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THIS IS NOT A TEST: WILL THE NATION'S EMERGENCY ALERT SYSTEM DELIVER THE PRESIDENT'S MESSAGE TO THE PUBLIC?

(111–65)

HEARING

BEFORE THE

SUBCOMMITTEE ON
ECONOMIC DEVELOPMENT, PUBLIC BUILDINGS, AND
EMERGENCY MANAGEMENT

OF THE

COMMITTEE ON
TRANSPORTATION AND
INFRASTRUCTURE
HOUSE OF REPRESENTATIVES

ONE HUNDRED ELEVENTH CONGRESS

FIRST SESSION

September 30, 2009

Printed for the use of the
Committee on Transportation and Infrastructure

U.S. GOVERNMENT PRINTING OFFICE

52–609 PDF WASHINGTON : 2009

For sale by the Superintendent of Documents, U.S. Government Printing Office
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Washington, DC 20515

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September 29, 2009

SUMMARY OF SUBJECT MATTER

TO: Members of the Subcommittee on Economic Development, Public Buildings, and Emergency Management

FROM: Oversight and Investigations Staff

SUBJECT: Hearing on "This is NOT a Test: Will the Nation's Emergency Alert System Deliver the President's Message to the Public?"

PURPOSE OF THE HEARING

The Subcommittee on Economic Development, Public Buildings, and Emergency Management will meet on Wednesday, September 30, 2009, at 2:00 p.m., in room 2167 of the Rayburn House Office Building to examine the status of efforts within the Federal Government, specifically, the Federal Emergency Management Agency (FEMA) to modernize, expand and integrate existing emergency alert warning systems through the Integrated Public Alert and Warning Systems (IPAWS). The Committee will also receive a report from the Government Accountability Office (GAO) detailing its assessment of the nation's emergency alert system.

BACKGROUND

I. Emergency Alert System

Presently, the United States issues emergency warnings through the Emergency Alert System (EAS) - successor to the Emergency Broadcast System (EBS), which relays messages through broadcast and other media. EAS provides the President and authorized officials, with limited capacity, to transmit emergency messages to the public via television (TV) and radio through a hierarchical distribution system dating back to the 1960s. FEMA is responsible for administering EAS at the national level and distributing Presidential alerts to National Primary stations, known as Primary Entry Point (PEP) stations. PEP stations have back up generators and fuel onsite and have been hardened to help ensure continuous operations following a disaster. Broadcasts of the national level alerts are relayed by the PEP stations across the country to radio and TV stations that

rebroadcast the message to other stations and cable systems. The retransmission of alerts from one EAS participant to another is commonly referred to as a "daisy chain" distribution system.

Additionally, the National Oceanic and Atmospheric Administration's (NOAA) Weather Radio, All Hazards Network, sends alerts through NOAA Weather Radio (NWR), which has been expanded to include warnings for all hazards.[1]

To date, there has never been a national-level alert initiated by the President. Most of the territories and States have activated EAS at a State level. Approximately 90 percent of all messages that are disseminated by the EAS are generated by NOAA weather alerts.[2] Again, FEMA directly delivers the national-level alerts to the PEP stations. Broadcast of these national-level alerts are relayed by the PEP stations throughout the nation to radio and TV stations that rebroadcast the message to other broadcast stations and cable systems until all EAS participants have been alerted.[3] Specifically, FEMA's sole means of distributing national-level alerts to 35 PEP stations and 860 public radio stations across the country is via EAS phone lines and satellite connectivity. However, public radio stations may not be a fully reliable option because unlike PEP stations, they do not necessarily have extra fuel and onsite generators to ensure continuous operations following a disaster.[4] Furthermore, there are significant areas of the country that are not covered by the PEP system and would have to rely solely on public radio.

The Federal Communications Commission (FCC) requires EAS participants to install FCC certified equipment as one of the conditions of licensing. Currently, broadcast radio and TV stations, cable TV systems and satellite operators are required to participate in national-level EAS alerts, yet participation in State and local EAS alerts are voluntary. Radio and TV broadcast stations, cable companies, wireless cable companies, direct broadcast satellite, and satellite radio generally must participate in the system and transmit alerts initiated by the President. State and local governments determine the content and transmission procedures of their alerts in conjunction with local radio and TV stations.

Even though the broadcasters, not the State or local authorities, have the final authority as to whether or not to transmit a non-Federal emergency message, generally, there has been a long history of cooperation. These procedures are specified in State EAS plans filed with the FCC. FEMA advisors often help to integrate EAS usage into regional or State emergency response plans. The decentralized process of EAS coordination and implementation contributes to uneven planning and, as a result, procedures for initiating a message and activating EAS differ from State to State.[5]

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[1] NOAA's Weather Radio, All Hazards Network, work in cooperation with FEMA on several aspects of EAS.
[2] *Integrated Public Alert and Warning System Overview*, (2008) (statement of Lance Carver, Director Integrated Public Alert and Warning System Program Management Office). More current information was not available at this time.
[3] Originally, there were 34 PEP stations across the country. Since the PEP expansion initiative to increase the number of PEP stations to 69 was announced in 2007; FEMA has only completed one new PEP station.
[4] U.S. Gen. Accounting Office, *Emergency Preparedness: Improved Planning and Coordination Necessary for Modernization and Integration of Public Alert and Warning System*, GAO-09-834 (2009).
[5] Linda K Moore, *The Emergency Alert System (EAS) and All-Hazard Warnings*, (2008) at 2.

II. The Integrated Public Alert and Warning System (IPAWS)

On June 26, 2006, former President Bush issued Executive Order 13407, stating the U.S. policy is "to have an effective, reliable, integrated, flexible and comprehensive system to alert and warn the American people." The former President issued a list of functional requirements for the Secretary of Homeland Security. The requirements were based on recommendations of experts in the field and included:

- evaluating and assessing existing resources at all levels of government;
- adopting common alerting protocols, standards terminology, and other procedures to enable interoperability;
- delivering alerts on criteria such as location and risk;
- accommodating disabilities and language needs;
- supporting necessary communication facilities;
- conducting training, testing, and exercises;
- ensuring public education about emergency warnings;
- coordinating and cooperating with the private sector and government at all levels;
- administering the existing EAS as a component of a broader system; and
- ensuring that the President can alert and warn the American people.[6]

Executive Order 13407 directed the Department of Homeland Security (DHS) to meet this challenge "to ensure an orderly and effective transition" from current capabilities to the system described in the executive order and to report on the implementation of the system within 90 days after the Order, and on at least a yearly basis thereafter. FEMA's IPAWS program was initiated in 2004, and has become the programmatic mechanism to carry out this Executive Order. IPAWS is defined by FEMA as a "system of systems," which is intended to eventually integrate existing and new alert systems including EAS. Therefore, EAS is expected to be superseded as the nation's primary alert function by IPAWS. EAS will act as one of IPAWS' component parts and one of the primary mechanisms to disseminate alerts.

IPAWS aims to be the nation's next generation public communications and warning capability. As previously mentioned, the current EAS is based on generally outdated technology that mostly relies on radio and TV to transmit audio-only alerts. As we all know, today, the public uses many different technologies to receive information and is increasingly less reliant on TV and radio.

The aim of IPAWS is to improve public safety through the rapid dissemination of emergency messages to as many people as possible over as many communications devices as possible, including in multiple languages, in American Sign Language, and in Braille. To do this, IPAWS seeks to expand the traditional alert and warning system to include more modern technologies and, at the same time, upgrade the alert and warning infrastructure so that no matter what the crisis is, there would be near instantaneous transmission and receipt of alerts to the public. The alerts would be transmitted through digital technologies that can reach various communications devices, such as mobile phones, land lines, pagers, fax machines, personal digital assistants, desktop

[6] Executive Order 13407, *Public Alerts and Warning System* (2006).

computers, and digital road signs.[7] FEMA's IPAWS program office administered and completed several pilot programs in various locations.

Modernizing and integrating the public alerts and warning system is an extremely large and complicated task. The different and often separate roles and responsibilities of the Federal, State and local governments, and other non-governmental and private sector stakeholders, in disseminating alerts, has often led to problems with coordination and uneven effectiveness of EAS utilization from state to state. [8]

The Warning, Alert and Response Network Act (WARN Act), as signed into law as Title VI of P.L. 109-347, the Security and Accountability for Every Port Act of 2006 (The SAFE Port Act), required the establishment of a Commercial Mobile Service Alert Advisory Committee (CMSAAC) by the FCC. Committee members included State, local and tribal governments, members of the private sector, and representatives of people with disabilities. The Committee was charged with providing the FCC with recommendations on technical requirements, standards, regulations, and other matters needed to support the transmittal of emergency alerts by commercial mobile service providers to their subscribers on a voluntary basis.[9] In April 2008, the FCC adopted most of the recommendations made by the CMSAAC, including those for wireless carriers to transmit certain types of alerts, specifically Presidential, imminent threat, AMBER alerts and emergency alerts originated by State, local and other non-Federal entities; the coverage is to be nationwide with a Federal agency managing the alerts by acting as an aggregator in accepting, verifying and routing messages.[10] FEMA has agreed to serve as the Federal aggregator.[11]

The Common Alerting Protocol (CAP) is an open, non-proprietary digital message format that is being used as the standard for new, digitized alert networks that use multiple technologies. CAP has been developed for use by emergency management officials in sending all types of alert messages, as it is compatible with multiple applications and telecommunications methods. CAP, capable of geographic targeting and multilingual messaging, can be used as a single input to activate multiple warnings. Executive Order 13407 required FEMA to adopt alert standards and protocols. FEMA intends to adopt CAP, and publish its IPAWS CAP v1.1-EAS Profile (CAP Profile). In a FCC July 2007 report and order, the FCC promulgated new rules, including a requirement for all mandatory EAS participants to accept messages using CAP no later than 180 days after FEMA adopts the CAP standard.

Currently, EAS is still the primary national-level public alert system and is a useful public alert and warning system. In March 2007, GAO issued a report identifying limitations of EAS and the challenges of developing the new integrated system. It stated that EAS exhibits long standing weaknesses that continue to limit its effectiveness.[12] GAO made several recommendations to

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[7] FEMA, *IPAWS Program* (2008).

[8] Linda K. Moore, *The Emergency Alert System (EAS) and All-Hazard Warnings* (2008), at 2.

[9] P.L. 109-347, sections 603 (a-c) and 602 (a-c).

[10] FCC, *First Report and Order* (FCC 08-99) (2008).

[11] In April 2008, the CMSAAC recommendations were held up because FEMA raised concern that it did not have the legal authority to be the Federal aggregator. The Committee on Transportation and Infrastructure staff reiterated to FEMA that it had expansive legislative authority of alerts and warnings, as set forth in section 202 (*Disaster Warnings*) and 611(d) (*Communications and Warnings*) of the Robert T. Stafford Disaster and Emergency Assistance Act (Stafford Act). On May, 30, 2008, FEMA announced that it would assume the Federal aggregator role for the nationwide Commercial Mobile Alert System.

[12] GAO, *Emergency Preparedness: Current Emergency Alert System Has Limitations, and Development of a New Integrated System Will Be Challenging* (GAO-07-411) (2007).

FEMA and the FCC for additional planning and greater involvement with stakeholders. GAO found that there were problems regarding the dependability and effectiveness in the relay system that had not been identified, in part, because there is no requirement for a system test at a national level, and many EAS participants lacked the proper training and technical skills to issue effective EAS alerts. Additionally, it identified problems such as gaps in disaster planning and insufficient redundancy to ensure uninterrupted broadcasting nationwide. At that time, the study did note that FEMA, in coordination with the FCC, continues to work on implementing the executive order regarding improvements to the system. In response, FEMA agreed with the intent of GAO's recommendations, however, after over one year, several of the concerns raised by GAO still have not been fully resolved.

Building on that previous work, Chairwoman Norton and Ranking Member Díaz-Balart of the Subcommittee on Economic Development, Public Buildings, and Emergency Management asked GAO to provide information on the status of the nation's emergency alert and warning systems and FEMA's IPAWS program. At this hearing, the Subcommittee intends to find out whether, in the event of a grave national emergency, the President will be able to reach the public and provide them with real-time critical information. Specifically, GAO was asked to examine the: (1) current status of EAS; (2) progress made in FEMA's efforts to modernize and integrate alert and warning systems; and (3) issues and challenges involved in implementing an integrated public alert and warning system. On September 30, 2009, GAO will release its new report titled, "Emergency Preparedness: Improved Planning and Coordination Necessary for Modernization and Integration of Public Alert and Warning System."

III. The Integrated Public Alert and Warning System Modernization Act of 2009

On May 21, 2009, Ranking Republican Member Díaz- Balart introduced H.R. 2591, the "Integrated Public Alerts and Warning Systems Modernization Act of 2009", co-sponsored by Chairwoman Norton. The bill amends the Stafford Act to direct the President to modernize the integrated public alerts and warning system. The bill authorizes FEMA to do much of what it was already doing administratively, through the current authorities in the Stafford Act; as directed by Executive Order 13407 and as authorized through the Post Katrina Emergency Reform Act (P.L. 109-295). Additionally, in response to issues discussed in the June 2008 hearing, the bill establishes an IPAWS Modernization Advisory Committee to ensure stakeholder input. H.R. 2591 requires FEMA to:

- Lead the modernization of the EAS system;
- Have certain capabilities and meet certain requirements to modernize the system including: establishing or adopting common alert warning protocols; standards and operating procedures; providing the capability to distribute alerts on the basis of geographic locations and risks; providing alerts for individuals with disabilities and limited English proficiency; and ensuring that there is training, testing, and exercises for the public alerts and warning systems;
- Establish the IPAWS Modernization Advisory Committee to ensure stakeholder participation from various groups including Federal, State and local governments, representatives from emergency management, the broadcast industry, and representatives from organizations of individuals with special needs including the elderly, the disabled, and people with limited English proficiency;

- Implement pilot programs to demonstrate feasibility;
- Develop a system that incorporates multiple communication technologies;
- Improve coverage to remote areas;
- Promote local and regional and private partnerships;
- Provide redundant alert mechanisms; and
- Submit a detailed implementation plan that includes a timeline, a spending plan, and recommendations for any additional authority that may be necessary.

Additionally, H.R. 2591 authorizes $37 million for 2010 and such sums thereafter, and it includes a savings clause for the Department of Commerce and the FCC.

PRIOR LEGISLATIVE AND OVERSIGHT ACTIVITY

The Subcommittee has previously held a hearing, on June 4, 2008 on the Emergency Alert System (EAS), or the Integrated Public Alerts and Warning System (IPAWS). H.R. 6038, the "Integrated Public Alerts and Warning Systems Modernization Act of 2008", was referred to the Subcommittee on Economic Development, Public Buildings, and Emergency Management on May 14, 2008. H.R. 2591, the "Integrated Public Alerts and Warning Systems Modernization Act of 2009", was referred to the Subcommittee on Economic Development, Public Buildings, and Emergency Management on May 22, 2009.

WITNESSES

Panel I

Mr. Mark L. Goldstein
Director, Physical Infrastructure Issues
Government Accountability Office

Mr. Damon C. Penn
Assistant Administrator, National Continuity Programs
Federal Emergency Management Agency

Panel II

Mr. Richard Muth
Executive Director, Maryland Emergency Management Agency
State Emergency Operations Center

The Honorable Jim Coletta
Collier County Commissioner, District 5

Ms. Lise Hamlin
Director of Public Policy and State Development
Hearing Loss Association of America

Mr. Juan Ramón
Representative
National Council of La Raza

Mr. Tom Axtell
General Manager
Vegas Public Broadcasting Service

HEARING ON THIS IS NOT A TEST: WILL THE NATION'S EMERGENCY ALERT SYSTEM DELIVER THE PRESIDENT'S MESSAGE TO THE PUBLIC?

Wednesday, September 30, 2009

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ECONOMIC DEVELOPMENT, PUBLIC BUILDINGS, AND EMERGENCY MANAGEMENT,
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,
Washington, DC.

The Subcommittee met, pursuant to call, at 2:08 p.m., in Room 2167, Rayburn House Office Building, Hon. Eleanor Holmes Norton [Chair of the Subcommittee] presiding.

Ms. NORTON. The hearing will come to order. I want to welcome all of today's witnesses.

Currently, our Nation is fascinated with television shows, you know, CSI and 24, where the characters work with a myriad of state-of-the-art weapons, scientific tools, and communication devices. Most Americans use the Internet and mobile phones, personal digital assistance. We can Skype video conference our friends 5,000 miles away who sound as if they are just down the street. We can Google and find out millions of pieces of information almost instantaneously.

Most of the country, to the credit of the American people, has embraced the use of smart technology. Consequently, many Americans believe that they have the capability to receive a Presidential emergency message via their cell phone, PDA, or fax. They are wrong. In the event of a national emergency, heaven forbid, a 9/11 or an Oklahoma City bombing-type event, citizens must rely primarily on an emergency alert system built in the 1960s, with little progress to show since.

Today, thousands of citizens across the country rely on the familiar system that interrupts television viewing with a beeping sound, the multicolored stripes across the screen—you know, the same stuff that was there when we were kids—and the words, the same words, This is only a test of the Emergency Alert System, or EAS.

This system was built during the Cold War to provide citizens with an emergency broadcast on their television or radios advising that they have 5 minutes to seek appropriate shelter because a tornado is approaching, or to evacuate the area because a hurricane will arrive in a few hours, or other disasters. If there were a need to reach the Nation to convey an emergency message, it is, at best, questionable whether a sizeable portion of the country would receive it. The Government Accountability Office reports that there are many unaddressed weaknesses that limit the effectiveness of

the Nation's primary public alert and warning system, as far as it goes, considering technology today.

FEMA is responsible for administering the national EAS, with assistance from the Federal Communications Commission, to ensure compliance with regulations. Broadcast radio and television stations and satellite radio operators are required to participate in national-level EAS alerts. And State and local governments may use the EAS on an as-available basis, but participation is voluntary.

Our Subcommittee's jurisdiction is primarily implicated because of the large number of natural disasters this country experiences every year. Indeed, most of the disasters far and away are disasters under our Subcommittee's jurisdiction. Approximately 90 percent of all messages disseminated by EAS are generated by the National Oceanic and Atmospheric Administration weather alerts.

In June 2006, President Bush issued Executive Order 13407 directing the Department of Homeland Security to modernize and integrate the Nation's public warning system to create a robust Federal warning system and to report on progress on at least an annual basis. The FEMA Integrated Public Alert and Warning System (IPAWS) program was initiated in 2004 and became the programmatic mechanism to carry out the executive order. FEMA defines IPAWS as a "system of systems" which is intended to eventually integrate existing and new alert systems, including EAS.

Unfortunately, we are now nearing the end of 2009, and national-level alert capabilities have remained virtually unchanged since the 1960s, and new technologies are not even close to being adopted. Consequently, Ranking Member Diaz-Balart and I asked GAO to examine, one, the current status of EAS; two, the progress made and FEMA's efforts to modernize and integrate alert and warning systems; and three, the issues and challenges involved in implementing and integrating a public alert and warning system.

Today, FEMA will testify on the report we asked FEMA to prepare, which has been titled ″Emergency Preparedness: Improved Planning and Coordination Necessary for Development of Integrated Public Alert and Warning System.″

At the June 2008 hearing, we heard from various EAS IPAWS stakeholders, including Federal partners, State and local governments, emergency management associations, the broadcast industry, and others, that FEMA had not met with them periodically to get their advice or to inform them of their program progress or direction. At the hearing, this Subcommittee was clear that immediate leadership by FEMA was expected, and that simply attending events and conferences that other groups hold is not an effective way for FEMA to interface with stakeholders. The then-Assistant Administrator for Continuity Programs, General Martha Rainville, said that ″FEMA will be setting up a formal group, an advisory group, if you will, that will work to make sure to inform the IPAWS program.″

There has been some very recent progress, but stakeholders still express frustration with the lack of communication and coordination overall. Therefore, it has become necessary for Ranking Member Diaz-Balart and I to introduce H.R. 2591, the Integrated Public Alerts and Warning System Modernization Act of 2009, to specifi-

cally direct FEMA to establish an IPAWS modernization advisory committee to ensure stakeholder input.

Currently, I understand that most of the members of FEMA staff who will be responsible for the current and future implementation of IPAWS are fairly new. We hope that with the new administration, the revolving door of staff, shifting program goals, lack of specific plans and timetables, no periodic reporting on progress, and lack of performance measures will be a thing of the past.

The danger from terrorism and natural disasters only increases with an antiquated alert system, and FEMA should expect frequent oversight and reports on progress due to this Subcommittee. Without leadership, and in the absence of Federal standards and protocols, many States and localities have felt they had to begin building their own systems. A useless patchwork of alert systems that are unable to communicate with one another is the likely result of the State-by-State approach underway. We have seen that result before when police and firefighters on 9/11 could not communicate. We cannot repeat the same mistakes again.

Several of our witnesses have stories to share that will remind us of what is at stake for citizens, and why there must be no more delay in building a modern integrated alert system that takes into account the end-users, our fellow citizens.

Again, I welcome today's witnesses and look forward to your testimony. And I am pleased to ask for remarks from our Ranking Member, my good friend, Mr. Diaz-Balart.

Mr. DIAZ-BALART. Thank you, Madam Chairwoman. Let me first take this opportunity to thank you again. You have been exceedingly open, accessible, and willing to look at any issue that is important to all of the Members of your Subcommittee, and I cannot thank you enough. And this is another hearing which I think is very, very important.

I am also pleased to welcome all of the witnesses, including a good friend of mine, Commissioner Jim Coletta, who is a county commissioner from Collier County. Madam Chairwoman, he had a lengthy county meeting—I believe it was, I don't know, close to 8, 9, 10 hours—a late night, and he is here this morning. I want to thank him for flying up here and testifying later on.

Also, he is accompanied by Dan Sommers, Madam Chairwoman. You have been in Florida and south Florida. And particularly you have seen the quality of the emergency management personnel that we have there. Unfortunately, we have more experience than we would like to have. Dan is one of those quality individuals that is doing a spectacular job in keeping the people of southwest Florida safe.

I worked with the Chairwoman on this hearing because, as everybody knows, I represent one of the most prone-for-hurricanes part of the country. And the ability to warn the public is, frankly, an issue of literally life and death. This is not theory, this is life and death. And I, like the Chairwoman, who just spoke to us right now, we are both totally determined and committed to modernize this system. And again, I thank her for her leadership in this.

In the age of iPhones and GPS, one would think that—and I think most people believe—that the President of the United States could, if there was an emergency, target a specific area and make

sure that the information is out there. Well, the reality is that, if you would think that would be the case, you would be dead wrong because that capability does not exist in our country. The fact is, is that if a big disaster hit today, the President could only send out a message basically to the entire country, and it is doubtful if that message would actually get to those who really need to hear it, to those who are in the way of whatever disaster it may be. There is a likely chance that message would never be received to those that really need to hear it.

If you are hearing or visually impaired or handicapped or have limited English proficiency, then you are pretty much out of luck. And we will hear from the witnesses today, I am sure, a little more about that.

But why, though? Why, one would ask, is that possible? Because the Federal Government, frankly, relies, as the Chairwoman said, on these phone lines and on the TV and radio signals that we have seen from time to time—as the Chairwoman said, from the sixties we have been seeing that same message, antiquated computers and phone lines, and FEMA has frankly made very little progress in upgrading the system to the technology that is available, 21st century technology. We are really dealing with sixties technology still.

In addition to gaps in coverage, the existing emergency alert system again only reaches the public through those medias, through television and radio. Now, let me tell you, in 2007, this system was, frankly, of very little help in Florida when tornados ripped through several towns at 3:00 in the morning and killed 21 people. That is why I said a little while ago, this is not theory. In the case of emergencies and in the case of the State that I represent and others, obviously, this is a life or death situation. When those 21 people were killed in their beds at 3:00 in the morning, it is unlikely that they would have been watching their television and listening to their radio at that time. But it is likely that they had cell phones, and it is likely that they had land lines, and it is likely that they had other ways where they would have maybe been able to receive the information.

Now, if that was not bad enough, GAO warns that it may get a lot worse if States, as the Chairwoman just mentioned, go it alone and start developing their own patchwork of systems because the Federal Government is MIA, is nowhere to be found. And then we risk the real possibility of having first responders not being able to communicate with each other, the Federal Government not being able to communicate with State governments and local governments, et cetera.

So we are in danger of repeating the same mistakes that were made with the first responders' radios if we don't get this program on track and get it on track now. Time is of the essence.

That is why, as the Chairwoman said, we introduced—I introduced with the honorable Chairperson of this Subcommittee and other Members of the Subcommittee the Integrated Public Alert and Warning System Modernization Act of 2009. This bill would establish a framework for the development of IPAWS. We wish we didn't have to do this. As was stated a little while ago, the President, in 2006, actually issued an executive order and, unfortu-

nately, nothing happened. So we wish we didn't need legislation, but clearly it has been shown to us that we do need legislation.

It would require that IPAWS include, among the things that it would include, multiple communication technologies, a capability to send both a Presidential message and States and local alerts, a capability to warn individuals with limited English proficiency and individuals with disabilities, and the ability to geotarget alerts to affected communities.

The bill would also establish an advisory committee composed of key stakeholders, including State and local emergency management officials, NOAA, the private sector to ensure that IPAWS is not developed in a bubble or in a vacuum, but rather that it incorporates the experience and the expertise of others and the newest technology.

At the end of the day we have, frankly, two possible futures when it comes to emergency alerts. One is a future in which the Federal Government continues to operate its system based on the 1960s, hoping that those who happen to be watching TV or listening to the radios receive the warning and where States, frankly, tired of waiting—and local governments, it is not only States, local governments are also moving forward with their efforts because, again, the Federal Government is nowhere to be found—so where States and local governments just continue to do their own thing and develop their own possibly incompatible systems; or, which is the preferable option, we can move forward on a digital system of systems, as it has been called, that allows officials to target lifesaving information over multiple devices and through multiple technologies to people in danger. Those are the options that we are facing.

So, which future we choose, frankly, will be critical in saving lives, or not, and ensuring that our communities are properly prepared for major disasters that we know will hit our different communities.

Once again, I want to thank Chairwoman Norton again for working with me on this important issue. She has been to southern Florida; she has been everywhere. She will not accept status quo. And I need to thank you for your leadership there once again.

I also need to thank Chairman Oberstar for including my legislation as part of his larger Stafford Act reform bill. That bill is a huge priority for him. The fact that he has allowed this bill to go on there is something obviously that we are all very grateful for. So, again, I thank you. I thank those of you who are going to be testifying in front of us. And with that, I would like to yield back the remaining part of my time.

Ms. NORTON. Mr. Cao, the gentleman from Louisiana, do you have any opening remarks?

Mr. CAO. Thank you, Madam Chairman.

On behalf of my constituents in Orleans and Jefferson Parishes, I want to extend my thanks to the Chairwoman and the Ranking Member for holding this important hearing today. I would like to also thank them for their sustained attention with hearings like those today and yesterday to discuss post-hurricane recovery.

Getting the integrated public alert and warning systems up and running is critical to ensuring the safety of our citizens. This next-

generation infrastructure will move away from the traditional audio-only radio and television emergency alert system and provide us state-of-the-art coverage.

IPAWS will take advantage of all available warning networks, to include cell phones, land lines, pagers, faxes, personal digital systems, desktop computers, et cetera, and will enable us to communicate with one consistent message over more media to more people before, during and after a disaster.

For a district like mine, which is vulnerable to hurricanes and other natural disasters, the comprehensive advance warning that IPAWS offers will be invaluable. That is why I am very disappointed to hear of the delays in implementation of this program that was first envisioned over 8 years ago. I am very eager to hear the GAO's explanation as to the status of this program and FEMA's explanation for the delays. Each day, month and year this program is delayed, we run the risk of losing lives.

Over 2,000 Americans died during Hurricane Katrina. And in the written testimony for today's hearing, I saw one report of a man not knowing of the impending flood until the waters were rising around his house. Just from this example we can see the importance of communication. And for this reason, I have taken an active role in increasing the government's capacity for getting emergency information out to our citizens. I have authored legislation that directs GAO to conduct a study on our current ability to reach non-English speakers with emergency information and what additional government resources are required to adequately communicate with such communities. I have discussed this and other revisions to the Stafford Act with Chairman Oberstar, and he is supportive.

I have authored legislation that would extend the Interoperable Emergency Communications Grant Program through fiscal year 2012 to give States additional time to apply for these grants. I am a cosponsor of the Chairwoman and Ranking Member's bill to ensure the implementation of the IPAWS program. I organized Members from the Gulf Coast in sending a letter to the Department of Defense to look at pilot programs for implementation of IPAWS while FEMA is working out their implementation of IPAWS.

This is the 21st century. With the technology we have available to us today, there is no excuse for any more delays in getting IPAWS up and running. I know that the Chairwoman and Ranking Member and I, we want to hear firm commitments to deadlines from FEMA for which you can be assured we will hold you accountable. There should be no more delays.

Thank you very much, Madam Chairman.

Ms. NORTON. We will go to our first panel. And we will hear first from Mark Goldstein, Director of Physical Infrastructure Issues, Government Accountability Office. Mr. Goldstein.

TESTIMONY OF MARK L. GOLDSTEIN, DIRECTOR, PHYSICAL INFRASTRUCTURE ISSUES, GOVERNMENT ACCOUNTABILITY OFFICE; AND DAMON C. PENN, ASSISTANT ADMINISTRATOR, NATIONAL CONTINUITY PROGRAMS, FEDERAL EMERGENCY MANAGEMENT AGENCY

Mr. GOLDSTEIN. Thank you, Madam Chair and Members of the Subcommittee. Thank you for the opportunity to discuss our report

being released today on the status of the Nation's emergency public alert and warning systems. This system, the Emergency Alert System, EAS, provides the President and other authorized officials with the limited capacity to transmit emergency messages to the public.

