 if not all the devices or equipment used by the

 6 provider can be capable of transmitting or receiving

 7 such alerts, and also if the provider does not have

 8 the capability to offer those alerts throughout the

 9 entirety of the service area.

10   Furthermore, we do need to look at the

11 technical standards for how to deliver alerts on a

12 priority basis by commercial mobile service providers

13 to those subscribers. And we also need to take into

14 account how to look at the transmission of alerts to

15 subscribers in alternate languages, and addition to

16 the special needs for those with disabilities and the

17 elderly.

18   Some of the issues reported back in December

19 that we were to address: First, the recommendations

20 on the technologies and methods for permitting that

21 effective transmission of messages. As we reported in

22 March, the CTG is looking primarily at service

23 profiles, which will describe the underlying delivery

24 attributes. The goal of the CTG is to define the

25 service profiles and not specific delivery

1 technologies.

2   An operator has multiple tools within their

3 tool chest for delivery of messages, and it should be

4 up to the operator to have the decision and options to

5 use which technology would be supported, given a given

6 service profile.

7   So the CTG has been focusing on service

8 profiles, and we've got four that we are looking at:

9 Text profile, which is the common denominator, an

10 audio profile to handle streaming audio, a video

11 profile for streaming video, and multimedia to handle

12 multimedia components.

13   We also need to permit the distribution of

14 alerts with appropriate priorities, and we're looking

15 toward the interface or gateway groups to provide

16 information on how those prioritizations will be

17 handled, and to deliver those over that C-interface to

18 the operator, so that we can deliver them in the order

19 received.

20   We also need to look on methods for

21 permitting targeting of alerts to specific geographic

22 regions, and I do have a slide or two on that a little

23 bit later in this presentation.

24   Next, we were asked to look at

25 recommendations on handset and device technologies

1 appropriate for alerting services. We have created a

2 device ad hoc group within the Communications

3 Technology Working Group, and we are addressing the

4 key issues surrounding handset and device

5 technologies.

6   Next is the needs of non-English

7 subscribers, as well as people with special needs,

8 including people with disabilities and the elderly. I

9 have more on the non-English subscribers in this

10 presentation, and Kay's information presented earlier

11 would be useful input into the work of the CTG, and we

12 will take that back and look at how some of that

13 information can be incorporated into some of the

14 broadcast technologies we are evaluating.

15   Next is we want to make sure that we

16 continue to evolve with technology. We have defined

17 service profiles that are not restricted to text base.

18 We are looking to the future, when more broadband

19 technologies may be available and deployed by

20 operators, and are defining service profiles for those

21 advanced networks.

22   And finally, we need to identify relevant

23 standards organizations that will standardize the

24 information that we're recommending, and those

25 recommendations for the standards organizations will

1 be provided later this summer, after all the

2 technology recommendations are known.

3   The CTG has a very dedicated group of

4 individuals. We've held monthly multiday, face-to-

5 face meetings, interim conference calls. Since our

6 last report in March, we have held two face-to-face

7 meetings and three conference calls. We do have our

8 first draft of the CTG requirements and architecture

9 document that has been circulated to the CTG, and also

10 to the PMG for internal review.

11   We are doing significant coordination with

12 the other working groups, sending liaisons over to the

13 groups, asking questions, and getting the information

14 we need in order to complete our work, developing the

15 technologies. I believe we're on track for making the

16 recommendations to the PMG, per the project schedule

17 that Jeffrey presented earlier.

18   And this is just a summary of some of the

19 statistics from the group. As of currently, we have

20 approximately more than 145 documents, which we

21 reviewed. If you look at all the revisions, we're

22 well over 200. We've had 23 liaisons bouncing back

23 between the different working groups, trying to get

24 the information that we need in order to complete our

25 tasks, and have about 20 outstanding action items at

1 this point of areas that we're focusing on.

2   And again, you know, I'd like to thank all

3 the participants. I think we have a very dedicated

4 team that's committed to making this project a

5 success, and you know, I'd just like to thank the

6 companies that are sponsoring them, and certainly

7 appreciate the effort they've provided.

8   As far as our project timelines and

9 milestones, we have a lot of activity going on over

10 the next three months. As we saw in Jeff's schedule

11 earlier, there is a significant amount of material we

12 need to be providing to the PMG, and we've identified

13 in our work plan what those deliverables need to be in

14 order that we're successful.

