

**ADVANCING PUBLIC ALERT AND WARNING  
SYSTEMS TO BUILD A MORE RESILIENT NATION**

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**HEARING**

BEFORE THE

**SUBCOMMITTEE ON EMERGENCY  
COMMUNICATIONS,  
PREPAREDNESS, AND RESPONSE**

OF THE

**COMMITTEE ON HOMELAND SECURITY  
HOUSE OF REPRESENTATIVES**

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## ADVANCING PUBLIC ALERT AND WARNING SYSTEMS TO BUILD A MORE RESILIENT NA- TION

Wednesday, May 14, 2008

U.S. HOUSE OF REPRESENTATIVES,  
COMMITTEE ON HOMELAND SECURITY,  
SUBCOMMITTEE ON EMERGENCY COMMUNICATIONS,  
PREPAREDNESS, AND RESPONSE,  
*Washington, DC.*

The subcommittee met, pursuant to call, at 10:00 a.m., in Room 311, Cannon House Office Building, Hon. Henry Cuellar [chairman of the subcommittee] presiding.

Present: Representatives Cuellar, Dicks, Lowey, Norton, Christensen, Etheridge, Dent, and Miller.

Mr. CUELLAR. The Subcommittee on Emergency Communications, Preparedness, and Response will come to order. The subcommittee is meeting today to receive testimony from the Department of Homeland Security Federal Emergency Management Agency, the Federal Communications Commission, and State and local government officials concerning the state of our timely alert and warning capabilities to the public before, during and after an act of terror, disaster or some sort of emergency.

First of all, good morning and on behalf of the members of subcommittee I certainly want to welcome all of you being here with us today. We are glad that you are here to discuss the roles and responsibilities of Federal agencies, State and local governments and the private sector with respect to issuing timely alerts and warning. I think we have seen instances why those alerts have to be timely as we have seen in the past.

With the recent rash of tornados in the Midwest and Southeast and with the 2008 hurricane season just weeks away, enhancing the reliability, resiliency and the accuracy of emergency alerts of the American public is of utmost important to this committee and to the Nation. Communities and individuals need to know what steps to take in the event of a natural disaster or an act of terrorism.

I am looking forward to hearing about the efforts of FEMA and the rest of the Department of Homeland Security, what steps they are taking to carry out Executive Order 13407 on alerts and warnings that President Bush issued on June 2006, almost 2 years ago.

The executive order directed the Secretary of Homeland Security to create a comprehensive public alert and warning system for the United States. I am worried that the progress has been a little

slow, but I am sure that we will go ahead and talk about how we are making progress on this.

I look forward to hearing from the Federal Communications Commission about their role and furthering the development of the next generation of alert and warning systems. I applaud the efforts made by the Commission to comply with the WARN Act to establish technical standards for the capability to send nationwide emergency alerts by text messages to cell phones and other devices during a crisis as technology improves. We certainly need to make sure that our agencies, whether it is State, Federal or local, we keep up with the technology advances that we are seeing.

This committee will also look forward to the development of the Commercial Mobile Alert System, CMAS, for all of the millions of people in America who are attached to their cell phones and their BlackBerrys. I am sure that we have a few in this room who are attached to their cell phones and the BlackBerrys.

It is my understanding that the FCC has included the Texas State Broadcasters Association as a member of the Commercial Mobile Service Alert Advisory Committee. As a member from Texas, I say thank you very much. I am sure that they are providing valuable input to the committee's work.

Further, while I recognize that my State, Texas, is known for being the only State that provides a 24/7 emergency alert, especially for hearing impaired citizens, I want to encourage other States to begin to provide the same capabilities to its citizens.

Finally, I am interested in hearing from our own State and local witnesses who will convey the importance of alerts and warning to their constituents.

I would be remiss if I failed to mention the significant role that the NOAA and the National Weather Service play in alerts warning, and I hope in the future they can join us in this critical discussion also.

As you know, alerts and warnings are the first and most important responsibilities that State and local governments have, especially during those emergency times. We need to ensure that any national system that we implement allows decision-makers at the State and local level to have access to it.

Again I want to thank the witnesses for being here. I look forward to having your testimony on behalf of the committee.

The Chair now recognizes the ranking member of the Subcommittee on Emergency Communications, Preparedness, and Response, the gentleman from Pennsylvania, Mr. Dent, for an opening statement.

Mr. DENT. Thank you, Mr. Chairman, and good morning. Today's hearing addresses an important element of emergency preparedness—the ability to quickly communicate emergency information with the public. Emergency alerts and warnings, be it a tornado warning or an alert to shelter in place to avoid toxic fumes, have the potential to save lives and property.

Currently many State and local governments rely on storm sirens, local television, and radio broadcasters, as well as the National Weather Service's communications network to provide emergency information to the public. At the national level, the Emergency Alert System exists to allow the President to address the Na-

tion in an emergency through radio, television and satellite broadcasts.

The Federal alert and warning systems were developed years ago and do not fully utilize today's technology, such as cell phones and other wireless devices that we carry around with us. In order to bring the Federal alert and warning systems into the 21st century, the National Continuity Programs Division of FEMA is developing the Integrated Public Alert and Warning System, referred to as IPAWS.

IPAWS seeks to improve public safety through the rapid dissemination of emergency messages to as many people as possible over as many communications devices as possible. IPAWS includes a number of pilot programs to test how various technologies can work together to ensure the public receives timely information.

For instance, the Geo-Targeted Alerting System seeks to give emergency managers the ability to predict hazard zones in near real-time, collaborate on which areas to alert and what the message should be, and deliver these alerts to residents in a specific geographic area. Many State, local and even private and not-for-profit organizations have been at the forefront of improving their alert and warning systems. Many have begun testing and implementing enhanced systems that will more efficiently share target alerts and warnings. For instance, after the shootings last April on the Virginia Tech campus, some colleges and universities have implemented a text messaging system to send alerts to students and faculty members' cell phones.

My home State, the Commonwealth of Pennsylvania, has implemented a statewide alerting system and recently the southeastern counties have also implemented a free system that will allow local officials to send emergency text alerts and notifications to cell phones, BlackBerrys or e-mail accounts. Other States like New York, as we will hear a little later today, have also implemented similar programs to ensure their citizens are alerted and are able to take timely action if necessary.

I am pleased to have representatives from FEMA and the FCC to discuss the Federal role in alerts and warnings through the IPAWS program. I also look forward to discussing how the Federal Government's capabilities will be integrated with those of our partners at the State and local level, as well as which Federal agency will administer the national system once it is developed and implemented.

I also look forward to hearing from our witnesses from New York and Kansas on their capabilities to issue emergency alerts and warnings, and how the IPAWS program may complement these capabilities.

So again, Mr. Chairman, I thank you for holding this hearing today, and I yield back my time.

Mr. CUELLAR. Thank you, Mr. Dent. Other members of the subcommittee are reminded that under the committee rules opening statements may be submitted for the record.

At this time I welcome witnesses today. Our first witness is Major General Martha Rainville, a retiree, who is the Assistant Administrator for the National Continuity Programs for the Federal Emergency Management Agency within the U.S. Department of

Homeland Security. Major General Rainville is responsible for providing Federal agency leadership for the Federal executive branch continuity of operations, as COOP, and also the COG, continuity of governments and contingency programs. Again welcome, Major.

Our second witness is Ms. Lisa Fowlkes, who is the Deputy Chief of the Public Safety and Homeland Security Bureau of the Federal Communications Commission. Ms. Fowlkes oversees the Bureau of Management on critical infrastructure issues, including monitoring and analyzing the status of communications facilities during our emergencies. Again, welcome.

Our third witness is Mr. John Gibb, who serves as the Director of the New York State Emergency Management Office. He has been serving in this capacity since 2001 and has extensive knowledge and experience in emergency response, local emergency preparedness, emergency planning and emergency worker training. Welcome.

Our fourth witness is Mr. Randall Duncan, who is the Director of Sedgwick County Emergency Management, located in Kansas. Mr. Duncan also serves as the Vice Chair of the Government Affairs Committee of the International Association of Emergency Managers and is testifying in this capacity today. Again thank you very much, Mr. Duncan, for being here. We are all pleased to have you present today.

Without objection, the witnesses' full statements will be inserted in the record. I now ask each witness to summarize his or her statement for 5 minutes, and we will begin with Major General Rainville.

**STATEMENT OF MAJOR GENERAL MARTHA T. RAINVILLE (RET.), ASSISTANT ADMINISTRATOR, NATIONAL CONTINUITY PROGRAMS, FEDERAL EMERGENCY MANAGEMENT AGENCY, DEPARTMENT OF HOMELAND SECURITY**

General RAINVILLE. Good morning, I want to thank you for this opportunity to talk to you this morning about FEMA's role and further development of the Integrated Public Alert and Warning System, known as IPAWS. The Emergency Alert System with which we are all familiar has served us well, but it is based on technology that is over 15 years old. Through IPAWS, FEMA and our partners are transferring the alert system from an audio-only signal sent over radio and television to one that can support audio, video, text and data alert messages sent to residential telephones, to Web sites, pagers, e-mails and to cell phones.

The mission of the IPAWS program is simply to send one message over more channels to more people at all times and places.

My written testimony, as you said, has been submitted for the record and it lays out in detail the importance of interagency cooperation and public-private partnerships and improving the Nation's alert and warning systems, lessons affirmed through our 2007 pilot program in the gulf regions and also the next steps that FEMA will take to develop IPAWS. In the interest of time this morning I am only going to highlight a few those issues.

The success of IPAWS depends heavily on interagency cooperation and the public-private partnerships because no single entity has the ability to create all of the integrated public alert and warn-



ing system that is required. FEMA works closely with our partners at the National Oceanic Atmospheric Administration and the Federal Communications Commission to ensure coordination of effort when it comes to upgrading, improving, securing and regulating IPAWS. We also coordinate extensively with others like the Primary Entry Point Advisory Committee and the Association of Public Television Stations on system upgrades.

Congress allocated funds in the fiscal year 2005 Katrina supplemental that enabled us to deploy a suite of new alert and warning capabilities to Alabama, Louisiana and Mississippi during hurricane season 2007. For the first time these State officials had ability to send alerts via American sign language video to residents who are deaf and hard of hearing and to send prerecorded messages in Spanish for their residents who did not speak English.

These successful pilots ended on schedule in December 2007. But FEMA now, through the Homeland Security Grant Program, continues its support to State and local governments in seeking to improve their alert capabilities. In fiscal years 2006 and 2007, twenty-seven States received about \$13 million in Homeland Security grant funds to improve their alert and warning systems.

Over the next year FEMA is taking steps to improve the alert and warning infrastructure and to increase the dependability of the national system.

First, we are strengthening the Federal Government's ability to send emergency warnings directly to the American people by increasing the number of primary entry point stations from 36 to 63. This will enable Federal warnings to reach 85 percent of the American people directly, up from the current 70 percent.

Second, we are increasing the survivability and resiliency of the national alert and warning system through digital EAS. Digital EAS adds the direct transmission of a voice, video or text alert to stations across the country over the public broadcast system satellite network. It will also allow the distribution of alerts in multiple languages and in American sign language.

Later this summer FEMA will roll out digital EAS to the eight States and one Territory that previously participated in the pilot. These States are Alabama, Alaska, Florida, Louisiana, Mississippi, New Jersey, Texas, South Carolina and Puerto Rico. We will also expand digital EAS beyond these original nine locations to five more States. We are focusing on Regions 4 and 6.

Third, we are increasing the capacity of the National Alert System by incorporating NOAA and the National Weather Service infrastructure in the IPAWS architecture. Through NOAA's national network, IPAWS gains another redundant path to get the message out to State and local entities, to broadcasters and to the public.

Fourth, FEMA is coordinating with the FCC to extend the reach of IPAWS through new technology supported by regulation and rulemaking, and we are working with them to define the aggregator role in how FEMA can best support the recommendations in the FCC's first report and order.

Our goal is to ensure that a President can send an alert to the public during an all-hazards event and to support alert and warning capabilities chosen by the State and local officials to send alerts

to their residents. Together with our partners, FEMA will ensure that IPAWS is reliable, resilient and secure.

Mr. Chairman, Ranking Member Dent and members, thank you again for this opportunity to talk to you about the integrated public alert and warning system. I look forward to your questions. Thank you.

[The statement of General Rainville follows:]

PREPARED STATEMENT OF MARTHA T. RAINVILLE

MAY 14, 2008

INTRODUCTION

Good morning Mr. Chairman, Ranking Member Dent and Members of the committee. I am retired Major General Martha Rainville, Assistant Administrator of the Federal Emergency Management Agency's (FEMA) National Continuity Program (NCP) Directorate. Thank you for the opportunity to appear before you today to discuss the progress that FEMA has made over the past 2 years and to describe what we expect to accomplish in the years ahead. FEMA is the Executive Agent for the national Emergency Alert System (EAS).

It is my privilege to lead the dedicated professionals with whom I work at FEMA. At NCP, our mission is to serve the public by protecting our Nation's constitutional form of government in direct support of National Security Presidential Directive 51/ Homeland Security Presidential Directive 20 (NSPD-51/HSPD 20) and FEMA's recently released Strategic Plan. FEMA serves as the Nation's center of excellence for government continuity planning, guidance, and operations support, in direct support of FEMA's Strategic Goal No. 1: Lead an integrated approach that strengthens the Nation's ability to address disasters, emergencies, and terrorist events. FEMA also is responsible for assuring that the President can address the Nation under the most extreme circumstances and is in alignment with FEMA Strategic Goal No. 3: Provide reliable information at the right time for all users.

Under the leadership of Administrator Paulison, FEMA has weathered difficult times and today is better able to fulfill our mission of reducing the loss of life and of property and to protect the Nation from all hazards, including natural disasters, acts of terrorism, and man-made disasters. The agency has transformed into a "New FEMA," one that leads and supports the Nation in a risk-based, comprehensive emergency management system of preparedness, protection, response, recovery, and mitigation.

The emergency management landscape today is not what it was in 2001, or even in 2005 and it will not be the same 2 years from now. Together with our partners, we are helping to shape the future of emergency management. In this uncertain world, one thing is clear: No one person, agency, or group has all the answers. To that end, we are transforming our concept of "emergency management" into a disciplined approach that entails collaboration with stakeholders, thoughtful planning, and decisive execution.

FEMA's direction and authority with regard to alerts and warnings are spelled out in various Federal Statutes, regulations and directives including: Section 706 of the Communications Act of 1934, as amended (47 U.S.C. 606); Warning, Alert, and Response Network Act, Title VI of the Security and Accountability for Every Port Act of 2006, Pub. L. 109-347, 120 Stat. 1884 (2006); Section 202 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended (42 U.S.C. 5132); 47 CFR Part 11; Executive Order 12472, Assignment of National Security and Emergency Preparedness Telecommunications Functions, April 3, 1983 (amended by Executive Order 13286 of February 28, 2003; and Executive Order 13407, Public Alert and Warning System, June 26, 2006.

Our focus is to raise the level of awareness about continuity planning and increase interagency cooperation in the alert and warning community to create a more resilient government at all levels. We have laid the foundation for becoming an organization that is valued across all jurisdictions as an engaged, agile, responsive, and trusted leader and partner.

IMPROVING THE NATION'S ALERT AND WARNING SYSTEMS

In the alert and warning community, we work closely with our Federal partners at the National Oceanic and Atmospheric Administration (NOAA) and the Federal Communications Commission (FCC) to ensure that the Federal Government speaks

with one voice when it comes to upgrading, improving, securing, and regulating the EAS with support from the FCC which is responsible for ensuring that broadcasters comply with applicable Federal regulations. In 1994, the EAS replaced the Emergency Broadcast System (EBS) which has been in operation since 1963. Under FCC regulations, broadcast radio and television, cable television stations, direct broadcast satellite services, and satellite radio operators are required to carry national (Presidential) EAS alerts and to support State and local EAS alerts and tests.