In our previous work, we have found that EAS relies upon antiquated methods that date back to 1963, exposing the system to weaknesses, including questionable reliability and versatility.

In 2006, the Department of Homeland Security, by executive order, was given the responsibility for modernizing public alert and warning systems to ensure their capability of distributing alerts through varied telecommunications modes and to tailor alerts to specific geographic areas.

FEMA, the entity within DHS responsible for the program, is working on the Integrated Public Alert and Warning System, IPAWS, which is intended to eventually integrate EAS into a larger warning network. When completed, EAS is expected to be superseded by the IPAWS ″system of systems″ to form the country's comprehensive public alert system.

As FEMA develops IPAWS, State and local governments are implementing their own warning systems, which may be difficult to integrate with the broader IPAWS system. My testimony, based on our report today, focuses on the current status of EAS, the progress made on FEMA's efforts to modernize and integrate alert and warning systems, and coordination issues involved in implementing an Integrated Public Alert and Warning System.

GAO's findings from today's report are as follows: First, as the primary national-level public warning system, EAS is an important alert tool, but it exhibits longstanding weaknesses that limit its effectiveness. In particular, the reliability of the national-level relay system, which would be critical if the President were to issue a national-level alert, remains questionable due to a lack of redundancy, gaps in coverage, a lack of testing and training, and limitations in how alerts are disseminated to the public.

Further, EAS provides little capability to alert specific geographic regions. FEMA has projects underway to address some of these weaknesses; however, to date little progress has been made, and EAS remains largely unchanged since GAO's previous review completed in March 2007. As a result, EAS does not fulfill the need for a reliable comprehensive alert system.

Second, initiated in 2004, FEMA's IPAWS program has made little progress. IPAWS is intended to integrate new and existing alert capabilities, including EAS, into a system of systems. However, national-level alert capabilities have remained unchanged, and new technologies have not been adopted.

IPAWS efforts have been affected by shifting program goals, a lack of continuity in planning, staff turnover, and poorly organized program information from which to make management decisions. The vision of IPAWS has changed twice over the course of the program, and strategic goals and milestones are not clearly defined as IPAWS has operated without an implementation plan from early 2007 until this summer.

Subsequently, as State and local governments are forging ahead with their own alert systems, IPAWS program implementation has

stalled, and many of the functional goals of IPAWS, such as geotargeting of messages and dissemination through redundant pathways to multiple devices, have yet to reach operational capacity.

FEMA conducted a series of pilot projects without systemically assessing outcomes or lessons learned, and without substantially advancing alert and warning systems. FEMA does not periodically report on IPAWS' progress; therefore, program transparency and accountability are lacking.

Third, FEMA faces coordination issues in developing and implementing IPAWS. Effective public warning depends on the expertise, efforts and cooperation of diverse stakeholders, such as State and local emergency managers and the telecommunications industry. However, many stakeholders GAO contacted know little about IPAWS and expressed a need for better coordination with FEMA.

A GAO survey indicated that the majority of State emergency management directors had little communication with FEMA regarding IPAWS. FEMA has taken steps to improve its coordination efforts by planning to participate in emergency management conferences and building improved relationships between the IPAWS program and FEMA regional offices. However, despite stating its plan to create a stakeholder Subcommittee and state advisory committee, FEMA has established neither group and has no current plans to do so.

In the report released today, GAO recommends that FEMA implement processes for systems development and deployment, report periodically on progress toward achieving an Integrated Public Alert and Warning System, and implementing a plan to verify the dependability of IPAWS and to train IPAWS participants.

In response to our report, DHS agreed with all the recommendations and provided explanations of actions aimed at addressing them. However, FEMA's planned actions to address the recommendations may be not sufficient.

This concludes my prepared remarks. I would be pleased to respond to any questions that you have. Thank you.

Ms. NORTON. Thank you, Mr. Goldstein.

Damon Penn, Assistant Administrator, National Continuity Programs, FEMA.

Mr. PENN. Good afternoon, Madam Chairwoman, Ranking Member Diaz-Balart, and Members of the Subcommittee.

First, I would like to say that our hearts and prayers go out to the families of those affected by yesterday's tsunami in American Samoa and the adjoining regions. FEMA activated its National Response Coordination Center yesterday, and Administrator Fugate is moving lifesaving equipment into the area. I got notification just as I came into the room that the first assessment team has arrived on site. And I know you have gotten updates, and we will continue to provide those to you as the situation develops.

I am Damon Penn, the Assistant Administrator for FEMA's National Continuity Programs Directorate. I recently joined FEMA after retiring from the United States Army.

My first exposure to continuity programs came about 15 years ago when I began work on some Department of Defense programs, and my experience with FEMA began in 2004, when I served as

Defense Coordinating Officer for Florida. There I was responsible for Department of Defense response and assets in support of the State emergency management's efforts for the four hurricanes that ravaged the State. I also served in that same capacity for Hurricane Katrina in 2004 in the State of Mississippi.

I would like to thank you for the opportunity to appear before you today and give you an update on the status of the Integrated Public Alert and Warning System, IPAWS.

IPAWS, as you are well aware, is the Nation's next-generation public alerting system. Its purpose is to provide public alert and warning services to Federal, State, local, territorial, and tribal emergency managers.

In partnership with organizations like the Association of Public Television Stations, IPAWS will integrate and modernize the emergency alert system by increasing the number of dissemination paths to the primary entry points, or PEP stations. Further, it will provide an interface to commercial cellular carriers, giving them a broadcast cellular alert capability.

In addition, the program is developing interoperable standards to support the distribution of alert and warning messages to State and local warning systems, such as emergency telephone network dialers, Web sites, cellular phones, and other technologies.

My vision of IPAWS is to provide an effective and comprehensive system that enables the proper authorities to alert and warn over 90 percent of the American people through multiple means under all conditions. The end state of the system is that it will deliver the Presidential State, territorial or tribal messages by multiple means.

As an example, imagine that a toxic cloud is released from an industrial accident. The individual in the affected area can expect to be notified by a network public and private television, AM/FM or satellite radio, a call to his residence or a cell phone call, a text message to his cell phone, a message on the NOAA weather radio band, and if he or she is disabled or unable to speak English, a message in the format that they can understand. And the system will accomplish this by the end of fiscal year 2012.

I realize the size of this undertaking and it is not without its challenges, but we have made great strides in the past few months. Just last week, the Organization for Advancement of Structural Information Standards, OASIS, which is an international standards organization, sent the CAP protocols in the balloting. This will provide us the standard for the industry protocols by as early as the end of next week. From there, vendors are already working on nonproprietary hardware, and broadcasters will have everything they need to be compliant with the new standards by late next summer.

We successfully competed a test of the emergency alert system last week that represents step one of a three-part validation towards conducting a nationwide test of EAS. As you are well aware, a nationwide test has never been conducted. Our next step is a system-wide test that we will conduct in Alaska in January. This is to validate our current capabilities and provide the credibility that has been lacking that our stakeholder need so they will support a nationwide end-to-end test by the end of fiscal year 2010.

Army Corps of Engineers was tasked with providing 38 new primary entry point stations. They have completed site surveys on 15, they will complete the other site surveys in the coming months, with a complete construction date 24 months from now.

We have also updated our outreach at all levels. For example, we delivered 22 regional and State briefings since July of last year, and we have three major working groups that meet bimonthly.

During my short tenure, I have personally met with Members who represent the broadcast industry, the Federal Communications Commission, the Primary Entry Point Administrative Council, the White House Resiliency Directorate, and several people that represent State and local governments. I am currently scheduled to attend four major conferences of stakeholders before the end of the calendar year.

Our efforts have not been one-way communications. We have learned a great deal from our State, local, territorial, and tribal partners. For example, Florida and several other States are helping us leverage capabilities and technologies they already have using targeted cell phone calling and interfacing with communication devices for the disabled. Texas is sharing the software they piloted to integrate into the NOAA alert system. Massachusetts and Pennsylvania are using satellite receivers to relay messages directly versus a daisy-chain approach. Texas and Washington have installed geotargeting systems and are testing the capability to integrate plume modeling into their systems, and we are trying to leverage this as well.

The State, local, territorial and tribal governments are also clearly dictating their needs and their vision to serve their citizens so we can build an adequate capability into our systems and meet what they need and expect in the future.

As the program runs its lifecycle, I am sure there are going to be developmental and engineering problems. There are going to be conflicts among stakeholders and program delays. But these will not be setbacks, they will be challenges we will overcome.

Our policy is moving forward and is on schedule, and we will keep moving forward. FEMA and our State, local, territorial, and tribal partners are all committed to IPAWS and recognize the importance to United States citizens. I lead a highly dedicated group of professionals all of whom share my commitment and my vision of IPAWS.

Madam Chairwoman, I again thank you for the opportunity to testify today, and I am pleased to take any questions you may have.

Ms. NORTON. Thank you both for your testimony. And Mr. Penn, we recognize you are new. We thank you for your testimony.

I would like you to personally deliver this message to OMB. This Committee will not tolerate receiving testimony at 8:30 p.m. the day before the hearing. We believe that the holdup is at OMB. Deliver that message before it is delivered in unison by the Congress through the appropriation bill. Inexcusable. There was even an attempt to get us, in another Subcommittee—or I think it may indeed have been in this one—to delay the hearing. It will never happen. It will never happen. Plenty of notice. And make sure they

know it so they don't put you in that position again because we do not blame you.

On your best judgment, both of you, if the President of the United States had to send out an emergency message today, who would receive the message and who would not?

Mr. GOLDSTEIN. I think it is very unclear, Madam Chairwoman, who would receive it. The system, on its best day, only 82 percent of the population is covered by the primary stations. And when the message leaves the primary stations, as the limited testing has shown so far, there is no assurance that a message would get very far.

Ms. NORTON. After it leaves the primary stations, there is not an assurance that it would reach very far into the targeted area are you saying?

Mr. GOLDSTEIN. That is correct. There has been limited testing of the system. FEMA, in the past, has not been very willing to test the system, but they did finally test it several years ago, and three of the primary stations never received the message at all, which would have affected potentially millions of people. And thenin an inadvertent, accidental test in Illinois in 2007, when someone frankly pushed a wrong button, what happened was that the cable companies never received the message either. The equipment that the cable companies used was not functioning. And so, no, there is very little assurance that the system is working properly today and that a Presidential message would get to the American public.

Ms. NORTON. Mr. Penn, before you answer, we have these different estimates, FEMA estimates, 82 percent of the population—whatever that means—are covered in the day and 75 percent at night. And just as an aside, how can it be that the State of Maine has no coverage—it is a big State—at all? Just so you know, Mr. Diaz-Balart, we believe that parts of your State may not have adequate coverage and that parts of Mr. Oberstar's district may not be covered. How can we have those kinds of ins and outs and gaps?

Mr. GOLDSTEIN. The PEP stations, there are only 35 PEP stations, the primary stations that distribute the information to other stations.

Ms. NORTON. There were originally 34, and we upped to one more, 35.

Mr. GOLDSTEIN. That is correct.

Ms. NORTON. What is taking so long? If PEP stations are what we have been relying on, why are we inching up, what takes so long?

Mr. GOLDSTEIN. FEMA indicated the ability to put 69 of them in place within a short period of time, but they have been unable to reach that goal.

Ms. NORTON. If they had 69, would the coverage be——

Mr. GOLDSTEIN. The coverage would be approximately 90 percent at that point in time.

Ms. NORTON. Mr. Penn, what has slowed up the implementation of PEP stations?

Mr. PENN. Madam Chair, I am not convinced that we had a comprehensive building program in our plan, and I am not sure that we took into consideration the time that it would take to build the stations out and establish the protocols needed for them. Our cur-

rent plan is to build 74 stations, and we have the Corps of Engineers building those for us. As I mentioned earlier, 15 of those sites have already been site surveyed, so we know what the requirements are. The others will be done in the next few months. And then 24 months is what we estimate it will take for us to get all of those PEP stations in place and tested and ready to operate.

Ms. NORTON. So, for the record, you will have almost doubled or doubled the number of stations up to the numbers—is it 74—within how many months did you say?

Mr. PENN. Within 24 months.

Ms. NORTON. Within 24 months. And you have an implementation plan for doing it rather than a simple goal of the kind FEMA has had and never met?

Mr. PENN. Yes, ma'am, we do. We have already contracted through the Corps of Engineers. The funds are available, they have them. They have given us a report that their program is on budget and that it is on time. And we don't expect to have a problem with delivering the stations, as promised.

Ms. NORTON. That is very good news.

Is the PEP station the primary way we should be giving these alerts today? We are talking 50 years of progress since, or maybe not. You have to think what will reach the greatest number in the shortest amount of time, or should there be more than one way to reach the greatest number? What do you do in an infinitely mobile society to make sure that there is notification that is timely?

Mr. PENN. Madam Chair, it is a primary entry point for the message to get to the broadcast community, so that is what makes the PEP station so important because it is the gateway into everything else, and all the other capabilities that we mention.

As I mentioned in my earlier testimony, another major breakthrough has been the CAP program, the common alerting protocols that make sure that all equipment that the States and locals have and all the equipment that we develop will all talk to each other and all be of the same protocol, so it will be interoperable.

Ms. NORTON. Mr. Penn, this is very important what you are saying. By the way, how did you reach that number of 74? Why not 84 or 104?

Mr. PENN. When we did a coverage survey, Madam Chairwoman, that is the number that we determined we were going to need based geographically.

Ms. NORTON. In order to get to what percentage of the population and in order to get to the State of Maine, for God sakes?

Mr. PENN. With a target of better than 90 percent coverage.

Ms. NORTON. Does that include the State of Maine?

Mr. PENN. Yes, Madam Chair, it does.

Ms. NORTON. Why is Maine a blackout here?

Mr. PENN. To be honest with you, I do not know.

Ms. NORTON. I want you to report. I think it is very serious to have a State that is vast in its land space but not in its——

Mr. GOLDSTEIN. If I may, Madam Chair, Maine is covered by public radio stations, which are connected to the EAS system through satellite, but they don't have a primary entry point so there is a different approach. But there are problems with that approach.

Ms. NORTON. Does that mean they would get the notification, the State of Maine, as quickly as we would in the District of Columbia?

Mr. GOLDSTEIN. That is unclear, and the primary reason is because they are not developed as PEP stations, and so, therefore, they are not designed to necessarily have someone at the stations all the time or to have fuel and redundant systems in place——

Ms. NORTON. They may not have backup and so forth?

Mr. GOLDSTEIN. That is correct.

Ms. NORTON. Mr. Diaz-Balart, I think you may have a vote. I, regretfully, do not yet have one, so—soon though.

Mr. DIAZ-BALART. Despite your best efforts.

Ms. NORTON. Indeed. So I am going to ask you for your questions at this time.

Mr. DIAZ-BALART. Thank you, Madam Chairwoman. And I believe there are three votes.

Mr. Penn, let me first thank you for your service to the country and the military. And then also, yes, thank you also for the 2004 season. That was slightly busy when you were the DOD coordinator in Florida. Thank you for the job that you have done there.

One of the concerns that I have is—and again, I preface this with the fact that we know that you haven't been there long. I know your background, and I know that you are a person who delivers. But obviously one of the concerns that we have is that these timelines have continued to constantly shift, so the purposes and the goals have continued to change. Obviously one of the concerns that we all have is the fact that this doesn't continue to happen.

Secondly, so I can kind of get them both out, is it correct that, Mr. Goldstein, you mentioned that if 69 of those plans, PEPs, were out there, about 90 percent of the population would be subject to get notified, correct? But that is assuming that they work, and we have some questions about them working and the information being up. So even that is, frankly, a bit of a positive outlook, is it not, rosy outlook?

Mr. GOLDSTEIN. Yes, it is. The limited testing that has been done so far indicate that there are problems with the system in which a message may not be received by intended recipients.

Mr. DIAZ-BALART. Now, am I to understand that there is not one of those in southern Florida?

Mr. GOLDSTEIN. A PEP station, sir?

Mr. DIAZ-BALART. Yes.

Mr. GOLDSTEIN. I would have to get back to you. I would be happy to.

Mr. DIAZ-BALART. Great, thank you. And again, going back to my question—and Mr. Penn, I apologize, your rank was what when you retired?

Mr. PENN. Colonel, sir.

Mr. DIAZ-BALART. Well, once a colonel always a colonel. So again, obviously, Colonel, our concern would be that these deadlines continue to slip. And I don't know if you want to comment on that whatsoever.

Mr. PENN. Yes, sir, I would, please, if I could. First of all, we will provide an outline of the PEP station locations back to the Committee within 30 days, not just for Florida and for Maine, but to give you an idea of where they all outline.

I apologize for this graphic and not having provided it ahead of time, but I thought about it at the last minute and thought I would bring it over. I think this will help explain part of your question about the timeliness and why things take so long for us to process. But I would like to preface those comments by saying that I am here now, I have a very clear vision, I have communicated that throughout, and I do not plan on changing that. We have also made some recent hires of some very dedicated, experienced professionals who will keep us on track.

But the graphic is on my left. And it is not important that you be able to read the words, but I ask you for your attention to the three yellow bands that go horizontally, and then the three pieces that go down the left in blue. This is a snapshot of our overall systems plan. And what I did was took a small part of that to illustrate how things run concurrently and how some have to run sequentially. So if you take the first bullet there across the top that talks about the CAP, you can see in the fiscal year 2009 development process that we did, it took us an entire year. And you can see the blue arrow there, and that is the balloting that I mentioned as a major breakthrough with OASIS. And that is important again because it establishes a standard for everybody to adhere to for all equipment that they bring forward.

The next period that you see between those two diamonds at the top is the amount of time that it will take us to have industry do their physical development of the hardware and the testing of the hardware that is required. And then the final part that is to the right of that diamond is the 180 days that are regulatorily required to give the broadcasters time to implement their plan.

So when you look at that first row from left to right, it seems like a lot of time transpires, and it does, but a good portion of that is testing and fielding that we have to have to allow the hardware to be developed, and then the amount of time for the broadcasters to be able to implement that.

Now, if you look at that chart from top to bottom, though, it will show two other programs that are happening simultaneously. Sea mass development, and then the PEP station development that we talked about before.

So I say all that to tell you that I think my biggest personal challenge is to maintain momentum of our program. I think we are on the upswing on stakeholder buy-in, I think we are on the upswing on education, I think we are on the upswing on buy-in from the States, locals, territorials, and tribals, but my challenge is to make sure that when they look at single entries, as I just mentioned on this development plan, that they don't focus on where they necessarily fall into only that one line, but that they look vertically as well and see where they fall into the whole program and where we need their continued support throughout the whole program.

Mr. DIAZ-BALART. Colonel, let me ask you—and again, I said we obviously understand you are new, and I have seen your track record, and obviously I am also a big fan of the new FEMA Director as well, who we know very well in Florida. And I keep saying unfortunately because we wish we didn't have to deal with these issues, but we do.

Now, can we get your commitment that you will commit to provide this Committee, this Subcommittee and this Committee, with regular progress reports on the implementation of IPAWS so we can track the progress and know if any of the changes are occurring and any timetable slips are happening, whatever; can we get that from you?

Mr. PENN. Yes, sir. I propose that we send you a written report once a quarter. And then of course we will meet at your convenience any time you would like more testimony for an update.

Mr. DIAZ-BALART. Madam Chairwoman, if I could indulge in one last question, thank you again for your courtesy.

Most emergency managers often say that one of the biggest problems with alert systems is that they basically frankly hit way more people than are in harm's way, which obviously impacts their usefulness. So one of the benefits of the modern system would be the ability to target alerts to those affected communities.

How localized would an emergency manager be able to target an alert under the system that you are looking at?

Mr. PENN. Sir, with the systems that we have looked at so far in Texas and Washington, we have really asked to be able to do two different things. They have systems that fulfill part of this need, but their overall vision is the ability not only to target specific geographical areas, and those could be as large or as small as the communications infrastructure would support. If we are talking about sending a cellular message, of course there is a limit to the number of calls that can be made at one time. But over time then that number is, in essence, infinite. But our challenge there is to make sure that we target in the right sequence so we get the most affected areas first. That is some of the work that we are doing there.

The other part of the work that we are doing, and it looks very promising is the ability to integrate plume modeling and other devices so it helps us decide which areas get targeted and which areas get notified first. So if you had an industrial spill, as I mentioned before, then to be able to target the people directly in the path of that cloud first. And those are the kinds of systems that we are working on there.

Mr. DIAZ-BALART. Thank you, both. I will be back right after votes. Thank you, Madam Chairwoman.

Ms. NORTON. Thank you very much, Mr. Diaz-Balart.

I just can't get Maine off my mind, you have to forgive me. I haven't been to Maine very much, but whenever I see somebody really in need, I got to ask, are we going to build a PEP station there? Are your 74, your twice the number you have now?

Mr. PENN. Ma'am, I will have to get back with you.

Ms. NORTON. I mean, there may be a reason. You will find me not a what person, but a why person and a how person. So my real question is why? Then I go on to, well, why? There may be a good reason. If they are relying on public broadcasting, well, you don't rely on it here, you don't rely on it in Florida. How come Maine got left to that? It has big cities, it has rural areas. So I need, within 30 days, an explanation as to why an entire State is left out there?

I am looking here at this map, Mr. Penn and Mr. Goldstein. There are States where you, for efficiency reasons, and because of the way communication works, as in the District of Columbia, for example, Maryland and Virginia work very often through us, the center of the universe. And you will find other areas where the center of communications system will overlap. But I am looking on this map, and I just don't see any State—well, Vermont looks pretty much in need.

Mr. GOLDSTEIN. Vermont is not covered either.

Ms. NORTON. Look, I see large gaps. I expect to see large gaps if you are doubling the number. So, it is a question of what are we going to do about Vermont and Maine? I would like to know why, in the first place, were—you know, you have got up in that area New Hampshire and Massachusetts saturated. And I am just at a loss to understand even the targeting mechanism for the PEP stations. If I can understand it, then it could be quite fine. But if you would make me understand that. And I would like to know in 30 days whether, one, what is going to be done? Because I have no idea what should be done, I am not saying what should be done, but if in fact with an almost doubling or more than doubling of the number of PEP stations, then I would want to know if Vermont and Maine are to remain uncovered, why? And what is to assure them of fairly equal access, by which I mean of course 24-hour access, somehow or the other somebody on the network has 24-hour access.

Mr. PENN. Yes, Madam Chair, I will get you that. And I will get you overall coverage for the Nation as well so that you understand what areas we can reach.

The original plan for the PEP stations, as I understand it, was to focus on the larger populated areas first, and then, as you do the buildout plan, go to some of the more sparsely populated areas. And that may be why Maine doesn't currently have a station. But the focus was to try to reach as many people as you could as early as you could and then build out the capability from there. But I will get a proper response back to you, Madam Chair.

Ms. NORTON. Thank you, Mr. Penn.

I serve on the Homeland Security Committee as well. We have been in a terrible conundrum about interoperability and the rest, but I must say I am really caught short on how to get my arms around State and local governments going out on their own.

I do not know what they are doing, I have no idea whether it would be useful, I have no idea how it will be tied into whatever is being done at the national level; and I would like to hear from both of you. Make me understand why a single dollar which is spent at the State and local levels today is guaranteed in any way to have any relationship to what it is that is being done at the Federal level.

Or perhaps we ought to have 1,000 flowers to bloom, so maybe there should be a multimedia approach. We have many different ways of communicating today. You could have a national system—this system that you are building out—plus these other systems; but I need to know how you envision, how you see what, for example, we would end up with and what it would look like, given where

the State and local governments are. And I would like to know how far ahead of us they are.

Mr. GOLDSTEIN. I think it varies, Madam Chair.

For instance, in our survey, recently, that we did of all the State emergency management directors, we found that the majority of them are building their own systems without regard to what the Federal Government is doing.

Ms. NORTON. What kinds of systems are they focusing on?

Mr. GOLDSTEIN. They vary in different kinds of ways. Some of them would be compatible with what the Federal is doing. In fact, 10 of them already use a CAP-compatible system, but most do not.

Ms. NORTON. So let me stop you there.

If they are not using a compatible system, what would be the effect of what they are doing?

Mr. GOLDSTEIN. Well, it is a potential Tower of Babel where the State and local governments and the Federal Government would not be able to get out a——

Ms. NORTON. Smokestack systems then?

Mr. GOLDSTEIN. That is correct.

They would not be able to get out a message effectively.

Ms. NORTON. Well, I will ask you and Mr. Penn.

It sounds to me as if States are in bad need of guidance. I am going to tell you that they are going to come in here and they are going to testify that we made them do it, that without Federal guidance, particularly in places that I would think people would feel themselves particularly vulnerable—if I were on the east coast or the west coast and you folks would not move, I would just have to move.

Even in a matter that affects interstate commerce, as a matter of constitutional law if the Federal Government will not—if there is a hole, the courts will allow—here, of course, no legal question is raised, but to show you just how responsible State and local governments will feel, they will allow folks to do whatever they have to do.

So I am very concerned that in the, shall we call it, fascination with technology, with people going around and selling people the Moon, that we are going to have systems upon systems built and billions of dollars spent for only one reason: There has been no Federal leadership, no Federal guidance. So what else can you expect people to do?

You need to tell me what we should do, what the Subcommittee should be doing, what you should be doing right at the moment to inform or alert the States and localities of whatever it is you think they should know.

Mr. PENN. Well, Madam Chair, I think your assessment is exactly correct. We have 50 States with 50 solutions because they have 50 different sets of problems. The reason they have had to develop their own solutions is because we have not given any national-level guidance and have not given them anything that they can use to build their systems on.

I continue to go back to our Common Alert Protocols. I think that is the first step in making sure that all the hardware that everyone purchases in the future is compatible with all the other hardware.

Ms. NORTON. That is what you have just shown us?

Mr. PENN. Yes, ma'am.

Ms. NORTON. By the way, I am going to say to you, Mr. Penn, that is the kind of thing that impresses this Committee, and maybe your military background helps to explain why you understand goals, and how goals mean steps and that nobody believes in goals without steps. So I was very pleased to see what you offered us there.

This is my concern: I am now the State of Podunk, located in the County of Nowhere. Administrator Penn, I am about to put out an order for this super-duper technology, way better than EAS and anything you could possibly do. What is your advice and counsel when I write you tomorrow, asking what you think I should do?

I am about to put it out. We have got a little bit of stimulus money. We will use some of that up on it. We are committed to the rest. Mr. Federal Government, tell us what to do.

Mr. PENN. Well, first, Madam Chair, I would ask that you adhere to the recently established Common Alert Protocols so we make sure that your systems can communicate with all the Federal systems.

Ms. NORTON. Mr. Federal Government, I am on board with everything you have given me so far, which ain't much, which is why we are doing our own.

Mr. PENN. Yes, ma'am.

Ms. NORTON. Now, Mr. Penn, you will also find, when I ask a direct question, I will not stop until I get a direct answer. If you need to go back and figure it out, that is the best answer. If you think you know what you would do, then that is an answer. But ″doing what they are already doing well″ is not an answer.

Mr. PENN. No, Madam Chair. I am referring to the protocols that we are getting approved through the OASIS Foundation right now. Those will establish the language that all the computers need to speak.

So I would ask you, as a State, if you were buying anything, that it adheres to those protocols. That way——

Ms. NORTON. Protocols, which will mean your system will be compatible with whatever we do in the Federal Government, and those protocols already exist?

Mr. PENN. Those are currently being balloted on by the organization. I expect those to come out and be published in the next week or two. And then those will become the industry standard for all the equipment that is developed that we are going to use as a Federal Government; and it will be—if you purchase equipment with the same protocols, you will be able to communicate with all the Federal Government equipment.

You will also be able to communicate with all of the other States that are developing programs. So, if Indiana has a good idea and they develop a system, then you will be able to purchase your system to use in your State, and you will be ensured that it is compatible with everything else that the Federal Government is using and the other States are using.

Ms. NORTON. And it will all go through that Federal matrix of your protocols so that you will know about Indiana, et cetera?

Mr. PENN. Yes, Madam Chair. For lack of a better term, it will have a stamp on it that says it is compliant with CAP.

Ms. NORTON. So, in light of that, you would not say, Do not go. You would say, Go, if you would like, but with the protocols you have just described?

Mr. PENN. Yes, Madam Chair, because throughout this whole process, as I mentioned, there are 50 States with 50 different sets of needs. They may have equipment that they need to develop to notify people in a rural area that might not necessarily be needed in an urban area. So they may need to do some of that to satisfy their own requirements as a State and their own alert notification requirements. But if they are lined up with these protocols, then they will also be able to channel from the Federal Government the message through all of those means that they have down to their citizens by the redundant capabilities that we are discussing.

Ms. NORTON. Mr. Penn, in my hypothetical—all of my hypotheticals come out of my experiences as a law professor. In my hypothetical, someone has had the prescience to actually ask you before spending his money.

Your testimony and the testimony of Mr. Goldstein is, people are not asking the unresponsive Federal Government. So my next question is, don't you feel that you should put out proactive guidance of the kind you have just given and of, perhaps, other concerns or matters now to the States and localities throughout the United States?

Mr. PENN. Yes, Madam Chair. I think you are absolutely right. I think what we have done up to this point is, we have had a coalition of the willing; and the States that have participated and the broadcast organizations that have participated are already into what we are doing, and they are all very supportive.

Ms. NORTON. Say that again.

Mr. PENN. I think the States that have elected to participate and the broadcasters and others that have elected to participate have all bought into what it is that we are asking, and they agree that we are going in the right direction.

Ms. NORTON. I do not know what the word ″elected″ means, because your testimony indicated that there had been outreach. Can you therefore explain—maybe those elected are the ones who cannot come forward or are knowledgeable—why it is that we have found many stakeholders, including broadcaster associations and local government officials, who are unaware of the IPAWS program? That was frightening.