15   Our goal is to have a final delivery of our

16 requirements to the PMG in the August timeframe with

17 all technical issues resolved, so that in the

18 September timeframe, we're down to just addressing any

19 final comments from the different working groups.

20   We're continuing to work on the service

21 profiles, and again as I mentioned, the service

22 profiles are what we're defining rather than

23 underlying delivery technologies. We've got a text

24 profile, which I presented last time as being that

25 common denominator, and we're also looking at

1 streaming audio, streaming video, and multimedia

2 profiles as well.

3   We have defined an audio service profile and

4 the underlying working assumptions for future

5 multimedia broadcast technologies, and we are

6 continuing work on those streaming video and

7 multimedia profiles.

8   We do have some draft conclusions for audio,

9 video, and multimedia. The first one is: When we

10 talk about the audio and video, we're talking about a

11 streaming audio and video, not a real-time service.

12 What Kay had mentioned earlier is that they've got a

13 service where they have video clips, audio clips on a

14 server, and then the user can go retrieve those.

15 We're looking at broadcast technologies to get that

16 information broadcast to a user in a streaming format,

17 which is an efficient delivery mechanism, and we're

18 looking at defining service profiles for that type of

19 service.

20   Sending audio files, large audio files like

21 WAV files down to a device, via cell broadcast method,

22 really is not efficient, practical, or feasible. In

23 the future, more advanced multimedia broadcast

24 technologies may provide those capabilities to support

25 more multimedia-capable alerts.

1   Alignment is certainly necessary between the

2   alert originator and the CMAS. For example, today if

3   we look at presidential alerts in the broadcast

4   environment, broadcasters will typically carry that

5   alert in real-time audio. That's something that's not

6   really feasible on the CMAS, which we're defining,

7   especially premultimedia capabilities. So, we're

8   asking that the alert initiators need to be aware of

9   the technology capabilities to mobile devices and

10 pagers, and that these real-time messages typically

11 cannot be delivered.

12   We're also looking to the Alerting Gateway

13 for collecting and assembling text, audio, video,

14 multimedia components of the messages. If we look at

15 the CAP protocol, which David had reported that the

16 Alerting Interface Group has adopted as the protocol,

17 within there, there is a number of resource elements

18 that can be provided, which can include multimedia

19 components. If you look at how those multimedia

20 components are delivered, they may either be delivered

21 in a download embedded within the CAP message, or

22 contained on the internet somewhere. We're asking the

23 Alerting Gateway to retrieve all that information,

24 collect it, and store it on the Alerting Gateway so

25 that the operators have a central repository of that

1 information, so that they can go out and retrieve it.

2   And also there needs to be a standard set of

3 formats. Again, if you go back to the CAP protocol,

4 there is a large number of formats of audio, video,

5 and multimedia files that can be supported. Mobile

6 devices, it's not practical for a mobile device to

7 support all those formats. There is only a limited

8 number of formats that can be supported. So, some

9 sort of transcoding of the files into the proper

10 formats for the mobile device has to be made, and that

11 would be the responsibility of the wireless service

12 provider gateway.

13   When we look at broadcast technologies, one

14 issue that always seems to arise is battery life.

15 Mobile device and battery technology has progressed to

16 provide significant standby and talk times for mobile

17 devices. Subscribers' expectations are set today.

18 They know when they need to charge their phones up or

19 replace the battery in their pager devices.

20 Technologies which do provide broadcast capability may

21 have an impact on those expectations.

22   Just as an example, the European

23 Telecommunications Standards Institute released a

24 report in 2006, which talked about cell broadcast

25 maybe having a considerable drain on battery life, and

1 for that reason, mobiles are normally shipped with the

2 cell broadcast switched off. And in fact in the U.S.,

3 most of the devices don't even have the feature

4 available on them.

5   Also in 2004 the GSM Association also sent a

6 liaison over to 3GPP, which is the GSM standards

7 organization, which reported that some handsets could

8 see a reduction as much as 50 percent in the standby

9 time, with cell broadcast enabled.

10   In addition, if you increase the number of

11 languages supported, the number of messages that are

12 delivered, number of retransmissions, any alert tones,

13 how long the alert tone is given, any vibration

14 cadences, any additional handset and system

15 capabilities to support commercial mobile alerts could

16 have impacts on the battery life.