We cannot always accurately predict the next disaster. But we can plan for it, and we can alert the American people—we can tell them to seek shelter before a tornado hits, we can tell them to evacuate before the rivers swell up leaving behind a trail of devastation. The Integrated Public Alert and Warning System is the Nation's next generation alert system. IPAWS is a system of systems through which FEMA is upgrading the existing EAS, creating a redundant path through Digital EAS, and supporting the distribution of alert and warning messages to residential telephones, to websites, to pagers, to e-mail accounts, and to cell phones. We cannot do everything at once so later this year we are rolling out the first increment to support digital alerts. Later on, we will roll out additional increments to support risk-based alerts, non-English language alerts and alerts for special needs communities. Throughout the increments FEMA will improve the resilience and the security of IPAWS.

We collaborate extensively with our nonprofit partners, particularly the Primary Entry Point Advisory Committee (PEPAC), the Association of Public Television Stations (APTS), and the Public Broadcasting System (PBS). Our partnership with PEPAC and its member Primary Entry Point (PEP) stations provides the foundation for FEMA's ability to send a Presidential alert to the public and provides the existing system over which most State, local, tribal, and territorial alerts are sent today. FEMA's partnership with APTS and PBS brings the PBS satellite network into IPAWS through Digital EAS. This initiative provides a redundant and resilient path over which to distribute national, State, local, tribal, and territorial alerts. It is only through our public-private partnerships that we are able to sustain, upgrade, add, and maintain the PEP stations and integrate the PBS satellite network into the IPAWS.

We recognize that there is no single solution set that will meet everyone's alert and warning requirements and that is why FEMA and our partners are looking for the most appropriate interoperable solutions for IPAWS. At the same time, we are aware of the concerns of our State partners who have invested in their own alert and warning systems. With that in mind, IPAWS is intended to be fully interoperable with those systems by establishing common protocols for alerts and warnings. It is only through a coordinated Federal response to Executive Order 13407 that we can remain focused on the primary reason for establishing IPAWS—to provide life-saving information to the American people during an emergency.

Since FEMA established the IPAWS program management office, Congress has provided us with an appropriation of \$25 million for fiscal year 2008. We are focusing our fiscal resources on upgrades to the EAS through improvements to and the expansion of the PEP stations; developing plume modeling that support geo-targeted messages; using satellite networks as a redundant path for alerts (Digital EAS); deploying a mobile EAS asset (IPAWS truck); creating standards and protocols, and engineering support.

President Bush in June 2006 issued Executive Order 13407, "Public Alert and Warning System," which established the national policy for alerts and warnings and directed a series of actions meant to improve and modernize the ability of government at all levels to communicate rapidly with the American people. The EAS currently allows the President to transmit an alert to the American people within 10 minutes through the Primary Entry Point (PEP) stations, which then travels from station to station in order to send the message over all broadcast radio and television stations, cable television stations, and satellite radio stations. While a President has never activated the national EAS, carrying a Presidential message is mandatory and takes priority over any other EAS message. To ensure that the infrastructure remains viable for a national message, FEMA tests the connections to the PEP stations on a weekly basis. If a Presidential message is ever sent, FEMA would authenticate the sender and the message.

The EAS also provides a means for NOAA, state, local, tribal, and territorial government officials to send warnings about local emergencies such as AMBER alerts, hazardous material incidents, and weather warnings. These warnings are the most common emergency messages. State, local, tribal, and territorial government officials determine the content of their alerts. The operating procedures that govern the transmission of a state, local, tribal and territorial alert are developed by the government officials and the local broadcast radio and television stations. State, local,

tribal, and territorial officials include in their state plans measures to validate their users and procedures to proscribe the frequency of alerts. The procedures then become part of the state EAS plans which are filed at the FCC. There is no Federal or other entity that reviews, validates, or authenticates a state, local, tribal, or territorial alerts sent over the EAS. FEMA does not receive data from NOAA, state, local, tribal, or territorial officials about their use of the EAS or the content of their alert messages.

The EAS has served us well, but the reality is that it is based on technology that is 15 years old. Through IPAWS, FEMA and our partners are transforming the alert system from an audio only signal sent on radios and televisions to one that can support audio, video, text, and data messages sent to residential telephones, to websites, to pagers, to e-mail accounts, and to cell phones. The mission of the IPAWS program management office is: "Send one message over more channels to more people at all times and places."

We started by re-engaging the Federal alert and warning partnership between FEMA, the FCC, NOAA, and DHS' Science and Technology Directorate. Successful execution of Executive Order 13407 requires a coordinated Federal response as no single entity has the authorities, statutes, or appropriations to accomplish IPAWS alone. By more closely working with NOAA, FEMA is developing an integrated national architecture that will provide a redundant and resilient path for alerts sent by the President, Federal, State, local, tribal, and territorial officials.

FEMA is working with the FCC to conduct assessments of the PEP stations, and with the NOAA to assess their State and local architecture. It will take us approximately 1 year to complete. This collaborative and coordinated approach will allow us to verify the dependability and effectiveness of the cascading relay system. This interoperability among Federal alert and warning systems and the States will expand the message delivery capabilities for the President, Federal, State, local, tribal, and territorial officials.

We recognize the importance of establishing a forum for the diverse alert and warning stakeholder groups. FEMA is working with DHS to identify the appropriate departmental advisory committee that we should use to establish a stakeholder subcommittee and comply with the Federal Advisory Committee Act. Until that process is complete, we are connecting with our stakeholders through national forums such as the International Association of Chiefs of Police Conference, the International Association of Emergency Managers Conference, the National Hurricane Conference, the Big City Emergency Managers' Learning and Exchange Forum, and the National Association of Broadcasters Show. We are also looking forward to participating in the upcoming FCC Emergency Alert Summit later this month.

Once we finish our coordination for the first IPAWS increment (Digital EAS), we plan to conduct town hall meetings this summer in FEMA Regions IV and VI and with Regional representatives and State emergency management personnel from the selected States.

#### LESSONS LEARNED FROM THE PILOT PROJECTS

Since 2005, FEMA has deployed several pilot alert and warning technologies to 14 coastal States. The proof of concept pilot projects allowed FEMA and the participating States to explore the viability of new alert capabilities including the ability to send targeted alerts within a specific jurisdiction; the use of digital technology to send alerts over public television stations; and the ability to send alerts as text messages to cell phones, e-mail accounts, and pagers.

Congress allocated funds in the fiscal year 2005 Supplemental Appropriations in Response to Hurricane Katrina. FEMA used \$2.5 million of the supplemental appropriations to provide for the first time a suite of alert and warning capabilities to Alabama, Louisiana, and Mississippi. I am pleased to report that the pilot projects successfully demonstrated the integration of new technologies into State emergency operations centers. With the pilots, Alabama, Louisiana and Mississippi emergency managers had the ability to send alerts over the Internet as American Sign Language (ASL) video to residents who were deaf or hard of hearing and to send pre-recorded messages in Spanish for residents who did not speak English. These successful pilots ended in December 2007. In fiscal years 2006 and 2008, 27 States, including Alabama and Mississippi, applied for and received Homeland Security Grant Program funds to improve their alert capabilities.

The pilots also served as a proof of concept and demonstrated that State and local emergency management personnel could successfully integrate modern technologies into their operations centers. The pilots also took a large step toward addressing the GAO concern that the EAS must adequately support residents who are not literate in English or who are deaf or hard of hearing.

Thanks in large part to the participation of State and local emergency managers, we learned that augmenting the reach of the EAS with alerts sent to residential telephones, cell phones, e-mail accounts, and other devices was popular with both officials and residents. Over a 4-month pilot project period, 8,000 people across three States signed up to receive alerts to their cell phones, pagers, and e-mail accounts while another 600 signed up to receive ASL video translations of alerts. Officials in the three States chose to send audio alerts to residential phones totaling approximately 200,000 calls. The 2007 pilot projects demonstrated the State, local, tribal, and territorial emergency operations centers could successfully integrate new alert and warning capabilities into their operations. Now emergency managers and State, local, tribal, and territorial officials can identify and prioritize the capabilities that are best suited to protect their residents and apply for funds through the Homeland Security Grant Program to help offset the costs.

One lesson reaffirmed through these various pilot projects is that the alert and warning tools preferred by one State may not be as useful for another State. State local, tribal, and territorial officials are well-suited to determine which alert and warning technologies will provide the appropriate protection for their residents. This complements FEMA's role to ensure that IPAWS provides an interoperable platform to accommodate the options that State officials can choose based on likely disasters in their regions and the needs of their population. FEMA is partnering with the DHS Science and Technology Directorate to establish alert and warning standards and protocols to support the ability of State, local, tribal, and territorial emergency managers to send alerts to their residents during emergencies. The standards and protocols will allow for States to select the capabilities that they need without any major reinvestments if they need to change their capabilities in the future.

We also learned that not every technology works for every scenario. While sending alerts to cell phones may be an ideal solution for a city or county, a localized or regional alert would need to be geo-targeted and sent only to a disaster-affected area to avoid overwhelming the telecommunications infrastructure. FEMA supports the guidelines and recommendations of the FCC to create a framework for delivering emergency messages through a nationwide mobile phone alert system. We are working with FCC to define the aggregator role and how FEMA can best support the recommendations in the FCC's First Report and Order, PS Docket No. 07-287.

We also successfully demonstrated the delivery of alerts to residents with special needs and learned that there are many different solutions for providing information to people who are deaf or hard of hearing. There are State, local, tribal, and territorial officials who prefer to use ASL translations of alerts while others like Dane County, Wisconsin are sending alerts to a Telecommunications Device for the Deaf (TTY) to reach their residents during an emergency. The special-needs NOAA Weather Radio is widely available (there are various options ranging in price from \$60 to \$150 that can alert residents who are deaf and hard of hearing about hazardous conditions). The radios use visual and vibrating alarms to signify that an alert is coming and transmit warnings to a liquid crystal display readout screen.

We find more and more States are using innovative approaches to alerts by adapting existing technologies to provide their residents with life-saving information. One example is Oklahoma's Weather Alert Remote Notification program which sends alerts to residents who are deaf and hard of hearing over their pagers and other wireless devices. The program, started as a pilot in 2001 and funded in part by a FEMA grant, was fully implemented in 2003. Through the Homeland Security Grant Program programs, FEMA continues to support States that request assistance for alert and warning improvements. In fiscal years 2006 and 2007, FEMA approved \$13 million in Homeland Security Grant Program funds for alert and warning initiatives to nearly half of the States.

We at FEMA know that improving the national infrastructure is critical and we must ensure that the alert and warning system will serve this and future generations. FEMA is setting the framework for Federal, State, local, tribal and territorial officials to get critical and life-saving information to residents. To ensure the viability and survivability of the national backbone, we are devoting resources to improving the PEP stations and, through Digital EAS, to creating redundant pathways for emergency messages. In conjunction with our partners at DHS S&T, we are developing standards and protocols that will better inform State, local, tribal and territorial emergency managers as they make choices about their alert and warning solutions. In this way, FEMA is ensuring that there is a redundant and resilient capability for a national message.

## NEXT STEPS FOR IPAWS

Over the next few years, FEMA is taking a number of steps to improve the alert and warning infrastructure and increase the dependability of the national system.

First, we are strengthening the Federal Government's ability to send emergency warnings directly to the American people by increasing PEP stations from 36 to 63. This will enable these warnings to be delivered to 85 percent of the American people, up from 70 percent. We began the installation of 3 new PEP stations in fiscal year 2007 and they were completed and operational in fiscal year 2008. Our immediate steps this year are to award contracts to build an additional 24 PEP stations that will provide up to 60 days of fuel and supplies, and provide an all hazards shelter. These improvements will expand the number of locations of entry point receiver stations and will ensure their ability to support alerts for sustained periods without resupply. This is a lesson learned from Hurricane Katrina and the outstanding performance of WWL AM Radio Station 870, the PEP station in New Orleans.

Second, we are increasing the survivability and resiliency of the national alert and warning system by utilizing the satellite technologies of the Public Broadcast System infrastructure. By integrating the PBS satellite network into IPAWS through the Digital EAS project, FEMA is improving the survivability of the alert and warning infrastructure. Digital EAS will eventually provide video, voice, and text messaging capabilities for a Presidential alert, and will allow the President, for the first time, the ability to distribute a message in multiple languages.

This year we will roll out the first increment of IPAWS—Digital EAS—to the eight States and one territory that previously participated in the Digital EAS pilot project: Alabama, Alaska, Florida, Louisiana, Mississippi, New Jersey, Texas, South Carolina, and Puerto Rico. We also will expand Digital EAS beyond the original nine locations to five more States—those under consideration are Arkansas, Georgia, Kentucky, North Carolina, New Mexico, Oklahoma, and Tennessee. We are currently in the discussion stages with the FEMA Regions and State emergency management personnel to finalize our plans. Depending on the results of the 2008 installations, we plan in 2009 to roll out Digital EAS to 16 additional States that are prone to weather hazards such as hurricanes, tsunamis, and earthquakes. The State Digital EAS will give State, local, tribal, and territorial emergency managers the same functionality as a Presidential message including the redundant path of the PBS satellite network for message distribution. FEMA will continue to roll out Digital EAS until there is coverage in all States and territories.

Third, we are increasing the capacity of the national alert system by incorporating NOAA's infrastructure—which is currently in use by many of the State and local emergency operations centers—into the IPAWS architecture. This year FEMA will provide NOAA with a mobile platform (IPAWS truck) that NOAA can use to temporarily re-establish alert and warning capabilities within an area affected by a disaster and to provide redundancy between the Weather Forecast Office and its transmitters if necessary.

We are also working with NOAA and the National Weather Service (NWS) to develop secure interfaces to deliver a Presidential alert to the public over the NWS infrastructure. By partnering with NOAA and making our systems interoperable, we will build a solid framework for State and local officials to use and ensure that the national EAS is reliable, redundant, and secure.

Fourth, FEMA is coordinating and collaborating with the FCC to extend the reach of the public alert system through new technology supported by new regulations and rulemaking. FEMA is committed to supporting and to building on the FCC's report and order to include cell telephone in the distribution of emergency information. The framework the FCC established is a critical step in executing Executive Order 13407 to develop a system that will allow Federal, State, local, tribal, and territorial officials to communicate with the American people under all conditions. FEMA is working with the FCC and NOAA to determine the best and most effective Federal solution to monitor and manage the integration of cell phones into the IPAWS.

Our goal is to ensure that the President will be able to send an alert to the public during an all-hazards event, and to support alert and warning capabilities chosen by State and local emergency managers to send alerts to their residents. Through the pilot project phase and now as we prepare to deploy the first permanent increments of IPAWS, FEMA is demonstrating how seriously we have taken our responsibility to deliver life-saving information to the public.

## SUMMARY

In summary, FEMA remains committed to providing the infrastructure, the guidance, and the support to ensure that the national alert system is more robust, more resilient, and more reliable so that when the next catastrophic disaster strikes, the

President and emergency managers at all levels can provide quick and accurate information to all Americans.

Mr. Chairman, Ranking Member Dent and Members of the committee, thank you again for the opportunity to speak, for your support of FEMA, and your interest in IPAWS. I appreciate the opportunity to appear before you today. Thank you.

Mr. CUELLAR. Thank you very much. Thank you. I would like to recognize now Ms. Fowlkes for 5 minutes.

**STATEMENT OF LISA M. FOWLKES, DEPUTY CHIEF, PUBLIC SAFETY AND HOMELAND SECURITY BUREAU, FEDERAL COMMUNICATIONS COMMISSION**

Mr. FOWLKES. Good morning, Mr. Chairman, Ranking Member Dent and members of the House Subcommittee on Emergency Communications, Preparedness, and Response. Thank you for the opportunity to appear before you today on behalf of the FCC to discuss our implementation of the Warning Alert and Response Network Act, otherwise known as the WARN Act.

When the President signed the SAFE Port Act into law on October 13, 2006, he enacted its component legislation, the WARN Act, thus establishing a process whereby commercial mobile service, or CMS, providers may elect to transmit emergency alerts to their subscribers. The WARN Act requires the Commission to undertake a series of actions to accomplish that goal.