Some are unaware of your goals. Some have never heard of IPAWS. A majority of the States' survey respondents said they had received little or no information. So who is this, electing to come forward?

Mr. PENN. Well, yes, Madam Chair, and that is why I said ″elected,″ because we have not done a good job of educating and sharing our program across the broad spectrum. We have had some targeted engagements——

Ms. NORTON. So how are you going to rectify that when you have whole gaps and who even knows what your initials stand for and you are way ahead of them now into protocols for their computers?

Mr. PENN. Well, part of my outreach strategy is to start with Administrator Fugate, and when he meets this fall with—or actually this winter with the State emergency managers, one of the items

on his agenda is to discuss IPAWS and to make sure they understand what the system is and how it works.

Ms. NORTON. Who is going to elect to come?

Mr. PENN. That will be all of the State emergency managers in that forum. I think that is the first step.

Ms. NORTON. When is that to take place again, please?

Mr. PENN. I think it is January, Madam Chair, but I will have to verify. It is either January or February.

Ms. NORTON. Within 30 days, would you verify when that will take place? Since those who ″elect″ to come may get the word from Administrator Fugate, would you also tell us within 30 days how you intend to inform the stakeholders of what you are doing in a readable and brief-enough form to be read?

Particularly, I am concerned with them knowing about doing their own systems without making sure they are going to be compatible.

Do you have any idea, Mr. Goldstein, how many of these systems are not compatible as of now?

Mr. GOLDSTEIN. It is our understanding that, right now, only 10 States are CAP-compatible. But I need to also mention one thing, which is that CAP is not a magic bullet. CAP does not allow for the receipt of live audio, for instance, and so there are questions about the ability of CAP to be an effective protocol.

Ms. NORTON. Well, that leads me, of course, to the question of what is the ideal national system—CAP plus what?

Now, I ask this question with some hesitation because the industry knows how to update and how to reinvent itself into newer and newer forms of technology. Okay. There comes a point when whatever is the next doodad is of not much interest to me. It may be of interest to my grandchild, but this is not about playing games. It is about systems that are state of the art, that will not have to be updated every year in order to be useful.

If you have a vision of what you are doing—and Mr. Penn, I certainly see a new vision for IPAWS—what is the vision for a communication system that would incorporate more than the CAP system, recognizing that the States are already into some systems beyond the old, traditional system?

Mr. PENN. Yes, ma'am.

The CAP is, for lack of a better term, a language that says that any equipment that you have will follow this same language, so that is the thing that connects us together.

Ms. NORTON. But do we really want people to leave people to the salesmanship of high-tech types who always have a new doodad for you and some advice and counsel on what it is we are aiming for?

Now, if people want to spend their money over and above what it would take to have a national system that incorporates technology, state-of-the-art technology, recognizing that that covers a broad field, would you be in a position now or in the future to offer them advice about what a national system ideally should look like?

Mr. PENN. Yes, Madam Chair. I think, in working with them, they will tell us what the system should look like. That is another deficiency, I think we have had: We have not actively solicited the solutions that are there and the needs for the States.

Ms. NORTON. What mechanism do we need to have in place to do that kind of solicitation?

Mr. PENN. Well, the first thing we need to do, Madam Chair, is build some confidence and some credibility into what we are doing. Because part of the problem, I think we have with the stakeholders is, they are not ready to come forward because we have not proven as a Federal Government that we can deliver what I just told you we are going to deliver.

I think we will go a long way with that with our tests that we are doing in January in Alaska, where we will do an end-to-end test of the network, which will be the first one that we have done at that level before; and then we will follow it by the end of 2010 with a nationwide test from end to end that will show that the whole system works.

Ms. NORTON. The testing is something that is happening, and it will be important, but these people are not even trained to use the present system. Too many of them are seeing nothing at the Federal level and have not even bothered. Here we have had to put in a bill directing that there be advisory committees.

What would a true system of input look like? Are you building such a system?

Mr. PENN. Yes, Madam Chair. I see it as a series of conferences and Committees and Subcommittees, a real organization that does not address the overarching problem—we know what that is, and we have discussed the systems that we need. We need someone like Mr. Witmer behind me here, who is a technician and who can get together with a group of technicians; they can discuss the solutions and work out the nuts and bolts of how you do this. And we have started that on a small scale; we need to make that much larger.

Ms. NORTON. Mr. Penn, we point back to May 2008 when FEMA intended to create stakeholder and State Subcommittees for stakeholders in compliance with the Federal Advisory Committee Act, and that has not been done yet, apparently. Neither the Federal nor the State Advisory Committee has been implemented, and that is why, you know, we just put a bill in.

You figure, when you are talking to grownups, you get a commitment, and that is all it will take, but we have other devices known as a matter of law. We also have appropriation bills that can cut people's funds or make people use their funds in certain ways, but that is really what you do with children.

So you speak about these Committees; in 30 days, I want to see the outline to this committee of what a system with stakeholders embedded in your work—virtually embedded, since you are right that you cannot do this blueprint style, top to bottom—would look like. It does not have to have all of the stuff; we just want an outline of what it is you intend.

If you submit that to us and would submit this around the country, it seems to me you would begin to let them know that it is coming, that it is a matter that the Subcommittee wants to do, that you want to do, and that it is going to happen this time because they have had their promises.

Ms. NORTON. You know, part of what happened to FEMA is, these people were shifted in and shifted out. No wonder there has been no vision of what IPAWS should look like and where it should

go. Staff turnover. So, sure, if you can have a lot of staff turnover, then whoever comes in is going to do something that may be different unless it is so firmly established that there is a reason to continue it. And of course everyone knows—you have acknowledged that the personnel shifts have affected your work.

Now, one of the problems this Subcommittee has—and we know that an agency is not serious if it is largely relying on contract workers, if it is not building it in. And contract workers can go off to the next contract if somebody happens to get a Federal contract.

We were disturbed at the figures from FEMA as reported by GAO in June 2009—this is very recent—27 contractor staff, 5 FEMA IPAWS staff positions filled out of 11 noncontract, full-time positions available. See, that is a signal to a Subcommittee that these people are doing this out of their hip pocket.

So I have got to ask you about staffing, permanent staffing, that shows us and shows States and localities that this is a new beginning for IPAWS and what goes with it.

Mr. PENN. Yes, Madam Chair.

We have also hired, sitting behind me, Mr. Antwane Johnson, who is a systems engineer with 20 years' experience. He just came over to us from DOD. So, with him and Mr. Whitmer, I think they are the leadership of IPAWS; and as you are aware, I just joined FEMA and this project recently, but I plan on being here through the completion of the program.

Ms. NORTON. Wait a minute. Are you hiring permanent staff to get this job done or are you going to continue to rely on contract people who can come and go?

You know, do you have the positions or not?

Mr. PENN. Madam Chair, I have a combination of both. Currently, I have 11 full-time positions in IPAWS. Of those 11, I have 7 that are filled. I have one that we just got a name against, we made an offer to. The other three close out this week in the government offering system.

Ms. NORTON. So you are going to fill most of these 11 positions?

Mr. PENN. Yes, Madam Chair. That is my goal, to fill all 11.

Ms. NORTON. Now, why have you been relying on—you know, the administration has said it is going to rely less on contract. The present majority believes that the proliferation of contract workers has meant more and more hands off as far as our ability and the Agency's ability to track its own progress, to know whether or not there has been any progress at all because of the way contracts work.

Now, why is FEMA, at least at the moment, using a majority contractor staff for this national work that is vital to national security and to all we do to alert people about natural disasters? Why is there this division at all?

You have still got to pay money out. Why are you preferring to pay it out to people who are responsible to your contractor? This may not be his most important contract, and he can put those people out any time he wants to if he thinks he has got another contract—I don't know, some DOD contract, he had better get that done; or they have got a deadline on this one, so off those people go.

I mean, why, if this work is important, has FEMA got this kind of subdivision, this kind of division of work?

Mr. PENN. Madam Chair, that is a good question.

In addition to the 11 permanent staff that I just mentioned, we have 15 contractors that are part of our program management team. They do technical support and they do business operations.

Ms. NORTON. Do they have skills that you do not have in-house?

Mr. PENN. Well, one of the challenges, Madam Chair, is, this is a program with an end date. We expect it to be completed in 2012. So you cannot necessarily hire full-time Federal employees for a program that we know is going to one day be completed. So that is one of the reasons why we have the contractor support.

The other reason is, at different times throughout the project, we need certain capabilities and certain technical skill sets that we might not necessarily need when we get to other parts of the program.

Ms. NORTON. Oh, and we can understand that.

If, in fact, you were to tell me that these 27 people had skill sets that are useless to, of all people, the Department of Homeland Security, except on its project, then I would understand. Because nobody would want to just hire permanently people for—particularly with these kinds of upgraded skills.

But you are part of the Department of Homeland Security. I can tell you, as a Member of that Committee, I have not been particularly impressed by their own level of technology, so I can understand that this was supposed to be an end date.

I must say, in light of the poor record of FEMA on IPAWS, it is amazing that they would use contract employees as a reason of saying, Well, you know, this is only a short time. They have almost done nothing since our last hearing, so these have become, in effect, full-time people because we have gone on for so long.

Just to put you on notice—you are new, Mr. Penn—we are going to require you to justify contract employees as necessary in this top-heavy way and as useful only for this project, rather than to allow this division, because we believe this has lots to do with the ins and outs of the matter.

Mr. Goldstein, how has having contract workers move on and off affected the ability of IPAWS to develop?

Mr. GOLDSTEIN. I think the combination of not having much of a permanent staff in the government and the turnover of staff and the turnover of project managers—there have been four in 2 years—combined with a contract staff that is not permanent, has clearly affected the program's implementation, the changes in vision and the slowness of the program's development.

I would also add that we think that some of the pilot projects that were put in place under IPAWS, because they have not been able to document lessons learned from these projects—in fact, a consultant recently determined that, of 28 projects, there was only status information available for 18 and that was only partial information. They have had a very difficult time documenting information in the program and using that information to leverage actual changes in IPAWS.

Ms. NORTON. Well, I thought the whole point, Mr. Penn, of a pilot project—you have got to tell me what is going to come of this

and how much has been expended, because I thought the point of a pilot project was precisely to document it so you could use the information to move forward.

So whatever happened to these pilot projects? And how much in Federal funds has been spent on them?

Mr. PENN. Madam Chair, I think Mr. Goldstein is referring to, among others, the Sandia contract project that we had several years ago where we, in fact, did not get the product that we were required to receive. We did not get the lessons learned; we did not get the results of the project as were outlined in the contract. That was a single overarching contract that covered pretty much the whole of IPAWS at that particular time.

We do not have any contracts like that now, and I do not plan on initiating any contracts like that. The management of the system is my responsibility and mine alone, and we will continue to do that, but I think there are times in the foreseeable future that we will need short-term contracts for specific parts of our system and what we are doing.

Ms. NORTON. Out of the total number, there were reports on, did you say, 18?

Mr. GOLDSTEIN. There was some information available on 18 of 28. It was not a lot of information. The status and deliverables were only partly available, according to the consultant, and a lot of the documentation that would help FEMA use the pilot projects to implement permanent solutions was simply not developed and moved forward either for their own use or for the use of the stakeholders.

Ms. NORTON. Mr. Penn, within 30 days, the Subcommittee wants the figure of how much has been spent in total, recognizing that some of it might have been useful.

Ms. NORTON. How much has been spent, total, on pilot projects?

This Subcommittee wants notification ahead of—I mean, it is the separation of powers. You can do that if you want to do it. We want notification if you intend to do any pilot projects. We want to see what the pilot projects are for and what the deliverables will be and how you will enforce them.

Do you intend to do any pilot projects in the future, in the near future?

Mr. PENN. Yes, Madam Chair. The program that I mentioned in Alaska, where we test the full system, is in fact a pilot project.

Ms. NORTON. When is that going to be?

Mr. PENN. That happens in January of next year.

Ms. NORTON. In 30 days, we want to see it. We want to see what the plan is, how we will track it, how we will use it, why it was chosen.

I am going to ask the Ranking Member, who has returned, if he has any questions before I finish my questions.

Mr. DIAZ-BALART. Thank you, Madam Chairman. I know that you want to move along, so I will be brief.

Ms. NORTON. Go right ahead.

Mr. DIAZ-BALART. Before the votes, we talked a little bit about this, but I want to kind of go back to it.

The GAO in its report—and frankly, today's testimony—highlighted the number of areas of concern about the EAS and IPAWS.

In particular, the GAO points to missed deadlines and to timelines and timetables; and we talked briefly about that. In fact, there appear to be a number of discrepancies between FEMA's IPAWS and the implementation plan issued in June of this year and what FEMA's previous timetables were; and I alluded to that before.

For example, the current implementation plan includes a target date of 2010 for the GAO targeting capability, but FEMA's previous timeline was 2007. The implementation plan anticipates an EAS link this year, but the previous FEMA timeline anticipated completion of these by, again, 2007.

For the PEP stations, expansion is now slated for 2010 to 2011, as opposed to, previously, when it was supposed to be 2008.

So, you know, how can you account for why the IPAWS program has failed to meet these deadlines? Obviously, we need your assurances that we will meet those timelines, and I think you have already given us those assurances, but—obviously, I think you understand the nature of these questions when you look at some of the specifics in the GAO report.

Mr. PENN. Yes, sir.

I think, again, part of our problems with the overall project management and the way we have done that and what we have and have not done, I think, as an organization, is that we have also not done a good job of capturing the lessons learned and all of the deliverables as mentioned earlier from the contracts that we have let.

So my plan for that is more vigilant management of the system, and I will provide the status of where we are and updates to you quarterly, as I committed to earlier.

I would like to say that everything is going to proceed on track and that there are not going to be any problems or any time slippages of any programs that we have to support IPAWS. But I do not think that is realistic. I think the way we manage those and how we handle those and how we make them work with the other parts of the program are what is critical to a favorable outcome of IPAWS.

Mr. DIAZ-BALART. Madam Chairman, two more if I may. I know that you want to move forward, and I know we have the other witnesses.

Look, I am not going to lie to you. I have to admit to you—and I told you this before—I feel better just with the fact that I do know your track record in Florida. And I also know the FEMA administrator well, and there is nobody better in the country. However, obviously, I think there has been demonstrated an urgency for this legislation to move forward, and I appreciate your committing to getting back to this Committee.

Mr. Goldstein, I do not expect you to comment specifically on a bill—you know, whether you like it or you don't. But could you comment, are some of your concerns dealt with in the legislation that the Chairwoman and I have been talking about today and that the Chairman of the Full Committee, Mr. Oberstar, has agreed to put into his bill, which is one that I have sponsored?

Mr. GOLDSTEIN. I think that any effort to improve the accountability of FEMA to achieve the objectives and to be able to put together a program that runs effectively, that has goals and objec-

tives and an implementation plan that is provided not just to Congress but can be used by stakeholders to chart their own course, all of that is very helpful. Being able to communicate with the public and the stakeholders will be critical as well.

Mr. DIAZ-BALART. You also mentioned in your testimony—and I have it marked—you mentioned, obviously, that State and local governments are implementing warning systems which may be difficult to integrate with the broader system.

Would it be fair to say that time is of the essence?

Mr. GOLDSTEIN. Yes, sir. I think one of the reasons that States have moved out on their own is because there has not been clear direction from FEMA over the last couple of years, and they have felt the urgency to do so on their own.

Mr. DIAZ-BALART. Great. Thank you.

Thank you, Madam Chairwoman.

Ms. NORTON. Thank you, Mr. Diaz-Balart.

Just one or two more questions.

You know, probably ever since 9/11, people think of terrorism, and the alert that they most don't want to get would be one of those alerts.

This Committee, as I indicated in my opening remarks, mainly deals with natural events. DHS, because of the all-hazards concept, should be particularly concerned with the slow movement here because DHS is fully involved in natural events as well. But what is the involvement of DHS with a system that has lagged so far behind after 9/11 when almost everybody was on alert to do better?

For example, the GAO, if you look at that report, GAO was not able to document reporting requirements or performance measures that were mandated by FEMA or DHS.

Are there now regular reporting requirements? Are there now regular performance measures?

Mr. PENN. Madam Chair, there will be, from my perspective, now that I am in the Chair. I am not sure what the reporting was in the past and how that worked, but it is certainly my intention to——

Ms. NORTON. Well, let's hear from Mr. Goldstein.

What was it like before so we will know what a before-and-after would look like?

Mr. GOLDSTEIN. Madam Chair, it was very difficult for GAO to obtain any documentation about how the goals were established, what the goals were, what kind of——

Ms. NORTON. Were there goals?

Mr. GOLDSTEIN. There were some very vague goals that most people would not commonly refer to as ″goals.″

Ms. NORTON. Different from those protocols, for example, than Mr. Penn spread across the——

Mr. GOLDSTEIN. There were some very vague, general objectives for what a program would be; and they changed fairly quickly. There were no—we were not able to obtain any performance measures. Implementation plans over a long period of time did not exist, and again, general documentation that you would expect to see in the audit of any program simply was not available.

Ms. NORTON. So, Mr. Penn, I will not ask you what you have got. You see what you don't have, and that is what the Committee is going to be looking for.

GAO is going to be coming in. This is all about having an objective, outside evaluator. So they have got to be able to report to us on the performance goals, et cetera, the next time.

Let me ask you about the training. It was very disconcerting to hear the stakeholders unable to use the existing system.

In 2007, GAO recommended a training program. You mentioned that you are creating a training program. If you wanted to establish credibility with the stakeholders, probably the very best way to do it would be to offer training on what they have got now pending, what you are going to have, rather than saying, Oh, wait until you see these bells and whistles; then we will really train you.

We think many of them don't know how to proceed on the present, old-fashioned system. Would you tell us what you expect and how you expect training to be accomplished?

Mr. PENN. Yes, Madam Chair. A number of solutions are available.

We have just started working with the Emergency Management Institute, which is our controlling body that handles our training programs internally for emergency management. Within that, we have started to build a core structure with a number of courses that will be available online for emergency managers on the basics of how to work the system.

Also, as we continue through our program model, we have several milestones for when we have to accomplish several training goals within that so that we keep the users on a level where they understand what kind of equipment we have and what they are supposed to do.

So training is built into our long-term plan. Some will be electronic means training that they can access from the Internet, but some will be part of our emergency management training. Some are courses that already exist, and some are courses that we are going to have to add in the future.

So we already have Federal-level courses for emergency managers. Adding parts into that curriculum as part of the solution and then adding specific courses for specific tasks is also part of the solution.

Ms. NORTON. Well, I am trying to find out how people get trained on what you do now and then how you then build up to training on what you are putting into effect. So our information is that the lapse in communication from Washington and help from Washington means many people are pretty rusty with the present system. I am concerned about that because it is clearly going to take you a few years to get the system up.

Could you get us, within 30 days, a continuum on training beginning with right now?

Ms. NORTON. Now, some people will say, Well, that is one thing I know how to do. You can make people be trained, but if they know what they don't know by saying, Look, this training is a—what do you call it when you have already been trained?

Mr. PENN. Sustainment training.

Ms. NORTON. Yes, something like that that we recommend for even those of you who think you know the system, and then go forward from there. That is a way of saying, Look, we care about the stakeholders, and one of the reasons you see it is, now we are doing this training; even for those of you who are most advanced, there are some things that you probably need to know.

I would just like to know what the continuum on training is, given the fact that there has been very little training.

Mr. PENN. Yes, Madam Chair, and that is it exactly.

The problem is sustainment training. I think we all do a good job of initial training when we field a new piece of hardware or software. But sustainment training is where you make your money, and that is the part we don't do.

Ms. NORTON. We were pleased to hear you talk about tests. You plan a working group to test the system.

For the record, when do you believe the President's EAS message will be able to reach the public? What is the end date for that, do you think? By that time, you will say it is——

Mr. PENN. For the record, Madam Chair, the end of fiscal year 2010 is when I plan to do a nationwide end-to-end test. Part of that depends on the outcome that I have from Alaska, that I mentioned. As I said before, that not only gives us the information we need to know, if the system is functioning as we think it is functioning, but it also gives us the buy-in that we need from all of the stakeholders.

Part of the problem in the past has been that the broadcast community was not willing to donate airtime to do a systemwide test because, regardless of when it is, that interrupts some portion of their programming.

Ms. NORTON. I don't think you will have trouble saying, if we do a systemwide test based on your time frame, wherever you are—I can tell you, unquestionably, they interrupt right now.

Would it be a test longer than that, than the one that beeps and goes out for, what can only be called a minute or so?

Mr. PENN. No, Madam Chair, it would not necessarily have to be any longer, but it would not necessarily be at the time that they chose to do it. We could certainly do it at a time when it was not peak broadcasting.

Ms. NORTON. Yes, that is when they try to do a lot of them. I can tell you of somebody who has heard them in the dead of night here or, shall I say, the dead of morning.

Mr. PENN. Yes, ma'am.

Ms. NORTON. I just cannot believe that if they thought there was a serious effort in Washington, that you alerted people that you were going to do this test—we have chosen it based on where you are at what tends to be the lowest viewer point, if that is what you want—you are not trying to see how many people are listening, right?

It is hard to believe that if, by that time—you go through training, you have your advisory groups, and people have greater confidence—that you would get much resistance if you chose the time based on the time zone in which a particular locality is found.

Mr. PENN. That is my point exactly, Madam Chair. We have not given them the confidence in the system to this point so that they know that this time is well spent. And that is my challenge.

Ms. NORTON. Well, thank you very much, Mr. Goldstein and Mr. Penn. We have found this testimony to be very important and useful to us in reviving our own confidence that we are beginning to get something done.

Thank you. You are excused.

Ms. NORTON. I am now going to call Panel II. We will hear from you just as you are seated.

TESTIMONY OF RICHARD MUTH, EXECUTIVE DIRECTOR, MARYLAND EMERGENCY MANAGEMENT AGENCY, STATE EMERGENCY OPERATIONS CENTER, REISTERSTOWN, MARYLAND; JIM COLETTA, COLLIER COUNTY COMMISSIONER, DISTRICT 5, NAPLES, FLORIDA; TOM AXTELL, GENERAL MANAGER, VEGAS PBS, LAS VEGAS, NEVADA; JUAN RAMON, REPRESENTATIVE, NATIONAL COUNCIL OF LA RAZA, WASHINGTON, D.C.; AND LISE HAMLIN, DIRECTOR OF PUBLIC POLICY AND STATE DEVELOPMENT, HEARING LOSS ASSOCIATION OF AMERICA, BETHESDA, MARYLAND

Ms. NORTON. First, Richard Muth, Executive Director, Maryland Emergency Management Agency, State Emergency Operations Center.

Mr. MUTH. Good afternoon, Chairwoman Norton, Ranking Member Diaz-Balart and Members of the Committee; and thank you for allowing me to discuss my concerns about the Emergency Alert System before your Subcommittee today.

As you stated, my name is Richard Muth. I am the Director of Maryland Emergency Management Agency, and I am also here as a member of the National Emergency Management Association.

Before being appointed to this position by Governor O'Malley in June of 2008, I spent 33 years as a first responder in Baltimore County, Maryland, including 15 years as the county's Emergency Manager and Director of Homeland Security. So, today, I bring to you both a State emergency management director perspective and also a local emergency manager's.

My passion for the Emergency Alert System began in September of 2003 when the system failed the residents of Baltimore County as Tropical Storm Isabel was pounding the mid-Atlantic region. At approximately 9 p.m. the night of September 18, as Isabel was pushing water up the Chesapeake Bay, my office wrote an emergency alert message, urging residents of coastal areas of eastern Baltimore County to evacuate to higher ground.

Unfortunately, the television stations decided not to air the broadcast immediately. Instead, they treated it as a press release, and ran the information on the 11 o'clock news. For some in the affected area, that was too late. By the time they were announcing evacuation recommendations on the late news, we were scrambling to get boats out to the stranded residents.

We later learned that the broadcasters did not think it was appropriate to interrupt the regular programming to the entire Baltimore viewing area for a message affecting only a few dozen; but for the residents, it could have been life-or-death information.

Fortunately, none of the residents of that area were killed or seriously injured because of the flooding. However, the emergency response did make for some anxious moments for the residents, and it also risked the lives of the first responders who rescued them. Much of that could have been avoided if we could have depended on the media to broadcast the alert in a timely fashion, allowing people to safely evacuate.

So, today, more than 6 years later, have things gotten any better? In some ways, yes. With technology, in Maryland, we have improved the system for distributing EAS messages.

Back in 2003, the system in Maryland relied on, as you heard, what is known as the ″daisy chain system″; that is, alerts are first aired from larger stations and then carried by smaller ones. But if the primary station in that chain chooses not to air those messages, those below don't receive them and don't air any messages.

Now, thanks to improved technology, we can notify a much larger portion of participating stations immediately, though a few still depend on the daisy chain system. Thanks to better coordination between my agency and the Maryland D.C. Delaware Broadcasters Association, I have more confidence that our State and local emergency managers, or my Agency, can get important messages out in a timely manner.

Still, a State or local emergency manager nationally cannot depend on local radio and television stations to broadcast an emergency alert. That is because stations are not mandated to carry such broadcasts, although they would be required to broadcast a Presidential alert.

There may be times that the President would be broadcasting lifesaving emergency information. In the global war on terror, for example, the President might be the right voice to calmly direct people across the Nation to take appropriate action in the face of an impending attack.

But the vast majority of protective order messages are going to come from local and State emergency managers to warn the residents of impending floods, dam failures, chemical spills, and such. Without clear regulations requiring radio and television stations to broadcast State and local messages, we cannot be assured that the public will get the messages before it is too late.

My written testimony contains a more detailed, technical description of the improvements we have made, a look at some of the improvements planned for the near future, along with some concerns about emerging technology and Federal regulations. But briefly here, let me offer several recommendations:

First, because both the Federal Communications Commission and the Federal Emergency Management Agency control various aspects of the Emergency Alert System, delays have prevented needed regulations from being implemented in a timely manner.

FEMA must adopt needed regulations, especially in regard to mandatory participation by broadcasters. While FEMA seems to be working towards enhanced public alerting in general, the progress is much too slow. The FCC, meanwhile, seems reluctant to allow the new procedures and technology capabilities that would make it easier to broadcast the right message to the right audience at the right time.

Second, leadership and coordination issues between FEMA and the FCC related to alerting systems must be resolved immediately, and the coordination needs to be communicated down to the State and local levels.

Finally, we need funds to help pay for the continued operations of various systems, including not just EAS but other complementary services, such as various text, cell phone, reverse 911, and other existing technologies.

We are just now learning that the Department of Homeland Security and some of the grants we receive from them are now being restricted to not be used for a continuation of service, which will also hamper the States and their ability to maintain these systems.

Once again, I thank you for allowing me the opportunity to appear before you today, and any questions I will be more than glad to handle. Thank you.

Ms. NORTON. Thank you very much, Mr. Muth.

Jim Coletta, Collier County Commissioner, District 5, Naples, Florida.

Mr. Diaz-Balart, you may want to introduce him.

Mr. DIAZ-BALART. Thank you, Madam Chairwoman. Thank you for this opportunity.

I am glad to have the commissioner here. I have known the commissioner for a number of years, and I can tell you that I have personally witnessed—hopefully, what he will be talking about a little bit today. But I have witnessed this man go out there before the storms and after the storms, going door-to-door, individually, to try to make sure that people get the message. Because, unfortunately, in some areas, there is no other way to do it.

And I have been a personal witness of that. It is a privilege to have him here. It is a pleasure to represent Collier County, but particularly when you have public servants like Commissioner Coletta and his colleagues in the commission.

I will mention that the Director of Emergency Management for Collier County is also here, accompanying him—a great professional.

There is a reason why Florida does the best job in the country, and it is because of individuals, as you well know, and leadership. And so it is great to have one of those individuals who shows great leadership and great caring here with us today.

Thank you, Madam Chairwoman.

Ms. NORTON. Thank you, Mr. Diaz-Balart.

Mr. Coletta, with that kind of introduction, we expect great things of you and your testimony.

Mr. COLETTA. I appreciate the kind words. I truly do.

Madam Chair and Members of this Subcommittee, good afternoon. My name is Jim Coletta, and I am an elected County Commissioner of District 5 of Collier County in southwest Florida. Naples is the county seat. However, I represent a district that covers a land area equal in size to Delaware; it includes the Big Cypress National Preserve and parts of Everglades National Park.

One community in my district is Immokalee, which has a population of approximately 20,000 people. The 2000 Census identified 71 percent of the population in Immokalee to be Latino, and I believe that that number has grown over the past decade. The per

capita income is only $8,576, and 40 percent of the population lives below the poverty line.

Immokalee remains the center of the region's agricultural industry. The farms of Immokalee produce a significant portion of the Nation's produce and employ thousands of seasonal, or migrant, workers.

I am here today to share with you my firsthand experience about the need for an improved public alert and warning system that can notify our citizens of a pending disaster.

In the early morning hours of October 24, 2005, Hurricane Wilma, a Category 3 storm with winds of 120 miles an hour, made landfall in Collier County, the first hurricane to directly strike our community in 45 years. Thousands of county residents were impacted. Property damage was estimated to be in excess of $1.2 billion and, sadly, several deaths were attributed to the storm.

While coastal Collier County was able to recover from Wilma in a relatively short period of time, thanks in part to good building codes that are strictly enforced, Immokalee, with its older homes and trailers that predated our building codes, took a major hit. That resulted in hardship for those residents. It was only by good planning by our emergency management team, led by Mr. Dan Summers, who has joined me here today, dedicated and hard-working government employees and the self-reliance of our citizens that recovery was achieved in a relatively short time.

In the days and hours leading up to the storm, we found ourselves faced with the enormous challenge of trying to communicate to the residents of Immokalee the need to evacuate or seek shelter or take other protective measures, a problem that was compounded by the fact that it was harvest time, meaning that thousands of additional migrant laborers were in the community.