17   The CTG takes this very seriously, and has

18 set up a number of steps to address the battery life

19 issue. The first is: We want to review the existing

20 studies to make sure that they are still valid and

21 applicable to the Commercial Mobile Alert Service.

22 And we want to make sure that we've got studies

23 available for all technologies, GSM, CDMA, paging

24 technologies, et cetera.

25   We need to evaluate the battery life impact,

1 based on the user needs requirements, and we've been

2 working with the User Needs Group to understand what

3 those are. And as an example, it could be if there is

4 flashing or vibrating of the device every few minutes

5 required when the message is received, we need to

6 understand what those requirements are.

7   We also need to understand the estimated

8 frequency of the alerts and how this may impact

9 battery life, and we've asked the Alert Interface

10 Group to provide information so that we can estimate

11 that.

12   We've asked the mobile device manufacturers

13 and wireless operators within the CTG to provide an

14 analysis on the impacts, to mobile device battery

15 life, and also to look at any mechanisms that might

16 exist to minimize the impact to battery life. And we

17 also need to know if there is any trials or

18 deployments out there today that we can get some data

19 from and see what the real-life experiences are.

20   And finally, we're investigating using the

21 Idaho National Lab Wireless Test Bed to evaluate the

22 battery life issue under various alerting scenarios.

23   The next area is Geo-targeting. The CTG has

24 made a draft conclusion that the minimum of precision

25 for Geo-targeting for commercial mobile alerts will be

1 at the county level. And a service provider, however,

2 if they choose to, can target smaller areas if their

3 technology supports it and if their policy is to do

4 so, but the minimum requirement we're recommending

5 from the CTG is a county-level geography.

6   The service provider would not be required

7 to dynamically match the alert geography to the RF

8 coverage area. Trying to do a real-time RF coverage

9 analysis would be impractical for an operator to try

10 to match alert areas to that. A service provider

11 would not be required to divulge cell site

12 information, coverage information, or any RF

13 properties of their respective networks. The service

14 provider will be the sole agent responsible for

15 determining the network facilities' elements or

16 locations in transmitting a commercial mobile alert to

17 a mobile device.

18   And finally, a service provider could use

19 either the latitude-longitude coordinates or FIPS Code

20 or equivalent over reference point C. The expectation

21 is both will be provided.

22   We also have some draft conclusions for

23 alerting. The alert type we're looking at single

24 unique audio tones, and again we're looking for

25 further input from the User Needs Group on this. And

1 again we want to make sure that that audio alert tone

2 is in the audio safety limits, especially if you're

3 using Bluetooth devices, as William Wertz mentioned

4 earlier.

5   Vibration motors. Again, a single unique

6 vibration cadence, and again we're looking to the User

7 Needs Group for input on that. And again, the force

8 of the vibration will be limited by the hardware,

9 including the size of the device, so saying a unique

10 vibration is going to be somewhat device-dependent,

11 depending upon capabilities of each device.

12   The incoming commercial mobile alert will

13 not override personal audio or vibration settings on

14 the mobile device. So, if a user wants to set their

15 mobile device in vibrate only or silent mode, the

16 unique audio tone will not override that setting.

17   The next area is language support, and this

18 is one of the key issues that we've also been

19 addressing within the Communication Technology Group.

20 We've been tasked to evaluate the feasibility and

21 practicality of supporting languages in addition to

22 English. There are fundamental technical problems to

23 reliably implement languages in addition to English.

24 The first is: We as service providers don't want to

25 be responsible for language translation, so we would

1 look to the alert source to provide the message in

2 language or languages other than English, if the

3 ultimate recommendation is support muiltilanguages.

4   The additional languages will also increase

5 the cost and complexity in the handset and in the

6 network. The mobile device itself may have device-

7 character limitations, depending upon what language of

8 set is required. And additional character sets also

9 may limit the amount the amount of data that can be

10 transmitted. For example, English has a one-byte-per-

11 character encoding for the text message. Some

12 character sets take two bytes per character. So what

13 that ultimately means is: If you can transmit 70

14 characters in the available bandwidth, if it takes two

15 bytes per character, you have to halve that, and you

16 only have 35 characters available.