I will briefly summarize those requirements and the Commission's efforts to date. By December 2006 the Commission was required to establish and reconvene an advisory committee to recommend technical requirements by which CMS providers could voluntarily transmit emergency alerts. As required by the act, the Commission established the Commercial Mobile Service Alert Advisory Committee, a diverse and balanced group of experts, including representatives of public safety organizations, the wireless and broadcast industries, FEMA, NOAA, and other experts. The committee held its first meeting on December 12, 2006 as required by the WARN Act.

Next, the WARN Act required that the committee develop and submit its recommendations to the Commission by October 12, 2007. The committee submitted its report in a timely manner, recommending an end-to-end alerting system by which alerts from Federal, State, tribal and local governments would be received by an alert aggregator which would aggregate and authenticate alerts. The alerts would then be sent to an alert gateway which would process the alert into a 90-character format that could be sent to CMS providers. The alert would then be sent to CMS provider gateways and infrastructure for processing and then ultimately transmitted to subscribers' handsets. A key part of the committee's recommendation was that the alert aggregator and alert gateway functions be administered by a Federal Government entity.

On December 14, 2007, the FCC issued a notice of proposed rule-making, seeking comment on implementation of the WARN Act, including the recommendation of the advisory committee. The Commission received over 60 comments.

As mandated by the WARN Act by April 9, 2008, the Commission was required to adopt technical requirements necessary to enable alerting capability by CMS providers. I am pleased to report that the Commission released its first report and order adopting

those recommendations on that date and thus complied with the statute.

The Commission's order adopted the end-to-end architecture for the CMAS as proposed by the advisory committee. It also concluded that a Federal Government entity should perform the alert aggregator and alert gateway functions. The Commission, however, did not designate a specific Federal Government agency to fulfill those functions. Recognizing that no Federal Government agency expressed a willingness and ability to assume these functions and that FEMA had filed comments saying that it could not legally perform those functions, the Commission pledged to work with its Federal colleagues in Congress, if necessary, to identify an appropriate government entity to fulfill these roles.

The Commission's order also adopted functional capability requirements for the CMS provider control elements of the system. In addition, it adopted technologically neutral rules requiring participating CMS providers to transmit three classes of alerts, presidential, eminent threat and amber alerts, requiring participating CMS providers to target alerts at areas no larger than the county level, and requiring participating CMS providers to include an audio attention signal and vibration cadence on CMS capable handsets.

Due to implementation issues, including network congestion concerns raised by wireless carriers during the committee's deliberations and the rulemaking proceeding, the Commission declined to require at this time that participating CMS providers transmit alerts in languages in addition to English.

With the adoption of technical requirements last month, the Commission has now turned to implementing other requirements of the WARN Act. Specifically by July 8 the Commission must adopt rules requiring noncommercial, educational and public broadcast stations to install equipment and technologies to enable the distribution and geotargeted alerts.

The statute also requires that by August 7 the Commission must adopt rules that, among other things, established the process by which CMS providers would elect to participate in the CMAS. The Commission is on track to meet both of those deadlines.

The Commission will continue to coordinate with wireless industry, public safety organizations, FEMA, NOAA and other stakeholders as we seek to advance the CMAS to full implementation. We anticipate that our Federal colleagues in FEMA and NOAA will be active participants as we move forward, and we look forward to working with them as we seek to find an appropriate Federal entity to perform the aggregator gateway function.

We also look forward to working with the public and Members of Congress to ensure that we provide an effective commercial mobile alert system.

Thank you for the opportunity to appear before you today. This concludes my testimony, and I will be pleased to answer any questions you may have.

I have also provided additional information on the FCC's implementation in my written testimony.

[The statement of Ms. Fowlkes follows:]



## PREPARED STATEMENT OF LISA M. FOWLKES

MAY 14, 2008

Good Morning Chairman Cuellar, Ranking Member Dent and other Members of the House Subcommittee on Emergency Communications, Preparedness, and Response. Thank you for the opportunity to appear before you on behalf of the Federal Communications Commission to discuss our work to satisfy the requirements of the Warning Alert and Response Network (WARN) Act and establish the Commercial Mobile Alert System (CMAS).

## INTRODUCTION

One of the FCC's primary statutory obligations is to promote the safety of life and property through the use of wire and radio communication. An essential element of that obligation is the ability to alert the American public in times of emergency. In complying with our statutory obligations under the WARN Act, the Commission has taken a significant step toward implementing one of our highest priorities—ensuring that all Americans have the capability to receive timely and accurate alerts, warnings and critical information regarding impending disasters and other emergencies irrespective of what communications technologies they use. As we have learned from recent disasters, such a capability is essential to enable Americans to take appropriate action to protect their families and themselves from loss of life or serious injury.

For over 50 years, the United States has had a mechanism in place to deliver alerts to the American public, particularly for the President to communicate with the public in the event of a national emergency. Until recently, that primary mechanism was the Emergency Alert System (EAS), a broadcast-based system that requires radio, television and cable systems to deliver emergency alerts to the country. The FCC has continued to develop the manner in which alert and warning systems take advantage of current technologies, for example, by expanding the EAS from its roots in analog television and radio to include participation by digital radio and television broadcasters, digital cable television providers, satellite radio and television, and wireline common carriers providing video programming.

Wireless services are becoming equal to television and radio as an avenue to reach the American public quickly and efficiently. According to CTIA, the wireless trade association, approximately 258 million Americans currently subscribe to wireless services. Wireless service has progressed beyond voice communications and now provides subscribers with access to a wide range of information critical to their personal and business affairs. In times of emergency, Americans rely on their mobile services for critical, time-sensitive information. Needless to say, a comprehensive mobile alerting system would bring great benefit to the public by quickly reaching people on the go, where they do not necessarily have access to broadcast radio or television.

When the President signed the Security and Accountability For Every Port (SAFE Port) Act into law on October 13, 2006, he enacted its component legislation, the WARN Act, thus establishing a process for the creation of a Commercial Mobile Alert System, whereby commercial mobile service, or CMS, providers may elect to transmit emergency alerts to their subscribers. The WARN Act required the Commission to undertake a series of actions to accomplish that goal. I am happy to report that the Commission has met all of its WARN Act deadlines to date, and has taken significant steps to facilitate the development of an effective Commercial Mobile Alert System. I will briefly summarize those requirements and the Commission's efforts to date.

## THE COMMISSION'S IMPLEMENTATION OF THE WARN ACT

First, by December 12, 2006, 60 days after enactment of the WARN Act, the Commission was required to establish and convene an advisory committee to recommend technical standards and other requirements by which commercial mobile service providers could voluntarily transmit emergency alerts. As required by the Act, the Commission established an advisory committee, the Commercial Mobile Service Alert Advisory Committee (CMSAAC), consisting of a diverse and balanced array of experts including: representatives of public safety organizations such as APCO, the International Association of Fire Chiefs and the National Association of State EMS Officials; local governments including Contra Costa County, California and the city of New York; a federally recognized Indian tribe; five major wireless carriers and an organization representing rural carriers, equipment manufacturers and vendors; the National Association of Broadcasters as well as the Texas, Michigan and Florida

State broadcasters associations; the Association of Public Television Stations; organizations representing people with disabilities and the elderly; and Federal Government agencies, including FEMA and NOAA and other experts. As required by the WARN Act, the committee held its first meeting on December 12, 2006.

Next, the WARN Act required that the CMSAAC develop and submit its recommendations to the Commission by October 12, 2007, within 1 year after enactment of the statute. The CMSAAC submitted its report to the Commission in a timely manner, recommending an end-to-end alerting system by which alerts from Federal, State, tribal and local governments would be received by an Alert Aggregator which would aggregate, authenticate and validate the alerts. The alerts would then be sent to an Alert Gateway which would process the alert into a 90-character format that could be sent to CMS providers. The alert would then be sent to CMS Providers' gateway and infrastructure for processing and then ultimately transmitted to subscribers' handsets. A key part of the committee's recommendation was that the Alert Aggregator and Alert Gateway functions be administered by a Federal Government agency. Many of the wireless carriers indicated during the committee's deliberation and in comments in the rulemaking that a federally administered alert aggregator/gateway was essential to their participation in the CMAS.

On December 14, 2007, the Commission issued a Notice of Proposed Rulemaking seeking comment on implementation of the WARN Act, including the recommendations of the advisory committee. The Commission received over 60 comments on the issues raised in the Notice.

Within 180 days of receipt of the CMSAAC's recommendations, or April 9, 2008, the Commission was required to adopt technical standards, protocols, procedures and technical requirements based on the CMSAAC's recommendations, necessary to enable alerting capability for commercial mobile service providers. I am pleased to report that the Commission released its CMAS Report and Order adopting those requirements on that date and thus complied with the mandate of the statute.

The Commission's Order generally adopted the CMSAAC's recommendations. Specifically, the Commission adopted the end-to-end architecture for the CMAS proposed by the CMSAAC. It also concluded that a Federal Government entity should perform the alert aggregator and alert gateway functions, as recommended by the CMSAAC. The Commission, however, did not designate a specific Federal Government agency to fulfill these functions. Recognizing that no Federal agency expressed a willingness and ability to assume these functions and that our sister agency FEMA had filed comments saying that it could not legally perform these functions, the Commission pledged to work with its Federal colleagues and Congress, if necessary, to identify an appropriate government entity to fulfill these roles, whether it be FEMA, another DHS entity, NOAA or the FCC.

The Commission's Order also adopted functional capability requirements for CMS provider-controlled elements of the CMAS (i.e., the CMS Provider Gateway, CMS provider infrastructure and handsets). In addition, the order adopted technologically neutral rules: (1) addressing emergency alert formatting, classes and elements and requiring participating CMS providers to transmit three classes of alerts—Presidential, Imminent Threat, and AMBER alerts; (2) requiring participating CMS providers to target alerts at areas no larger than the county-level, as recommended by the CMSAAC; and (3) requiring participating CMS providers to include an audio attention signal and vibration cadence on CMAS-capable handsets in order to ensure that people with disabilities had access to these alerts. Due to implementation issues, including network congestion concerns raised by wireless carriers during both the committee's deliberations and the rulemaking proceeding, the Commission declined to require at this time participating CMS providers to transmit alerts in languages in addition to English. With respect to the availability of CMAS alerts while roaming, subscribers will receive alert messages if the carrier operating the network has a roaming agreement with the subscriber's CMS provider and is participating in the CMAS, and the subscriber's mobile device is configured for and technically capable of receiving alert messages. Finally, the Commission determined that CMAS alerts may not preempt an ongoing phone call or data session.

#### NEXT STEPS

With the adoption of technical requirements last month, the Commission has now turned to implementing other requirements of the WARN Act. Specifically, within 90 days of our adoption of the technical requirements on July 8, 2008, the statute requires the Commission to adopt rules requiring non-commercial educational (NCE) and public broadcast stations to install equipment and technologies to enable the distribution of geographically targeted alerts by CMS providers that have elected to transmit emergency alerts. The statute also requires that, within 120 days of

adoption of CMAS technical requirements, or by August 7, 2008, the Commission must adopt rules that, among other things, establishes the process by which CMS providers would elect to transmit emergency alerts to subscribers. The Commission is on track to meet both statutory deadlines.

The Commission has—and will—continue to coordinate with the wireless industry, the public safety community, DHS, FEMA, NOAA and others as we seek to advance the CMAS to full implementation. We anticipate that our Federal colleagues at FEMA and NOAA will be active participants as we move forward, and we look forward to working with them as we seek to find an appropriate Federal entity to perform the aggregator/gateway function.

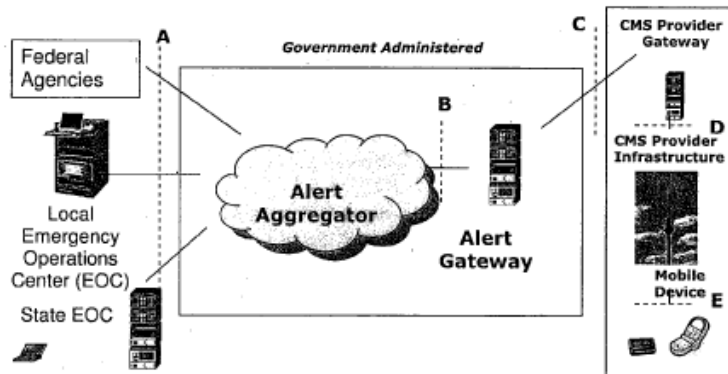
We have also received, and continue to receive, valuable input from interested individuals, State and local emergency management agencies, and various elements of the communications sector on our implementation of the CMAS. We look forward to working with these stakeholders, the public and Members of Congress to ensure that we provide an effective Commercial Mobile Alert System to the American people.

#### CONCLUSION

Thank you for the opportunity to appear before you today. This concludes my testimony and I would be pleased to answer any questions you may have.

### FEDERAL COMMUNICATIONS COMMISSION CMAS FIRST REPORT & ORDER

#### CMAS ARCHITECTURE



Mr. CUELLAR. Thank you very much for your testimony. At this time I would recognize Mr. Gibb to summarize his statement for 5 minutes.

#### STATEMENT OF JOHN R. GIBB, DIRECTOR, NEW YORK STATE EMERGENCY MANAGEMENT OFFICE, STATE OF NEW YORK

Mr. GIBB. Thank you, Mr. Chairman, Ranking Member Dent, for the opportunity to be here today. In New York we have addressed the alert and warning issue by developing NY-ALERT, which is a Web-based, all-hazards alert notification system developed by my agency, the New York State Emergency Management Office. It is

in complete compliance with the Common Alert Protocol and allows local and State officials to issue emergency information simultaneously through a series of gateways, including posting to the New York alert.gov Website, e-mails, blast faxes, text messages and also voice messages to land lines and to cell phones. It is a very robust system that we have developed over the last 11 months. We have a subscriber base of over 1.4 million New York residents.

Over the last year we partnered closely with our State university system and the City University of New York, so that now NY-ALERT is the emergency alerting platform for 55 of our State university campuses and 25 of our city university campuses. We were rolling NY-ALERT out just at the time the tragic shooting at Virginia Tech occurred.

We also have 24 of our counties in New York State are utilizing NY-ALERT now. As I said, it is very robust. Over the last 10 months, we issued over 6 million e-mails, millions of text messages and hundreds of thousands of phone calls to New York residents utilizing NY-ALERT.

We are also working with our State agencies to support their continuity of operations plans via NY-ALERT. Also to integrate Amber alerts and with our State Office of Homeland Security to develop a system of providing emergency information to the critical infrastructure community.

I am proud to say that NY-ALERT has been developed completely in-house by our staff programmers. This year Governor Paterson has made a commitment of \$5.4 million to further roll out NY-ALERT and support its operations.

One of our frustrations last year was our inability to use hazard mitigation grant funds to further the efforts, and one of our recommendations would be that the Federal Government look at that guidance to allow these types of investments to be made.

Later this year we will be unrolling a number of new enhancements to NY-ALERT which will allow notifiers to actually draw on a map the area that they want to send the emergency information to. We will be increasing our dollar capacity and making the sign-up process for users even more simplified.

I just want to say that NY-ALERT is not a pilot program, it is not a test. We are using it every day to provide emergency information to New York residents. This coming Monday our State Department of Transportation will start issuing trans alerts which will be emergency information regarding our highway systems in New York State to individuals who sign up for that feature.

We look forward to the IPAWS system as it rolls out, and we are hopeful that the Federal efforts will look at local infrastructures that are in place and integrate as effectively as possible with State and local systems that are in place.

We are also very interested in cell casting or cell bursting, the ability to issue messages to every cell phone that would see a given tower, as the CMAS system intends to do. I find it a little worrisome that for CMAS to work they will expect local officials to get an emergency message up to the Federal Government, up to the carriers and back down to the local cell towers. Obviously it would be much more effective for local emergency managers to have im-

mediate access. We are working with carriers in our State to try to integrate this capability directly into NY-ALERT.

In closing, I will just say that NY-ALERT is our State solution to alert and notification. We think it will serve us very well in the years to come, and I look forward to your questions. Thank you.