The majority of the housing in Immokalee consisted of old trailers. It was evident that many of these trailers would not survive a major wind event, and these structures needed to be vacated, and the residents needed to be moved to public shelters at our local schools.

The local media outlets were focused only on coastal Collier County where the bulk of the population lives, and on neighboring Lee and Charlotte Counties, with little information being provided to the residents of Immokalee, despite the best efforts of our emergency management office.

There also existed at the time a weak communication structure between the commercial farms and local emergency management officials. The challenge became even more evident when commercial growers wanted to get in an additional day's harvest prior to the landfall of storm-force winds, which was deemed to be too risky based upon the timing variables of the storm.

Of course, our biggest challenge was the language barrier. Only one Spanish language radio station serves Immokalee, along with one weekly newspaper. The Spanish radio station was abandoned by its staff and was off the air the day leading up to the event. In an effort to reach out to the Immokalee residents, I enlisted the help of Spanish-speaking and Creole-speaking county employees and volunteers from the Coalition of Immokalee Workers and officers from the sheriff's department. We took to the streets of

Immokalee, going door-to-door, encouraging people to go to the public shelters before the storm arrived.

I also wanted to persuade them not to work in the fields until dark, as usual, the day before the storm. Otherwise, they would miss the free bus transportation the county was providing to take them to the shelters, or they might find themselves arriving at the shelters, filled to capacity, during the storm event.

It was very clear to me that the farm workers I encountered that day were unaware of the dangers facing them as the storm approached and were prepared to go to work in the fields. They had not understood the radio and TV weather forecast reports in English only. As I knocked on the doors with the interpreter at my side, I was utterly amazed to find that most people did not know a major hurricane was coming and did not know that their lives were in danger. Remember, this was less than 12 hours before the hurricane made landfall.

Some workers ended up staying in the field until dark, but we were able to convince the sheriff's office to keep the buses running to take the workers to available shelters, and fortunately, most people who wanted to get to a shelter managed to do so.

The damage to Immokalee from Hurricane Wilma was enormous. The lessons learned from our Hurricane Wilma experience is that there has to be a better way to communicate emergency information to non-English-speaking communities.

Our emergency management program has launched a number of initiatives to better serve the very unique challenge in the Immokalee area. One that seems very promising is called the Immokalee Recovery Coordination Group. It is a multiagency working group made up of the government agency's social service entities and faith-based organizations that represent the diverse language and culture of the Immokalee community. When activated, they are responding to and coordinating recovery efforts.

We are also publishing and distributing Spanish-language storm preparation guides, storm-preparedness CDs in Spanish and Creole, and have door-hanger emergency information available. We are utilizing churches and civic groups to communicate disaster outreach messages, and are developing plans to enhance public transportation resources.

We are very experienced in southwest Florida in preparing for hurricanes. During 2004 and 2005, in addition to Wilma, we were also threatened by Hurricanes Charley, Frances, Ivan, Jeanne, Dennis, Katrina, and Rita. I believe we have learned that all disasters are local and that no two disasters are the same for any community.

Rural farm communities which enjoy a rural lifestyle face many challenges as it relates to communication and coordination. Ever since Hurricane Wilma impacted my district in 2005, we have witnessed the continued explosion of new technology that enables us to communicate with each other from virtually any place at any time. It would seem reasonable to expect government to be able to harness this technology in a way that can help people during times of crisis, especially those who have traditionally not been connected to so-called mainstream communication channels.

In closing, I would be remiss if I did not recognize Mr. Craig Fugate, the new FEMA Administrator. As you know, Craig served as the Director of the Florida Division of Emergency Management under two governors, and did an outstanding job guiding the State's preparedness and recovery efforts during the hurricanes, wildfires and other emergencies. I am certain he will do an excellent job for FEMA.

Craig understands the critical need to communicate with citizens who may be in harm's way, and we would certainly be grateful for any assistance that can be provided by our Federal Government to assist us in protecting lives and property during emergencies.

Thank you. I would be glad top entertain any questions that you may have.

Ms. NORTON. Thank you, Mr. Coletta.

The next witness is Tom Axtell, General Manager of Vegas PBS, Las Vegas, Nevada.

Mr. AXTELL. Thank you, Madam Chairwoman and Mr. Ranking Member, for inviting me to testify today and for having both the interest and quite a bit of passion on this subject. I am Tom Axtell, the General Manager of Vegas PBS.

Mr. DIAZ-BALART. If I may, we have a problem with the microphone. It looks like it is the same technology that we have.

Mr. AXTELL. This is the problem for broadcasters.

Well, I am Tom Axtell, the General Manager of Vegas PBS, and we run 100 percent of all of the NOAA announcements, AMBER Alerts, dust alerts, and other messages from our health department and other sources.

Today, I am representing the Association of Public Television Stations and more than 360 public television stations across the Nation. I also have good experience in this area as a person who was downwind after Mount St. Helens erupted, and saw the role, both the good and the bad, broadcasters play in these situations.

Mr. AXTELL. [Continuing.] When public television stations made their investment in digital transition equipment in the late 1990s, we quickly realized the significant advantages that digital technology could offer to education, public health, and public safety. Digital television's bandwidth can be partitioned into multiple, simultaneous, wireless content streams, creating a system that can serve the public in many different ways at the same time.

One of these ways is sending data that contains emergency information, training videos, maps or blueprints to enhance public safety. Public television's congestion-free digital bandwidth is able to simultaneously support public alert and warning systems as well as encrypted networks to enable public safety and emergency management agencies to transmit vital information securely to personal computers, computers in police, fire, or ambulance vehicles, or computers connected to local area networks.

In Las Vegas, this is done through the use of a small digital television receiver that we had manufactured and have installed in over 160 locations. This receiver was purchased and installed per vehicle for less than $300.

When public television approached the Department of Homeland Security with a proposal developed in part by tests originating at our station in 2002, the Digital Emergency Alert System was born

through a cooperative interagency agreement. Deployed nationally as a part of the original DHS FEMA IPAWS plan, the infrastructure provides for a digital Presidential emergency alert and warning system to supplement the current broadcasters' EAS. It also serves as the foundation that can facilitate governor and local authorities' use of DEAS for State and local emergencies.

At Vegas PBS, we worked with this system by securing grants to build out the DEAS technology to deal with the school emergencies, earthquakes, and other threats. We have blueprints, hazardous material locations, utility connections, and other information on over 400 public buildings residing on a data server in our facility. In a school emergency, we can send first responders vital medical information on medically fragile students, complete blueprints, authorize parent or guardian information to reunification centers, and other data. We also have fiber links to the State's emergency data center with similar information on over 2,500 critical infrastructure sites they have identified and catalogued.

Other local public television stations in the communities we serve across the country can replicate the successes we have had in Las Vegas with this system with appropriate assistance from Congress. I would like to offer two recommendations on behalf of public television that can enhance the national alert and warning system as well as public television's local emergency response capabilities in this area.

First, a renewed focus on IPAWS by Congress, which you have so ably demonstrated today, is essential to ensure the quality and reliability of Federal alert and warning systems. The legislation introduced by the Chairwoman and Ranking Member in H.R. 2591 takes the right approach. We greatly appreciate being included in the IPAWS Modernization Advisory Committee as public television believes it can offer a unique perspective on these issues.

Second, the WARN Act made funding available to stations to provide the equipment necessary to send geotargeted messaging and to allow for better bandwidth allocation management. This will enhance stations' ability to create local alert and warning systems. However, those funds are currently being held at NTIA, awaiting coordination with FEMA. We urge this Committee to request that FEMA work with NTIA to expedite the release of these funds in order to enhance the buildout of DEAS.

Tomorrow will be the third anniversary when the bill authorizing the release of these funds was signed by the President. This week's headlines have featured fearful stories of people who were allegedly acquiring chemicals for potential subway bombings. It is clear to me that alert and warning cannot be put on hold or delayed.

Again, thank you for inviting me today to describe public television's alert and warning capabilities. I look forward to answering any of your questions.

Ms. NORTON. Thank you, Mr. Axtell.

The next witness, Juan Rámon, Representative of NFIB, which is a grassroots organization devoted to migrant workers. We have with him a translator. What is your name, sir?

Mr. WESLEY. Good afternoon, Representative. My name is Carlos Wesley.

Ms. NORTON. Thank you, sir. If you would be kind enough to translate, we would appreciate it.

[The following testimony was delivered through an interpreter.]

Mr. RÁMON. Good afternoon. My name is Juan Rámon, and I am a community leader with the Binational Front of Indigenous Organizations, or FIOB.

I have worked with the indigenous community in California for 10 years. I myself come from an indigenous community in Oaxaca, Mexico. FIOB provides support to indigenous farm workers who come from Mexico and Central America. We help them meet their basic needs and we educate them about their rights.

I want to thank Representatives Eleanor Holmes Norton and Mario Diaz-Balart for inviting me.

In my testimony, I will talk a little about the experiences of the farm workers during the 2007 wildfires in San Diego, and I will also offer some recommendations.

I would like to begin by giving you a brief idea about the farm workers in San Diego. They come from southern Mexico seeking agricultural work. They sleep under plastic tents in the mountains of San Diego without electricity or running water. They live in the hills because they can't afford to pay rent. Their biggest barrier is language since they only speak indigenous languages.

The October 2007 wildfires posed a great danger to San Diego. The fires threatened the areas where the farm workers live and work. We knew we had to physically go where they were. The workers already know us and they trust us because we speak their languages. In the places where they live, it is hard to get news from TV or radio; their only means of communication are cell phones, but sometimes those do not work because their phone cards run out or they have been unable to charge their phones. That is why we always have to be with them.

When we got to the field, we asked people to leave. The fire was a mile away from the field and the air was filled with smoke. I spoke to them in Mixteco. I told them the fire was dangerous and that they should protect their lives and their health, and that we have found shelters for them. We were there for about 12 hours to ensure that if the fire changed direction, the farm workers would have a means of escape. Some were willing to go to the shelter, others did not. Ten of them did not come with us because they were afraid of losing their jobs or fear of immigration authorities. We advised them not to return to their homes because the fires were too close. They decided to sleep under the tomato plants.

We were very concerned about the safety of the farm workers who were going to spend the night. We brought them sleeping bags and prepaid telephone cards, $5 worth. The next day, we returned at 6 a.m. To check on the farm workers, and we were there with them from 6 a.m. To 6 p.m. For a whole week. Most of the time it was only my organization that was communicating with the farm workers.

We saw one of the bosses from the ranch, a fire chief, and people from the Mexican Consulate. The consulate tried to advise them to leave. The fire chief did not talk to the farm workers.

Many farm workers experienced itchy throats and watery eyes. I took them to a clinic where they were given free medical treatment. Fortunately, none of the farm workers was seriously injured.

We learned from this experience how to better prepare ourselves for the future. There are some recommendations I wish to offer to the Committee regarding how to improve communications with indigenous communities and with other difficult to communicate groups.

First, local governments should partner with community organizations. We already know how to communicate with our people and to make sure that the emergency message gets to them. During an emergency, we can inform the local government about what is happening, and we can also transmit messages from the government to our communities.

Two, help the community to organize itself. We want to organize groups and leaders. During an emergency, each leader will be responsible for their group.

Three, support natural disaster preparedness education as to what to do and where to go. Use photos and videos to help the understanding of those who do not read or write.

Four, local governments make a small investment in organizations such as ours so we can help the government to help save lives.

Cell phones were used during the 2007 wildfires, but that was not enough. Text messages are a big step forward and could help in communicating with people who speak languages other than Mixteco.

We recommend that the Committee pursue other options. Six, one such other option could be to use radio, television. We can reach many indigenous people through radio and TV programs. For example, we could alert them to the H1N1 epidemic. These proposals will help improve the emergency alert system for all communities.

This is all. You already have a copy of my testimony, and it includes more detail, so you can read it. Many thanks.

Ms. NORTON. Thank you, Mr. Rámon.

Finally, Lise Hamlin, Director of Public Policy and State Development, Hearing Loss Association of America.

Ms. HAMLIN. Madam Chairwoman, Ranking Member Diaz-Balart, thank you for this opportunity to appear before you today and provide testimony on behalf of Hearing Loss Association of America and approximately 37 million Americans with some kind of hearing loss.

I am Lise Hamlin. I amthe Director of Public Policy and State Development for Hearing Loss Association.

I have a significant hearing loss myself and have experienced emergency alerting issues from a very personal perspective. I would also like to thank the Committee for providing the captions that are appearing here. It has helped me participate in this hearing, too.

Now, as part of my job, I have delivered presentations around the country about emergency preparedness for people with hearing loss. Over and over, I have heard stories about emergency situations that were more difficult, more frightening, even life-threat-

ening because of communication difficulties during emergencies. And I have been there.

On September 11, 2001, I was in my office in Manhattan when the World Trade Center was hit. My coworkers' first reaction was to turn on the television; when we did, we found the news was not captions. Now, for me, it wasn't as much of a problem because my coworkers interpreted for me. But for people who had no access to captions who were alone, it meant being isolated at a very scary time.

Then I moved to the D.C. area around 2002, just before the sniper attacks. Now, when television programming was interrupted with breaking news about the shootings at gas stations or in malls or near schools, people with hearing loss were left behind. Now, those stories that were not captioned, they told us, because they were not obligated to because EAS had not been triggered. I guess what that means is that people with hearing loss don't deserve to have access to the same information at the same time as everyone else.

So when I am asked, will EAS deliver the President's message to people with hearing loss, I wish I could give you a confident yes, but if a major disaster happened tomorrow, I cannot say with certainty that people with hearing loss will have received the message in an accessible way.

Just this month, a woman from Kansas City, Missouri wrote me saying, Recently, the weather sirens went off, and the local station I was watching interrupted the news to report the storm, but without captions. I was left not knowing just what was happening, and I ended up calling the police to find out. I may be old, but I am still interested in the local news, and I also feel very unsafe in a bad storm. Now, when I asked that woman if I could use her story, she said yes, but don't bother about the name; I am not looking for fame, I just need help being able to keep up with the world. And that is all this community wants; we want to be able to keep up with the world just like everyone else.

Now, we know technology has changed dramatically since 9/11, and people who are hard of hearing or deaf have embraced this new technology eagerly. We use text messaging to a greater degree than most people, except perhaps teenagers; they may have us beat. But we need to exploit this new technology. We need emergency messages that reach each and every mobile device directly. We need e-mails and Internet messages that be can accessed instantly. We need research on what makes these emergency messages understandable. We need video emergency messages that are posted online with open captions in addition to sign language versions for those who need that.

We need our States and local communities to have the capacity and policy in place to caption their streamed videos just as we need the national messaging system to support that. And we need broadcasters who post videos online to caption those videos. And if it is an official who is talking with a sign language interpreter right next to them, why can't we get an angle that shows them both so people who need both can get that? That just makes sense.

We also need to think about redundancy just as emergency managers will tell us. When the power goes out, many people can turn

to portable televisions or their radios, but for people with hearing loss, that won't work. There is no requirement for captioning on televisions smaller than 13 inches, so we have no access to portable television and no access to radio. We need to change the rules so that smaller televisions and smaller devices altogether will be able to be captioned. And we need to support projects like the National Public Radio's project to make captioned radio a reality.

We also need to support all the recommendations coming out of the National Center for Accessible Media at WGBH on the access to emergency alerts. And there has been research coming out of Gallaudet's RERC that has also been very valuable to help us get the access alerts we need, as well as through NIDRR, the National Institute on Disability and Rehabilitation Research.

At a time when there is so much in the way of new research, new technology that offers hope to people with hearing loss, we find that we are frustrated that these new technologies are not being exploited in the way they could be. People with hearing loss find their needs are often forgotten or remembered after the fact. We need for that to change. We need to be included right from the start.

Hearing Loss Association stands ready to work with you to provide information and resources as well as to get the word out to consumers. We have a list of recommendations, which, for the sake of time, I will let you see in the written testimony. But we thank you for this opportunity to provide our testimony, and we urge you to take the steps necessary to ensure people with hearing loss get all the information they need when they need it.

Thank you.

Ms. NORTON. Thank you, Ms. Hamlin.

Let us move on to questions. As a courtesy, I will ask Mr. Diaz-Balart if he wants to proceed first.

Mr. DIAZ-BALART. Thank you, Madam Chairwoman.

Let me thank all of you for your testimony.

I have really just one question—and I asked the same question of the GAO, I will ask in different words. In your opinion—and I think, Mr. Axtell, you already mentioned it, but do you think that time is of the essence to move forward? And do you think that this legislation would be a positive step? And how much of a positive step in dealing with some of these issues?

And whoever wants to deal with that, all of you, however the Chairwoman would like to deal with that. And that is all I would have at this stage.

Mr. COLETTA. Congressman, if I may go first. Once again, thank you very much for the opportunity to be here today.

Anything that you can enter into this mix to be able to get more information out to the public in a timely fashion would be extremely welcome. I don't think there is ever such a thing as too much redundant information going out at a time of emergency.

I would welcome any opportunities. If you can possibly move this bill forward this year, beautiful; if you can't, we will support you next year, whatever it takes.

Ms. NORTON. Any of the rest of you have anything to add to that answer?

Mr. AXTELL. We would strongly support public television advancement of this bill, and also the expenditure of funds from the WARN Act that have already been authorized. I think that will greatly strengthen the system.

I would like to just point out, technology is going to keep changing. We are now, in Las Vegas, building on a new 4G network. IPAWS shouldn't wait for the 4G network or the next computer card or the next thing. We need a system that we can deploy today for the next hurricane or earthquake or whatever the disaster is. And then as these new things come along, if they are CAP compliant and so on, we will be able to wire them into a system of systems.

Mr. DIAZ-BALART. On the issue of the WARN Act, both the Chairwoman and I took note of that, so we will be working on that. Thank you.

Ms. NORTON. Thank you very much, Mr. Diaz-Balart.

I tore out the testimony of Mr. Muth where—we are pretty close to where you are, sir, as kind of a classic example where the stations decided not to air—apparently didn't have to—the storm Isabel message. They didn't want to interrupt their broadcast for the entire Baltimore County and area. And you can understand they are afraid somebody will switch from 24 to something else by the technology they don't even have. They argued that it only would affect a few dozen homes or so.

Do you think that the Integrated Public Alert and Warning System, as it is called, as it is being built out, would take care of that problem? What would you have the Federal Government do otherwise with respect to an emergency that is confined to an area and with respect to what the broadcasters should be required to do?

Mr. MUTH. Yes, ma'am. First of all, I am not familiar with IPAWS. I have very little, if any, knowledge of the system at all. We haven't been too engaged in the process. But regarding the problem we had in 2003 with——

Ms. NORTON. Wait a minute. You are not familiar with IPAWS at all?

Mr. MUTH. No, ma'am.

Ms. NORTON. No one has ever contacted you to bring you into the system?

Mr. MUTH. No, ma'am. Not me personally, anyway.

Ms. NORTON. Or your agency, the Maryland Emergency Management?

Mr. MUTH. I was asking that question the other day preparing for this. They have been involved with two conference calls, but that has been about it. That has been the total engagement.

Ms. NORTON. This is one of the reasons we are having this hearing today. If you don't have the buy-in of an emergency management system located on the cusp of one of the centerpieces of the target, then you have lost the confidence of all of us. We are aware of how advanced your own system is, so it is important to get on the record.

Go ahead, sir.

Mr. MUTH. Yes, ma'am. So I think our problem in 2003—and I would have the same concerns today—is, once again, that the broadcasters are not mandated to send anything out that is from

the State or the local jurisdictions since, as was said earlier, there has never been a Presidential declaration on using the EAS system. They have always been used at the State or local level. Without that mandate, it leaves us hanging in never really knowing for sure whether these messages are reaching the public or not.

Ms. NORTON. Well, wait a minute. Now, the broadcasters—that is why I am asking you what should the Federal Government do. The broadcasters are obviously mandated to do what is very, very, very, very, very—and put a lot of verys out there—rare. And so what is it that you think the Federal Government should mandate with respect to such territorial or area matters?

Mr. MUTH. From my perspective, both from local and State, I would still say that the FCC needs to mandate that the licensed broadcasters have no option, that if the message is alerted from a public official——

Ms. NORTON. Because we are talking about a message of how long? Let's be clear.

Mr. MUTH. Thirty seconds.

Ms. NORTON. Is that too much to ask, is all I can say, if it were to save one life or one injury? Why, in a country where we are supposed to care somewhat for our neighbor, would that be too much to ask? So that is important.

Is there anyone who disagrees with that? Do you think that even though it may be confined to an area within an area within an area, do you think it is too much to ask 30 seconds for everybody? Now, the reason I say everybody is because if it is not everybody, somebody is going to try to get the run-on of somebody who is taking 30 seconds out from his broadcast in order to hope that it will use that remote. So do you think it has to be a universal requirement in order to be effective?

Mr. MUTH. Yes, ma'am. With the present technology, I certainly do because it is the only tool we have. We can't do immediate notifications without such a tool.

Ms. NORTON. And there is no way to geotarget a national system like that.

Yes, Mr. Axtell.

Mr. AXTELL. Well, I am not sure I should speak on behalf of all the broadcasters in the entire country, but I can certainly say on behalf of our station and I think most public broadcasters that we take these alerts very seriously. In the State of Nevada, we were concerned that many, many, many people at a whole level of decisions would want to access broadcasting for messages that may seem important to them, but in the scope of things, may or may not be. And so our State has a policy where the State police can initiate an initiative so there is some secondary look at the scale and scope of the issue. So we get Presidential alerts, we get local alerts. And we have made the decision locally that if our health department says that after a forest fire in Los Angeles comes in and threaten people with asthma or other lung problems, we will run those alerts as well.

So I don't really have a problem with alerts from bona fide people who have perspective being mandatory—although I am not speaking for the industry per se. It is just philosophically I agree with you.

Ms. NORTON. I can understand how those in the immediate area might be required to issue an alert with greater frequency. But for one of us to get a zap to let us know that there is a very serious event occurring in our country. I mean, I wanted to know that American Samoa—I don't think I will ever go there, it is very far away, but one-time alert to the Continental United States, if everybody has got that alert, I don't see the argument. And I am open to it if anyone does for not taking 30 seconds to issue an alert. Why wouldn't they, if anything, instill confidence that if you get in trouble there is going to be a similar alert, and therefore the system works?

Mr. MUTH. Yes, ma'am. And I would like to counter Mr. Axtell only in that I certainly appreciate the concerns of the broadcasters. What I can't agree to is that I, as the emergency manager for the State of Maryland, as appointed by the Governor, would be second-guessed by anybody as to the issuance of a message that I think that goes out. And the same as a local emergency manager; if that person deems this message is important enough, then it should be pushed. It shouldn't be thought about as to somebody else who is not in that position to make that call makes those decisions.

Ms. NORTON. Because this was in your local area.

Mr. MUTH. Yes, ma'am, it was in my county.

Ms. NORTON. So it is hard to understand the justification in the affected area.

Mr. MUTH. And they can't isolate that. And I will be the first to say that, they can't isolate it just to the 20 square miles that we had impacted by the storm, and I certainly understand that.

Ms. NORTON. Because they broadcast to how many square miles?

Mr. MUTH. Many. These are major stations, so I am sure they handle a large part of the State.

Ms. NORTON. Mr. Coletta.

Mr. COLETTA. Yes, thank you again.

If I may, I have had a little bit of experience with emergency management. I got involved well before I was a commissioner with a local emergency management director that came up with a couple of programs that I helped develop with him. I went for FEMA training two different summers in Emmitsburg, Maryland. I can tell you, for the most part, local control is the essence. If we wait for anything to come down from upstairs, State or Federal, it is going to be too late to react. We need to have clear channels to be able to work across. We need to be able to work on a local level. We know what the people need. But the problem is you don't always have the mechanism to be able to reach out when you need to. So it is not so much who the communicators are, we know who they should be, they should be local people sitting on top of the situation. The problem is, is how do you get the communications out to all the different medians that are out there? What Federal requirements can be put out there to make this possible in a meaningful way?

Ms. NORTON. Well, but you see there seems to be agreement that at least the 30-second warning should be on there. Now, Mr. Muth, you want that mandated, but at the same time you say in your testimony it is vital that States are allowed to manage their own EAS requirements. Well, what was the State of Maryland's require-

ment? And did it have a requirement that the county carry this life and death message for at least some residents of the county?

Mr. MUTH. We internally, ma'am, have the procedures and processes, but once again, we don't own the TV stations or radio stations, so once it got to them they chose not to push it. There is nothing we can do about that.

Ms. NORTON. That is where the Federal matter comes in. We don't own them, but we regulate them.

Mr. MUTH. You license them.

Ms. NORTON. And as long as the Federal Government doesn't say you have to carry it——

Mr. MUTH. They are going to decide whether they want to or not.

Ms. NORTON. And they will be the first one out there after the damage occurs. They will be on the ground saying you poor thing, and send some stuff to all of you people, but not to warn them in the first place.

Mr. MUTH. Yes, ma'am.

Ms. NORTON. So we will be working very closely with the FCC to make sure this coordination takes place.

Mr. AXTELL. Madam Chairwoman, I would like to also point out that the WARN Act provided for geotargeting emergency messages, and that is exactly the complaint that you say the Maryland broadcasters were concerned about. So in our case, we have a broadcast and translator network that is about 380 miles north to south. We currently run emergency messages for snow emergencies in one of our counties even when it is 80 degrees in Las Vegas. We just do that because we carry every emergency message that we are asked to carry. But if we had geotargeting, we would just carry it in White Pine County, or a county like that, and not disrupt the viewing in Las Vegas. That is part of what the WARN Act permitted, and I think that would vastly increase voluntary compliance. But I am not arguing that you shouldn't have mandatory compliance for bona fide emergency messages.

Ms. NORTON. It was very concerning to me to hear your testimony, Mr. Coletta, and Mr. Rámon's testimony. I would like to understand, first of all, what percentage or portion of the population of the State of Florida is Spanish-speaking at this point?

Mr. COLETTA. I am sorry, Madam Chairman, but I really can't answer that question. I know in Collier County it is about 24 percent that speaks Spanish. That doesn't mean Spanish is their only language, it means it is their main language.

Ms. NORTON. You heard some promising testimony about a national test finally getting a test where we could have data and it would be written down so it could be checked, et cetera. If we were to do a test and it did not include ways to reach people such as those Ms. Hamlin testified about, people with special disabilities, did not reach people who speak a different language, could that be considered a test of a national system?

Mr. COLETTA. It could be.

Ms. NORTON. I am talking about the national-level exercise that we are working our way up to. Suppose you did a national-level exercise in English for people who have no special disabilities, what would that mean? Would that be an exercise? I think that is the way they do it now.

Mr. COLETTA. How you reach them is going to have to be one heck of a clever way, possibly through their cell phone. As far as reaching the people who speak a minority language, that was the big difficulty, and that is what drew me to Immokalee rather than going to other areas in Collier County that were being well served by the media at the time. I knew there was going to be a lack of communications there. How you reach them, in our case, was door to door because there was no other way available to be able to reach them.

Ms. NORTON. But have you had a real test since then——

Mr. COLETTA. No.

Ms. NORTON. When I say a real test, you have almost constant storms of one kind of another. Since, was it Isabel?

Mr. COLETTA. To be honest with you, since then they were fairly minor storms that didn't require——

Ms. NORTON. Well, you have begun to have relations with organizations like Mr. Rámon's, so would you have to go door to door next month——

Mr. COLETTA. Yes, ma'am.

Ms. NORTON. —to reach people who speak Spanish as their first language?

Mr. COLETTA. Yes. If I may, we put together a mechanism in place so that I personally don't have to mobilize a large number of people.

Ms. NORTON. But you have some people who would mobilize?

Mr. COLETTA. I mobilize them in a manner of like an 8-hour period.

Ms. NORTON. But we still don't have any way to communicate through IPAWS, or through even the kind of system that Mr. Axtell is talking about. You have to have people on the ground in the storm to reach the people who would be disproportionately affected precisely because of their language or because of their disability?

Mr. COLETTA. The only thing that we have going for us other than door to door is a low-intensity FM station that the Coalition of Migrant Workers has. It is an organization. It is a low-intensity station that they reach a certain number of the population out there. We can run emergency warnings through there. The only problem is that they don't reach everyone. It is a limited clientele that they are reaching.

At the last storm it was in place. The first thing it did, the antenna blew down and then the power went out. I got them a generator from emergency management, and they ran out of the tank of gas that came with it. No gas was available in the area, so I got a local marina to give them gasoline to get them back on the air.

But, once again, this was a local initiative. Other than that radio station that was willing to stay there, the regular radio station, the commercial radio station abandoned their post at the time of the storm before the storm even got there.

Ms. NORTON. Suppose Mr. Rámon and people like him had cell phone devices or other similar devices, could the State, instead of sending out professional personnel who may not be close to the particular area, could the State deputize people in grassroots organizations, by supplying them with devices so that they who may be in

the fields, who may be in the trailers, who, when trained, could indeed go out and do the job? And would Mr. Rámon and organizations like his be willing to take on that function if trained and if given the devices to inform them while we are getting a whole new system up?

Mr. COLETTA. Madam Chair, you are right on target. What I can tell you is that, other than 4 years ago when I was dealing with a situation, today just about every migrant laborer has a cell phone.

Ms. NORTON. They are already equipped, if we just have people who follow through.

Mr. COLETTA. We need to be able to have some system to be able to reach out to them. They have a reverse calling system, the sheriff department does in Collier County. The only problem is it won't reach cell phones.

Ms. NORTON. So what good is it? Everybody has a cell phone.

Mr. COLETTA. It is good for a lot of reasons, but not for something like this.

Ms. NORTON. Well, you could equip Mr. Rámon and people like him with whatever is required, just like people walk around with walkie-talkies these days still.