17   The other fundamental question is: How many

18 languages other than English are feasible and

19 practical for commercial mobile alerts? If we look at

20 the census data on a national basis, only Spanish

21 exceeds 1 percent of the households, and we've been

22 using the 1 percent threshold as a key indicator.

23   However, when we look at the census data on

24 a local basis, there are potentially more than 37

25 languages that exceed 1 percent of households, and

1 that would require greater than 16 different character

2 sets to be supported in the mobile device.

3   So ultimately you could look at support of

4 multilanguages as a pie, and each additional language

5 you add is going to cut that pie into a number of

6 pieces. So if you support two language, you have half

7 the pie for English, half the pie for a second

8 language. If you add four, as the bottom picture

9 shows, you get a quarter of that.

10   What ultimately you're going to do is

11 potentially add latency and delay to the message,

12 because you have to transmit a number of messages.

13 You may ultimately reduce the number of character

14 sets, depending upon which languages are to be

15 transmitted, and each language will proportionally

16 decrease the number of alerts supported.

17   So, at this time the CTG is continuing to

18 look at the multilanguage issue. Right now we're

19 evaluating support for Spanish as a second language

20 for commercial mobile alerts.

21   So, in summary, we are looking at several

22 key issues, including battery life and multiple

23 languages. We are working well with the other groups,

24 and we are on track for providing the recommendations

25 to the PMG by this August.   And that concludes my

1 presentation.

2   MR. POARCH: Are there questions of the

3 Communications Technology Working Group?

4   MR. PITTS: Yes, sir. Billy Pitts.

5   Brian, have you set any standards for volatile or

6 permanent memory in the handsets?

7   MR. DALY: That is one of the issues the

8 Device Working Group is looking at, and user need

9 input is definitely required for that. We need to

10 know how many messages need to be stored, if any, and

11 therefore how much memory would be required to store

12 those messages. If there is any standard symbols that

13 are going to be stored on the devices, we need to know

14 how many and what size those symbols would be.

15   But yes, that's an issue that we are dealing

16 with and working in conjunction with User Needs.

17   MR. POARCH: Other questions? Thank you,

18 sir. User Needs Working Group?

19   MR. JONES: Good morning. I'm Gary Jones

20 with T-Mobile, and I'm substituting for our chairman,

21 Jonathan Werble, for the User Needs Group report

22 today.

23   The primary mission of the User Needs Group

24 is to address the needs of consumers of commercial

25 mobile service, and that's all users. It includes as

1 a subset non-English-speaking customers as well as

2 customers with special needs. We are to develop

3 recommendations for allowing the service provider to

4 allow customers to opt out of capabilities, if they

5 wish, and we are working on the various aspects of the

6 terminal and how it would perform for the users. We

7 were given a number of tasks, and I'll address those

8 one by one as we go through the presentation.

9   Our group is maybe a little bit unique in

10 that we have a lot of different disciplines in our

11 participants. We have folks from state agencies,

12 folks from the broadcast industry, and advocates for

13 special needs. And all these folks together bring

14 together a wonderful skill set and a breadth of

15 knowledge on the needs of users, and in the case of

16 broadcasters, how those needs have been satisfied in

17 the past. So it's a good group, and I think we're

18 working very well.

19   The issues being addressed, as I mentioned

20 before, one of the big issues is the recommendation

21 under which the CMS provider would allow subscribers

22 to opt out or prevent them from receiving certain

23 classifications of messages.

24   Right now our draft conclusion is that the

25 user should have the capability of opting out of all

1 messages except the presidential-level message.

2 That's one level.

3   Second level would be able to opt out for

4 all but the most extreme types of alerts.

5   The third level is the capability of opting

6 out of only the Amber Alert notifications. We're

7 going to have a joint meeting this afternoon with the

8 Technology Devices Group, and they have a slightly

9 different view of what this opt-out, what the levels

10 should be, so we're going to work through that and

11 hopefully come up with a consensus on the

12 recommendation to be made here.

13   One of our tasks was to determine the user

14 categories, for which recommendations would be made.

15 And we've taken our lead here from the disabled

16 community advocates, and have gotten a lot of input on

17 special needs, on social science that has been

18 available to us, as well as some focus group studies.