[The statement of Mr. Gibb follows:]

PREPARED STATEMENT OF JOHN R. GIBB

MAY 14, 2008

Good morning Mr. Chairman, Congressman Dent and thank you for the opportunity to appear before you today to discuss the critical importance of having a modern and robust public alert and warning capability for our Nation.

My name is John Gibb and I am Director of the New York State Emergency Management Office. Emergency alert and warning has long been a core responsibility of our government and the emergency management community. Since the ride of Paul Revere, Americans have shown that if they are provided with information about a potential threat or risk, they will take actions to protect themselves and their property. Stephen Flynn, a Senior Fellow for National Security Studies at the Council of Foreign Relations, recently cited the example of the brave American passengers on United Flight 93. Having received information of the unfolding events that morning of September 11, 2001, those selfless citizens took action and made the ultimate sacrifice to protect their fellow Americans. Given timely information, our citizens will seek to help themselves in the face of great adversity. Recent advances in technology have challenged us to re-examine how we can best disseminate critical public information to our residents. I am especially pleased to be able to discuss with you NY-ALERT which is the state-of-the-art, web-based alert and notification system that we have developed in New York.

Alert systems are not a new issue for our Nation. The Emergency Alert System (EAS) and its predecessor, the Emergency Broadcast System (EBS), have provided a platform for the dissemination of emergency information to the public and met the Federal requirement for the President to have the ability to provide information to the Nation on short notice for decades. Local systems, which at one time included civil defense siren systems in many parts of the country, now consist of a patchwork of systems that include local access to the Emergency Alert System, NOAA weather radios, reverse dialing systems, outdoor siren systems and more recently blast email and commercial text messaging services. Each of these systems is capable of notifying segments of the population, but no single outlet provides a maximum penetration of the emergency information to the public that needs to receive it. Complicating and delaying dissemination of information today is the requirement to create a message tailored to each dissemination gateway.

Presidential Executive Order 13407 in June of 2006 declared the, "policy of the United States to have an effective, reliable, integrated, flexible, and comprehensive system to alert and warn the American people in situations of war, terrorist attack, natural disaster, or other hazards to public safety and well-being (public alert and warning system), taking appropriate account of the functions, capabilities, and needs of the private sector and of all levels of government in our Federal system, and to ensure that under all conditions the President can communicate with the American people." While the executive order may be a daunting charge, it is fairly unambiguous. Twenty-three months later, however, we do not have a comprehensive new national alerting capability and as late as last month, Federal agencies were in disagreement over roles and responsibilities in administering the Commercial Mobile Alert System (CMAS) which is expected to be a national text messaging alert and warning capability.

In New York State we have NY-ALERT which is a web-based, all-hazards alert and notification system developed by the New York State Emergency Management Office. This system, designed and built by a small but visionary Information Technology staff at SEMO, is compliant with the Common Alert Protocol (CAP) and allows public officials to simultaneously broadcast emergency information through series of gateways. From a secure website, local and State public safety and elected officials can provide emergency information via the Emergency Alert System (EAS); email; blast faxes; text messages to cell phones; posting to the NY-ALERT website ([www.nyalert.gov](http://www.nyalert.gov)); RSS (real simple syndicate) feeds from the [nyalert.gov](http://nyalert.gov) website; and voice messages to landline and cell phones. The unique quality of NY-ALERT is that you only create the message once. When the person making the notification sends the message, all of the "gateways" chosen by the notifier are activated simul-

taneously and the emergency information is delivered to users as close to instantly as the individual technologies allow.

NY-ALERT allows subscribers to sign-up via the internet and dictate how they want to be notified and what types of events they want to be notified of. Subscribers can designate multiple email addresses, cell phones, and landline phones to receive emergency information. They can choose the geographic areas they are concerned with down to the town, village or city level. Subscribers can also choose the type of emergencies they want to be notified of and the severity or urgency of the event. We will be announcing a number of enhancements of the system in the next several months which will even further improve the service to our citizens.

We have been utilizing NY-ALERT statewide for the past 11 months. Last year as NY-ALERT readied completion, the tragic shooting at Virginia Tech occurred. Much of our initial efforts shifted to adapt NY-ALERT to campus alerting needs. Our NY-ALERT team headed by SEMO's Assistant Director for Technology Kevin Ross worked closely with university campus safety and information technology officials to tailor NY-ALERT to the task. As a result, NY-ALERT is now the alert and warning system for 55 of our State University campuses and 25 of the City University of New York campuses. NY-ALERT has been activated numerous times to disseminate campus related safety information including campus closures for weather events and security related issues.

Twenty-four New York counties are currently using NY-ALERT with additional with additional jurisdictions coming on board each week. We have more than 1.4 million subscriber records already accessible through NY-ALERT. We are also able to import E911 data from participating counties and support "notification" groups which allows targeted, private notification of specific groups of individuals using the NY-ALERT infrastructure. In the past 10 months NY-ALERT activations have issued more than 6 million emails, millions of text messages, and made hundreds of thousands of phone calls with emergency information. With NY-ALERT's flexibility, our State Department of Transportation, effective this coming Monday, May 19, will be sending email and text message "TransAlerts" providing subscribers with critical information regarding highway closures, accidents and significant delays. We are working with the State Division of State Police to integrate NY-ALERT for their use including the ability to quickly activate AMBER Alerts via the system as well. Our State Office of Homeland Security is preparing to use the system to share information with their public and private sector partners by creating secure notification groups. Through this system, the Office of Homeland Security will be able to alert critical infrastructure sector partners of new information available, provide threat intelligence, and send supporting documentation via attachment quickly to their partners.

I am proud to tell you that NY-ALERT has been designed and built using State resources. Governor Paterson has made a significant commitment of \$5.4 million in this year's State budget to further enhance and support the system. One of our frustrations last year was that we were not allowed to use available Hazard Mitigation Grant Program dollars to enhance our NY-ALERT phone dialer capacity. Federal guidance on the use of mitigation funding should be revisited to ensure that investments in emergency alerting capabilities be allowed.

Later this year we will be announcing additional enhancements to NY-ALERT including state-of-the-art capabilities such things as additional dialer capacity, a geographic interface allowing the public safety official making the emergency notification to designate on a map the area that they want notified and the ability for people who receive emergency information to respond back to the notifier.

This is not a test. NY-ALERT is not a pilot program. It is being used on a daily basis to provide New Yorkers with emergency information. Moving forward we know that we will have to work closely with FEMA as the Integrated Public Alert and Warning System (IPAWS) evolves. It has not been made clear to us when the IPAWS implementation timeline will impact New York, but it would seem to make sense that any Federal efforts would leverage existing State capabilities like NY-ALERT. NY-ALERT works now. It can as easily support Federal notification needs as it does local needs.

Cell bursting or cell casting—the ability to send text messages to all cell phones that "see" a given cell tower—is an important capability and we are working with cell providers to add that function to NY-ALERT. As I understand it, the Commercial Mobile Alert System (CMAS) recently announced by the FCC, which uses this the cell bursting capability, will require messages to get to the Federal officials (agency yet undetermined) who will then activate the CMAS. We need to find a way to integrate CMAS with existing systems like NY-ALERT that would allow local emergency officials to access this capability. Every emergency is local and the prospect of sending an important emergency message from a local jurisdiction to the

Federal Government, who will then send it to the carriers, to ultimately get back down to local cell towers, is worrisome.

In closing, I feel very confident in saying that NY-ALERT is our State's solution to our alert and warning needs and a best practice that other States and the Federal Government can draw upon in designing an integrated State, regional or national alert, notification and warning system.

Mr. CUELLAR. Thank you, Mr. Gibb, for your testimony. At this time I would recognize Mr. Duncan to summarize his statement for 5 minutes.

**STATEMENT OF RANDALL C. DUNCAN, VICE CHAIR, GOVERNMENT AFFAIRS COMMITTEE, INTERNATIONAL ASSOCIATION OF EMERGENCY MANAGERS**

Mr. DUNCAN. Good morning, Chairman Cuellar, Ranking Member Dent, distinguished members of the subcommittee. Thank you for this opportunity to testify. I am Randall C. Duncan. I serve as the Emergency Management Director for the half million folks who live and work in Sedgwick County, Wichita, Kansas.

We are subject to a number of different hazards in that location, flooding, severe storms, both winter and summer, tornadoes, and drought. In fact Kansas ranked third in the Nation, unfortunately, for tornados on an annual basis. Warning in Sedgwick County is accomplished through a multi-layered system. We do that to ensure wide dissemination and redundancy for the information.

The first layer of the system we utilize is outdoor warning sirens. We have approximately 140 of them covering our county. We also have a very close partnership with local radio and television stations. Our next layer of warning relies on the NOAA National Weather Service all-hazards radio.

For those who are served by the cable television provider in our area there is also a limited override system that allows displaying of a message, urging folks to tune to local television stations to find out more information.

What ultimately makes all these layers of warning work, however, is citizens with the training who know what to do, when to do it, when they receive that alert and warning. In fact, the most technologically sophisticated warning system possible will fail if people don't take the right action at the right time.

In order to ensure that our public knows what to do, my staff and I provide annual training, reaching thousands of people, and we have done so in partnership with the National Weather Service now for more than 15 years. The National Weather Service assessment after the May 3, 1999 Wichita/Haysville F4 tornado credited that program with reducing the loss of lives expected from such an event.

Sedgwick County also utilizes tools provided by FEMA in alert and warning. One of the most important of those is the National Warning System, or NAWAS. We utilize that for discussions between counties and between the counties and the National Weather Service to talk about hazards facing local government as well as severe weather.

The multi-layer warning system we utilize in Sedgwick County, however, can be improved. The outdoor warning sirens are activated by a single radio signal that provides for sounding them in either all or nothing format. Essentially this is technology un-

changed from World War II. We are looking into improving the system. One alternative we are examining, automated outbound telephone warning, would cost us about \$400,000 on an annual basis. Another alternative, changing the radio system to allow for a higher level of technology, would cost about \$750,000.

We do want to emphasize, as our colleagues have here, alert and warning is first and foremost a role of local government. If changes are made to create a National Warning System to support local governments in their responsibility for issuing warnings, we need to make sure that these changes will not add more time to the process.

Picture in your mind a sunny spring morning in Kansas. The day starts with a breathtaking sunrise followed a short time later with oppressive humidity. When there is a hint that thunderstorms are beginning to form and they move into Sedgwick County, we activate our volunteer severe weather spotter system. Our system consists of specially trained citizens who are also licensed amateur radio operators, in addition to members of law enforcement and the fire department from the County's 20 cities. Our spotters are linked with our EMA program through our trunked radio system as well as with first responders, the hospital community, the National Weather Service.

If a tornado is indicated by radar or confirmed by spotters, we discuss it with the National Weather Service. Ideally the decision by the National Weather Service to warn and the decision by our EMA to activate the outdoor warning sirens will be reached simultaneously. This reinforces the importance of the warning to the public.

In conclusion, alert and warning is first and foremost a duty of local government. A mere minute can mean the difference between life and death. Any Federal warning system must have FEMA in a key role as they are the only Federal partner with a mission covering all hazards. Congress should continue to support the vital work of the National Weather Service and recognize WFOs are a key link in this process. Improvement to warning system consists not only of equipment and technology, but training and outreach so people do the right thing at the right time.

I am happy to stand for any questions the committee may have at this time, and thank you.

[The statement of Mr. Duncan follows:]

PREPARED STATEMENT OF RANDALL C. DUNCAN

MAY 14, 2008

Chairman Cuellar, Ranking Member Dent, and distinguished members of the subcommittee, I would like to thank you for this opportunity to testify today on the vitally important topic of public alert and warning.

I am Randall C. Duncan, and I have the privilege of serving as Emergency Management Director for the nearly 500,000 people who live and work in Sedgwick County and the city of Wichita, Kansas. My staff and I are responsible for mitigation, preparedness for, response to, and recovery from emergencies and disasters whether natural, technological, or homeland security in origin. I have served in my current community for nearly 10 of my 22 years in this field. During that time, I have administered nearly a dozen Presidential declarations of major disaster and emergency for events ranging from tornadoes and floods to severe winter storms. I had the opportunity to provide support to FDNY in the aftermath to the events of September 11, 2001 at the Incident Command Post in Manhattan (from September



18–28, 2001). I have also served two Governors of Kansas as their appointee to the Kansas Commission on Emergency Planning and Response (State Emergency Response Commission). I have served as the chair of that body for the last 2 years. I also serve as the vice-chair of the International Association of Emergency Managers (IAEM) Government Affairs Committee. Although today, my remarks are addressed to you primarily in my capacity as a local government emergency manager.

I would like to begin the discussion about this important topic with you by describing the alert and warning system currently in place within my jurisdiction, and some of the timing elements that are associated with it. Then, I'd like to discuss a few broader issues relating to the general powers of the various levels of government. I would then like to take a few moments to try and paint for you a portrait of severe weather in Kansas to illustrate the issue of alert and warning from the local perspective. Then, I'd like to conclude with some recommendations and suggestions for consideration of the subcommittee.

Sedgwick County is the home to Wichita, Kansas, the largest city within the State (nearly 360,000). It is also home to many aircraft manufacturers—like Boeing Military, Spirit, Hawker Beechcraft, Cessna, Bombardier and others. The county physically covers 1,008 square miles—about average area for a county in Kansas. It includes densely populated urban areas, suburban areas, and rural areas.

Wichita and Sedgwick County are subject to a number of hazards. Foremost among them is flooding; followed by severe storms (both winter and summer), tornadoes, and drought, according to the 2006 version of the Sedgwick County Hazard Vulnerability Analysis ([http://www.sedgwickcounty.org/emermgmt/2006\\_hazardous\\_analysis\\_plan.pdf](http://www.sedgwickcounty.org/emermgmt/2006_hazardous_analysis_plan.pdf)). The State of Kansas ranks third in the Nation for the frequency of tornadoes on an annual basis. This makes the issue of public alert and warning very important.

#### WARNING SYSTEM WITHIN SEDGWICK COUNTY

Warning within Sedgwick County is accomplished through the use of a system with multiple layers—to ensure wide dissemination of information and redundancy in the system. The first layer of the system—and the thing people are probably most familiar with on the high plains—is the outdoor warning system (some call them storm sirens). In Sedgwick County, we have approximately 140 of them covering the entire county (See Exhibit A). In addition to this layer of warning, we also have a very close partnership with the electronic media in the area—both radio and television. The next layer of our system of warning relies on the NOAA all hazard radio system. For those who are served by the cable television provider in the area, there is also a limited “over ride” system allowing a message directing people to tune to a local television station to find out more information about the emergency causing the message to be displayed. What ultimately makes all these layers of warning work, however, are the citizens with training who know what to do and when to do it when they receive the alert and warning. In fact, you can have the most sophisticated warning system possible—but if people fail to take survival-oriented action after receiving the warning, then the system will fail.

In order to ensure that the public does know what the appropriate actions are, my staff and I make appearances in each of the 20 cities within Sedgwick County at the beginning of tornado season and provide training that literally reaches thousands of people. This outreach program is conducted in partnership with the National Weather Service, and has been in existence for more than 15 years. In fact, in the National Weather Service assessment conducted in the aftermath of the May 3, 1999 Haysville/South Wichita tornado, this training program is credited with saving many lives.

Sedgwick County—like most of the other counties in the State of Kansas—also utilizes tools provided by FEMA to assist in alert and warning. For example, the National Warning System (NAWAS) “State” side circuit (telephony) is utilized for discussions between counties and the National Weather Service to communicate information about severe weather and other hazards facing local governments. This allows for the timely dissemination of warning through local means to the people of the impacted jurisdiction. For example, if a tornado were in the county to the west of mine moving into my county, that emergency manager could pick up the NAWAS drop, activate the “push-to-talk” button and let me know what is happening with the storm as it crosses jurisdictional boundaries. This tool has been utilized by emergency management programs I have been associated with for over 15 years now—and has existed for a longer period of time across the Nation. At the Federal level, this system exists to allow information from the President to be widely disseminated in case of a national emergency. While local governments utilize this sys-

tem on almost a daily basis, the President has never utilized the system for its originally designed purpose.