Mr. COLETTA. That would work, yes. But cell phones are something you carry as part of your person; a walkie-talkie, you are not going to carry it around. You are not going to carry a small AM/FM radio.

Ms. NORTON. What did you say the problem was with cell phones?

Mr. COLETTA. The problem was is that the technology, as we understand it at this point in time, makes it very difficult. A lot of these track phones are not quite the high-tech phones that a lot of us own today that we can instant message each other.

Ms. NORTON. That is why I am looking—understanding that I am looking for what happens between now and the time IPAWS 2, 3 or 4, whatever you want to call it, gets up because we haven't gone beyond one, to tell you the honest to goodness truth.

Mr. COLETTA. Madam Chair, I think you found your mission in life.

Ms. NORTON. Well, Mr. Rámon needs, and his folks, in the interim, need an interim strategy. And we need to advise FEMA what to do while they are getting it up, particularly in Mr. Diaz-Balart's State. What did he say, 2010, or whenever. We have got to know what Mr. Rámon can do or people like him can do who are on the ground now other than you go out there yourselves——

Mr. COLETTA. One of the first things, if I may suggest, Madam Chairman, is that I would allow Mr. Rámon and some members of his community attend the training sessions that FEMA offers in Emmitsburg. That would be a tremendous start.

Ms. NORTON. Now, Mr. Rámon, has anyone in your organization or in any local organization concerned with migrant workers or Latino workers ever been invited to attend any session that would train you on how to contact people in your community about a coming disaster?

Mr. RÁMON. No.

Ms. NORTON. Would you be willing to act on behalf of emergency management officials if you were equipped to do that contact work, people on the ground, people like yourselves, people in the organization?

Mr. RÁMON. Of course, yes.

Ms. NORTON. I don't know how to do these things sitting here trying to think of commonsense ways to fill the gap. It will not be acceptable to say, 'well, they knew we were working.' Well, whoever sends the storms doesn't care, so it does seem to me imperative. I am going to ask staff to contact FEMA because I did not ask FEMA what you are going to do in the meantime. As far as I am concerned, Katrina is in the meantime. And the notion of the Federal Government saying, 'well, my Lord, we were 30 percent of the way through, what do you expect of us?' We expect you to have, and staff, what I want to know is, in the absence of any way to communicate to Mr. Rámon and his fellow members of his organization, even as we heard how well they are doing with plans to get up, we need to know what to do until then. Makeshift as this may sound, that is how we have done it in this country all along. What do you think they did 100 years ago? You carried the word, you did what you could. I don't know what to tell you, but if they are reaching out, as they claim—reaching out means not only look what we are going to have when we have this spanking new wonderful system, it means that the Federal Government and FCC and local and State governments have a responsibility for public safety in between doing whatever you have to do, because that becomes extremely important with respect to Ms. Hamlin and Mr. Rámon.

Ms. Hamlin, I am not sure what you would suggest as interim measures, but I would like to hear anything in the meantime regarding interim measures you think might be of use to the groups you represent.

Ms. HAMLIN. Thank you, Madam Chair.

We have seen a few things work. We have seen Homeland Security give grants in this particular area, in the D.C. area, that provide text messaging about local events, which has been pretty effective. What the problem has been, I just received an e-mail last night from a person in California who had signed up for text alerts about tsunamis because she is concerned about what effects on the Pacific, and she got an alert that basically was impossible to read. She didn't know what to do.

She got an alert, but she didn't know what to do. So we need more research to figure out what do you say when you get an alert. Because what is happening is ad hoc, the firefighter on the job is now sending out text messages. So that is a problem.

The other problem, I am concerned when people talk about knocking on doors because people with hearing loss may not hear. I have heard situations where emergency managers have gone down the street with bull horns and people have been inside and not known what is going on.

So my community, like what we just heard about cell phone use, we have access to text messages. In fact, in Maine also, Maine had a program specifically for people with hearing loss where they gave people an option of getting a NOAA radio, a NOAA weather radio or getting a PDA, something that would allow them to speak back

and forth so that they would get specific emergency alerts in Maine because they knew that the cell phones wouldn't reach all areas. So they had a program with a grant which gave them the NOAA radios they would need so they would get those emergency alerts.

So these are some of the ways, but even though States are strapped for money, it is very hard to get up a system like this unless they get money from Homeland Security or FEMA or some form of money to let the States know, some way for the States to get this up and running.

Ms. NORTON. One of the things we will be questioning FEMA about are the existing CERT teams, because apparently what we have is a system that has some technology in place, some way to contact people, the average person and a person who speaks English, but incorporating people with disabilities or—and here is where you really get interesting—people who speak a different language. Now, the fastest growing group of such people of course is Spanish-speaking. But think about what your country is becoming; a patchwork of people who speak all kinds of languages. Hey, look, that is what you are, that is what you are going to have to do, or else the injuries and the deaths will be disproportionate; we know exactly where they will be.

I don't understand, Mr. Coletta, where you said the media outlets were focused only on coastal Collier County, where the bulk of the population lives, neighboring Lee and Charlotte Counties, with real information being provided to the residents of Immokalee, despite the best efforts of the emergency management office. I mean, doesn't the media outlet go to those places? What does it mean when it says little outreach? Doesn't it reach those places? What is the problem?

Mr. COLETTA. Well, the problem is very simple. Once again, it has to do with the division of language. Yes, Immokalee receives television, they have several stations, they have radios, but just about everything comes across in English. They weren't picking up on it. And that is why there were so many people that were not aware of what was happening. It is that simple. I mean, there have been some things that have taken place since then—of course we are talking 4 years ago, and we are trying to improve what we can as far as our communication infrastructure goes—but there is still a big gap in there, and it has to deal with the people that do not speak English. They just cannot get the message at this point in time.

Ms. NORTON. Is that people who don't speak English, or people like the people where Mr. Rámon is who are located where they may be away from radio and TV? I mean, the State is full of Spanish-speaking people. How about those people?

Mr. COLETTA. Well, we are talking different elements here. My element is very similar to what Mr. Rámon referred to. We are talking about laborers who are coming into this country that only speak Spanish, that are concentrating on one thing; that is, trying to make enough money to be able to survive and to maybe send a little bit back home again. They are a very narrow scope of people.

Generally, Spanish-speaking people that are permanent residents within the community have picked up enough English, they under-

stand what is taking place, there doesn't seem to be that kind of a problem.

Ms. NORTON. Are Spanish-speaking stations tuned into this system the way other stations are, giving the emergency alerts and the rest?

Mr. COLETTA. For the most part, yes, but in this one case in Immokalee, and that is what prompted me to go there to try to——

Ms. NORTON. What was up with them?

Mr. COLETTA. Well, what happened was the station was abandoned.

Ms. NORTON. I am talking about the station—you said the stations that mostly were tuned to the——

Mr. COLETTA. Well, I am talking about the regular commercial television stations, radio stations, English-speaking stations.

Ms. NORTON. I see. Well, what about English-speaking stations located in areas where there may be a significant Spanish-speaking population and a significant English-speaking population, what are they supposed to do with the EAS alert?

Mr. COLETTA. I couldn't answer that, why they don't put it across in Spanish other than the fact that they probably don't see a need for it. I don't know what the requirement is.

Ms. NORTON. Should that be mandated? As long as you are doing it for 30 seconds?

Mr. COLETTA. It would be even better if there was some way to be able to separate the bandwidth where you could have a person just dial up a different language, any language, it doesn't have to be Spanish, it could being Vietnamese, and they would be able to hear that translation take place. Now, I just read a little bit of some of the literature I received coming here ahead of time that something like this is in the works. I don't know where it is. So I am just making that a suggestion of where to go.

If you try to divide an established television station or radio station into English and Spanish in a time of emergency, I have no idea what the outcome would be.

Ms. NORTON. Well, somebody has to figure that out because it is not enough to have it on Spanish-speaking stations and English-speaking stations. Hispanics learn English just like that. It is amazing how bilingual they are, especially since the rest of us are so dumb we can hardly speak English. So they are going to be quite able, millions of them.

Ms. NORTON. But when you have got that kind of mixture, Federal guidance, it seems to me, itis going to be necessary for people to know what to do, since they do not want to do any of it.

Mr. MUTH. Ma'am, if I can, even in the State of Maryland, in Baltimore County—the county I came from—we have a very strong Russian community, and so they will never end. I mean the communities are there.

Ms. NORTON. Yes, but you know, we may get to the point where there has to be dialogue. You know, if you come from New York City, heaven help you. We are not here to facilitate down to the lowest common denominator, but if there is information out here saying you can find out what that says and if you are dealing with the largest groups, just like, you know, you have Christmas—you know, if you are in New York, you may have Yom Kippur. We do

not have it here, so you are going to have to make those decisions, but it looks like those decisions are not even being made.

Mr. MUTH. They are not made, and you mentioned this earlier in the first panel: What you have happening is every State is doing their own thing.

Ms. NORTON. With no Federal guidance, what else is there?

Mr. MUTH. Exactly. I concur.

Ms. NORTON. Mr. Rámon, you had wanted to say something further, please.

Mr. RÁMON. Yes. Our organization has not been invited to this training, but when I used to work with the clinic, a clinic called Vista in northern San Diego, the Red Cross would come and offer us training and ask us to participate in help fairs and so forth, but since the funding ran out, I was laid off, and now I work as a volunteer with my organization.

Then what I also know is that, in Fresno, there is a radio station that hooks up with a number of radio stations all the way down to Oaxaca, in Mexico. They have a program on Sundays, and they call it the Mixteco Hour. During that hour, people can send their greetings, and information is shared as to what is happening all over that area, all the way up to Oregon, from Fresno to Oregon as well; but the problem is this: only 1 hour on Sunday and it is only on the Pacific Coast.

Ms. NORTON. But it does show you that there is the capability even now before we get the technology where it should be.

Mr. RÁMON. Yes, we can, not only with Mixteco.

In Oregon, I understand that they are working with the Mixteco languages, and they are getting it out also in Trique, in Amuzgo, in Zapoteco. There are 22 languages we have in Oaxaca, and in Oregon they are able to put out this information through this radio station. I saw this in a report. I think it was on CNN.

Ms. NORTON. FEMA has a lot to learn, it seems to me, from what people have done with their own leadership.

I have to ask Mr. Rámon another question.

Perhaps Mr. Rámon or the elected officials in the area received an explanation. It was troubling to hear you say that in the 2007 wildfires that the fire chief was in the area, but did not communicate with farm workers.

I would like you to elaborate. Perhaps there was some oversight because of something you did not know. Why did that occur?

Mr. RÁMON. When we got there, we asked the people if somebody had told them to leave the area because it was an evacuation area, and they said, No, no one has spoken to us. We have only seen this gentleman going back and forth, but he has not spoken to us. We asked the fire chief if he had given out any information, and he said, Well, they can leave voluntarily if they want to, but it is up to them.

Ms. NORTON. Did he say it in Spanish or English?

Mr. RÁMON. In English. Someone else was translating for me.

Ms. NORTON. Well, here is an area where you would expect especially to warn people away because of their greater vulnerability outdoors and in trailers and the like, but he was an English speaker, and you say that you saw him going back and forth. It may speak to the necessity to arm, even if with translators, people who

are major figures, such as the fire chief, with somebody who can communicate to people who need it. Of course they can go or not go if they want to. That goes without saying. Except, if it is an order of evacuation, you are not supposed to have any recourse, and of course you need to know how to get out. So, even having somebody on the ground—and we have been talking about, I guess it was, what Mr. Coletta had to do—it may not be enough if that person cannot speak the language either and, therefore, will take care of the people who speak his language, first and foremost, and then will go on his merry way.

I only have another question or so. I have to ask about this, about the use of digital. Now that digital came on, it looks as if there is a whole new way, Mr. Axtell, for Maine, Vermont and, for that matter, for greater redundancy elsewhere, you know, with the digital bandwidth, not as much congestion.

Are we seeing PBS jump onto this and Maine have now a whole new way to be alerted and Vermont?

Mr. AXTELL. Well, there are a lot of stations that are very interested in pursuing this, but it is a financial issue.

Ms. NORTON. Financially, how much? You had something that you said was only $300 or something.

Mr. AXTELL. That is a solution. That is a device, and that is because we did a small run on a custom activity. I think, if you mass produced it, you would get it for a much lower price.

We have a whole variety of PBS stations that are interested in working on this. Kentucky sends out wireless messages about tornadoes and other weather information to highway rest stops and other kinds of innovative activities. Wisconsin has sent some material to hospitals and to ambulances. Alabama is proposing to have a system that would replicate the system and enhance it, that which we have in Nevada.

So you have lots of people who want to move forward, but the trick is you have got to have your emergency management folks who have critical databases say that you will become a redundant provider of data or they have to help define what the services are that they need, and as you pointed out, urban versus rural services will be very different.

Ms. NORTON. Well, if FEMA had done what it was supposed to do, it would have beat digital. Now digital is here, providing whole new, very important technology to feed into the system.

I want to thank all of you for this testimony. Of course we heard from the responsible officials, but I want to say, for the record, that your testimony has been equally important to this Subcommittee, and thank you very much for your testimony.

The hearing is adjourned.

[Whereupon, at 5:11 p.m., the Subcommittee was adjourned.]

OPENING STATEMENT OF
THE HONOROABLE RUSS CARNAHAN (MO-03)
HOUSE TRANSPORTATION AND INFRASTRRUCTURE COMMITTEE
SUBCOMMITTEE ON ECOMIC DEVELOPMENT, PUBLIC BILDINGS, AND EMERGENCY MANAGEMENT

Hearing on
"This is Not a Test: Will the Nation's Emergency Alert System Deliver the President's Message to the Public?"
Wednesday, September 30, 2009
2167 Rayburn House Office Building

Thank you, Chairwoman Norton and Ranking Member Diaz-Balart for holding this important hearing to examine the status of efforts within the Federal Emergency Management Agency to modernize, expand, and integrate existing emergency alert warning systems through the Integrated Public Alert Warning Systems.

It is critical to have an effective emergency alert warning system that can rapidly disseminate messages to as many people as possible. In the event of a grave national emergency we must ensure we have a system that can distribute real-time information.

The Government Accountability Office has identified several limitations of the effectiveness of the Emergency Alert System and several recommendations on how this can be improved. Specifically, the GAO identified the need for additional planning and greater involvement with stakeholders and identified the need to test alert systems at the national level. Additionally, it is critical for participants to have proper training and technical skills to issue effective EAS alerts.

I look forward to hearing from FEMA on the work being done to address the concerns raised by GAO and the progress that has been made to modernize and integrate an alert and warning system.

In closing, I want to thank our witnesses for joining us today and I look forward to your testimony.

ANOR HOLMES NORTON
DISTRICT OF COLUMBIA

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
SUBCOMMITTEES:
CHAIRWOMAN
ECONOMIC DEVELOPMENT, LIC BUILDINGS, AND EMERGENCY MANAGEMENT
AVIATION
WATER RESOURCES AND ENVIRONMENT

Eleanor Holmes Norton

Congress of the United States
House of Representatives
Washington, D.C. 20515

COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM
SUBCOMMITTEES:
FEDERAL WORKFORCE, POSTAL SERVICE, AND DISTRICT OF COLUMBIA
* COVERS DISTRICT OF COLUMBIA ISSUES

COMMITTEE ON HOMELAND SECURITY
SUBCOMMITTEES:
TRANSPORTATION SECURITY, AND INVESTMENT PROTECTION
EMERGENCY COMMUNICATION, PREPAREDNESS, AND RESPONSE

Chair Eleanor Holmes Norton
Subcommittee on Economic Development, Public Buildings and Emergency Management and the
Subcommittee on Water Resources and the Environment

September 30, 2009

"This is NOT a Test: Will the nation's Emergency Alert System Deliver the President's Message to the Public"

Currently, our nation is fascinated with television shows, like "CSI" and "24," where the characters work with a myriad of state of the art weapons, scientific tools and communication devices. Most Americans use the internet, mobile phones or personal digital assistants. We can "Skype video-conference" our friends 5,000 miles away, who sound as if they are just down the street. We can "Google" and find out millions of pieces of information almost instantaneously. Most of the country has embraced the use of "smart" technology.

Consequently, many Americans believe that they have the capability to receive a presidential emergency message via their cell phone, PDA, or fax. They are wrong. In the event of a national emergency, heaven forbid, a 9/11 or the Oklahoma City bombing type events, citizens must rely primarily on an emergency alert system build in the 1960s. Today, thousands of citizens across the country rely on the familiar system that interrupts television viewing with a beeping sound, the multi-colored stripes across the screen and the words, "This is only a test of the Emergency Alert System (EAS)..." This system was built during the Cold War to provide citizens with an emergency broadcast on their television or radios advising that they have five minutes to seek appropriate shelter because a tornado is approaching, or to evacuate the area because a hurricane will arrive in a few hours, or other disasters.

If there were a need to reach the nation to convey an emergency message, it is at best questionable whether a sizable portion of the country would receive it. The Government Accountability Office (GAO) reports that there are many

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unaddressed weaknesses that limit the effectiveness of the nation's primary public alert and warning system, as far as it goes, considering technology today.

The Federal Emergency Management Administration (FEMA) is responsible for administering the national EAS with assistance from the Federal Communications Commission (FCC) to ensure compliance with regulations. Broadcast radio and television stations and satellite radio operators are required to participate in national-level EAS alerts, and state and local governments may use the EAS on an as-available basis, but participation is voluntary. Our subcommittee's jurisdiction is primarily implicated because of the large number of natural disasters this country experiences each year. Approximately 90% of all messages disseminated by EAS are generated by National Oceanic and Atmospheric Administration (NOAA) weather alerts.

In June 2006, President Bush issued Executive Order 13407, directing the Department of Homeland Security to modernize and integrate the nation's public warning system, to create a robust federal warning system and to report on progress on at least a yearly basis. The FEMA Integrated Public Alert Warning System (IPAWS) program was initiated in 2004 and became the programmatic mechanism to carry out the Executive Order. FEMA defines IPAWS as a "system of system," which is intended to eventually integrate existing and new alert systems, including EAS. Unfortunately, we are now nearing the end of 2009, and national-level alert capabilities have remained virtually unchanged since the 1960s and new technologies have not been adopted. Consequently, Ranking Member Diaz-Balart and I asked GAO to examine (1) the current status of EAS; (2) the progress made in FEMA's efforts to modernize and integrate alert and warning systems; and (3) the issues and challenges involved in implementing an integrated public alert and warning system. Today, FEMA will testify on the report we asked FEMA to prepare which has been titled, "Emergency Preparedness: Improved Planning and Coordination Necessary for Development of Integrated Public Alert and Warning System."

At the June 2008 hearing, we heard from various EAS/IPAWS stakeholders, including federal partners, state and local governments, the emergency management associations, the broadcast industry and others, that FEMA has not met with them periodically to get their advice or to inform them about program progress or direction. At the hearing, this subcommittee was clear that immediate leadership by FEMA was expected and that simply attending events and conferences that other groups hold is not an effective way for it to interface with stakeholders. The then Assistant Administrator for Continuity Programs, General

Martha Rainville, said that FEMA "...will be setting up a formal group, an advisory group, if you will, that will work to make sure to inform the IPAWS program." There has been some very recent progress made, but stakeholders still express frustration with the lack of communication and coordination overall. Therefore, it has become necessary for Ranking Member Diaz-Balart and I to introduce H.R. 2591, the "Integrated Public Alerts and Warning Systems Modernization Act of 2009" to specifically direct FEMA to establish an IPAWS Modernization Advisory Committee to ensure stakeholder input.

Currently, I understand that most of the members of FEMA's staff who will be responsible for the current and future implementation of IPAWS are fairly new. We hope that with the new administration, the "revolving door" of staff, shifting program goals, lack of specific plans and timetables, no periodic reporting on progress and lack of performance measures will be a thing of the past. The danger from terrorism and natural disasters only increase with an antiquated alert system and FEMA should expect frequent oversight and reports on progress. Without leadership, and in the absence of federal standards and protocols, many states and localities have felt they have to begin building their own systems. A useless patchwork of alert systems that are unable to communicate with one another is the likely result of the state-by-state approach. We have seen that result before when police and fire on 9/11 could not communicate. We cannot repeat the same mistakes again.

Several of our witnesses today have stories to share that will remind us of what is at stake for citizens and why there must be no more delay in building a modern, integrated alert system that takes into account the end users – our fellow citizens.

I welcome today's witnesses and look forward to their testimony.

Tom Axtell, Vegas PBS
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(702) 799-1010

Testimony of Tom Axtell
General Manager, Vegas PBS
Before the House Committee on Transportation and Infrastructure
Subcommittee on Economic Development, Public Buildings, and Emergency Management
September 30, 2009

On behalf of the Association of Public Television Stations, Vegas PBS and the nation's more than 360 public television stations, I would like to thank you for inviting me to participate in today's hearing. Public television stations are playing an integral role in the nation's alert and warning system and today I would like to speak to that role and the potential for greater alert and warning at the local, state and regional level as well.

Additionally, I would like to offer two recommendations that are necessary in enhancing national alert and warning, as well as public television's capabilities in this area. First, a renewed focus on the Integrated Public Alert and Warning System (IPAWS) by Congress is essential to ensuring the quality and reliability of alert and warning. The legislation introduced by Chairman Oberstar, H.R. 3377 includes language that we believe is the right approach. Second, the WARN Act made funding available to stations to provide the equipment necessary to send targeted messaging and allow for better bandwidth allocation management; however those funds are currently being held at the National Telecommunications and Information Administration (NTIA). We urge this Committee to request that NTIA release those funds in order for public television to further build out the Digital Emergency Alert System. Both of these recommendations will be discussed further in my testimony.

When public television stations began their investment in equipment required to make the switch to digital transmission in the late 1990s, we quickly realized the significant advantages digital technology could offer to education, public health and public safety. Digital television's bandwidth can be partitioned into multiple wireless content streams creating a system that could serve the public in many ways. An example of a different bandwidth configuration includes the following scenario:

- One stream can send open circuit information to the general public;

- Another can send closed circuit encoded information to first responders;
- A third can send encrypted information to emergency managers and policy makers; while
- A fourth can communicate with health care institutions.

This revolutionary multi-casting technology is a vital emergency response and public alert and warning asset that transforms the capacity of television broadcasters well beyond the base-line approach of merely re-transmitting Emergency Alert System (EAS) or Amber Alert messages. In emergencies, when traditional communication systems are hopelessly over-taxed, the ability of a congestion-free digital television signal to send large volumes of critical, time-sensitive data to first responders in the field, citizens and government decision makers should not be under-estimated.

Public Television Digital Emergency Alert System

Public television's congestion-free digital bandwidth is able to simultaneously support public alert and warning systems as well as closed networks to enable public safety and emergency management agencies to transmit vital information securely. These services are provided through a broadcast technology called "digital data-casting," whereby data originating from a public safety agency is received by a local public television station, encrypted, inserted into the digital television signal, and sent through the station's transmitter to personal computers; computers in police, fire, or ambulance vehicles; or computers on local area networks. This occurs through an inexpensive DTV tuner card and a small antenna.

Such transmissions are:

- As instantaneous as live TV;
- Invulnerable to congestion-induced delays on public networks;
- Addressable to a specific pre-determined viewing device through IP coding;
- Accessible even in the middle of a parking lot without a wire connection; and
- Preserving of the spectrum demands on narrower point-to-point technologies.

At Vegas PBS, we began our planning for the digital television transition shortly after the Federal Communications Commission (FCC) DTV order was issued. However, the 9/11 terrorist attacks caused us to experiment with digital data-casting as an emergency response technique. We believe we were the first TV station in the nation to transmit:

- Closed circuit building blueprints;
- Security camera videos;
- Utility and hazmat maps; and
- Safety training videos

The transmissions can be made at the same time – and without interrupting – broadcast programs to the general public.

Our demonstrations along with those of a dozen other public broadcasters led our industry to seek support from Congress for enhanced public alerting infrastructure that would provide nationwide alert and warning services. Because public television stations reach nearly every American household, this capacity would marry national communication needs with enhanced emergency response services at the local level.

Thus, the Digital Emergency Alert System, or DEAS, was born. In October 2004, the Department of Homeland Security (DHS) signed a cooperative agreement with the Association of Public Television Stations (APTS) to conduct the DEAS-National Capital Region pilot program. The project involved the Public Broadcasting Service (PBS), the Federal Emergency Management Agency (FEMA), the National Oceanic and Atmospheric Administration (NOAA), and the FCC's Homeland Security Office, as well as a wide range of participants from the broadcast, cable television, wireless telecommunications, and electronic equipment manufacturing industries.

Phase I of the pilot, conducted in 2004 and 2005, focused primarily on technology demonstration and proof of concept. It included the design and deployment of the basic DTV digital data-

casting system, installation of DTV data-cast receivers among participants, and development of text and audio alerting software applications that utilize the Common Alerting Protocol (CAP). The early pilot showed that digital broadcasts to media and telecommunications service providers will significantly improve and enhance the ability of Federal, State and local government to provide critical and lifesaving emergency messaging to the nation.

In Phase II, which ran during 2005 and 2006, DHS examined how public television digital technology could best provide support and enhancement to state and local activations of the alert and warning system. The exercise consisted of DHS originating encrypted test messages through an access point at local public television station WETA to digital data-cast receivers at more than 20 public television stations throughout the country.

These successes paved the way for an agreement between APTS and DHS/FEMA to deploy the DEAS nationally as part of the DHS/FEMA Integrated Public Alert and Warning System (IPAWS). Using best practices developed in the pilot program, APTS and PBS added technological upgrades to every public television station across the country, creating the backbone infrastructure of a digital presidential emergency alert and warning system to supplement the current EAS. The build-out also served as a foundational infrastructure that could facilitate governors' and local authorities' use of the DEAS for state and local emergencies.

WARN Act and Commercial Mobile Alert System

While the original national build-out established the basic infrastructure of the DEAS, the system was designed to be enhanced with the addition of equipment to allow geographically targeted alerts and equipment to permit public television stations to dynamically allocate bandwidth to have full use of their spectrum bandwidth when the DEAS is not triggered.

The Warning Alert & Response Network (WARN) Act, passed by Congress at the end of 2006, specified that additional funding would be made available from the Department of Commerce to provide equipment to public television stations which would enable the distribution of alerts for

the Commercial Mobile Alert System (CMAS). Under the WARN Act, funding was to be provided soon after the FCC adopted technical relevant technical standards based on recommendations from the Commercial Mobile Service Alert Advisory Committee, of which APTS was a member. In July 2008, the FCC adopted rules requiring stations to install this equipment; however, more than a year later the money remains at the National Telecommunications and Information Administration (NTIA) at the Department of Commerce, and stations continue to lack this equipment.

IPAWS

With a new Congress and Administration there is a need for renewed interest in oversight of CMAS, DEAS, and IPAWS and consideration of new measures to improve the nation's alert and warning capabilities. H.R. 3377, the Disaster Response, Recovery, and Mitigation Enhancement Act of 2009, would create a new Integrated Public Alert and Warning System Modernization Advisory Committee, and would require that public television be represented on the Committee. We support the holistic approach Congress is taking in this area, and we are gratified that public television will be an integral part of the decision-making process as Congress moves forward with the modernization of America's alert and warning capabilities. However, we urge Congress not to permit this effort to hold up the implementation of ongoing projects, including finalizing public television's equipment needs to provide the CMAS capabilities funded under WARN. In particular, we stress that this effort should not delay the distribution of funding that is ready and waiting at NTIA. Public television stations are ready to install this necessary geo-targeting and dynamic allocation equipment that will greatly improve and enhance federal, state, and local alert and warning information, and to take additional steps to assist our nation in preparing for emergencies whether natural or man-made.

Since September 11, 2001, Vegas PBS has invested considerable time, talent and financial resources in creating strong relationships with state and local emergency response agencies. We believe it is essential to put our public telecommunications expertise and capacities to work protecting a potential terrorism target city. To achieve this goal, Vegas PBS has created links to data sources, established relationships with emergency managers, and purchased equipment that

that delivers voice, video, and data at very high speeds. The system allows the highest level of encryption.

Vegas PBS Local DEAS Services

One of the most comprehensive Emergency Response Broadcasting systems in the country was created at Vegas PBS using a grant from the Corporation for Public Broadcasting. Vegas PBS created a data-base that allows rapid response in the event of a school emergency. On servers in our television facility, we have assembled the information that first responders tell us they need in an emergency including:

- Building blueprints;
- Aerial photos of building sites;
- Hazardous material descriptions and locations;
- Utility connections;
- Student, parent, and staff contact information; and
- Special medical considerations for students and staff.

This data is updated daily through a computer "ping" of appropriate data repositories. We have also constructed fiber links to over 400 public buildings and much more extensive data centers operated by local governments.

Our emergency response partnerships include the following:

- Vegas PBS provides the Clark County Office of Emergency Management with a telephone bank, satellite communications, and closed circuit communications to selected sites in the event of an emergency.

- Vegas PBS is designated as the backup Emergency Operations Center for the Clark County School District and provides the school district with all levels of information sharing during an emergency.

- Vegas PBS has fiber optic connectivity with more than 400 public school sites that will be used as immunization centers or temporary shelters in the event of an emergency, as well as donated fiber connections to the county's Emergency Operations Center, the Las Vegas Fire and Metro Police Headquarters, the Regional Transportation Commission, and the Regional Flood Control District.

- Vegas PBS has completed a plan to link wirelessly in 2010 with the EOCs of Clark County, Las Vegas, Henderson and North Las Vegas, plus the Las Vegas Fire and Metro Police Headquarters.

- Vegas PBS has installed over $500,000 in backup power generators and included earthquake resistant construction design in its new technology campus to insure continuous operations in the event of a civil emergency.

- Vegas PBS and the City of Mesquite Police have agreed to co-locate TV and police transmitters and share a backup power generator on the northbound Interstate Highway evacuation route from Las Vegas.