19   We are defining the message formats for the

20 special needs using the service profiles that have

21 been defined and that you've heard about from the

22 technology group. Some of our draft conclusions for

23 the deaf and hard-of-hearing community: The unique

24 vibration signal that you'll hear about in just a

25 minute should provide a signal not only for the normal

1 consumer base, but special needs folks, and that would

2 be very helpful to them.

3   A unique audio signal should be more than

4 one frequency, so if you are like me and have a

5 particular frequency range, where I just can't hear,

6 if it's a multiple frequency range, then hopefully we

7 can capture attention that way. And not very high

8 frequency, as hearing loss tends to be most prominent

9 in the high range.

10   For blind and low vision, no particular

11 needs regarding the attention signal; however, there

12 is a need for the ability to convert the text to

13 speech. We are asking the technology group to

14 investigate that. We think there may be some special

15 handsets or special capabilities that either are

16 available now or might be available in the future to

17 be able to address the needs of this group.

18   Also some interesting ideas about high-

19 contrast display for low vision. If we use symbols,

20 we're urging that the symbols be either black and

21 white, or that the color of the symbol doesn't convey

22 any information, so there's not a difference in the

23 information for a blue circle versus a red circle.

24   For cognitive (phonetic) folks -- sometimes

25 I feel like I'm in this group -- no unique needs

1 regarding the attention symbol, but the messages

2 should be in simple language, minimize abbreviations.

3 I work primarily in the standards world, and I don't

4 think there's any place worse in the world than a

5 standards group for creating abbreviations and

6 acronyms. So we're urging that we minimize that in

7 the message and include the most critical information

8 at the very top of the message.

9   Manual dexterity: Again, no unique needs

10 for the attention signal, but we'd like to minimize

11 scrolling and manipulation of the handset. And that's

12 also pretty applicable, we think, for the general

13 population, because we don't want somebody driving

14 down the freeway -- well in D.C. it's probably 80

15 miles an hour -- scrolling through their handset and

16 trying to read it.

17   For the elderly: The elderly folks don't

18 seem to come with a particular set of limitations.

19 It's a combination of everything. So we're urging

20 that the other unique needs be taken into

21 consideration, and also avoid unfamiliar behavior on

22 the handset, that's something that's particular to the

23 emergency alert message.

24   Consequently, we've come to a draft

25 conclusion regarding all categories of users, in that

1 there should not be a special action required to turn

2 the alert off. It should be a normal action, like the

3 hangup or end button.

4   We were tasked with making a recommendation

5 on a common look and feel for the alerts. Now, we had

6 a lot of discussion about this, and the consensus

7 view, in fact the unanimous view, was there needed to

8 be a distinctive alert tone identified with emergency

9 alerts. That is a tone that is used for nothing else

10 but emergency alerts. The user can't select for his

11 ring tone. He can't select it for other message

12 tones. It's in the memory of the handset, in a

13 protected area that it would only be used for

14 emergency alerts.

15   The same for a vibrating cadence. We think

16 that cadence, whatever it's selected to be, should be

17 particular to emergency alerts. As I said, we are

18 investigating the use of common icons or symbols, and

19 see if they could be used where practical. We're

20 going to have a discussion of that in our joint

21 meeting this afternoon.

22   And the goal is to transmit as much

23 information in the limited character set that we have

24 available to us, and transmit as much information as

25 possible.

1   We're tasked with making recommendations

2 regarding the subscriptions, control notifications,

3 and the presentation formats for the messages. We're

4 working through that now, working in conjunction with

5 the other groups. We have, as you've seen by our

6 draft conclusions, we think we've made some good steps

7 forward, but there is still some additional work to be

8 done, and we're working with the CTG to do that.

9   Drafting of consumer notification that would

10 be issued by nonelecting service providers or service

11 providers who are partially electing service

12 providers. And we've had a real good discussion about

13 what "partial" means. We're taking that to be

14 applicable in a rollout of emergency alert

15 capabilities.

16   The carrier may only be able to deliver

17 alerts in a portion of his network, as he begins to

18 roll out this service, or in just a portion of the

19 handsets that he has available in his service

20 offering. So we're beginning to address that. We

21 have a full meeting of the User Needs Group all day

22 tomorrow, where this will be one of the topics of

23 discussion.