#### VULNERABILITIES OF THE EXISTING WARNING SYSTEM

The current warning system in Sedgwick County—especially the outdoor warning sirens—has room for improvement. These sirens are activated by a single radio signal that provides activation in an “all or nothing” format. This is, essentially, technology unchanged from World War II. In addition, these outdoor warning devices are connected to commercial electrical distribution, and in the absence of commercial power, they will simply not function. That is why our system of alert and warning consists of multiple, redundant layers. We are looking into improving this system, but the costs pose problems. One alternative we are examining, which would shift the warning paradigm from outdoor sirens to automated outbound telephone warnings, would cost approximately \$400,000 annually in service contracts. Another alternative, changing the technology in the radio system to allow for individual or group activation of the outdoor sirens is anticipated to cost \$750,000 for a portion of our existing system.

#### ROLE OF GOVERNMENT IN WARNING

Alert and warning is, first and foremost, a role of local governments. If there is any change to the warning system, we need to make sure that the change will not add more time to the process. In addition, any system at the Federal level needs to be designed to clearly indicate it supports the local governments in their alert and warning role. Any proposed Federal system will also have to have provision for local governments to access it as, for example, the current NAWAS system does.

I would also be remiss if I failed to mention the close working relationship between local emergency managers and the National Weather Service Weather Forecast Officers.

#### A SEVERE WEATHER PORTRAIT

Picture in your mind a sunny spring morning in Kansas. The day starts beautifully with a breathtaking sunrise. Not too long after that, we begin to notice that things are getting a bit “muggy.” We are small observers to a large aerial battle taking place between a mass of warm, humid air moving northward from the Gulf of Mexico on the low level jet stream and a mass of cool, dry Canadian air being funneled eastward down the slopes of the Rocky Mountains. They will clash along a front, most likely located over the State of Kansas. The skirmishes between these air masses won’t consist of Improvised Explosive Devices (IEDs)—instead, they will consist of rapidly growing and exploding cumulus clouds that will eventually produce severe thunderstorms on the high plains.

Emergency Managers in the areas that might be potentially affected will be in communication with their local Weather Forecast Office of the National Weather Service. In my own case, I would be on the telephone or exchanging e-mail with Meteorologist-In-Charge Richard Elder at the WFO Wichita. Through the Internet and other sources, we would follow the discussion between local meteorologists and the Storm Prediction Center in Norman, Oklahoma to find out whether a weather watch will be warranted.

Watches for this type of severe weather—whether thunderstorms or tornadoes—are typically issued for a 6-hour period of time. Once the watch is issued, emergency managers begin to make contact with traditional first responders (law enforcement, fire, emergency medical services, public works, hospital community, etc.) to make sure they are aware of the potential for severe weather. Then, the sometimes long job of watching for developments on satellite photos and radar systems begins. When there is a hint that thunderstorms are beginning to develop and that they may move into Sedgwick County, we activate our volunteer severe weather spotter system to become ready to deploy. In our case, this volunteer system consists not only of specially trained citizen volunteers who are also licensed amateur radio operators, but it also consists of members of law enforcement and fire departments within the 20 cities located inside Sedgwick County. Our goal is to have any severe weather met at the jurisdictional border by our spotters, and observed constantly as it moves through and eventually out of Sedgwick County. All of our spotters are linked with our Emergency Management program through our 800 MHz Public Safety trunked radio system. This allows key partners like the National Weather Service, law enforcement, fire, emergency medical service, the hospital community (through the Emergency Department) and the media to be immediately apprised of what is happening with severe weather. Another means of accessing this informa-

tion is provided to the media and general public through our web site (<http://www.sedgwickcounty.org/emergmt/PublicLogList.cfm>).

Once the National Weather Service has the indication of a tornado beginning to form in the upper areas of the storm from their Doppler radar system, they will communicate with us and our spotters over the trunked radio system. Or, alternatively, if one of our spotters in the field observes a tornado beginning to form, this information is instantaneously transmitted both to us and the National Weather Service. A short discussion will then ensue as to whether the NWS believes they will issue a warning based on this observation. Ideally, the decision for the NWS and us to warn will be reached at the same time, and the systems will be activated simultaneously—to reinforce the importance of the warning with the public.

Newspaper reports from the series of tornado events happening in Oklahoma, Missouri, and Georgia over the Mother's Day weekend indicate that in some areas, the NWS and local authorities were able to give as much as 13 minutes of advance warning. This margin of time greatly contributed to the fact that there wasn't an even greater loss of life. This timeframe also illustrates the importance and criticality of not adding additional time for local governments to activate alert and warning functions. Those minutes may literally be the difference between life and death for some.

#### RECOMMENDATIONS

I would recommend for the committee to please consider the fact that alert and warning is first and foremost a duty of local governments. Help in accomplishing this function is always welcome from our Federal partners, but the relationship of the Federal Government supporting the primacy of the State and local government duty to warn should exist through the effort or system.

I would also like to urge that Congress fully support the vital work of the National Weather Service and recognize that the local Weather Forecast Offices (WFOs) are a vitally important link in making sure the public has adequate alert and warning regarding severe weather events. While the National Weather Service is an important Federal partner in this relationship, they are by no means the only Federal partner involved. FEMA also has a pivotal role to play in this process since they are the only Federal Agency that has a mission encompassing "all hazards." I know that as a local government emergency manager I would have a great deal of discomfort if a Federal warning system were implemented without FEMA playing a key role in that system.

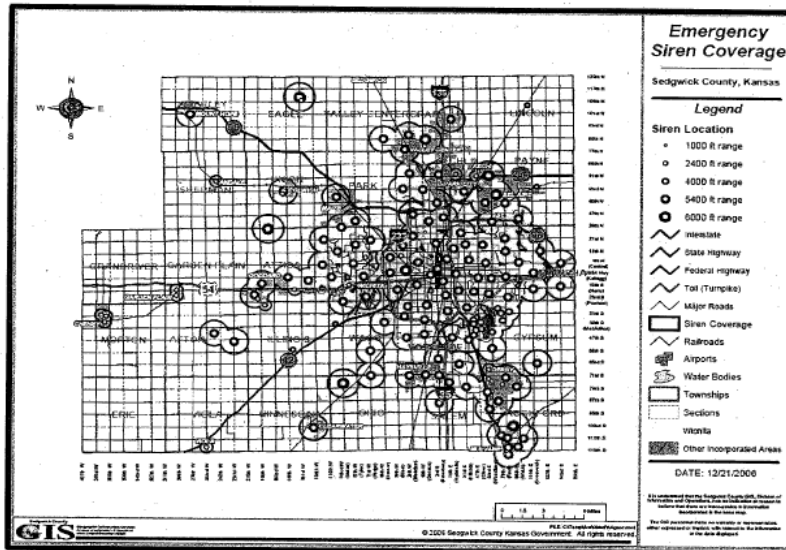
#### CONCLUSION

I would request that the committee remember the following elements from our discussion today:

- That alert and warning is, first and foremost, a duty of local governments.
- That a mere minute can mean the difference between life and death in many alert and warning situations.
- That any Federal warning system must have FEMA in a key role as they are the only Federal partner with a mission covering all hazards.
- That improvement to warning systems consist not only of equipment and technology, but training and outreach so people understand how to respond in an appropriate manner to the alert or warning.

I stand ready to address any questions the subcommittee members may have.

Exhibit A



Mr. CUELLAR. Thank you again very much for your testimony. To all of you, thank you. At this time I would remind each member that he or she will have 5 minutes to question the witnesses. I now recognize myself for 5 minutes for the questions.

One question apiece. First one, General Rainville, as you know, the Nation has suffered greatly after the recent rash of tornados in the Midwest and the Southeast. With the 2008 hurricane season just being weeks away, the time is now to fully update, integrate and implement a comprehensive all-hazards public alert and warning system that relates critical information to the American people. Given the number of years since the inception of the integrated public alert and warning system, can you identify for the committee what has hindered FEMA from meeting the goals outlined by the President's Executive Order 13407 to actually create the integrated warning delivery system of the national, State and local messages?

General RAINVILLE. Yes, sir, Mr. Chairman. In early 2007, FEMA and National Continuity Programs established a program management office for IPAWS. That has allowed us to bring structure and organization and some strategic planning to the whole issue of integrated public alerts and warnings. So we can in fact integrate the efforts that have been taken to date. That and the funding from the Katrina supplemental allowed us in 2007 during the hurricane season to offer the pilot capabilities to Mississippi, Louisiana and Alabama and to share with the other States the lessons learned from those pilots.

What we have taken from those is, first, that it is important to train and we offer training as a part of those pilots. We have been able to establish that American sign language video is another method of communicating alerts with those who are deaf or hard

of hearing. There are other means as well and different States have chosen different means.

We also have understood some of the work that needs to be done to fully employ ETN, or Enhanced Telephone Notification, System issues of older infrastructure from the providers that need to be worked on. What that has led us to is looking at hurricane season 2008, realizing that what we will be doing this year in conjunction with strengthening the national infrastructure is rolling out in those States the first increment of IPAWS. It is not a pilot but the first increment being laid down, which is to roll out of digital EAS in the eight States and one territory where we had piloted 2 years previously, and to add five more States into the digital EAS capability. That adds for those States that satellite redundancy over PBS. Our statistics show that 67 percent of American households tune into PBS during the month.

We are also using our 2008 funding to expand the number of primary entry point stations, which are absolutely key to getting the message out quickly direct from the FEMA operation center to the PEP station. Also NOAA uses our EAS system as well.

So those are some concrete things that we have done progressing along with IPAWS.

Mr. DICKS. Would the gentleman yield on this point? Just one point.

Mr. CUELLAR. Yes, certainly.

Mr. DICKS. What worries me here, and I heard this in the statement, in fact the broader IPAWS program with CMAS as a component has yet to have a Federal agency designated to administer the system once it is developed and implemented. This thing sounds like an orphan. Why is this? Why wouldn't we have some idea of who would administer this at this point? Why wouldn't it be FEMA?

General RAINVILLE. Sir, it very well may be FEMA.

Mr. DICKS. Who has to make this decision?

General RAINVILLE. Right now that issue is internal in FEMA and we are working it with the Federal Communications Commission as a result of the rulemaking that came out and the work that went into the rule. We just needed to clarify that in a noncrisis environment that FEMA had clear legal authority to become involved at that level with State and local messaging.

We want to thank the FCC for allowing us that time and not naming FEMA specifically in the rulemaking, but we take that very seriously and we see that as a critical role and we agree with the FCC and other members of the committee that made recommendations that this is a critical role, and we expect resolution of that very, very shortly.

Mr. DICKS. Mr. Chairman, all I can say is that we have seen a number of things with Homeland Security and this whole area where we are going to make a decision and it just don't happen. That is one thing Congress is very concerned about. I mean, can you give us any time frame? Are we 60 days, 30 days? Who is going to make this decision? Who is the great decider here? I am sure it is not the President. Who is going to make this decision?

General RAINVILLE. Internally this decision rests with the Administrator and I don't want to get out in front of him this morning.

Mr. DICKS. The Administrator of?

General RAINVILLE. Of FEMA.

Mr. DICKS. Of FEMA. He is a good man. We have all the confidence in the Administrator. If you tell me he will make the decision and he will make it promptly, I would feel much better about this.

General RAINVILLE. Yes, sir. I can tell you that this morning.

Mr. DICKS. I thank you for yielding.

Mr. CUELLAR. Yes, there is a letter from FEMA, from the FCC to FEMA I believe. The other way around, saying that you all don't have statutory authority; is that correct?

General RAINVILLE. Yes, sir. That was a letter that I signed that we sent just prior to—

Mr. CUELLAR. From FEMA over to the FCC.

General RAINVILLE. Yes, sir. Yes, sir. That letter was a result of our receiving the draft rulemaking, not for any reason other than some errors on our part and realizing that there were some legal questions about the scope or the extension that an aggregator would require in FEMA's role and the need to clarify those authorities before we committed FEMA as the Federal entity. So I wrote that letter to the FCC at their request. They were very gracious and just took FEMA out specifically and gave us the time, the last couple of months to work with them and with NOAA and internally to make sure that we clarified all those issues and could move forward.

That is what I am saying. I think we are very, very close to moving forward.

Mr. DICKS. How long has this decision-making process been underway so far? How long has this been out there waiting to be decided upon?

General RAINVILLE. We realized this as an issue the first week of February.

Mr. DICKS. 2008?

General RAINVILLE. Yes, sir.

Mr. DICKS. So this is rather recent then?

General RAINVILLE. Yes, sir.

Mr. DICKS. Thank you, Mr. Chairman.

Mr. CUELLAR. Yes, sir, Mr. Dicks. My time is up, but let me ask you—

Mr. DICKS. You can have my time.

Mr. CUELLAR. No, that is all right. Can you explain why FEMA feels it might be in the best position to perform these responsibilities? Do you feel FEMA should be the agency?

General RAINVILLE. Sir, we see FEMA's long role in the emergency alerting system and our role in working very closely with State and local governments in alerts and warnings as well as continuity of operations really across the spectrum of emergencies. So we do feel that we have the technical ability and that if you use these last few months to really define what that aggregator and Federal gateway function is and to see how it would really fit into integrated public alert and warnings for the cell industry and other

ways of delivering the message. So I believe this is very important for FEMA to seriously look at, and that is what the Administrator will be deciding on.

Mr. CUELLAR. Let me just follow up on what Mr. Dicks mentioned a few minutes ago. What I would like for you to do and submit to the committee is the goals under the Executive order, where we are in meeting each of the specific goals and, if there has been a problem why you haven't been able to meet one of those goals, tell us why, the reason. I also want to see some timelines, because, like Mr. Dicks said, how long is the decision-making process going to be going on until we take some positive steps in that direction.

Mr. DICKS. There needs to be legislative clarification, as you suggested. I think this is the committee that would have to do it.

General RAINVILLE. Thank you.

Mr. CUELLAR. Absolutely.

Mr. DICKS. We would be prepared to do it. If this is what is holding it up, we need to hear from you on this.

General RAINVILLE. We will get that to you as soon as possible.

Mr. CUELLAR. So I need each goal to make sure we have the integrated system, why we have not been able to meet those goals, what do you need for it to be done and whether it is statutory authority or whatever it might be and timetables. I think that is what Norm was talking about. We need timetables provided to the committee 7 days from today.

General RAINVILLE. We would be happy to do that.

Mr. CUELLAR. I have some other questions. I will wait on the second round. At this time I would like to recognize Ms. Miller, who is standing in for Mr. Dent, and she will be the next person. The gentlewoman from Michigan is recognized for 5 minutes.

Mrs. MILLER. Thank you very much, Mr. Chairman. I actually had a different question, but I find this line of questioning from the Chairman and my colleague very interesting as well. So let me just follow up on that. I had some verbiage here from this letter that was in February 2008 that we are talking about from FEMA to FCC, saying that the agency does not have statutory authority to transmit alerts originated by States and local authorities. You lack the clear legal authority during emergencies, et cetera.

As you are responding back to the committee as the Chairman had asked you, could you also take a look at—I mean, I don't know, it would seem to me what about Congress just shifting this? I don't want to take your job away from you, but shouldn't it go perhaps to NOAA? NOAA really is the responsible agency at this point for the warning mission, et cetera. I don't know if you have any comment on that. Maybe it is too simplistic. But perhaps it should just go to the agency that is responsible for it, sort of streamlining the process. Could we streamline the process by doing such a thing?

General RAINVILLE. Well, I will respond briefly. I am not sure it would streamline the process, because what we have and we are partnering very closely with NOAA, because we can both add redundancies to our alert and warning systems. As you know, NOAA offers all the alerts and warnings right now. FEMA and IPAWS has as a mission the maintenance of the emergency alerting system and maintaining the ability for the President to send the national message out to all Americans.

So what we are doing with IPAWS is we are taking that mission, that key mission, enabling it and updating its technology, and then having the infrastructure that the States and locals can piggyback on to use their State and local messaging. The legal question that came up and the reason that we asked for a little bit of time to work it out was the question of whether an aggregator would require us to get down into the States and locals and become involved in their messaging, which would have been something different for FEMA to do.