- Vegas PBS engineers serve on the Clark County Interoperability Communications Committee that assists multi-jurisdictional fire and police departments, the National Guard, the FBI, the Forrest Service and other emergency responders designing a current "work-around" communications plan and a future technology migration route for a common communications system.

- Vegas PBS was asked to serve on the Avian Flu Response Planning Committee with planners from the county health department, Office of Emergency Management, school district and Chamber of Commerce.

- Vegas PBS is working with the Nevada Silver Shield administrator to utilize data-casting as a back-up outlet for "in the field" delivery of Critical Infrastructure/Key Resources (CI/KR) data.

Vegas PBS also continues to expand its wireless broadband emergency response network. Vegas PBS has proposed a partnership with a wireless microwave provided that will provide redundancy for fiber that could be compromised by an earthquake. It will add wireless links to more than 100 sites in the Las Vegas Valley, including many critical public safety sites:

- Four sites - Government Data Centers;
- Three sites - Fire Stations - One municipality;
- Three sites - Police Stations - Two municipalities;
- Two sites - 911 Emergency Dispatch Centers - Two municipalities;
- One site - Traffic Management Center - State government;
- Seven sites – Hospitals or Medical Centers; and
- One site - State Headquarters.

Vegas PBS already has fiber links to the Cox Cable head end. We plan to add in 2010 connections to:

- Eighteen local radio stations (Five locations);
- Seven television stations; and
- Five regional cable head ends.

The new broadcaster links capacity will increase the likelihood that emergency communications to the general public from public safety and commercial news gathering organizations will be available even if one or more broadcasters are off the air.

Conclusion

In conclusion, we believe that public television can play an integral role in alert and warning. While the scope of alert and warning nationwide is currently limited to a Presidential emergency message, we believe that Vegas PBS can serve as a model for how digital television technology can serve the public at the local, state, and regional level as well.

There are two steps that will go a long way toward improving alert and warning, and the ability of public television stations to enhance alert and warning.

A renewed focus on IPAWS by Congress is essential to ensuring the quality and reliability of alert and warning. The legislation offered by this Committee is the right approach and we greatly appreciate being included in the IPAWS Modernization Advisory Committee as we believe that we can offer a unique perspective.

Additionally, we recommend that this Committee request the release the remaining WARN Act funds from NTIA, as our stations need that funding to complete the installation of equipment that will enable greater targeting of messages and better control of bandwidth allocation at each station.

I would like to thank the Committee for allowing me to participate in today's hearing and represent the views of the public television industry. We look forward to continuing to work with the Committee on these important issues going forward.

Board of Collier County Commissioners

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Testimony of District 5 Commissioner Jim Coletta
Collier County Board of County Commissioners
Collier County, Florida
3301 E. Tamiami Trail
Naples, FL 34112
239-252-8097

Testimony Presented to the Committee on Transportation and Infrastructure's Oversight and Investigations Hearing
Sept. 30, 2009 at 2:00 p.m.
Room 2167, Rayburn House Office Building

Madam Chair, and members of this subcommittee. Good afternoon. My name is Jim Coletta. I am the elected county commissioner of District 5 of Collier County in Southwest Florida. Naples is the county seat, however, I represent a district that covers a land area equal in size to Delaware that includes the Big Cypress National Preserve and parts of Everglades National Park. One community in my district is Immokalee, Florida which has a population of approximately 20,000. The 2000 census identified 71 percent of the population in Immokalee to be Latino and I believe that number has grown over the past decade. The per capita income is only $8,576 and 40 percent of the population lives below the poverty line. Immokalee remains the center of the region's agricultural industry. The farms of Immokalee produce a significant portion of the nation's produce and employ thousands of seasonal or migrant workers.

I am here today to share with you my first- hand experience about the need for an improved public alert and warning system that can notify our citizens of impending disasters.

In the early morning hours of Oct 24, 2005, Hurricane Wilma, a Category 3 storm with winds of 120 miles an hour, made landfall in Collier County, the first hurricane to directly strike our community in 45 years. Thousands of county residents were impacted, property damage was estimated to be in excess of $1.2 billion and, sadly, several deaths

were attributed to the storm. While Coastal Collier County was able to recover from Wilma in a relatively short period of time thanks, in part, to good building codes that are strictly enforced, Immokalee with its older homes and trailers that predated our building codes took a major hit that resulted in hardships for those residents. It was only by the good planning by our emergency management team led by Mr. Dan Summers who has joined me here today, dedicated and hard working government employees and the self reliance of our citizens that recovery was achieved in a relatively short time.

In the days and hours leading up to the storm we found ourselves faced with the enormous challenge of trying to communicate to the residents of Immokalee the need to evacuate or seek shelter or take other protective measures – a problem that was compounded by the fact that it was harvest time, meaning that thousands of additional migrant laborers were in the community. The majority of the housing in Immokalee consisted of old trailers. It was evident that many of these trailers would not survive a major wind event and that these structures needed to be vacated and the residents moved to the public shelters at our local schools. The local media outlets were focusing only on coastal Collier County -where the bulk of the population lives- and neighboring Lee and Charlotte Counties with little information being provided to the residents of Immokalee, despite the best efforts of our emergency management office. There also existed at the time, a weak communication structure between the commercial farms and local emergency management officials. The challenge became even more evident when commercial growers wanted to get an additional day's harvest prior to landfall of storm force winds which was deemed to be too risky based on the timing variables of the storm.

Of course, our biggest challenge was the language barriers. Only one Spanish-language radio station serves Immokalee along with one weekly newspaper. The Spanish radio station was abandoned by its staff and off the air the day leading up to the event. In an effort to reached out to the Immokalee residents I enlisted the help of Spanish-speaking and Creole- speaking county employees and volunteers from the Coalition of Immokalee Workers and officers from the Sheriff's Department and we took to the streets of

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Immokalee going door to door encouraging people to go to the public shelters before the storm's arrival. I also wanted to persuade them not to work in the fields until dark, as usual, the day before the storm...otherwise they would miss the free bus transportation the county was providing to take them to the shelters or they might find themselves arriving at shelters filled to capacity during the storm event. It was very clear to me that the farm workers I encountered on that day were unaware of the dangers facing them as the storm approached and were preparing to go to work in the fields. They had not understood the radio and TV weather forecasts reported in English only. As I knocked on doors with the interpreters at my side, I was utterly amazed to find that most people did not know a major hurricane was coming and did not know their lives were in danger. And remember, this was less than 12 hours before the hurricane made landfall. Some workers ended up staying in the field until dark but we were able to convince the sheriff's office to keep the buses running to take the workers to available shelters and, fortunately, most people who wanted to get to a shelter managed to do so. The damage to Immokalee from Hurricane Wilma was enormous.

The lesson learned from our Hurricane Wilma experience is that there has to be a better way to communicate emergency information to non-English speaking communities.

Our emergency management program has launched a number of initiatives to better serve the very unique challenges in the Immokalee area:

One that seems very promising is called the Immokalee Recovery Coordination Group. It is a multi-agency working group made up of government agencies, social service entities and faith-based organizations that represent the diverse languages and cultures of the Immokalee community. When activated, they are responding to and coordinating recovery efforts.

We are also publishing and distributing Spanish-language storm preparedness guides, storm preparedness CDs in Spanish and Creole and have door hanger emergency information available. We are utilizing churches and civic groups to communicate

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disaster outreach messages and are developing plans to enhance public transportation resources.

We are very experienced in southwest Florida in preparing for hurricanes. During 2004 and 2005, in addition to Wilma, we were also threatened by Hurricanes Charley, Frances, Ivan, Jeanne, Dennis, Katrina and Rita. I believe we have learned that all disasters are local, and no two disasters are the same for any community. Rural farm communities who enjoy their rural lifestyle face many challenges as it relates to communication and coordination.

Even since Hurricane Wilma impacted my district in 2005, we have witnessed the continuing explosion of new technology that enables us to communicate with each other from virtually any place at any time. It would seem reasonable to expect government to be able to harness this technology in a way that can help people during times of crisis – especially those who have traditionally not been connected to so-called mainstream communication channels.

In closing, I would be remiss if I did not recognize Mr. Craig Fugate, the new FEMA Administrator. As you may know, Craig served as director of the Florida Division of Emergency Management under two governors and did an outstanding job guiding the state's preparedness and recovery efforts during hurricanes, wildfires and other emergencies. I am certain he will do an exceptional job at FEMA. Craig understands the critical need to communicate with citizens who may be in harm's way and we would certainly be grateful for any assistance that can be provided by our federal government to assist us in protecting lives and property during emergencies.

Thank you. I would be glad to entertain any questions you may have.

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United States Government Accountability Office

GAO

Testimony

Before the Subcommittee on Economic Development, Public Buildings, and Emergency Management, Committee on Transportation and Infrastructure

For Release on Delivery
Expected at 2:00 p.m. EDT
Wednesday, September 30, 2009

EMERGENCY PREPAREDNESS

Improved Planning and Coordination Necessary for Development of Integrated Public Alert and Warning System

Statement of Mark L. Goldstein, Director
Physical Infrastructure

GAO
Accountability * Integrity * Reliability

GAO-09-1044T

September 30, 2009

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Highlights

Highlights of GAO-09-1044T, a testimony before the Subcommittee on Economic Development, Public Buildings, and Emergency Management

EMERGENCY PREPAREDNESS

Improved Planning and Coordination Necessary for Development of Integrated Public Alert and Warning System

Why GAO Did This Study

A comprehensive system to alert the American people in times of hazard allows people to take action to save lives. The Federal Emergency Management Agency (FEMA) is the agency within the Department of Homeland Security (DHS) responsible for the current Emergency Alert System (EAS) and the development of the new Integrated Public Alert and Warning System (IPAWS). In this testimony, based on its report released today, GAO discusses (1) the current status of EAS, (2) the progress made by FEMA in implementing an integrated alert and warning system, and (3) coordination issues involved in implementing an integrated alert and warning system. GAO conducted a survey of states, reviewed FEMA and other documentation, and interviewed industry stakeholders and officials from federal agencies responsible for public alerting.

What GAO Recommends

In the report released today, GAO recommends that FEMA implement processes for systems development and deployment, report periodically on progress toward achieving an integrated public alert and warning system, and implement a plan to verify the dependability of IPAWS and to train IPAWS participants. In response to our report, DHS agreed with all of the recommendations and provided explanations of actions aimed at addressing them. However, FEMA's planned actions to address the recommendations may not be sufficient.

View GAO-09-1044T or key components. For GAO report, view GAO-09-834. For survey results, view GAO-09-880SP.
For more information, contact Mark Goldstein at (202) 512-2834 or goldsteinm@gao.gov.

What GAO Found

As the primary national-level public warning system, EAS is an important alert tool but it exhibits longstanding weaknesses that limit its effectiveness. In particular, the reliability of the national-level relay system—which would be critical if the President were to issue a national-level alert—remains questionable due to a lack of redundancy; gaps in coverage; a lack of testing and training; and limitations in how alerts are disseminated to the public. Further, EAS provides little capability to alert specific geographic areas. FEMA has projects under way to address some of these weaknesses. However, to date, little progress has been made and EAS remains largely unchanged since GAO's previous review, completed in March 2007. As a result, EAS does not fulfill the need for a reliable, comprehensive alert system.

Initiated in 2004, FEMA's IPAWS program has made little progress. IPAWS is intended to integrate new and existing alert capabilities, including EAS, into a comprehensive "system of systems." However, national-level alert capabilities have remained unchanged and new technologies have not been adopted. IPAWS efforts have been affected by shifting program goals, lack of continuity in planning, staff turnover, and poorly organized program information from which to make management decisions. The vision of IPAWS has changed twice over the course of the program and strategic goals and milestones are not clearly defined, as IPAWS has operated without an implementation plan from early 2007 through June 2009. Consequently, as state and local governments are forging ahead with their own alert systems, IPAWS program implementation has stalled and many of the functional goals of IPAWS, such as geo-targeting of messages and dissemination through redundant pathways to multiple devices, have yet to reach operational capacity. FEMA conducted a series of pilot projects without systematically assessing outcomes or lessons learned and without substantially advancing alert and warning systems. FEMA does not periodically report on IPAWS progress, therefore, program transparency and accountability are lacking.

FEMA faces coordination issues in developing and implementing IPAWS. Effective public warning depends on the expertise, efforts, and cooperation of diverse stakeholders, such as state and local emergency managers and the telecommunications industry. However, many stakeholders GAO contacted know little about IPAWS and expressed the need for better coordination with FEMA. A GAO survey indicated that the majority of state emergency management directors had little communication with FEMA regarding IPAWS. FEMA has taken steps to improve its coordination efforts by planning to participate in emergency management conferences and building improved relationships between the IPAWS program and FEMA regional offices. However, despite stating its plans to create a stakeholder subcommittee and state advisory committees, FEMA has established neither group and has no current plans to do so.

Madam Chairwoman and Members of the Subcommittee:

Thank you for the opportunity to discuss our report being released today on the status of the nation's emergency public alert and warning systems.[1] This system, the Emergency Alert System (EAS), provides the President and other authorized officials with limited capacity to transmit emergency messages to the public. In our previous work, we have found that EAS relies upon antiquated methods that date back to 1963, exposing the system to weaknesses, including questionable reliability and versatility. In 2006, the Department of Homeland Security (DHS), by executive order, was given the responsibility for modernizing public alert and warning systems to ensure the capability of distributing alerts through varied telecommunications modes and to tailor alerts to specific geographic areas. The Federal Emergency Management Agency (FEMA), the entity within DHS responsible for the program, is working on the Integrated Public Alert and Warning System (IPAWS), which is intended to eventually integrate EAS into a larger warning network. When completed, EAS is expected to be superseded by the IPAWS "system of systems," to form the country's comprehensive public alert system. As FEMA develops IPAWS, state and local governments are implementing warning systems which may be difficult to integrate with the broader IPAWS system.

My testimony, based on our report released today, focuses on (1) the current status of EAS, (2) the progress made in FEMA's efforts to modernize and integrate alert and warning systems, and (3) coordination issues involved in implementing an integrated public alert and warning system. To obtain information on public alert and warning systems, we conducted a Web-based survey of emergency management directors in all 50 states and the District of Columbia. We met with officials from FEMA and other applicable federal agencies, as well as representatives of state and local emergency management offices; industry stakeholder organizations; public and private sector alert and warning experts; and private sector stakeholders, including broadcasters, the wireless industry, emergency alert technology companies, emergency management associations, and consumer advocacy groups. In addition, we conducted interviews with state participants in FEMA's IPAWS pilot programs. We examined federal agency documentation including planning, program

[1]GAO, *Emergency Preparedness: Improved Planning and Coordination Necessary for Modernization and Integration of Public Alert and Warning System*, GAO-09-834 (Washington, D.C.: Sept. 9, 2009).

status, and financial information; agency orders and rules; testimony statements; and briefings. We conducted our work for the report in accordance with generally accepted government auditing standards.

Background

EAS, the nation's primary alerting system, provides capacity for the United States to issue alerts and warnings to the public through broadcast and other media. FEMA administers EAS at the national level and is responsible for distributing presidential alerts to National Primary stations, often referred to as Primary Entry Point (PEP) stations.[2] The PEP stations relay broadcasts of these national-level alerts across the country to radio and television stations, which then rebroadcast the message to other broadcast stations and cable systems. This retransmission of alerts from EAS participant to EAS participant is commonly referred to as a "daisy chain" distribution system.

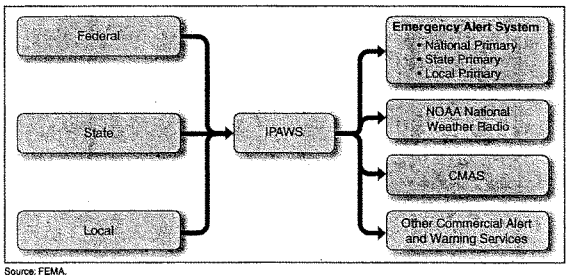
In June 2006, the President issued Executive Order 13407, entitled *Public Alert and Warning System*, effecting a policy that the U.S. have a comprehensive integrated alert and warning system, and detailing the responsibilities of the Secretary of Homeland Security in meeting this requirement.[3] The Secretary of Homeland Security was ordered to "ensure an orderly and effective transition" from current capabilities to the system described by the executive order, and to report on the implementation of the system within 90 days of the order, and on at least a yearly basis, thereafter. The FEMA IPAWS program was initiated in 2004 and the development and implementation of IPAWS has become the programmatic mechanism to carry out the executive order. IPAWS is defined by FEMA as a "system of systems," which is intended to eventually integrate existing and new alert systems, including EAS. That is, EAS is expected to be superseded as the nation's primary alert function by IPAWS, with EAS acting as one of its component parts and as one of IPAWS's mechanisms to disseminate alerts.

[2]The Federal Communications Commission (FCC) manages EAS participation by media-related communications service providers.

[3]Exec. Order 13407, 71 Fed. Reg. 36975 (June 26, 2006).

The Warning, Alert, and Response Network Act of 2006 (WARN Act)[4] established an advisory panel called the Commercial Mobile Service Alert Advisory Committee (CMSAAC),[5] which proposed to develop a Commercial Mobile Alert System (CMAS). CMAS was started as a cellular broadcast text alert initiative, under which FEMA has accepted the responsibility for disseminating alerts using the IPAWS system. Another intended partner system is the National Oceanic and Atmospheric Administration's (NOAA) National Weather Radio (NWR). NWR broadcasts National Weather Service forecasts and all-hazard warnings. State and local governments are developing and deploying their own alert systems which FEMA intends to integrate into the IPAWS system. Figure 1 displays the conceptual architecture of IPAWS, with EAS, CMAS, and NWR as mechanisms for disseminating alerts.

Figure 1: IPAWS Conceptual Architecture



Source: FEMA.

IPAWS will make use of the Common Alerting Protocol (CAP), which is an open, non-proprietary digital message standard compatible with multiple applications and telecommunication methods. CAP has been developed

[4]The Warning, Alert, and Response Network Act was enacted on October 13, 2006, as title VI of the Security and Accountability for Every Port Act, Pub. L. No. 109-347, 120 Stat. 1884 (2006).

[5]Section 603(c) of the WARN Act required that FCC establish the CMSAAC to develop and recommend technical standards and protocols for the voluntary transmission of emergency alerts by Commercial Mobile Service Providers within one year from the date of enactment of the WARN Act (i.e., by October 12, 2007).

for use by emergency management officials in sending all types of alert messages and can be used as a single input to activate multiple warning systems. FEMA—required by the executive order to adopt alert standards and protocols—intends to adopt CAP and to publish its IPAWS CAP Profile standard.

EAS Remains the Nation's Primary Public Alert and Warning System, But Unaddressed Weaknesses Limit its Effectiveness

EAS remains the primary national-level public alert system and serves as a valuable public alert and warning tool. Nonetheless, as we previously reported, EAS exhibits longstanding weaknesses that continue to limit its effectiveness.[6] While FEMA has projects under way to address some of these weaknesses with EAS, to date, little progress has been made and EAS remains largely unchanged since our previous review, completed in March 2007. We found the reliability of the national-level relay system—which would be critical if the President were to issue a national-level alert—remains questionable due to (1) a lack of redundancy, (2) gaps in coverage, (3) a lack of testing and training, and (4) limitations in how alerts are disseminated to the public.

Lack of redundancy. FEMA lacks alternative means of reaching EAS participants should its primary connection fail. Specifically, FEMA can distribute national-level alerts to 35 PEP stations (which serve as the entry points for Presidential alerts) and to 860 public radio stations across the country via EAS phone lines and satellite connectivity, respectively. However, FEMA lacks an alternative means of reaching these participants if those primary connections fail. Furthermore, if a primary connection to a PEP station failed, all of the other EAS participants that rely on that station via the daisy chain relay system would fail to receive alerts.

Gaps in coverage. Gaps in PEP station broadcast coverage could hinder the successful dissemination of EAS alerts, as some broadcast stations might have difficulty in monitoring their assigned PEP station because the station is geographically distant. Some states, such as Maine, are not covered at all by the PEP system and would have to pick up a national-level message from an alternate source, such as Public Radio.[7] This might

[6]GAO, *Emergency Preparedness: Current Emergency Alert System Has Limitations, and Development of a New Integrated System Will Be Challenging*, GAO-07-411 (Washington, D.C.: Mar. 30, 2007).

[7]The State of Maine uses the Maine Public Broadcasting microwave system as its primary EAS backbone. Each station in the Maine EAS distribution system can receive national-level EAS alerts via National Public Radio.

not be a fully reliable option because, unlike PEP stations, public radio stations do not necessarily have extra fuel and generators on-site to help ensure continuous operations following a disaster.

Lack of testing and training. FEMA does not perform ongoing national-level tests of the daisy chain relay system to ensure that it would work as intended during a national-level alert. In January 2007, in response to our ongoing work, FEMA conducted a national-level EAS test in which three PEP stations failed to receive and effectively rebroadcast the national-level test message. FEMA has not held another national-level test since 2007 and has no plans for testing the relay distribution system. The recent failure of an accidental Presidential alert suggests that problems remain in the relay system. In this incident, a national-level (Presidential) alert was inadvertently initiated in Illinois. While intended as a test, due to equipment failure, the alert failed to be properly disseminated by all EAS participants. While FEMA officials say this situation has since been rectified, no testing has been done to confirm that the equipment used would work properly in the event of an actual emergency. Another longstanding weakness of EAS is inadequate training for EAS participants, both in using EAS equipment and in drafting of EAS messages. In 2007, we reported that several EAS stakeholders, including state and local officials, identified inadequate training as a limitation of EAS and cited a need for additional instruction in equipment use and message creation. Our current work indicates that such training is still needed as FEMA has no active training program and most respondents to our state survey of emergency managers cited inadequate levels of training. According to FEMA, it is currently analyzing and assessing EAS operator training needs, but has not yet implemented any new training initiatives.

Limitations in how alerts are disseminated to the public. EAS's reliance on broadcast and other media currently exclude other communications devices, such as cell phones. In addition, it remains difficult for EAS to reach distinct segments of the population. For example, alerts are typically provided only in English and alerting mechanisms provide unequal access for persons with disabilities. Further, effective public alerting via EAS is also hindered by its limited ability to target alert messages to specific geographic locations.

While FEMA Has IPAWS Initiatives Under Way, Progress in Implementing an Integrated Alert System Has Been Limited

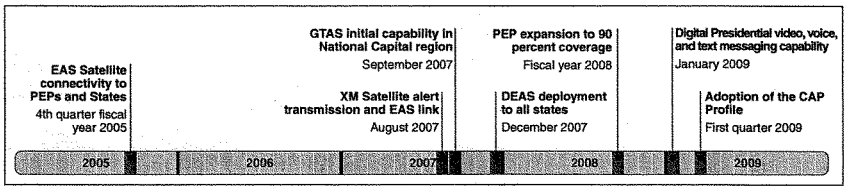
FEMA began initiatives related to IPAWS in 2004, yet national-level alert capabilities have remained unchanged and new standards and technologies have not been adopted. IPAWS has operated without a consistent strategic vision and has been adversely affected by shifting program vision, lack of continuity in planning and program direction, and poorly organized program information from which to make management decisions. Therefore, as state and local governments are developing their alert systems, IPAWS program implementation has stalled and many of its functional goals have yet to reach operational capacity. Additionally, FEMA's investment in the IPAWS pilot projects—seed initiatives intended to test alert technologies and form the foundation of IPAWS—has resulted in few lessons learned and few advances in alert and warning systems. Furthermore, FEMA does not report on IPAWS spending or progress in achieving goals, which limits transparency and accountability for program results.

FEMA Has Begun Some Projects, but Has Yet to Integrate Alert Systems or Adopt New Technologies and Standards

Although IPAWS has existed since 2004 with the original objective of modernizing and integrating public alert and emergency warning systems across federal, state, and local governments, national-level alert system capabilities remain unchanged and have yet to be integrated. In June 2006, Executive Order 13407 specified the responsibilities of DHS and FEMA with respect to a public alert and warning system, establishing 10 functions for the Secretary of Homeland Security. Since the executive order, FEMA has launched or continued, under the IPAWS program, several projects intended to address the 10 functions specified in the order. However, the IPAWS projects under way designed to meet the requirements of the executive order have shown little progress and some of the projects cited by FEMA have been under development since the inception of IPAWS and have yet to be completed. For example, as early as 2005, FEMA planned efforts to provide warning messages to subscribers via email and to telephones, text message devices, cell phones, pagers, and Internet desktops. These capabilities were tested under various IPAWS pilot projects, but the development and implementation of the methods were discontinued.

FEMA has exceeded numerous timelines that it set for IPAWS initiatives. Figure 2 demonstrates some of the IPAWS programs that still are not implemented, including their original timelines for completion.

Figure 2: Examples of Incomplete IPAWS Projects with Exceeded Timelines



Source: GAO analysis of FEMA information.

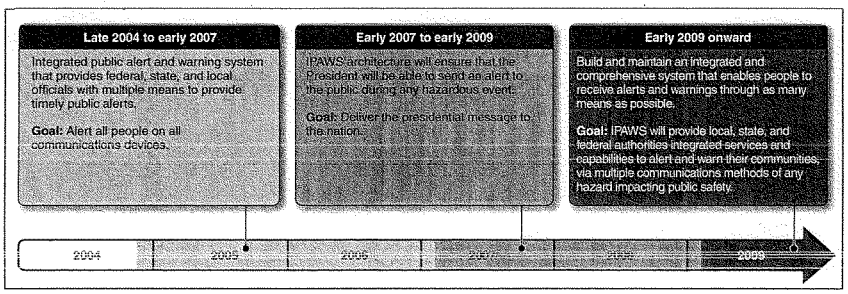
Note: The Digital Emergency Alert System (DEAS), Geo-targeted Alerting System (GTAS), and XM Satellite EAS link are IPAWS projects.

Shifting Program Vision and Lack of Continuity in Planning Have Adversely Affected Efforts to Modernize and Integrate Alerts

FEMA's efforts to create an integrated and modernized alert and warning system have been affected by (1) shifting program vision, (2) difficulties in program planning and management, (3) a lack of collection or organization of program information from which to make management decisions, and (4) staff turnover.

Shifting program vision. The IPAWS program vision has changed several times, slowing progress toward an integrated system. Figure 3 shows the evolution of the IPAWS vision.

Figure 3: FEMA's Shifting Vision for IPAWS



Courtesy: FEMA and GAO.

Difficulties in program planning and management. From early 2007 through June 2009, the IPAWS effort operated without a designated implementation plan and no specific processes for systems development and deployment. The new implementation plan, completed in June 2009, includes only a vague overview of IPAWS initiatives and does not adequately satisfy the project management and planning practices essential for effective program execution. Other planning documentation that exist indicate a lack of continuous overall strategic vision with disparate projects not tied together by a cohesive plan.[8]

Lack of collection or organization of program information from which to make management decisions. Throughout the course of our work, FEMA officials told us that many key IPAWS documents did not exist or were irretrievable. Moreover, a FEMA consultant[9] who is assessing IPAWS has found that there is no cogent organization system to locate program information, that information exists in multiple locations across FEMA office spaces, and that data searches on program information take an

[8]FEMA indicated that a strategic plan is under development and that it has other documentation and processes for system design, that were in the process of internal coordination when our review was being completed.

[9]In October 2008, FEMA contracted with a professional services firm to provide management, assurance, and financial services for IPAWS.

inordinate amount of time and effort. The consultant also found more robust and realistic documented internal controls are necessary.

We requested documentation on FEMA and DHS reporting requirements or performance measures for which the IPAWS program prepared documented updates of its progress. However, neither FEMA nor DHS regularly report on IPAWS.[10] FEMA was able to provide a performance information worksheet and spreadsheet, but this documentation provided only vague program parameters, without progress updates on reaching specific goals or milestones. The FEMA IPAWS consultant is performing a full assessment of the IPAWS program with the intention of implementing internal controls and performance measures. However, the absence of accurate periodic reporting on IPAWS leaves valuable program information unavailable. Such information would help increase program transparency, establish greater program accountability, and assure a reasonable assessment of return on financial investments. Additionally, periodic reporting on IPAWS would provide FEMA's private sector partners and those in government at the federal, state, and local level with information necessary to help establish an integrated alert and warning system. Such reporting would also assist the Congress as it oversees issues related to public alert and warning.

Staff turnover. Progress toward an integrated alert system has also been slowed by frequent changes in organizational leadership of the IPAWS program office and other staffing related issues. During our review, IPAWS was operating under an acting director—its third director since the program began in 2004—and was searching for a permanent director. According to FEMA, a new director took charge of the program on August 3, 2009. Additionally, according to FEMA officials, high turnover of program staff has made it difficult to consistently manage IPAWS programs. FEMA's heavy use of contract employees has also resulted in concerns from stakeholders that IPAWS is dominated with outside contractors who do not fully understand alert and warning needs. At the program office itself, there is a preponderance of contract staff. As of June 2009, the program office consisted of 27 contractor staff and 5 FEMA IPAWS staff positions were filled out of 11 noncontract full-time equivalent positions that were available.

[10]The DHS performance and accountability reports do not include information on IPAWS.

Limited Program Accountability for IPAWS Projects Has Contributed to Inconclusive Results and Lessons Learned

To demonstrate the integration and expansion of new alerting technologies, and to work toward the functionality described in the executive order, FEMA has implemented a series of IPAWS pilot projects, but they have ended inconclusively, with few documented lessons learned. Interviews with FEMA officials and IPAWS documents revealed inconsistent information on the purpose of the pilot programs and how they supported broader IPAWS goals. Although we requested reports documenting the plans, lessons learned, and technological or operational outcomes, for most pilot projects, such documentation was never produced.[11] Rather, the extent of the documentation FEMA provided on the pilots includes general briefing slides with broad program descriptions. As a result of the lack of project assessments, reporting, and documentation, it is unclear which aspects of the IPAWS projects, if any, are currently being used or plan to be used in the future or whether the projects informed actions or decisions with respect to the IPAWS program. Initial findings from an IPAWS program assessment, performed by the FEMA consultant, revealed that in most cases, key project deliverables for which FEMA contracted, could not be accounted for.