24   Going back to the issue of symbols or icons

25 to be displayed on the mobile device, on the surface

1 it sounds pretty simple. You just send down a code, a

2 little 2-bit code, that turns on an icon in the

3 handset. If you've ever noticed the screen of your

4 handset, icons are already there all the time to tell

5 you when you have a message, when you have a good

6 signal, or you get five bars or one bar, which network

7 you're attached to. So that ability is there.

8   However, there are some pretty distinct

9 issues. One is what should the symbol represent? The

10 tentative conclusion for the User Needs Group is if we

11 use the symbols, they should be used to identify the

12 initiator rather than the type of emergency. And the

13 problem there is: When you look at the symbol for a

14 tornado, for instance, for us who are familiar with

15 this, it's very apparent what that represents, but to

16 the general public, it may not be.

17   And when you see that symbol on your

18 computer screen, it's quite large and has a lot of

19 detail. When you see as an icon on a handset, it

20 loses a lot of that detail. So our tentative

21 conclusion was: If we use symbols, it will just to

22 indicate the initiator of the message.

23   Another issue is: Should these symbols be

24 U.S.-specific, or should we try to standardize those

25 globally? The issue of making them U.S.-specific is

1 that makes the handsets U.S.-specific, and carriers

2 don't like that a bit. They like handsets that are

3 mass-produced and available globally that keeps our

4 cost down. If they were U.S.-specific, what do you do

5 about roamers who roam into your territory from other

6 areas of the world? How would their handset react to

7 a 2-bit information element that is supposed to turn

8 on an icon that's not present in their handset?

9   Again, these are issues that we're going to

10 deal with in conjunction with the technology group,

11 and hopefully come with a recommendation shortly on

12 how they'd be addressed.

13   We're considering applicable use cases, and

14 we've kind of narrowed it down, in our thinking, to

15 actions that would require a person to evacuate, leave

16 the area you're in now because of that particular

17 emergency, shelter in place, or take cover, an all-

18 clear or a never-mind message, and finally a request

19 for public assistance. Case examples of those would

20 be a tornado, where you might have somebody take

21 cover, a hurricane, where you're asking them to

22 evacuate, a police emergency, sniper, subject at

23 large, man-made disasters like a nuclear accident, or

24 an infrastructure disaster like a HAZMAT spill.

25   So these are considerations that we're using

1 in our group as we evaluate the user needs, both for

2 the population as a whole, and the particular special

3 needs group.

4   So we have a lot of work to do. I think

5 we're working very well as a group, and as the entire

6 working group structure, and we start having these

7 joint meetings and work through the issues. I think

8 that's critical, and we've been doing very well at it.

9 Thank you.

10   MR. POARCH: Thank you. Are there any

11 questions for the User Needs Working Group?

12   If not, I'll ask Jeff to review the schedule.

13   MR. GOLDTHORP: Okay. Our next meeting is

14 going to be on Wednesday, July 18th, in about two

15 months. We'll have them every two months, until we

16 get to October. In the meantime, there will be

17 working group meetings. A number of you, I think

18 you're all on one of the working groups, and they're

19 meeting monthly, with conference calls as needed. So

20 there will be a very active period of time, despite

21 the season. I think even today just about all the

22 working groups are meeting.

23   But I think the main point for the

24 committee's purposes is our next meeting as a full

25 committee is July 18th, and we're looking forward to

1 seeing you then.

2   MR. POARCH: Is there any other business to

3 come before the committee?   If not, I'd like to

4 thank again David Ostmo and Kay Chiodo for their

5 presentations and thank Ann Arnold for arranging those

6 presentations. I will tell you that Lisa and Jeff

7 speak very highly of all of you on this committee and

8 the work that you're doing, and I greatly appreciate

9 that, and I look forward to working with you and

10 hearing your progress as we move toward October.

11   If there's no further business, the May

12 16th, 2007 meeting of the Commercial Mobile Service

13 Alert Advisory Committee is adjourned.

14   (Whereupon, at 11:57 a.m, the meeting in the

15 above-entitled matter was concluded.)

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<u>REPORTER'S CERTIFICATE</u>

DOCKET NO.:   N/A

CASE TITLE: Commercial Mobile Service Alert

Advisory Committee Meeting

HEARING DATE: May 16, 2007

LOCATION: Washington, D.C.

I hereby certify that the proceedings and evidence are contained fully and accurately on the tapes and notes reported by me at the hearing in the above case before the United States Federal Communications Commission.

Date: May 16, 2007

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