I believe that the EAS is appropriately in FEMA, that this is a good responsibility for us. I know that we are working all of these questions out, but we provide each other redundancy between FEMA and NOAA, and I think that is a very good for the country.

Mrs. MILLER. Well, let me also mention that I certainly appreciate all of the witnesses that we have here today. I do not envy you your jobs, because it is a very difficult thing. You have to be right 100 percent of the time or someone is second-guessing you about when you didn't notify them or the kinds of information that was in the notification process. I think this committee and Congress certainly recognizes that the largest room is always the room for improvement. That is what we are really about here, as we to try to improve the notification system.

In regards to NOAA—this may be a question for the General again—but I am a lifetime boater. So I am quite familiar with the NOAA weather buoys, I use them all the time. We do long distance racing, et cetera, and they are great. You have a lot of black—I don't know how many, maybe that is my question, how many black zones there are, where the NOAA weather buoys are not as all inclusive as they need to be. In fact in my district—I am holding my district up, because in Michigan we always have a map of the State at the end of our arm. I have this area here, from about this knuckle up to the tip of the thumb. Just recently this year, NOAA is putting in a new weather buoy because up at the tip of the thumb we have been sort of a black zone where they haven't been able to get the weather information that they need. Yet we have some of the best wind in the country. We are putting huge wind farms in right now.

But I am just wondering how many, if anyone is familiar, with how many black zones there are out there or how we may be able to improve some of the weather buoy systems that we have. I think there are at least one other that we think is necessary in Michigan, in the Great Lakes area, that I am aware of.

As part of that question I am aware now that DHS is partnering with NOAA to give out other information through this system. What is that exactly? Would you be able to pick up if there is terrorist activity and you are listening to the weather service there? What other information are going to be conduit through this?

General RAINVILLE. Well, first I would have to ask you to refer to NOAA the questions about the black space because I really can't answer that.

I can tell you what IPAWS is working with with NOAA, but other parts of the Department of Homeland Security are also working with NOAA because they have a tremendous amount of capability that we can all use in our areas. We are working with NOAA



particularly on their geotargeting capability, and their plume modeling, being able to add that to our quiver, if you will, and to be able to incorporate that into emergency managers using it to send out alerts.

We are also working with NOAA, we are going to be deploying as part of the hurricane season some mobile capability that will allow NOAA to reconstitute the connectivity between their offices and their transmitters for the weather field offices.

Anything else I would have to defer to others, ma'am.

Mrs. MILLER. Mr. Gibb. I am almost out of time here.

Mr. GIBB. I would like to say we have partnered very closely with the National Weather Service. We have five forecast offices that serve the State of New York. We are working closely with them to make automatic their warnings and advisories so they go automatically through NY-ALERT to the intended recipient population.

We are going to update our user portal this summer so that individuals can sign up for the exact kind of weather information they want. You can either sign up for all the weather products. You may get dozens of different updates during the day or as an individual you may only want to know if there is a severe thunderstorm warning or a tornado warning, and the users will be able to identify the exact type of weather information that they want. We are working to automate that completely across our system.

Mrs. MILLER. Thank you, Mr. Chairman.

Mr. CUELLAR [presiding.] At this time I recognize Mr. Dicks from the State of Washington.

Mr. DICKS. This is for Major General Rainville and Lisa Fowlkes. What would happen to a country if a variety of alert management functions were activated based on a spoofed message?

General RAINVILLE. I think we will team on this answer, sir, if that is all right. We do have within the Emergency Alert System security to help prevent a spoof message from going through. When we look at the improvements we are speaking of to IPAWS, even to increase security as a part of that. So that any local emergency management official, State or local, that puts a message in has to be approved by the system. They have certain authorities they have to match in the system itself. Based on that person limits the frequency that can be used, which limits the area the message can be received. That is a part of each State's EAS plan which is on file with the FCC.

So I will defer to the FCC for further discussion.

Mr. FOWLKES. I can speak in the context of the CMAS. One of the functions of the Commercial Mobile Alert System and in fact one of the functions of the alert aggregator is to authenticate better alerts that are coming in. In other words, what the committee recommended was a function where the alert aggregator, using what they called a trust model. What the trust model is it lays out a bunch of procedures that the aggregator would use to authenticate an alert that is coming, whether it is coming in from a Federal, State, local or tribal government to ensure that, for example, it was coming in from an authorized public safety agency. It is in essence a valid alert.

Mr. DICKS. Yeah.

Mr. FOWLKES. The point of that is to authenticate that alert before it goes further into the system, into the other pieces of the system.

Mr. DICKS. Mr. Duncan, you mentioned the need for coordination between the Federal Government, the State and local governments, but emphasized that this is really a local responsibility. What is it you expect from the Federal Government? What is the appropriate role for the Federal Government and how do you see them best helping you?

Mr. DUNCAN. Well, thank you for that question. I think this is a great opportunity to kind of discuss roles and responsibilities with regard to warnings. I think there is a very clearly established Federal interest in the President being able to communicate with the public in case of a national alert. But I think that the largest number of alerts that happen are first and foremost a local government responsibility, and I think what we would look for here is support from the Federal Government that doesn't add additional time or difficulty in getting the alert and warning message out.

One of the key points we would kindly request you all to remember is that particularly with regard to tornados and other fast moving emergencies, minutes may make the difference between life and death. So we ask that whatever process is created, it not add too much additional time. We would also be very—

Mr. DICKS. In other words, from getting the message from NOAA and the Weather Service out there, don't run it through a bunch of hoops, right?

Mr. DUNCAN. Yes, sir.

Mr. DICKS. Are you worried that that is going to happen or is it happening now?

Mr. DUNCAN. We are worried that there is a potential for that, sir. We are also worried that if FEMA does not have a key role in this mission that there would be some other issues, because again we would remind you FEMA is the only Federal partner that has the all-hazards mission.

Mr. DICKS. Mr. Gibb, do you want to add anything to that?

Mr. GIBB. Only to say that with modern technology there is really no reason why the alerts cannot be automated. Again with respect to especially tornado warnings, it is one thing if you are putting out a winter storm warning that has the forecast for tomorrow. You have the luxury of time. I think NOAA's performance standard for tornado warnings is along the lines of 13 minutes. They might be predict a tornado and so local emergency managers are really under the gun to get that message out.

Tornado warning in New York State, local emergency manager would be able to go to the NY-ALERT Web page, put in the message or cut and paste the NOAA message, get that information simultaneously out to every subscriber in the EAS system. Then go a second route to get the message through to the Federal Government to come back down through the CMAS system. It is going to be dated, it will be late information. Again, I think we should work together to make sure that those processes are as automated as possible.

Mr. DICKS. General, are we going to do that? Are we going to work with these local people to make sure that time is of the essence?

General RAINVILLE. Yes, sir, absolutely. We are very sensitive to the concerns of the States and locals with the timing of the message and the control of their messages and to their residents. We have used this time since that letter went out also in defining the aggregator and gateway functions to make sure that there would be no delay. Right now just remember that that rulemaking pertains only to the cell alerts. There are many other alerts going out as well and we look forward to working even more with State and locals, but FEMA has that network and we absolutely hear what he is saying and we agree.

Mr. DICKS. I know my time has expired. Let me ask Mr. Gibb, you mentioned something about money, that there was some concern about utilization of money. Can you explain that to us? I'm on the Appropriations Committee as well.

Mr. GIBB. Through the FEMA Hazard Mitigation Grant Program when a State has a declared disaster there are mitigation funds that are made available to the States. Typically alert notification systems fall out outside of fundable projections. There is a 5 percent set-aside for States. We had wanted to use those funds to increase our dollar capacity from \$250 to 1250 dial lines, but we were not allowed to use the funding. We have already found another source of funds to do that, but we just feel that there should be latitude on the part of local and State agencies to use available Federal funds to make these types of investments.

Mr. DICKS. Thank you. Thank you, Mr. Chairman.

Mr. CUELLAR. Thank you, Mr. Dicks. In fact let me modify what I asked you to do, Ms. Rainville. Instead of 7 days, make it 10 days. But I will ask you to talk to Ms. Fowlkes, talk to Mr. Gibb, talk to Mr. Duncan, get their input, just following the line that Mr. Dicks brought up. I need for you to go ahead on the timetables and the goals that are not being met, make sure we give the local folks the opportunity to bring in some of the thoughts. So instead of 7 days it will be 10 days. I do want you to work with both committee staffs to make sure that we get this correctly. Okay?

At this time I recognize Mr. Etheridge, the gentleman from North Carolina.

Mr. ETHERIDGE. Thank you, Mr. Chairman. Let me thank each of you for being here. Let me ask a question in a little different way. Before I came here I was a State superintendent of schools in North Carolina and I always like to know what we are doing in terms of education simply because children spend most of their days in public schools, and emergencies, man-made or natural, tend to hit when they are in school. I would like to know as it relates to make sure that the robust emergency notification systems are available at schools and that development of the Integrated Public Awareness and Warning System considers the systems that are in place in our public schools.

So General, how does DHS consider the needs of local school agencies in developing the emergency notification system, or are they?

General RAINVILLE. Thank you for that question. I can talk to you about what we have considered with the schools as it relates to the integrated public alert and warning system. We worked with NOAA to distribute weather—alert weather radios to systems—

Mr. ETHERIDGE. To all school systems?

General RAINVILLE. I believe it was to all public school systems, and there are still some left to be distributed. From my understanding that was a program that predated the program management office here.

We also, though, want to be sure and we are working to ensure that a system that we devise and develop through IPAWS is one that will integrate the systems that the local and State governments have, including our schools, so that the systems they choose are compatible and will work with that national infrastructure.

We also as part of IPAWS have as a goal coming out with standards and protocols, so that when a school system wants to purchase alert and warning hardware they will know that whatever company they are contracting with can meet the guidelines that have been developed so that it is all compatible.

Mr. ETHERIDGE. Thank you. That being said then, Ms. Fowlkes, let me ask you: Has the FCC considered the special needs of schools and their planning and do the rules for cell phone alert consider the impact for such alerts on children and school facilities so that they are integrated?

Ms. FOWLKES. The rules that have been adopted thus far have focused narrowly on the technical requirements that the carriers will have to comply with if they decide to participate in the program, in addition to which the entire architecture takes into account alerts coming from all sectors.

Mr. ETHERIDGE. So is that a yes or a no?

Ms. FOWLKES. I don't think it is a yes or a no.

Mr. ETHERIDGE. Can you get the answer and get it back to us?

Ms. FOWLKES. Yes.

[The information follows:]

The Commission's Emergency Alert System (EAS) rules are designed to ensure ubiquitous transmission of national-level alerts and require broadcast radio and television, cable television, satellite radio and television, and IPTV providers to participate in the EAS, unless they have a waiver from the Commission. Receipt and transmission of State and local alerts is voluntary, but most broadcasters participate at this level as well. Therefore, all schools that are equipped with one or more TV or radios would have adequate EAS coverage. In addition, FEMA/DHS, the Department of Education, and NOAA have developed a program to distribute Public Alert Radios to schools. For more information on that program, see: <http://public-alert-radio.nws.noaa.gov/>.

Under the rules adopted by the Commission in April 2008, commercial mobile service (CMS) providers who elect to transmit emergency alerts must receive and transmit the following information as part of the Commercial Mobile Alert System (CMAS) alert: (1) type of alert; (2) the area affected; (3) recommended action; (4) expiration time; and (5) the agency from whom the alert was sent. See In the Matter of Commercial Mobile Alert System, PS Docket No. 07-287, First Report and Order, FCC 08-99, 1, 20, ¶¶ 41-42 (rel. April 9, 2008) ("CMAS First Report and Order"). It is expected that CMAS alerts will contain information similar to what would typically appear in a standard National Weather Service message—a simple, declarative statement that should be understandable and actionable by children with cell phones.

Mr. ETHERIDGE. Okay. That will be helpful. Thank you. One other question. In just about 9 months, the Nation will be making

the transition to digital television. In that it means that television stations will stop broadcasting with analog signals and switch to digital transmissions. My question is that a lot of folks who live in rural areas in America have radios that are tied to their TV that broadcasts the signal not in the visual but in the sound. By and large, those folks may not have gotten notice from the emergency alert system when that goes off, because you have got that tied, when the emergency alert, as you know, goes off, it sounds across the TV and they will pick it up on the radio. So my question to you, has the FCC looked into this issue, and if so, how do you propose to address it? Do people need to go out and buy weather radios or find a good AM/FM radio that will work in this regard? You know, I think these are some things we may not have thought through, but we sure need to let folks know, especially in rural areas more so than in urban areas.

Ms. FOWLKES. I actually cannot speak to that issue. What I can certainly do is——

Mr. ETHERIDGE. Get that information and get it back to us?

Ms. FOWLKES. Yes.

[The information follows:]

A primary mission of the FCC is to ensure that all radio listeners receive effective EAS coverage. All radio broadcasters are required to carry the national emergency alert message. The transition to digital TV in February 2009 will not affect that requirement or the ability of listeners of AM and FM stations to receive emergency alerts. The vast majority of radios that operate in the TV band also operate in the AM and FM bands. Therefore, these radio owners will continue to have full access to EAS alerts after the DTV transition. To the extent that there is a sufficient demand for a DTV audio receiver to allow people to continue to listen to the aural signals of their TV stations, manufacturers would develop audio receivers to meet that demand.

Mr. ETHERIDGE. Would you please, and do that within 10 days if that is possible. Thank you. Finally, one of the reasons given for the digital transmission is to free up the analog spectrum for first responders. My question is, how will this new use of the spectrum fit into an integrated alert and warning system? Can either of you respond to that? If not, can you get that information and get it back to us.

Ms. FOWLKES. Speaking on behalf of the FCC, I will get that information and get back to you.

Mr. ETHERIDGE. Would you work that with the General, because that is important, because that spectrum will be available for our emergency first responders?

Ms. FOWLKES. Yes.

[The information follows:]

Answer. Spectrum designated for use by first responders in the 700 MHz is not used in alert and warning systems for the public. Spectrum recently auctioned in the 700 MHz band for commercial use will provide commercial wireless providers with spectrum that can support the voluntary transmission of emergency alerts to subscribers' mobile devices through the CMAS as contemplated by the Warning Alert and Response Network (WARN) Act.

General RAINVILLE. We will work with the FCC to see if there is a role for IPAWS in that, yes, sir.

Mr. ETHERIDGE. Thank you. Thank you Mr. Chairman. I yield back.

Mr. CUELLAR. Thank you, Mr. Etheridge. At this time I recognize the gentlewoman from the Virgin Islands—she is not here. So the gentlewoman from the District of Columbia, Ms. Norton.

Ms. NORTON. Thank you very much, Mr. Chairman. As you know, Mr. Chairman, I have an interest, as you do, in this area because my subcommittee has the all-hazards jurisdiction of the Stafford Act. What we are talking about, the existing authority we are talking about comes from Section 202, Disaster Warnings, and section 611(d) Communications and Warnings of the Stafford Act. FEMA was given the authority for these alerts. I was particularly interested in testimony about the pilots. On June 26, 2006, the President issued an executive order, 13407, which requires the modernization of the EAS. It identifies the Secretary of Homeland Security as the lead. He has delegated that to FEMA.

So as a result of that, my Republican counterparts began working on a bill for the modernization of the system, and, in fact, have asked me to join them, and I have, and have introduced a bill to modernize the system. It has a name, in any case. We were concerned with modernization. We know that FEMA is running the program and has always run the program administratively under both the executive order and the Stafford Act. Now, I want to—I was particularly interested in pilot projects. First, let me ask, in both my own subcommittee and in this committee, after 9/11 we have, as you might expect, focused on interoperable communications or equipment.

Now, when we modernize, that is certainly part of what we are talking about. But is that all we are talking about? When we talk about the communications and the interoperative necessity here, what else besides the equipment is in mind, bearing in mind that almost always, as your pilot projects demonstrate, we are not talking about terrorist events at all. God willing we will never be talking about terrorist events.