Responses from our survey of state emergency management directors indicate that most of the 12 states that reported participating in the pilot projects reacted unfavorably when asked about the outcomes and lessons learned from the pilots. Lack of coordination, poor management, incomplete execution, and short project duration were cited, among other things, as lessons learned or outcomes from the pilots. Some states cited positive outcomes and were generally more optimistic about their participation.

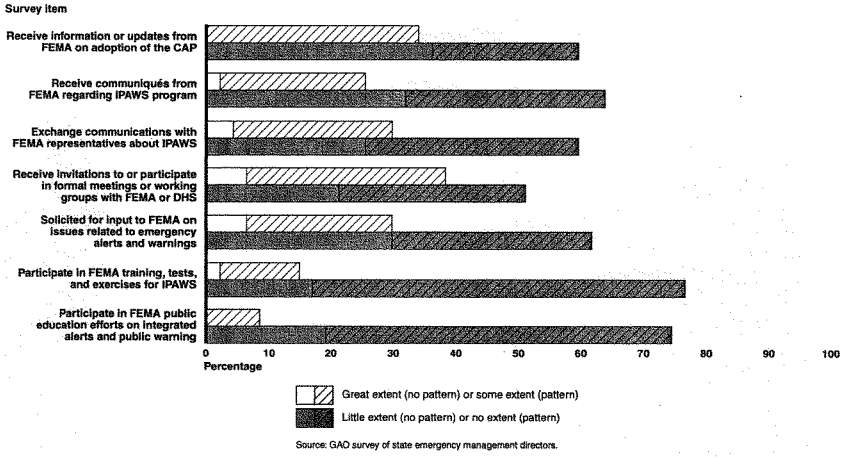
FEMA Faces Coordination Issues in Implementing IPAWS

To effectively develop and implement IPAWS, FEMA depends on the efforts and expertise of diverse stakeholders, yet stakeholders we surveyed cited coordination as the primary issue facing the implementation of IPAWS. Given that the IPAWS vision relies heavily upon disseminating alerts through state and local warning systems, many respondents to our state survey seek opportunities to contribute to IPAWS planning and consider collaboration among all levels of government to be imperative to the delivery of public alerts and warnings. While there is

[11]Sandia National Laboratories was contracted to implement the Web Alert and Relay Network (WARN) pilot. Sandia produced a final report for the second phase of the pilot, WARN2, whose results, according to FEMA officials, were not accepted by the FEMA IPAWS program management office.

broad consensus regarding the need for coordination, FEMA's efforts to date have been insufficient, according to many stakeholders we contacted. The majority of our state survey respondents received little to no information from FEMA and communicated with FEMA to little or no extent. Further, the majority of respondents had little or no understanding of IPAWS. In figure 4, we display the survey responses of state emergency management directors.

Figure 4: Survey Responses of State Emergency Management Directors on FEMA IPAWS Information, Training, Communication, and Coordination



Source: GAO survey of state emergency management directors.

Some of these views were echoed by federal partners, such as NOAA, which noted that coordination could be improved, and the DHS Office of Science and Technology, which cited its relationship with FEMA as a primary challenge to developing an integrated alert system. Additionally, local officials we surveyed[12] had little to no communication with FEMA,

[12]Local officials we contacted were selected based on information provided by state emergency management directors.

were generally unaware of the IPAWS program, and overall, lacked an understanding of the CAP alert standard.

FEMA officials acknowledged that they have, thus far, insufficiently engaged state-level stakeholders and have recently taken steps to increase their communication and collaboration efforts. As part of their Stakeholder Engagement Plan, FEMA plans to continue its participation in alert and warning and emergency management conferences; to engage relevant congressional committees; to build relationships with FEMA Regions, which can pass information to state and local government officials; and to build relationships with other organizations and media outlets. As recently as May 2008, FEMA said it intended to create a stakeholder subcommittee and informed us of plans to establish state advisory committees. However, FEMA subsequently told us that neither the stakeholder subcommittee nor state advisory committees have been implemented and there are no current plans to establish such groups. FEMA did form three working groups with the limited scope of reviewing and validating requirements for the CAP Profile.[13]

Conclusions and Recommendations

Emergency communications are critical in crisis management and for protecting the public in situations of war, terrorist attack, or natural disaster; yet, FEMA has made limited progress in implementing a comprehensive, integrated alert system as is the policy of the federal government. Management turnover, inadequate planning, and a lack of stakeholder coordination have delayed implementation of IPAWS and left the nation dependent on an antiquated, unreliable national alert system. FEMA's delays also appear to have made IPAWS implementation more difficult in the absence of federal leadership as states have forged ahead and invested in their own alert and warning systems. In order that IPAWS achieve the federal government's public alert and warning goals, it is essential that FEMA define the specific steps necessary in realizing a modernized and integrated alert system and report on the progress toward achieving that end. Additionally, effectively implementing an integrated alert system will require collaboration among a broad spectrum of stakeholders.

[13]Through DHS, FEMA formed a Federal Working Group, Practitioner Working Group, and Industry Working Group consisting of federal partners, emergency managers and broadcast community members, and broadcast vendors, respectively.

In our report released today, we recommend that FEMA implement processes for systems development and deployment, report periodically on progress toward achieving an integrated public alert and warning system, and implement a plan to verify the dependability of IPAWS and to train IPAWS participants. In reviewing a draft of the report, DHS stated that it agrees with all of our recommendations to improve public alert and warning and provided explanations of actions aimed at addressing them. However, FEMA's planned actions to address some of the recommendations may not be sufficient as they are limited in scope and require greater specifics. As such, additional actions to improve program planning and coordination are necessary to achieve a comprehensive, integrated alert system.

Madam Chairwoman, this concludes my prepared statement. I would be happy to respond to any questions you or other Members of the Subcommittee may have at this time.

GAO Contact and Staff Acknowledgments

For further information about this testimony, please contact Mark L. Goldstein at (202) 512-2834 or goldsteinm@gao.gov. Individuals making key contributions to this testimony included Ryan D'Amore, Colin Fallon, Simon Galed, Sally Moino, Andrew Stavisky, and Mindi Weisenbloom.

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Testimony before

U. S. House of Representatives
Committee on Transportation and Infrastructure
Oversight and Investigations Hearing

"This is NOT a Test: Will the Nation's Emergency Alert System Deliver the President's Message to the Public"

Presented by

Lise Hamlin
Director of Public Policy & State Development
Hearing Loss Association of America
7910 Woodmont Avenue, Suite 1200
Bethesda, MD 20850
301-657-2248

September 30, 2009

Madame Chairwoman Eleanor Holmes Norton, Ranking Member Mario Diaz-Balart, and Members of the Subcommittee on Economic Development, Public Buildings and Emergency Management, I wish to thank you for the invitation to appear before you today. My name is Lise Hamlin. I'm the director of public policy and state development at the Hearing Loss Association of America. I am honored to have this opportunity to provide testimony on how the emergency alert system impacts people with hearing loss on behalf of Hearing Loss Association of America. Hearing Loss Association of America (HLAA) was founded in 1979 to provide information, education, advocacy and support to people with hearing loss, their family, their friends and professionals who work with them. HLAA today has more than 200 chapters and 13 state organizations. We hear from people with hearing loss, members or not, daily on a variety of issues, including receiving alerts in an emergency. I myself have a significant hearing loss and have experienced the issue from a very personal perspective.

According to the National Center for Health Statistics (2006), 37 million adults in the United States have trouble hearing. (http://www.cdc.gov/ncbddd/ehdi/FAQ/questionsgeneralHL.htm#deaf). That number continues to rise as the baby boom generation ages. Hearing loss has a major impact on the ability to communicate during emergencies. Clearly, getting the right information at the right time is hugely important, but we've found that access to information during emergencies is not always easy to come by for people with hearing loss. We need to ensure that everyone, including people with hearing loss, get the messages they need when they need it.

As the director of public policy at Hearing Loss Association of America, I receive email regularly from individuals with hearing loss across the country who have concerns about getting the information they need in an emergency. I've delivered workshops about emergency preparedness for people with hearing loss, and at each presentation I've delivered, someone has a story about struggling through an emergency in a situation that was more difficult and more frightening, even life threatening, because they were unable to hear during the emergency.

But not only do I hear from others, I've been there. I lived and worked in New York City during September 11, 2001. My office at the League for the Hard of Hearing was located on 23rd Street and 6th Avenue. I have a vivid memory going up to my office that day, looking out my window and seeing the World Trade Center being hit, then the two towers falling. It's something I'll never forget. It's something the likes of which I hope I never witness again.

When the World Trade Center was struck, my co-workers' first reaction was to turn on the television. As the news was coming in, we had the surreal experience of watching events unfold on the television and out our windows at the same time. Still, I might as well have been as far from the TV as I was from the World Trade Center: the news was not captioned. I needed to have my co-workers repeat what was said on the broadcast. For others who had no access to captions, no access to radio, they had no access to what was going on.

For the next few days I was glued to my television. Fortunately, I had captioned television to be glued to. We heard from captioning writers that they worked tirelessly during those days. Remember, the news went without commercials for a long time, so that remote and on site caption writers were captioning constantly. They did a fabulous job. But I knew others who had depended on the over the air signal from the television transmission tower that was no longer there. If you are hard of hearing or deaf, radio is useless. Having no access to television meant being isolated from the rest of the world at a very scary time.

September 11, 2001 was a terrible, terrible day. But certainly other emergency events have had great impact on Americans as well. The Washington, DC area sniper attacks in October 2002 frightened those of us who live in this community for weeks. But, as events unfolded and television programming was interrupted with breaking news about shootings at gas stations and near public malls and schools, the community of people with hearing loss was left behind. Those announcements were not captioned because, broadcasters told us, they were not obligated to because EAS had not been triggered. People with hearing loss apparently didn't deserve to have access to the same information at the same time as everyone else.

Hurricane Katrina on August 29, 2005, was another terrible disaster. We received reports from people with hearing loss living in rural areas who did not get access to the televised warnings they needed. We received a report of one deaf man whose first knowledge of Katrina was the waters rising around his bed.

That was then. We know that there have been strides taken since 9/11 to improve the delivery of emergency information to all, including people with hearing loss. Will the Emergency Alert System deliver the President's message to people with hearing loss? Maybe. Maybe not.

I have mentioned events that happened years ago. If a major disaster happened tomorrow, I'm not sure I would receive the message in an accessible way. I received an email this month, September 9, 2009. A woman from Kansas City, Missouri wrote me, saying:

> I don't want to complain about the TV captions but rather the lack of them on the local news. None of the stations use real time captioning so anytime the news moves out of the studio there is no captioning. Also, the weather is never captioned.
>
> Just recently, the weather sirens went off and the local station I was watching interrupted the network program to report on the storm....without captions! I was left not knowing just what was happening and ended up calling the police to find out.
>
> I may be old, but I'm still interested in the local news and I also feel very unsafe in a bad storm.

When I asked the woman who wrote this email if I could use her story and her name, she told me, yes, I could use her story, but, "You needn't bother about the name. I'm not looking for 'fame', just help in being able to keep up with the world."

And that's all this community wants. We want to know:

- when an emergency event is happening – or on the way if we can know that
- what we need to do to protect ourselves and our loved ones
- when the emergency is over, what we can to in the wake of the event to help get ourselves back on our feet

Just like everyone else. The difference is, we need visual access to emergency information where others may only need audible messages.

What concerns me today is that even though the Federal Communications Commission (FCC) has very clear rules for broadcasters providing emergency information visually as well aurally, it's not happening consistently, as it should. I understand that a broadcaster who provides a complex news program might forget to provide captioning during an emergency when captioning is not part of the everyday, normal protocol. I do understand that a contract would have to be set up with captioner in advance. I realize that it means someone has to remember to contact the captioner when the emergency happens, when a hundred other things must also be attended to. I understand. But when I hear from people in Florida or Texas who don't know whether they should evacuate or shelter in place when a hurricane is headed their way, when I hear from people in California who don't know whether the wildfire will close in on their community, I'm concerned that the fact that captioning is not part of the broadcasters' everyday operations means that it will once again be forgotten in an emergency. Not only does that put these people's lives at risk, but also risks the lives of the emergency responders who are sent to rescue them. If we are seeing this happen for a weather event, what will happen if the President needs to deliver a message to the public? What then?

On September 11, we depended on television to get the news we needed. A mere eight years later, times have changed dramatically. More and more, we see the communities of people with hearing loss looking to the Internet for information, and to their Blackberries or cell phones for instant communication. People who are deaf are discarding their TTY's and going to text –only plans with their carriers. People with hearing loss embraced text messaging early and to a greater degree than those in the hearing community, except perhaps by teenagers. Many of us can now receive text alerts on our mobile devices with news of local emergencies. This community awaits eagerly each new development: we look forward to instant video messaging with captions and real time text capability or mobile video relay. The old ways of reaching out to people who are hard of hearing or deaf simply won't work.

We need emergency messages that reach mobile devices directly. We need emailed and Internet messaging that can be accessed instantly. We need video emergency messages that are posted on line with open captions as well as signed language versions. We need our states and local communities to have the capacity and the policy to caption their streamed videos, just as we need the national messaging systems to support that. And we need broadcasters who post videos on line to caption those videos, and include both the government officials and the sign language interpreter in the visuals when those officials are making live emergency announcements. That just makes sense.

Emergency managers stress redundancy. When the power goes out, television may not work, the Internet could go down and mobile device may not be recharged. If you are hearing, you can have ready a small portable television or portable radio to give you the information you need even if you must evacuate. But currently, there is no requirement for captioning on televisions that are smaller than 13 inches. So, in an emergency, the person with a hearing loss has no access to portable television, no access to radio. We need to change those rules so that smaller televisions will be captioned. And we need to make captioned radio a reality.

National Public Radio (NPR) and Towson University have been working on a project that would allow radio messages to be delivered via text (http://www.npr.org/about/press/2009/010609.CES.html). Captioned radio in cars could provide one more answer to reaching people on the move, where television and the Internet may not reach them. NPR's initiative is the kind of work we applaud because it gives us one more tool in our toolbox that could help save lives.

The Commercial Mobile Alert System (CMAS) could provide what consumers have been asking for for some time: location based information. However, at this time, commercial mobile providers are not mandated to participate. And there is a real need for field testing of handsets with CMAS software in real life situations to verify simulations of CMAS features that have been done by the Wireless RERC (Rehabilitation Engineering Research Center) at Georgia Tech (http://www.wirelessrerc.org/about-us/projects/development-projects/d3-wireless-emergency-communications.html) and the Telecommunications RERC at Gallaudet

(http://tap.gallaudet.edu/Emergency). We'd like to see those field tests happen – the sooner the better.

Hearing Loss Association was on the advisory committee for the National Center for Accessible Media (NCAM) at WGBH project "Access to Emergency Alerts for People with Disabilities". This project resulted in a long list of recommendations which should be implemented. (http://ncam.wgbh.org/alerts/articles/AccessAlertsFinalRecs.pdf)

At a time when there is so much in the way of new research, new technology that offers much hope to people with hearing loss, we find ourselves frustrated that these new technologies are not being exploited in the way they could be. People with hearing loss find their needs are often forgotten, or remembered after the fact.

Hearing Loss Association of America recommendations:

- Expand the numbers of broadcasters who must provide captioning for broadcast news well beyond the top 25 markets that are required to do so now. The more broadcasters who provide live captions daily, the greater chance we have that text will appear on those emergency broadcasts when audible emergency announcements are made.
- Expand the definition of what constitutes an emergency for the purpose of setting off protocol for broadcasters that would require the information to be presented visually.
- When EAS is activated, include a boilerplate message that will remind broadcasters of their obligation to provide visual access to aural information, either via captions, scrolled text, or other visual means. It should not be vague: it should list examples of the kinds of visual ways of providing text that is acceptable to make it concrete to broadcasters.
- Enact the 21st Century Communications & Video Accessibility Act of 2009 (H.R. 3101), which requires, among other things, caption decoder circuitry or display capability in all video programming devices, including PDAs, computers, iPods, cell phones, DVD players, TiVo devices and battery-operated TVs, and extends closed captioning obligations to television-type video programming distributed over the Internet, including streamed newscasts.

- Require EAS radio messages to be sent in text on captioned digital radios available for cars.
- Field test Commercial Mobile Alert System software.
- Adopt recommendations of the Access Alerts Project of the National Center for Accessible Media at WGBH, including:
    - Fund a federal government-sponsored body (public/private partnership advisory/working group) to address public warning issues to pursue the improvement of emergency warning capabilities for the general public, with specific goals for better access for people with disabilities.
    - Fund development of education about effective public warning, including publishing a brochure for wide distribution that outlines the findings and recommendations of the Access Alerts project.
    - Recommendations for the FCC Commercial Mobile Alert Service (CMAS):
      A) Ensure that the public interest is consistently served by involving a fair balance of consumers to industry participants. Specifically include representatives of consumers with disabilities and the elderly in regular review of the initial Commercial Mobile Service Alert Advisory Committee (CMSAAC) recommendations and subsequent revisions, and in industry specifications that impact consumers' use of the CMAS and receipt devices for it;
      B) Because the CMAS will be initially text-based, design the system architecture to allow secure access by third party services that can provide alternate distribution of text for sign language and text-to-speech translation;
      C)Increase the existing 90-character limit for CMAS text messages – consumers are accustomed to and expect more information;
      D) Increase the ability to target messages to geographic areas more precise than the county level;
      E) Minimize unnecessary header information in alert messages;
      F) Maximize the intensity of vibration signals in wireless devices, as they will be an important part of how all consumers, but especially consumers with disabilities, are notified through the FCC's Commercial Mobile Alert Service (CMAS);
      G) Deliver notifications in additional formats (e.g., audio, video, etc.) with accessibility profiles developed for each;
      H) Pursue opportunities to study, fund and expand the availability of multi-lingual emergency messaging;
      I) Ensure that the OASIS Emergency Management Technical Committee continues to develop the Common Alerting Protocol (CAP) standard to allow for the fullest possible range of descriptions of emergencies that are translated from CAP code fields to emergency message information; and

J) Ensure that CMAS providers integrate CMAS into their operational plans that address the availability of network transmitters in an emergency.

- Maximize inter-agency and intra-agency coordination and integration between all federal agencies with responsibility for emergency notifications and accessibility.
- Fund training for state and local municipalities in how to comply with/implement legislative accessibility requirements and CAP-compliant messaging.
- Ensure that FEMA implements accessibility considerations throughout its Integrated Public Alert and Warning Systems (IPAWS) program.
- Make subscription sign-ups for alerts fully accessible. Publicize the availability of subscription-based alert sign-up via informational literature, announcements and advertisements.
- Produce and maintain a library of fully accessible (text, audio, video) multimedia emergency messages that can be delivered via mobile devices, the Web and broadcast media, shown in shelters, etc. To maximize efficacy, explore cooperative public/private ventures with state agencies and consumer disabilities advocacy organizations that may be working on similar products and services.
- Expand current state and federal grant programs to fund new research and training programs for accessible notification.

It bears mentioning that the National Center for Accessible Media at WGBH will be working with the National Center for Accessible Transportation at Oregon State University on a National Institute on Disability and Rehabilitation Research (NIDRR) grant to research accessibility gaps within communication technologies used in transportation hubs and identify opportunities for universal and accessible design considerations within industry communications standards. This research effort will include coordination with emergency alerting initiatives deployed or in development at the national, state and municipal level, where communications interoperability challenges are a serious problem. We applaud NIDRR for

funding research like this that ensures that consumers' interests are represented in the technical aspects of problems related to emergency alerting.

I would like to close with these thoughts. Years ago the disability community coined the phrase: "Nothing About Us Without Us." People with disabilities are in the best position to know what works for them, and what's missing the boat. We need to do a better job to include all people with disabilities in emergency preparedness efforts right from the beginning. And we need to a better job of exploiting technology that is accessible to people with disabilities to bring them the emergency information they need.

Hearing Loss Association of America stands ready to work with Congress to provide information and resources, as well as to get the word out about emergency preparedness and what consumers with hearing loss themselves need to do to be prepared for any emergency.

We thank you for this opportunity to provide our testimony to you. We urge Congress to take the necessary steps to ensure that people with hearing loss get all the information they need when they need it.

RICHARD MUTH
Member, National Emergency Management Association
and
Executive Director,
Maryland Emergency Management Agency

TESTIMONY
Before the

House Transportation & Infrastructure Subcommittee on Economic Development, Public Buildings and Emergency Management
on
"This is NOT a test: Will the Nation's Emergency Alert System Deliver the President's Message to the Public?"

September 30, 2009

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Introduction

Good Afternoon, Chairwoman Norton, Ranking Member Diaz-Balart, and distinguished members of the Subcommittee. I am Richard Muth, Executive Director of the Maryland Emergency Management Agency, and member of the National Emergency Management Association. Thank you for asking me to testify on this important issue: "This is NOT a Test: Will the Nation's Emergency Alert System (EAS) Deliver the President's Message to the Public?"

Before being appointed to my current position last year I was with the Baltimore County Fire Department for more than 30 years with 15 years as the County's emergency manager. I come here today with experience both as a state and local emergency manager. It is an honor to be invited to discuss Maryland's current initiative regarding EAS – the emergency alert system and the associated critical issues that remain a challenge for the future.

Background

My Agency's role, as mandated by Maryland State law, is to help protect Maryland residents by coordinating the State response to major emergencies and declared disasters, directing assistance to local jurisdictions when needed, and coordinating assistance with the Federal Emergency Management Agency (FEMA) and other federal partners. Emergency alerts to citizens represent a critical component of that protection.

My interest in the EAS began in September of 2003 while working for Baltimore County emergency management when the system failed residents of the County as Tropical Storm Isabel was pounding the mid-Atlantic region. At about 9pm on the night of September 18, 2003, as Tropical Storm Isabel was pushing huge volumes of water up the Chesapeake Bay, my office wrote an emergency alert message urging residents of coastal areas of eastern Baltimore County to evacuate to higher ground.

Unfortunately, the Baltimore television stations decided not to air the broadcast immediately; instead they treated the alert message as if it were a press release and ran the information as part of the 11pm news. For some in the affected area, that was just too late. By the time the stations announced the evacuation recommendation on the late news we were scrambling to get boats out to stranded residents.

We later learned that broadcasters did not think it appropriate to interrupt a broadcast to the entire Baltimore viewing area for an issue affecting only a few dozen homes. But for those residents it could have been a life and death situation. While there were no deaths or serious injuries, the emergency response did make for some anxious moments for residents and risked the lives of the first responders who rescued them.

Much of this anecdote was avoidable if we could have depended on the media to broadcast the alert in a timely fashion instead of substituting their independent judgment for that of the experts in the field. Throughout the remainder of this testimony, I will outline some of Maryland's accomplishments, our future plans, and areas still under development. I will describe for you the background and current status of EAS inadequacies, Maryland's efforts to address these gaps, and possible solutions.

Current Status of EAS

The EAS is a national public warning system that requires television and radio broadcasters, cable television systems, wireless cable systems, satellite digital audio radio service providers, direct broadcast satellite service providers, and wire line video service providers to offer the President of the United States the capability to address the American public during a national emergency. It replaces the Emergency Broadcast System (EBS) adopted during the Cold War as a means of conveying a Presidential message about a nuclear attack or similar emergency.

Today the Federal Communications Commission (FCC) in coordination with FEMA and the National Weather Service (NWS) implement the EAS at the national level. The President has delegated the administration of determining when to activate the national level EAS to FEMA.

- The FCC's role includes prescribing rules that establish technical standards for the EAS, procedures for EAS participants to follow in the event of activation, and EAS testing protocols.
- The NWS uses the EAS on a local and statewide basis to provide the public with alerts and warnings regarding dangerous weather and other emergency conditions.

The national EAS is designed to enable the President to speak to citizens in the event of a national emergency. Broadcasters are required to have the hardware to participate in the alert system. As leveraged by state and local authorities, EAS has been adapted to issue civil emergency and AMBER (missing child) alerts as well as to relay weather and other emergency alerts over broadcast radio, television, and cable systems. The vast majority of alerts issued over EAS are weather related; however, broadcasters' participation in state and local alerts is voluntary.

The EAS allows broadcasters to send and receive emergency information quickly and automatically even when their facilities are unattended. If one link in the system for sharing emergency alert system information is broken, members of the public have multiple alternative sources of warning. EAS equipment provides a method for automatic interruption of regular programming and in certain instances can provide emergency messages in languages other than English and to persons with disabilities.

Existing Issues

Since September 11, 2001, and the 2005 Gulf Coast Hurricanes, questions have been raised about the reliability and effectiveness of the system. In 2007, the FCC adopted new rules designed to modernize the EAS. The FCC ordered that all EAS participants have the ability to accept messages using a Common Alerting Protocol (CAP) within 180 days of the adoption of a protocol by FEMA. As described by the FCC, the CAP is a "standardized, non-proprietary, data interchange format that simultaneously disseminates consistent all-hazards emergency alerts or public warning messages over different kinds of communications networks and systems." The goal is to ensure that a single alert can be received and processed by the widest variety of media for re-transmission to all audiences. In order for state broadcasters to receive a CAP message the state needs to have systems capable of sending and distributing CAP messages.

The FCC requires states to have the capability to transmit EAS messages and has an established system that is standard across the country using statewide relay networks among radio stations. The statewide relay is basically a description of the method of message transfer from the main radio stations to participating stations in the state based on their monitoring assignments.

Highlighted gaps in the current system:

- Improvement of coordination between emergency management and the broadcasters to stress the importance of the alerts.
- Funding to provide adequate equipment to participating broadcasters
- Broadcasters "voluntary" participation at the state and local levels.

Maryland Improvements to EAS

To address the current gaps, state and local representatives have worked closely with the broadcasting community on the Maryland State EAS Plan. In anticipation of FEMA adopting a rule currently under consideration, Maryland has revised the EAS plan to include language concerning changes to the Common Alerting Protocol (CAP) and the authority of the Governor or a designee to issue a mandatory EAS message to the entire state or geographically targeted area. All EAS participants will be required to maintain compliance with these rules within 180 days after FEMA adopts the CAP under FCC Rule §11.55. This adoption, or lack thereof, is of main concern.

MEMA, in cooperation with the Maryland-DC-Delaware (MDCD) Broadcasters Association, deployed the Emergency Managers Network (EMnet) in 2004. EMnet is a highly secure encrypted public warning network utilizing satellite and internet connectivity to provide emergency management with the ability to execute activation of EAS for any county, region, or the entire State of Maryland. EMnet also is capable of sending and receiving CAP messages.

Two-way communication is a unique feature of the Maryland EMnet system allowing emergency management agencies (EMAs) to communicate with radio, television, and cable systems before, during, and after a Public Warning without sending an EAS-Activation. EMnet provides the State, county, and local EMAs with a confirmation that each terminal has received the warning message or EAS Activation. The status of all EMnet terminals is also provided to the management terminal at MEMA.

Prior to the deployment of EMnet broadcast stations received EAS activations via a one-way 'daisy-chain' relay from station to station across the State that did have some operational issues. Unfortunately, *due to lack of funding*, approximately 75 broadcast stations, of the 95 Maryland broadcasters, have yet to purchase equipment with an EMnet terminal; this creates a situation whereby a large portion of Maryland must still rely upon a relay of the EAS activation from station to station in order to receive a warning.

MEMA and the MDCD broadcasters have taken the additional step to implement another avenue of EAS transmission to those stations not currently in the EMnet network. It is anticipated that additional stations will be outfitted with IP (Internet Protocol) radios. These radios will receive streaming audio over the internet of the EAS messages generated so that the station need not rely on the station-to-station transmissions.

As part of the State Emergency Communications Committee (SECC), MEMA is encouraging the formation of Local Emergency Communications Committees (LECCs) to draft or update local plans in conjunction with broadcasters to include changes to the state plan. During this plan update the State is encouraging local jurisdictions to reach out to broadcasters and revisit the agreed-upon alerting procedures for EAS in order to streamline the process so all parties involved in an EAS activation are informed and have rehearsed the procedures.

Delivering the President's Message

The President of the United States may choose from available EAS systems when there is an emergency message to deliver to the country. Limitations in the current system, however, may preclude the ability of the government to deliver the message.

In theory, an EAS "Emergency Activation Notification (EAN)" activation code overrides local programming and locks-down all stations into the Presidential Message Audio Circuit so that the President's message may be transmitted. When the message is completed the stations are released from the Presidential Message Audio Circuit and allowed to return to local programming.

On a weekly basis, major stations are required to log into the EAS system to test functionality. Those stations must then transmit the test message to subsequent broadcasters essentially utilizing a daisy-chain method.

A Presidential Emergency Message using EAS has never been issued; therefore there is some probability that difficulties could be encountered at broadcast stations due to the daisy-chain relay system. The daisy-chain relay system severely degrades the quality of the audio message being broadcast. It is likely that many stations may encounter lock-out problems attempting to restore local programming after the message is finished.

EAS Successes and Vulnerabilities

Successes

Broadcasters developed "Amber Alerts" in cooperation with law enforcement which uses the EAS break in radio, television and cable programming to notify the public when child abduction has occurred. The use of the EAS system for Amber Alerts remains a remarkable success.

The industry has acknowledged the former inappropriate use of the EAS for weather bulletins. The NWS utilized EAS to provide notice to the general public regarding forecasted severe weather in addition to actual verified severe weather warnings. The use of EAS to send forecasted severe weather is a miss-use of the System and all EAS 'weather watch event codes' have been removed from radio, television, and cable systems activation list.