So I want to know since what we are talking about every year are hurricanes, what we are talking about every year are earthquakes, what we are talking about every year are floods. So I want to know is what else is there to this communication besides the equipment? If we have the equipment, is that all to it? Can we all go to bed and have a good night sleep?

Mr. DUNCAN. Good morning, Representative, and thank you for the question. I think you asked an extremely interesting and insightful question, because one of the first thoughts that comes into my mind as a local person is typically we define interoperable communications as the ability of everybody to speak with everybody, yet if everybody can speak with everybody all the time, essentially what you have is chaos. So I would like to suggest that it is kind of like the crowd in advance of a performance at the symphony or whatever. There is lots of different conversations going on, everybody can talk, but real interoperable communications doesn't begin until the crowd gets quiet and the players actually begin to perform.

So I would like to suggest that equally as important as the equipment is essentially the rules and the governance that operate interoperable communications.

Ms. NORTON. Yes.

Mr. GIBB. I would also like to add that modern alert warning systems, again, like NY-ALERT, that we can take interoperability sort of off the table. We can broadcast a message across radio systems if we need to, as well as get the information to people's cell phones, you know, or to their e-mails, so that there is multiple pathways by which first responders or citizens can be notified.

Ms. NORTON. Ms. Rainville, part of your testimony that interested me were these pilot projects. I don't believe anything until it is tested in real-time. You indicated that you tested this in places where we would expect these alerts in our country to be most needed; in Alabama, Louisiana and Mississippi. Of course, FEMA has been doing this all along. What were the differences that you found given the fact that you have been routinely doing this since 1979, you have been doing this in all kinds of natural disasters, what were the differences you found this time?

General RAINVILLE. Thank you for bringing that up. We found that there is more to this than equipment. Some of the differences we found, we have States like New York that have a very robust alert and warning capability. We went into the pilots in Mississippi, Louisiana and Alabama and found States that did not have that robust capability. In fact, when we were working with the service providers and the States on the pilot for the ETN or enhanced telephone notification, about the push calling, we have a capability to push 60,000 calls in 10 minutes to targeted counties at the call of the governor or those emergency managers. But we found that the telephone structure in the State couldn't support that, that they have old switching and they need to do that.

Ms. NORTON. Was this part of what happened in Katrina, by the way?

General RAINVILLE. That I don't know. We weren't piloting these capabilities there. But that is why we felt it was important to get into those States and really work with them. We provided training, because it is also about training, to emergency managers so that they understand how to use the EAS and what these new capabilities can do. So I would suggest that in addition to interoperability, it is important that we have integration, and that we work with each other and we integrate these capabilities, that we have standard protocols that we all understand, so that, again, with upgrading the Federal system and really making that a much more powerful system, those States and locals can piggyback off of that and have those same capabilities to offer to their residents.

Ms. NORTON. Well, finally, Mr. Chairman, the bill, and I hope you will join me because of our joint interest in this subject, our modernization won't be worth much unless we deal with what you have just spoken about. We can have all the capability in the world, and we are not going to pay for this. Obviously, the States and the localities are going to have to understand what it takes in equipment. I am pleased to say I think many of them, as I witnessed as already indicated, understand what they need to do on the ground. Because they have been working together for a very long time on natural disasters.

The notion of robust equipment across the States is very troubling, because New York has it, because New York experienced, and may have had it all along, but it experienced the ultimate dis-

aster. However, that was in one city, it was in one place in that city, it was certainly not like a flood plain, for example, and it didn't resemble at all a hurricane. So I suppose my final question would be, are the States aware of the fact that even given the bill that we just introduced, that it will be necessary for them to perhaps overhaul their own equipment in order for this process to be complete and whole?

General RAINVILLE. I know that the States that we have worked with and the feedback that we are getting through our FEMA regions would lead us to believe that it is a mixed bag. Some States are aware, some States aren't.

Ms. NORTON. Well, what is FEMA doing to make them understand that this is not even half of the problem? Most of what we are going to be talking about, the alert isn't even going to start in Washington. Most of what we are talking about is going to start on the ground in a locale. Washington is good only if there is some terrible horrible thing that happens. We better be prepared for that the next time.

But essentially, 99-point-whatever percent of the time we are talking about, yes, FEMA getting down there because it may be a Stafford Act event, but we are basically talking about us dealing with you and getting some people down there. So I am very worried that the focus on our own interoperability, important as it is, something we have done all along, because after all, this is the Homeland Security Committee and we have got to be concerned with that 1 percent, or whatever it turns out to be, I am concerned that if there were an event, a Homeland Security event, a terrorist event or some kind of natural disaster which needed to use the system where Washington, in fact, was well suited, but the people on the ground were not prepared, for example, for a Katrina or anything even remotely like it, then we are really not dealing with all parts of the problem. Thank you very much, Mr. Chairman.

Mr. CUELLAR. Thank you. At this time I recognize the gentlewoman from New York, Mrs. Lowey, for 5 minutes.

Mrs. LOWEY. Thank you Mr. Chairman. I would like to thank all of the witnesses appearing before the committee today. I would particularly like to welcome Director Gibb from the New York State Emergency Management Office. He has been with the State for more than 20 years. I know that if the unfortunate event ever happens again, the State is in good hands and well prepared. It is a pleasure to see you today. In order to build resiliency, all of the DHS component agencies must work closely with one another. One concern that I have had for a while is that some in DHS do not heed the calls to support State alert systems such as NY-ALERT.

Last week, the full committee heard testimony from Assistant Secretary Baker, who appraised alert systems. I gave him an overview of NY-ALERT, and he said it was exactly the type of system his office encourages. Unfortunately, that sentiment is not shared by the Hazard Mitigation Grant Program that prohibits funds for being used for alert networks. Well, frankly this defies common sense, as a benefit of an alert system is to mitigate the impact of all hazards. This is indicative of a larger problem with grants. When public safety agencies in New York receive Federal funds, it doesn't mean the State can go on a shopping spree at the mall. It



means the Federal Government is assisting with vital State programs. We need to reform our grant process so that the most pressing needs are addressed first, instead of providing an equal share to those with unequal needs first. Doing so would ensure that funds are available for vital programs such as NY-ALERT.

So Director Gibb, has DHS provided any justification for explicitly preventing certain grant programs from being used for alert systems?

Mr. GIBB. Well, thank you, Congresswoman, and thank you for your continued support for NY-ALERT and for all your efforts to reauthorize the predisaster mitigation program, which is a big issue for the States as well. Our disappointment with the Hazard Mitigation Grant Program was that the 5 percent set aside for serious disasters, including one in the Nor'easter that impacted severely your district in April 2007, that those disasters generated hazard mitigation grant funds, a percentage of which are typically made available to the States to support a host of State projects.

We requested that to FEMA, that we would really like to invest that money, not to pay for all of NY-ALERT, but just to upgrade our dialer capacity, the number of phone lines that we could utilize to notify residents of an emergency situation. It was on the order of \$1.6 million. The FEMA mitigation folks let us know that they thought it was too large amount of money for one project and a precedent in setting approval for alert notification systems.

So that is the reasons we were given for its denial. That being said, you know, we could have potentially used Homeland Security grant funds, I think, to support NY-ALERT initiatives. But as you know, in New York State, our State office Homeland Security is very concerned about making sure that maximum amounts of those dollars get down to the local levels and 80 percent of those dollars are required to be at the local levels. We haven't tapped that State 20 percent. Governor Patterson again this year wants to keep the ball rolling in terms of NY-ALERT and its allocated State funds to make sure that the system would bill it down. The savings that we are generating for local governments and for the university systems around the State can't be understated.

As opposed to each of the 57 counties, or Westchester County or State university systems going out and procuring their own alert notification systems. The investment is well justified at our State level because we are supporting literally dozens and dozens of local entities in their alert and warning requirements.

Mrs. LOWEY. Well, I thank you. What about General Rainville, do you agree with Assistant Secretary Baker's assessment that alert systems strengthen resiliency?

General RAINVILLE. I would absolutely agree with that statement. We through the integrated public alert and warning want to encourage States to look out and to prioritize the capabilities that are right for their State for alerts and warnings. All the different types of capabilities we piloted, some will work well for some States based on their hazards than others, so we certainly agree with that.

Mrs. LOWEY. So I hope, Mr. Chairman, that we can follow up because to have this difference of opinion within the Department certainly doesn't serve us well. I want to thank particularly Mr. Gibb,

and of course all our panelists, for appearing before us today at this hearing, and thank you, Mr. Chairman.

Mr. CUELLAR. Thank you, Mrs. Lowey. They are going to call us probably in the next 5, 10 minutes to vote. I think we pretty much finished the line of questioning. The only thing I would like to, again, restate, that General, if you can get together with all folks here and give them an opportunity to set up the request that we have made of you all. The only thing I do ask, and I am just going on past experiences, if it is 10 days, we mean, 10 days and not 2 months. So you all need to work pretty hard to get us that information, okay?

General RAINVILLE. Yes, sir.

Mr. CUELLAR. I want to thank all the witnesses for their testimony and the members for their questions. The members of the subcommittee may have additional questions for the witnesses. If they do have some, we will ask you to respond to them as soon as possible in writing to those questions. Hearing no further business the hearing is now adjourned. Thank you very much.

[Whereupon, at 11:30 a.m., the subcommittee was adjourned.]

## APPENDIX

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QUESTIONS FROM CHAIRMAN HENRY CUELLAR TO MAJOR GENERAL MARTHA RAINVILLE (RET.), ASSISTANT ADMINISTRATOR, NATIONAL CONTINUITY PROGRAMS, FEDERAL EMERGENCY MANAGEMENT AGENCY, DEPARTMENT OF HOMELAND SECURITY

*Question 1a.* In a letter dated February 19, 2008 you request the FCC to refrain from identifying a Federal agency to take on the role of alert aggregator and gateway—a critical component of the Commercial Mobile Alert System or CMAS.

How can FEMA expand the traditional alert and warning system to include modern technologies like mobile cellphones—when in the same letter, you state that FEMA lacks the statutory authority during non-emergency periods to develop, implement or operate elements of the cutting-edge delivery of messages over wireless devices?

Answer. Response was not received at the time of publication.

*Question 1b.* On what basis do you believe that FEMA lacks the statutory authority to implement a nationwide Integrated Public Alert and Warning System?

Answer. Response was not received at the time of publication.

*Question 1c.* Do you have a legal opinion from the Office of the General Counsel at FEMA on this interpretation of your lack of statutory authority? If so, we would like a copy.

Answer. Response was not received at the time of publication.

*Question 2.* What is the exact role of the Disaster Management Interoperability Services (DMIS) in alerting and warning the public during a time of disaster?

Answer. Response was not received at the time of publication.

QUESTIONS FROM CHAIRMAN HENRY CUELLAR FOR LISA M. FOWLKES, DEPUTY CHIEF, PUBLIC SAFETY AND HOMELAND SECURITY BUREAU, FEDERAL COMMUNICATIONS COMMISSION

*Question 1a.* As you state in your testimony, one of the key recommendations from the CMSAAC was that the Alert Aggregator and Alert Gateway function be administered by a Federal Government agency.

What are the specific roles that an Aggregator performs?

Answer. The Alert Aggregator serves as the point of entry into the Commercial Mobile Alert System (CMAS) for alerts that will be transmitted by participating Commercial Mobile Service (CMS) providers (i.e., those that elect to participate in the CMAS). The Alert Aggregator would “receive, aggregate, and authenticate alerts originated by authorized alert initiators (i.e., Federal, State, tribal and local government agencies) using the Common Alerting Protocol (CAP).” In the Matter of The Commercial Mobile Alert System, PS Docket No. 07–287, *First Report and Order*, FCC 08–99, ¶10 (released April 9, 2008) (“*CMAS First Report and Order*”). The Alert Aggregator would authenticate alerts received from initiators using a “Trust Model,” a list of security procedures designed to ensure the validity of alerts received into the CMAS. *Id.*

*Question 1b.* Can you explain what the next steps are to get CMAS off the drawing board and into the hands of the American public?

Answer. The WARN Act requires the Commission to adopt rules by July 8, 2008, requiring noncommercial educational (NCE) and public broadcast stations to install equipment and technologies necessary to enable geographic targeting by CMS providers that choose to transmit emergency alerts. WARN Act, § 602(c). Next, the WARN Act requires the Commission to adopt rules by August 7, 2008, governing, among other things, the process whereby CMS providers must notify the Commission whether they plan to participate in the CMAS. WARN Act, § 602(b).

Next, CMS providers must notify the Commission of their decision to participate in the CMAS within 30 days after the Commission issues rules governing the election and other processes related to participation in the CMAS. WARN Act, § 602(b).

The timeline for initial CMAS deployment will depend on how quickly both the Federal Aggregator/Gateway and the wireless industry can complete and test their respective portions of the CMAS.

*Question 1c.* Can you explain why FEMA, as you state may be in the best position to perform these functions?

Answer. As the Commission noted in the *CMAS First Report and Order*, the Department of Homeland Security (DHS), and more specifically FEMA, traditionally has been responsible for origination of Presidential alerts and administration of the Emergency Alert System (EAS). Moreover, Executive Order 13407 gives DHS primary responsibility for implementing the United States' policy "to have an effective, reliable, integrated, flexible and comprehensive system to alert and warn the American people in situations of war, terrorist attack, natural disaster or other hazards to public safety and well-being." Public Alert and Warning System, Executive Order No. 13407, 71 Fed. Reg. 36975, § 1 (June 26, 2006) (*Executive Order 13407*).

Moreover, FEMA played an integral role in the development of the CMSAAC's recommendations. FEMA chaired the Alert Interface Group (AIG), which was responsible for addressing issues at the front-end of the CMAS architecture (e.g., receipt and aggregation of alerts, development of trust model to authenticate alerts from various sources). It also represented the AIG before the CMSAAC Project Management Group (PMG), which coordinated the work of all the other CMSAAC working groups and assembled the CMSAAC recommendations document. In addition, FEMA voted to adopt the CMSAAC recommendations in October 2007, which include CMAS reliance on a single Federal authority to fulfill the alert aggregator/gateway functions. *CMAS First Report and Order*, ¶¶16–17.

*Question 1d.* What specific recommendations were adopted in the FCC Report and Order to include the disabled community and others with special needs?

Answer. To address the needs of people with disabilities and the elderly, the Commission required that all CMAS-capable handsets must include a unique audio attention signal and vibration cadence. *CMAS First Report and Order*, at ¶¶65–67.

QUESTIONS FROM RANKING MEMBER CHARLES W. DENT FOR MAJOR GENERAL MARTHA RAINVILLE (RET.), ASSISTANT ADMINISTRATOR, NATIONAL CONTINUITY PROGRAMS, FEDERAL EMERGENCY MANAGEMENT AGENCY, DEPARTMENT OF HOMELAND SECURITY

*Question 1a.* As indicated by the line of questioning at the recent hearing, there is still some confusion regarding statutory authorities to administer the Integrated Public Alert and Warning System (IPAWS) once it is established.

Does the Federal Emergency Management Agency (FEMA) believe it has the statutory authority to administer and implement the IPAWS program nationwide?

Answer. Response was not provided at the time of publication.

*Question 1b.* When can we expect a Federal agency to be appointed to receive and transmit warnings?

Answer. Response was not provided at the time of publication.

*Question 1c.* When is full operational capability of a completely integrated national alert and warning system expected?

Answer. Response was not provided at the time of publication.

*Question 2a.* In April 2008, Oregon police reported that false AMBER Alert text messages were being sent to the public. False information can impact the effectiveness of alert and warning programs and damage public confidence.

How will IPAWS prevent such false messages?

Answer. Response was not provided at the time of publication.

*Question 2b.* Currently, the Federal Government is working to consolidate the number of internet access points to enhance the security of Federal networks. IPAWS would likely add an additional access point. By adding a gateway or increasing the traffic flow over Federal networks, would the government be increasing security risks and adding delays in message transmission?

Answer. Response was not provided at the time of publication.

*Question 3.* A 2007 Congressional Research Service report on the Emergency Alert System (EAS) indicated that there was a lack of involvement of stakeholders and recommended that the Department of Homeland Security increase its stakeholder

outreach.<sup>1</sup> What is FEMA doing to ensure that stakeholders at all levels are actively engaged in the development of new alert and warning capabilities?

Answer. Response was not provided at the time of publication.

*Question 4a.* It is my understanding that FEMA and its Federal partners are working to test elements of IPAWS through pilot programs at 14 locations across the country, including New York City and the Gulf States.

How would you characterize the outcomes of the pilot programs?

Answer. Response was not provided at the time of publication.

*Question 4b.* Have the programs been successful?

Answer. Response was not provided at the time of publication.

*Question 4c.* What lessons have been learned that will better inform the development of new alert and warning capabilities?

Answer. Response was not provided at the time of publication.

*Question 4d.* How much advance notice were the States given prior to the termination of any pilot programs?

Answer. Response was not provided at the time of publication.

*Question 4e.* What has been done to ensure that the alert and warning capabilities provided by pilot programs did not immediately end upon termination of a pilot?

Answer. Response was not provided at the time of publication.

*Question 5a.* One of the businesses involved in the IPAWS pilot programs continues to allow the State to utilize its system despite discontinued funding from FEMA. Additionally, as Mr. Gibb noted in his written testimony, New York currently funds the NY-ALERT program with State resources.

What is the traditional funding mechanism for alert and warning programs?

Answer. Response was not provided at the time of publication.

*Question 5b.* Will States require additional funding to integrate their systems with IPAWS?

Answer. Response was not provided at the time of publication.

*Question 5c.* What plans are in place to review any applicable grant programs that might provide funds to supplement State costs in creating, enhancing, or integrating their alert and warning systems?

Answer. Response was not provided at the time of publication.

*Question 5d.* What is FEMA's position on the use of Hazard Mitigation Grant Program (HMGP) funds to develop and support alert and warning systems?

Answer. Response was not provided at the time of publication.

*Question 6.* Congress and the Department remain committed to strengthening the Nation's ability to plan and prepare for all-hazard disaster scenarios. As part of this effort, satellite communications have proven to be uniquely capable of providing reliable, survivable, and redundant communications to our first responders during times of crisis.

How does FEMA use satellite communications in alerts and warnings?

Answer. Response was not provided at the time of publication.

*Question 7.* FEMA recently participated in the Federal Continuity of Operations (COOP) exercise.

Were the national alert and warning systems tested as part of this exercise? If not, are there plans to include this portion in an upcoming senior level exercise?

Answer. Response was not provided at the time of publication.

*Question 8a.* A formal public-private partnership to develop and implement IPAWS has yet to be formalized due to a delay in receiving approval to establish an Advisory Committee that would allow communication between FEMA and private stakeholders.

When can we expect that this committee will be stood up?

Answer. Response was not provided at the time of publication.

*Question 8b.* Why has it taken so long to formalize this partnership?

Answer. Response was not provided at the time of publication.

*Question 8c.* Has FEMA taken steps to facilitate the informal involvement of the private sector in the development and testing of IPAWS?

Answer. Response was not provided at the time of publication.

*Question 9a.* The Disaster Management Interoperability Services (DMIS) program, operated by the Department of Homeland Security (DHS), is intended to provide interoperability services to the responder community and integrate with the National Weather Service warnings.

What specific office at DHS is administering this program?

Answer. Response was not provided at the time of publication.

*Question 9b.* How does the DMIS program relate to the IPAWS program?

<sup>1</sup>The Emergency Alert System and All-Hazards Warnings (RL32527), Congressional Research Service, Updated May 5, 2008.

Answer. Response was not provided at the time of publication.

QUESTIONS FROM RANKING MEMBER CHARLES W. DENT FOR LISA M. FOWLKES, DEPUTY CHIEF, PUBLIC SAFETY AND HOMELAND SECURITY BUREAU, FEDERAL COMMUNICATIONS COMMISSION

*Question 1.* In April 2008, Oregon police reported that false AMBER Alert text messages were being sent to the public. False information can impact the effectiveness of alert and warning programs and damage public confidence.

Currently, the Federal Government is working to consolidate the number of internet access points to enhance the security of Federal networks. The Integrated Public Alert and Warning System (IPAWS) would likely add an additional access point. By adding a gateway or increasing the traffic flow over Federal networks, would the government be increasing security risks and adding delays in message transmission?

Answer. The FCC does not have responsibility for the IPAWS and, therefore, cannot comment specifically on its security measures. With respect to the CMAS, one of the functions of the alert aggregator would be to authenticate the alerts received from alert initiators. In fact, as part of their recommendations, the CMSAAC proposed security measures for the CMAS including CMAS alerts received by the Alert Aggregator and the Alert Gateway.

*Question 2.* The Emergency Alert System (EAS) is administered by the Department of Homeland Security/Federal Emergency Management Agency with support from the Federal Communications Commission (FCC) which ensures compliance with existing regulations.

What specific work does the FCC perform as part of its supporting role in administering the EAS program?

Answer. The FCC's role is to prescribe rules that establish technical standards for EAS, procedures for EAS participants to follow in the event EAS is activated and EAS testing protocols. The FCC also enforces its EAS rules and takes enforcement action, where appropriate.

*Question 3a.* On April 10, 2008, the FCC adopted rules for the Nation's wireless carriers to transmit timely and accurate alerts, warnings, and other critical information by short message service (SMS) or text-based alerts to cell phones and other devices.

What is the status of the industry involvement in developing these new rules to facilitate timely transmission of alerts and warnings?

Answer. The Commission's April 9, 2008 Order did not specify that participating CMS providers must deliver emergency alerts using SMS technology. Rather, the Commission, in adopting technical rules governing the transmission of CMAS alerts, adopted a technologically neutral approach which allows participating CMS providers to use any technology so long as they are able to comply with the Commission's technical rules. *CMAS First Report and Order*, ¶¶35–36 (noting CMSAAC's concern about the suitability of SMS and other point-to-point technologies for the CMAS, the Commission neither required nor foreclosed the use of these and other technologies for the transmission of CMAS alerts).

Wireless industry representatives played an integral role in the development of the CMSAAC's recommendations. In addition, the wireless industry has, and continues to be, active participants in the Commission's ongoing rulemaking proceeding.

We understand the wireless carriers have begun industry standardization in conjunction with standards-setting organizations such as the Telecommunications Industry Association (TIA) and the Alliance for Telecommunications Industry Solutions (ATIS). With the issuance of the *CMAS First Report and Order*, it is the Commission's expectation that those CMS providers planning to participate in the CMAS have begun designing their elements of the CMAS in a manner consistent with the technical requirements adopted in the Order.

*Question 3b.* Have all of the major carriers agreed to participate? If not, what are the major concerns that may limit their involvement?

Answer. Under the WARN Act, CMS providers are not required to inform the Commission of their intent to participate in the CMAS until 30 days after the Commission issues rules governing, among other things, the election process. Accordingly, we do not expect to hear officially from the major carriers on this issue until early Fall.

In its *CMAS First Report and Order*, the Commission generally adopted the CMSAAC's recommendations which were supported by wireless carriers who participated in the rulemaking proceeding. It is our hope that this action, in conjunction

with FEMA's decision to serve as the Alert Aggregator/Gateway, will encourage strong participation by the wireless industry.

*Question 3c.* The wireless service providers can send messages using any technology but most are planning to use cell broadcast. Will this require the purchase of a new phone? If so, what will be the burden on consumers?

Answer. The Commission imposed baseline technical requirements for all handsets that will be used to receive emergency alerts over the CMAS, but left it to carriers to decide how best to implement those requirements. In some cases, handsets may only require software changes, but in most cases, new handsets may be required. The burden on consumers, if any, will depend on the equipment and network needs of their service providers.

*Question 3d.* How will the use of cell broadcast impact the effectiveness of alert systems and the public's ability to receive messages?

Answer. In adopting technical requirements for the CMAS, the Commission did not require the use of cell broadcast or any other specific technology for the transmission of alerts. Rather, it allowed participating CMS providers the flexibility to determine what technologies would be most appropriate for their systems. *CMAS First Report and Order*, at ¶¶33–38.

It is our understanding that some participating CMS providers may choose to use point-to-multipoint technologies, such as cell broadcast, for the transmission of CMAS alerts. Such one-to-many technologies allow a single message to be delivered to many recipients utilizing minimal network resources in contrast with point-to-point technologies, such as SMS, which require that each recipient receive a unique message.

*Question 3e.* What rules have been adopted that will ensure that those members of the public with disabilities or special needs are able to receive alerts and warnings?

Answer. To address the needs of people with disabilities and the elderly, the Commission required that all CMAS-capable handsets must include a unique audio attention signal and vibration cadence. *CMAS First Report and Order*, at ¶¶65–67.

*Question 3f.* What is the timeline for implementation of the rules issued in April by those wireless providers that choose to participate?

Answer. The timeline for initial CMAS deployment will depend on how quickly both the Federal Aggregator/Gateway and the wireless industry can complete and test their respective portions of the CMAS. In its recommendations, the CMSAAC recommended a timeline whereby participating CMS providers would be able to begin initial deployment by October 2010. The CMSAAC indicated, however, that this proposed timeline depends largely on whether the Federal Government meets certain deliverables.

*Question 3g.* A 2008 Congressional Research Service report indicates that there has been uneven implementation of the Commercial Mobile Alert System (CMAS). How will the FCC ensure that a standard baseline capability is being implemented?

Answer. The Commission's April 9 Order adopted baseline technical requirements for those portions of the CMAS controlled by CMS providers. These are the minimal standards with which all participating CMS providers must comply and our expectation is that any CMS provider that elects to transmit emergency alerts as part of the CMAS would be required to implement these baseline standards. Further, one of the benefits of a unified Aggregator/Gateway is to ensure consistent processing, formatting, routing, security and other administration functions for the CMAS.

*Question 4a.* A formal public-private partnership to develop IPAWS has yet to be formalized due to a delay in receiving approval to establish an Advisory Committee that would allow communications between FEMA and private stakeholders.

Based on the FCC's role, is your office assisting FEMA in coordinating with the private sector to ensure stakeholder buy-in on the front end of the IPAWS development?

Answer. We are assisting FEMA in coordinating with the private sector and ensuring stakeholder participation in industry summits. Last month, the Commission hosted a summit on Next Generation EAS which brought together industry and government stakeholders, including FEMA. In addition, we regularly attend meetings with FEMA and speak on panels at EAS conferences and other industry forums.

*Question 4b.* How is the FCC involved in encouraging the incorporation of innovative solutions into common technologies to increase the effectiveness of alerts and warnings?

Answer. Over the past 2 years the Commission has adopted rules that expand the reach of EAS to newer technologies, such as digital TV, digital radio, direct broadcast satellite systems, and IPTV systems. We have required the use of the common alert protocol (CAP) when adopted by FEMA so that all EAS can utilize a common platform. In addition, as required by the WARN Act, our April 2008 Order rep-

resents a significant step in providing the American public with a mobile device mechanism for receiving emergency alerts. This will provide the public with another method of receiving alerts, particularly in situations when a person doesn't have access to a broadcast radio or television.

*Question 4c.* What tests or training will be required to utilize these technologies?

Answer. We adopted customized testing regimes as well as EAS operations handbooks for each of the technologies that are now subject to EAS. The Commission plans to address CMAS testing in a future order.

QUESTIONS FROM RANKING MEMBER CHARLES W. DENT FOR JOHN R. GIBB, DIRECTOR, NEW YORK STATE EMERGENCY MANAGEMENT OFFICE, STATE OF NEW YORK

*Question 1.* One of the main goals of the Integrated Public Alert and Warning System (IPAWS) is to convert the current audio-only system that relies on radio and television broadcasting into a multi-faceted system that leverages various technological mediums to transmit alerts and warnings.

Will the implementation timeline for IPAWS impact the functionality of New York's alert and warning system? Specifically, will the systems be interoperable?

Answer. Response was not provided at the time of publication.

*Question 2.* In April 2008, Oregon police reported that false AMBER Alert text messages were being sent to the public. Other areas of the country, including New York and Mississippi, were also reporting the same false alert message. False information can impact the effectiveness of alert and warning programs and damage public confidence.

How did New York respond to this situation?

Answer. Response was not provided at the time of publication.

*Question 3a.* States and localities may utilize the Emergency Alert System (EAS) as available, but participation by broadcast stations is voluntary.

How often does New York State use the EAS to issue alerts?

Answer. Response was not provided at the time of publication.

*Question 3b.* Since participation is voluntary, have you ever encountered a situation where a station opted not to broadcast an EAS message that negatively affected the public's ability to prepare for or respond to an event?

Answer. Response was not provided at the time of publication.

*Question 3c.* Do you feel that the Federal Emergency Management Agency (FEMA) has sufficiently included State and local stakeholders in the development of new alert and warning capabilities?

Answer. Response was not provided at the time of publication.

*Question 4.* Currently, FEMA and its Federal partners are working to test elements of the IPAWS program. FEMA is conducting pilot programs at 14 locations across the country, including New York City and the Gulf States.

How would you assess the pilot programs as they relate to New York?

Answer. Response was not provided at the time of publication.

QUESTIONS FROM RANKING MEMBER CHARLES W. DENT FOR RANDALL C. DUNCAN, VICE CHAIR, GOVERNMENT AFFAIRS COMMITTEE, INTERNATIONAL ASSOCIATION OF EMERGENCY MANAGERS

*Question 1.* One of the main goals of the Integrated Public Alert and Warning System (IPAWS) is to convert the current audio-only system that relies on radio and television broadcasting into a multi-faceted system that leverages various technological mediums to transmit alerts and warnings.

Will the implementation timelines for IPAWS impact the functionality of your State and local alert and warning systems? Specifically, will the system be interoperable?

Answer. The timeline for implementing the IPAWS system does not appear to present any major challenges to local emergency managers. At this time, I do not see how that timeline would impact local alert and warning systems. Our local alert and warning system in Sedgwick County utilizes a number of layers to make sure there is redundancy in the message being communicated to the public. These layers include an outdoor warning system, interaction with the local electronic media (radio and television) and the use of EAS in those areas presently served by our major cable provider. At the current time, Sedgwick County does not utilize automated outbound telephone systems to deliver alerts and warnings. Regarding the issue of interoperability—as long as State and local authorized authorities have the ability to initiate the IPAWS system when it is in place, then the issue of interoperability is somewhat moot. Systems communicating the same message need to be coordinated, but do not necessarily need to be interoperable. The issue of coordination is fully addressed by having the local authorities initiate it.



*Question 2a.* States and localities may utilize the Emergency Alert System (EAS) as available, but participation by broadcast stations is voluntary.

How often does your county use the EAS to issue alerts?

Answer. As of the date on which this response was prepared, Sedgwick County has not independently issued a warning utilizing EAS. The reason for this is that the most common alert and warning issued for our area relates to severe convective weather. Since Sedgwick County Emergency Management works in extremely close partnership with the National Weather Service Weather Forecast Office (WFO) at Wichita, typically, they have triggered the EAS for these events. However, Sedgwick County has the capability to initiate EAS alerts through the use of an authorized EAS ENDEC. We are still working with local broadcasters in an inclusive fashion to finalize a plan on what EAS alerts and warnings broadcasters will voluntarily carry and/or forward.

*Question 2b.* Since participation is voluntary, have you ever encountered a situation where a station opted not to broadcast an EAS message that negatively affected the public's ability to prepare for or respond to an event?

Answer. Because of the extreme nature of severe convective weather events, we have never had the experience of encountering a negative situation with failure to broadcast an EAS message. Various media outlets have well known styles of coverage for emergencies within our community. Local listeners and viewers are well aware of which stations carry emergency information and which stations do not.

*Question 2c.* Do you feel that the Federal Emergency Management Agency has sufficiently included State and local stakeholders in the development of new alert and warning capabilities?

Answer. We think FEMA always has a better outcome when they consult stakeholders early in the process. Our participation, to this point, has been limited to those States active in the pilot program—however, Project Manager Lance Craver has been reaching out to us, and we look forward to expanded involvement in the process as the IPAWS program is implemented on a nationwide basis.