Vulnerabilities

The most pressing concern by emergency management and broadcasters is that FCC-required "Specific Area Message Encoding" (EAS-SAME) is inaccurate and results in false and misleading warnings. SAME coding applies to certain designated areas but may be too broad geographically. For example, a warning may be sent with a SAME code that includes far too many areas without specificity. There are two fatal flaws with the 13 year old EAS-SAME system.

- The first flaw is that to enter a warning into the EAS System an FCC event code must be selected. Since it would be impossible to develop a stock list of all types of public warning events, the Watch Officer originating a specific public warning must choose an event code that most closely resembles the actual warning event.

  For example, a train derailment with a plume of hazardous chemicals requires the evacuation of a six block area. In this example the Watch Officer originating the warning would have no choice by to use one of the following stock event codes; Civil Danger Warning, Civil Emergency Message, Hazardous Materials Warning, Immediate Evacuation Order, Law Enforcement Warning, or Local Area Emergency. None of these codes accurately describes the actual public warning event. Further, the text message that will crawl on television and cable channels will show only the event code title, the county, and the time.

- To enter a warning in the EAS an FCC mandated 'FIPS' county identification code must be selected. There is no way to accurately identify the desired warning area of the county as in the six-block area previously mentioned. Instead under the existing EAS-SAME, an entire county or counties would be warned because the required FIPS code is by county. This has led to the 'Cry-Wolf Syndrome' where many public warnings are ignored since for the most part they do not pertain to the area under an actual warning

  If in this example the Watch Officer selects 'Evacuation Immediate,' all television and cable channels in the county will run a text crawl urging everyone to evacuate instead of just the local six block area being warned.

FEMA/DHS Interaction and Support to States Regarding EAS

MEMA has partnered with the MDCD to address gaps in the current system. A lack of financial support, however, remains one of the most significant challenges. In Maryland, there are at least 75 broadcast stations without Maryland EMnet terminals due to a lack of funding. Some funds, especially certain grant regulated funds available for communications systems, may allow for purchase, but are not allowed to be used to sustain the systems. To solve as many of the public warning dissemination problems as possible, Maryland continues to work to bring this situation to the forefront. My presence here today is one way in which we are working toward a solution. FEMA/DHS allows states and urban areas to purchase communications systems through Homeland Security Grant Program. Recipients cannot use those funds, however, for long-term sustainment and maintenance. Dedicated and sustainable funding is imperative in addressing these issues.

Other Federal Initiatives

EAS is just one of several means by which the public is notified and receives emergency warnings and alerts. Under Congressional mandate, FEMA/DHS presently is developing the Integrated Public Alert and Warning System (IPAWS) which will serve as the backbone for local, county, state, and Federal public warnings in the future. The Common Alerting Protocol is being reviewed by FEMA/DHS and will be used as the data file entry for all public warnings in the country once adopted. IPAWS then will distribute the CAP warning file to all disseminators and broadcasters within the desired warning area. The FCC has adopted rules that require broadcast stations to be capable of receiving CAP file warning messages within 180-days from the date that FEMA/DHS adopts CAP. FEMA has yet to adopt similar rules.

Even though CAP may resolve some issues in the present EAS-SAME encoding, the FCC has ruled that all broadcast and cable systems must translate a CAP warning and

revert to the earlier less descriptive SAME warning. Furthermore, the CAP file will provide accurate text information of the warning, an audio message, and video if necessary. The CAP file per current FCC rules must be translated at Broadcast and Cable System into one of the stock 'EAS-SAME Event' codes. This lack of specificity leads to widely inaccurate warnings and potentially misleading information.

FEMA/DHS should mandate that EAS-SAME must be retired and only NOAA Radio be required to continue sending EAS-SAME and the 1060 Hz tone in order to remain compatible with existing consumer NOAA radios and the small percentage that have built in EAS-SAME decoders.

While we continue working diligently to expand our alert and preparedness several issues have been identified that must be addressed at the Federal level either by Congress or the Administration:

Recommendations

As many challenges have been addressed during this testimony, recommendations for improvement are the hallmark of strong public policy.

- Unnecessary delay is created since both the FCC and FEMA remain in control of EAS issues. FEMA has not adopted needed regulations especially in regard to mandatory participation in broadcasting messages from a state governor. While FEMA is on the encouraging path of enhancing public alerting in general, the progress is much too slow. The FCC administers the legacy system that is in place now but seems reluctant to allow for new procedures and technological capabilities. FEMA should be directed to adopt needed regulations and that both the FCC and FEMA would work together in a more expeditious fashion.

- Improved leadership and coordination issues must be resolved at the Federal level between the FCC and FEMA. Coordination needs to be communicated down to the state and local levels.

- Current grant funds for sustainability of EAS and other complementary alert systems such as the National Capital Region (NCR) text alert, ROAM Secure, and Reverse 911 are small or non-existent. Provide more flexibility for this important component of emergency management capabilities. It also is vital that States are allowed to manage their own requirements.

Thank you for the opportunity to present testimony on this important topic, and thank you for your support of emergency management. I welcome any questions you may have, and as always NEMA remains a ready resource for the Committee as you tackle the tough issue of catastrophic disaster response and recovery.

Written Statement of

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FEMA

"This is NOT a Test: Will the Nation's Emergency Alert System Deliver the President's Message to the Public?"

Before the

Subcommittee on Economic Development, Public Buildings, and Emergency Management
Committee on Transportation and Infrastructure
U.S. House of Representatives
Washington, DC

Washington, D.C. 500 C Street 20472

202-646-4500

September 30, 2009

Introduction.

Good afternoon Madam Chairwoman, Ranking Member Diaz-Balart, and Members of the Subcommittee. I am Damon Penn, Assistant Administrator of the Federal Emergency Management Agency's (FEMA) National Continuity Programs (NCP) Directorate. I recently joined National Continuity Programs after retiring from the U.S. Army; however, my first exposure to continuity programs came 15 years ago with the Department of Defense. I also have had years of experience associating with FEMA: in 2004, I served as the Defense Coordinating Officer for Florida, a job in which I was responsible for all Department of Defense assets in support of the state's emergency management efforts. I also served in that same capacity assisting Mississippi's efforts during Hurricane Katrina in 2005.

I want to thank you for the opportunity to appear before you today to discuss the current status of the Integrated Public Alert and Warning System (IPAWS) program. In FEMA's National Continuity Programs Directorate, we serve the Nation's citizens by protecting our constitutional form of government in direct support of Executive Order 13407 and National Security Presidential Directive 51 / Homeland Security Presidential Directive 20 (NSPD-51/HSPD 20). We are intimately involved with all levels of government continuity planning, guidance, and operations support.

IPAWS is the Nation's next generation public alerting system. It is designed 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 is building

additional redundancy into the Emergency Alert System (EAS) by establishing diverse message dissemination paths such as satellite, digital television, and the Internet. It will provide an interface to provide capability for commercial cellular and paging carriers to conduct mobile alerts. In addition, the program is developing standards that support interoperability with state and local warning systems, such as emergency telephone network dialers, websites, e-mail accounts, and other opt-in technologies.

I. System Overview and Vision

The IPAWS vision is an effective and comprehensive system that enables the proper authorities to alert and warn the American people under all conditions through as many means as possible. Incident response and public alerts begin at the local level. Thus, IPAWS also is developing the protocols to enable existing local and State public alert and warning systems to be interoperable with – and leverage – IPAWS architecture. As an example, assume an industrial accident suddenly occurs in a particular geographic area. A state, local, tribal, or territorial emergency manager can send an alert through their local system or an IPAWS interface to warn the nearby populations of potential danger. IPAWS would then authenticate the user's authority, validate the message format, and route the message to the appropriate National Oceanic and Atmospheric Administration (NOAA) All Hazards National Weather Radio, local broadcast media (television and radio stations), and cellular providers in the area designated by the emergency manager. Residents in this area would then be warned by any combination of these distribution channels.

In simple terms, IPAWS will accept standards-based alert and warning messages generated by emergency managers using existing state, local, tribal, or territorial systems, or an IPAWS web interface. This standards-based format is known as the "Common Alerting Protocol" (CAP). CAP formatted messages will then be forwarded to the FEMA IPAWS aggregator. The aggregator will disseminate the message through all distribution means the emergency manager is authorized to use. For example, the aggregator will have interfaces to distribute messages to traditional broadcast media via the EAS, to cellular and paging devices via the Cellular Mobile Alert System, to NOAA All Hazards Weather

Radio, and national Weather Service networks to Internet services via network interfaces, and to unique state and local systems that are IPAWS CAP compliant (such as Emergency Telephone Networks, siren, and/or signage systems).

IPAWS will:

- Enhance the resiliency of EAS through our Primary Entry Point (PEP) expansion program; (The PEP are the entry points for national presidential EAS alerts that FEMA is responsible for distributing.)
- Create an alert and warning message interoperability framework by establishing or adopting standards, such as CAP, that allow a single warning message to be seamlessly transmitted over different systems;

- Improve federal, state, local, tribal, and territorial alert and warning message access to multiple broadcast and other communications pathways by enabling alert and warning messages to reach the public through as many means as possible;
- Partner with NOAA to enable seamless integration of message transmission through the National Weather Service networks;
- Enable alert and warning to those with disabilities and those without proficiency in the English language; and
- Allow the President of the United States to speak to the American people under emergency circumstances.

II. The Current Schedule for 2012

FEMA is on schedule to achieve our IPAWS vision in fiscal year 2012. To us, meeting that schedule means four things:

1. We will have interoperable standards and interfaces in place;
2. We will have redundancy built into the dissemination network;
3. We will have integrated disparate message distribution paths, meaning that one message can travel many paths to reach the American public;
4. We will increase the number of PEP stations to provide additional direct coverage of EAS.

Standards are needed so that federal, state, local, tribal, and territorial entities can share the same common message and interface formats. Inside the IPAWS environment, an aggregator contains a suite of standards and services for message dissemination across multiple systems and platforms. If everyone uses the same standards, validated emergency managers will be able to send their messages over any combination of partner dissemination paths that use those standards. We expect that interfaces to many of these dissemination paths will be established in the next two years.

We are also strengthening national broadcast stations to withstand the most severe threats. FEMA has coordinated with the Primary Entry Point Administrative Committee (PEPAC), which represents participating radio stations in the EAS program, and the U.S. Army Corps of Engineers (USACE) to expand our PEP station coverage. USACE, in coordination with PEPAC, is working with FEMA to assess the necessary number of PEP stations to maximize the reach of the EAS daisy chain. As of today, USACE has completed the composite shelter and power system design work and performed site surveys at 15 locations. They are on target to complete the shelters over the next 18 months.

III. IPAWS Component Status

Common Alerting Protocol (CAP). NCP is very proud of the innovative approach we have taken to building standards and protocols into the overall IPAWS architecture. CAP is an open standard that will benefit emergency managers at all levels by allowing a

single warning message to be disseminated simultaneously over many different systems. To increase interoperability in the national warning system, FEMA is working with S&T to modify the requirements for an alert profile of the EAS-CAP Industry Group, an industry coalition of emergency alert equipment manufacturers. In December 2008, we submitted these requirements to the Organization for the Advancement of Structured Information Standards (OASIS), an international standards organization, to develop a product in consultation with its members that reflected public comment. We believe OASIS's open process for development, public vetting, and ultimately advancing an open standard is the best way to ensure a state of the art product.

After meeting with the broadcast industry and receiving their feedback, FEMA pledged to complete four milestones before adopting the CAP IPAWS profile:

1. Establish a testing program and publish lists of tested, CAP-compliant products broadcasters can purchase;
2. Oversee development of an Implementation Guide for CAP to EAS Translation;
3. Demonstrate delivering a Federal message in the CAP IPAWS Profile format to a National Primary Entry Point Station; and
4. Begin the OASIS process on IPAWS CAP Security Requirements.

Establish a testing program and publish lists of tested, CAP-compliant products broadcasters can purchase. To initiate the conformity program, FEMA awarded Eastern Kentucky University a contract to test emergency alert equipment for conformity with the Common Alerting Protocol (CAP) IPAWS v.1.2 Profile in August of this year.

As testing progresses, FEMA will publish a list of vendors whose products have passed testing and thereby conform to the profile. Broadcast purchasers may then be assured their equipment purchases will comply with FCC and FEMA requirements. The kick off meeting with Eastern Kentucky University is scheduled for October 2009. The choice of a lab to perform conformity assessment testing keeps FEMA IPAWS on track with this commitment.

Oversee development of an Implementation Guide for CAP to EAS Translation. The CAP Profile Implementation Guide defines how CAP will work within EAS. FEMA CAP to EAS translation specifications were in the original profile submitted to OASIS in December 2008. While going through the OASIS process, the OASIS standards body determined that specific implementation guidance does not belong in a standards document and recommended development of an implementation guide. We are working with DHS' Science & Technology Directorate to take the specification and develop a CAP to EAS translation guide.

Demonstrate delivering a federal message in the CAP IPAWS Profile format to a National Primary Entry Point Station. IPAWS is currently testing the means to deliver Federal messages in a CAP IPAWS profile format and expects to be operational by spring 2010.

Begin the OASIS process on IPAWS CAP Security Requirements. FEMA has begun working on security requirements with DHS' Science and Technology Directorate (S&T)

as part of the IPAWS standards work. We are currently developing the requirements that will enable us to define timelines on when to initiate the OASIS process.

Once these four milestones have been reached, FEMA will formally adopt the CAP profile. By federal regulation, broadcasters then have 180 days to make whatever internal changes they deem necessary to be able to receive an IPAWS CAP message.

CMAS. The Commercial Mobile Alert System (CMAS) is a component of IPAWS systems that will provide the capability to reach cellular phone subscribers with public alert and warning messages. FEMA will be the alert aggregator, receiving messages from authorized users and passing alert messages to the cellular phone industry. Adding mobile alerts to our range of distribution channels will cover 270 million subscribers, or 87 percent of the population. CMAS will facilitate the dissemination of three types of alerts through cell phones: Presidential Alerts; Imminent Threat Alerts; and America's Missing: Broadcast Emergency Response (AMBER) Alerts.

FEMA through S&T, is working with two industry organizations, the Alliance for Telecommunications Industry Solutions and the Telecommunications Industry Association, to finalize interface specifications between the FEMA CMAS gateway and commercial mobile service provider gateways. This interface is needed to allow federal systems carrying an alert to seamlessly hand off that alert to the private sector commercial mobile carriers for further distribution. This month, IPAWS and S&T staff

participated at an industry meeting in California that furthered work on the interface specifications for that hand off.

We expect final balloting by industry association members on the interface specifications to be complete by the end of the calendar year. FEMA will then formally adopt the resulting CMAS interface specification. By federal regulation, cellular service providers then have 28 months to make whatever internal changes are necessary to receive an alert and transmit it to their customer base. During the first year of this 28-month period, FEMA and S&T also plan to establish the infrastructure that will allow us to send messages to the commercial mobile service providers.

Geo-Targeted Alert System (GTAS). CMAS alerts will be broadcast to cell phones within the area of a disaster and are by design sent only to phones within the area of the emergency. FEMA IPAWS is working with the NOAA to develop software for state, local, tribal, and territorial emergency managers that will allow alerts and warnings to be geo-targeted. Called the Geo-Targeted Alert Systems (GTAS), this software models the forward progress of, for example, a chemical cloud or toxic spill, so emergency managers can warn only those people in the anticipated path of the plume.

In August 2009, FEMA successfully piloted this software at the City of Dallas Emergency Operations Center, and the NOAA Weather Forecast Office in Ft. Worth, Texas. NOAA and FEMA will also be conducting live training at the State of Washington EOC and the City of Seattle EOC this week.

Training. NCP is creating an online training program for emergency managers who have never before been exposed to IPAWS. NCP is working with FEMA's Emergency Management Institute to develop a web-based independent study course that will be available on FEMA's Emergency Management Institute's eLearning system and/or the FEMA Employee Knowledge Center. The course goals are to help state, local, tribal, and territorial emergency managers draft better alerts and warning messages; to improve skills in using emergency alerting equipment; and to increase the effectiveness and participation of emergency managers using the EAS.

IV. Challenges

While we are making great strides in achieving our vision, our progress is not without challenges.

Changing vision and strategy. We acknowledge previous personnel shifts altered the perceived strategy and direction of IPAWS. I have accepted my predecessor's vision, and I plan on maintaining it until the project is complete. We recently selected Mr. Antwane Johnson, a Level III certified Program Manager with over 20 years of program manager experience to be the new IPAWS Division Director. He has the knowledge and systems management experience skills to effectively and efficiently manage this program. Four additional project management positions requiring similar levels of experience will be selected in the month of October, bringing the program to full staffing. In addition, NCP is developing an IPAWS Strategic Plan. It will codify the strategic focus of the program and reinforce the program's alignment with Executive Order 13407

and the needs of state, local, tribal, and territorial officials. In addition, NCP has modified the IPAWS Mission Needs Statement and Operational Requirements documents to strengthen the IPAWS vision in accordance with requirements established in Executive Order 13407. We will develop more detailed planning information in accordance with this Committee's wishes.

Testing. We acknowledge the federal government has never conducted an end-to-end test of the Emergency Alert System. A working group consisting of FEMA, FCC, the White House Military Office (WHMO), and NOAA is in the planning stages of conducting the first ever national exercise of the Presidential-level Emergency Action Notification (EAN) and associated messages and codes within the EAS. This exercise will assess the readiness and effectiveness of the EAS from origination by the President to reception by the public. FEMA also conducted a closed-circuit test on September 23rd, which tested message transmission from the White House to FEMA to PEP stations. This was an important step in assessing the front-end reliability of the system.

In further preparation for a national exercise, the working group is planning to conduct a test at the state level and selected Alaska as a possible location. FEMA has initiated conversations with the State of Alaska and worked with FCC on outreach to the Alaska broadcast community. Discussions have been promising; the State of Alaska and broadcasters have been engaged in assisting us to establish timelines and tasks, and ensure the necessary outreach to and education of the citizens of Alaska. Coordination

and planning are still in early stages, but the hope is to conduct the Alaska exercise in January 2010.

Improved coordination with stakeholders. We have redoubled our outreach efforts and plans to engage stakeholders at all levels. For example, we have:

- Spoken at 14 national conferences since April 2007, including the National Association of Broadcasters in April 2009;
- Re-launched the IPAWS Web page (http://www.fema.gov/emergency/ipaws), which has received over 10,000 hits since the relaunch in March 2009;
- Conducted quarterly conference calls giving update presentations to each FEMA region and many of their states. For example, IPAWS delivered 22 regional and state briefings between July 2008 and September 2009;
- Stepped up our outreach to tribal nations by working with the FEMA regions to distribute informational materials, participate in teleconferences, and send presentations to tribal emergency management conferences;
- Organized three working groups within stakeholder communities to advise us on IPAWS development and implementation, a Federal Working Group, an industry working group, and a Practitioner Working Group (that is split into an emergency manager subgroup and a broadcaster subgroup);
    - Each working group has a charter, bi-monthly meetings, and regular membership;
    - The industry working group is to receive industry input, provide status updates, and receive stakeholder feedback. This helps guide program

development and has already shaped the IPAWS program. For example, our decision on when to officially adopt the CAP profile was made based on broadcaster feedback and with their constraints in mind; and

- Coordinate regularly with our federal partners and meet frequently at a working level with DHS' Science & Technology Directorate, NOAA, and the FCC to coordinate areas of common interest.

We recognize IPAWS needs the expertise and input of our stakeholders to become an effective system that meets the needs of multiple communities. We are committed to moving forward with our partners, in all levels of government and in the private sector.

V. Conclusion

The FEMA Mission Statement is "to support our citizens and first responders to ensure that as a nation we work together to build, sustain, and improve our capability to prepare for, protect against, respond to, recover from, and mitigate all hazards." IPAWS is making great progress in support of this vision, and we are pleased to do our part to support its mission. FEMA is fully committed to IPAWS and recognizes its importance to citizens of the United States. I lead a group of highly dedicated professionals, all of whom share my commitment to the IPAWS vision.

I thank the Subcommittee for the opportunity to testify and I am pleased to take any questions.

Question#:	1
Topic:	coverage
Hearing:	This is NOT a Test: Will the Nation's Emergency Alert System Deliver the President's Message to the Public?
Primary:	The Honorable Eleanor Holmes Norton
Committee:	TRANSPORTATION (HOUSE)

Question: Why does the state of Maine have no coverage? Why are there no PEP stations there?

Why do Vermont and Maine remain uncovered? What steps need to be taken to assure the people of Maine of the 24-hour access that other states have? Currently, what is FEMA doing to correct the problem?

Response: Maine does have coverage, even though no Primary Entry Point Stations (PEPS) are physically located in the state. A state does not need to have a PEP station within their geographic boundaries to be able to receive a national alert message or to broadcast state or local messages. PEPs are simply an entry point into the Emergency Alert System.

In Maine, the State of Maine Emergency Alert System traverses the Maine Public Broadcasting Microwave Network (MPBN). National alerts are sent to the MPBN via National Public Radio (NPR). NPR is a Primary Entry Point entity which delivers national alerts via satellite to NPR member stations, including the same stations that comprise the MPBN.

Arbitron is a media and marketing research firm serving the media and it defines media market populations for the states of Vermont and Maine. Arbitron measures network and local-market radio audiences across the United States; surveying the retail, media and product patterns of local market consumers; and providing application software used for analyzing media audience and marketing information data. In each case, stations within these Arbitron markets monitor EAS sources in accordance with State plans, providing a source of the National EAS message to all stations. As an example, the stations in the Burlington-Plattsburgh market are served by WVMT-AM and WOKO-FM , which monitor designated Vermont state relay stations in accordance with the Vermont EAS plan. The Portsmouth Dover market is served by the PEP station (WBZ) in Boston. The Arbitron markets in the Maine, Vermont and New Hampshire area are listed in the table below along with the top 10 Arbitron rated radio stations serving that area. FEMA is building a robust architecture to leverage multiple communications mediums (i.e. cellular, XM radio, NOAA Weather Radio, Satellite TV, etc.) to reach the citizens of Vermont and Maine. This same approach is being employed to reach citizens in other sparsely populated areas.

Question#:	1
Topic:	coverage
Hearing:	This is NOT a Test: Will the Nation's Emergency Alert System Deliver the President's Message to the Public?
Primary:	The Honorable Eleanor Holmes Norton
Committee:	TRANSPORTATION (HOUSE)

(Note: Arbitron reporting does not include non-commercial stations. Some stations reach and are listened to in multiple markets and therefore may appear in more than one market list.)

Arbitron Market	Population	Top 10 Radio Stations
Portsmouth, ME – Dover, NH	413,800	WOKQ-FM WHEB-FM WXRV-FM WERZ-FM WRKO-AM WXKS-FM WBZ-AM WBYY-FM WSHK-FM WHOM-FM WZID-FM
Burlington, VT - Plattsburgh, NY	318,700	WOKO-FM WXXX-FM WEZF-FM WKOL-FM WIZN-FM WBTZ-FM WTNN-FM WNCS-FM WWMP-FM WCVP-FM
Portland, ME	239,600	WGAN-AM WJBQ-FM WFNK-FM WBLM-FM WYNZ-FM WHOM-FM WTHT-FM WMGX-FM WPOR-FM WCLZ-FM WCYI/WCYY WHXQ/WHXR

Question#:	1
Topic:	coverage
Hearing:	This is NOT a Test: Will the Nation's Emergency Alert System Deliver the President's Message to the Public?
Primary:	The Honorable Eleanor Holmes Norton
Committee:	TRANSPORTATION (HOUSE)

Arbitron Market	Population	Top 10 Radio Stations
Lebanon-Rutland, VT	212,000	WJEN-FM WHDQ-FM WXXK-FM WZRT-FM WJJR-FM WFRD-FM WWOD-FM WXLF-FM WGXL-FM WSYB-AM
Bangor, ME	163,100	WQCB-FM WKIT-FM WVOM-FM WTOS-FM WBZN-FM WEZQ-FM WBFB-FM WKSQ-FM WWMJ-FM WZON-AM
Montpelier-Barre, VT	107,100	WWFY-FM WDEV-FM WORK-FM WEZF-FM WMOO-FM WGMT-FM WKXH-FM WNCS-FM WSNO-AM WCVT-FM WHOM-FM
Augusta-Waterville, ME	105,900	WABK-FM WTOS-FM WEBB-FM WBLM-FM WMME-FM WKCG-FM WFNK-FM WTHT-FM WFMX.FM WHOM-FM

Question#:	1
Topic:	coverage
Hearing:	This is NOT a Test: Will the Nation's Emergency Alert System Deliver the President's Message to the Public?
Primary:	The Honorable Eleanor Holmes Norton
Committee:	TRANSPORTATION (HOUSE)

Arbitron Market	Population	Top 10 Radio Stations
Lewiston-Alburn, ME	91,100	WTHT-FM WFNK-FM WJBQ-FM WHOM-FM WBLM-FM WTOS-FM WPOR-FM WJJB-FM WCYI/WCYY WABK-FM

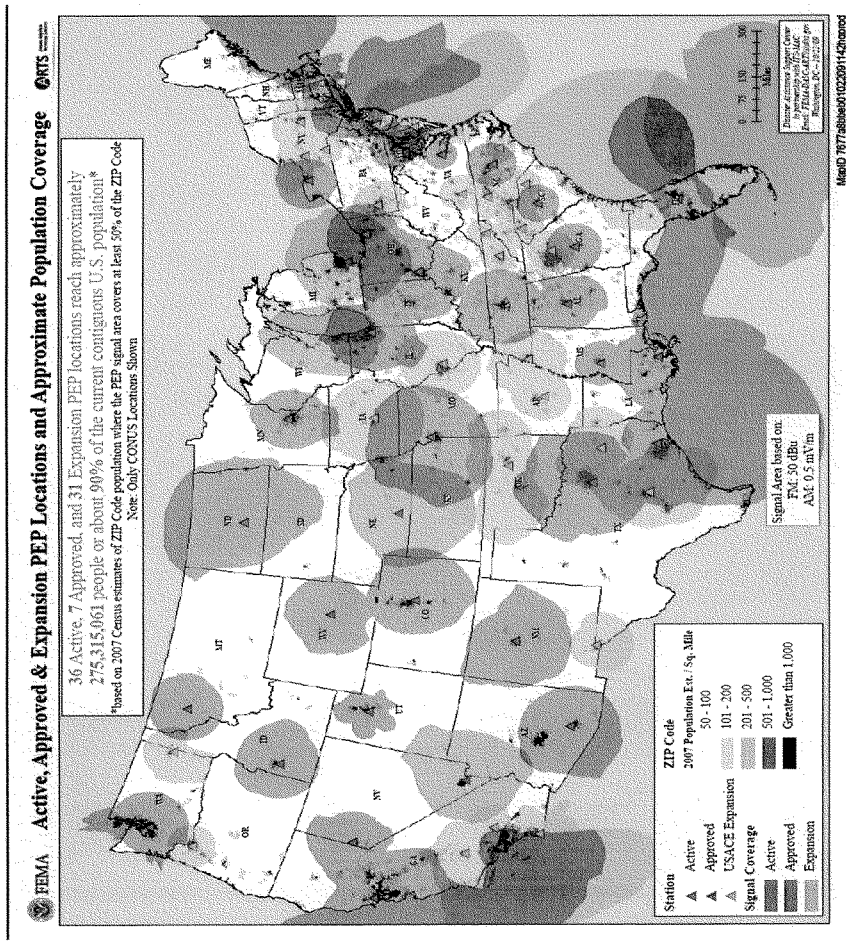
Question#:	2
Topic:	locations
Hearing:	This is NOT a Test: Will the Nation's Emergency Alert System Deliver the President's Message to the Public?
Primary:	The Honorable Eleanor Holmes Norton
Committee:	TRANSPORTATION (HOUSE)

Question: Please provide the Committee with an outline of the PEP station locations throughout the United States.

Response:
There are currently 35 active PEP stations plus the State of Hawaii EOC and National Public Radio satellite distribution network participating in the PEP program. The current plan is to expand the number of PEP stations to 74 by 3rd QTR fiscal year 2011.

See Attachment 1: PEP Station Coverage Map.

Question#:	2
Topic:	locations
Hearing:	This is NOT a Test: Will the Nation's Emergency Alert System Deliver the President's Message to the Public?
Primary:	The Honorable Eleanor Holmes Norton
Committee:	TRANSPORTATION (HOUSE)



Question#:	3
Topic:	stakeholders
Hearing:	This is NOT a Test: Will the Nation's Emergency Alert System Deliver the President's Message to the Public?
Primary:	The Honorable Eleanor Holmes Norton
Committee:	TRANSPORTATION (HOUSE)

Question: When will Administrator Fugate meet with State Emergency Managers? How does FEMA intend to inform stakeholders of FEMA's action plan?

Please provide an outline to the Committee of what a system with stakeholders involved in FEMA's plan would look like?

Response: Administrator Fugate meets monthly via conference call with the National Emergency Management Association, which represents emergency management directors from the states, territories, and the District of Columbia. The Administrator met with State Emergency Management Directors at their annual conference on October 13, 2009. The Administrator outlined his agenda and vision for FEMA during this conversation. Integrated Public Alert and Warning System (IPAWS) was also actively discussed during the National Emergency Management Association conference. An overview of the program was given, and each state was actively solicited for their participation. Reaction was unanimously favorable.

Additionally, Administrator Fugate is the keynote speaker on November 2, 2009, at the International Association of Emergency Managers (IAEM) conference in Orlando, Florida. The IAEM is a non-profit educational organization with more than 5,000 members, dedicated to saving lives and protecting property during emergencies and disasters. The Administrator will speak at their national conference, where he will be able to reach the largest number of emergency managers assembled in one place.
FEMA IPAWS will also have a booth at the IAEM conference and will be sharing both general and detailed information about the IPAWS program and its plans for standards adoption and deployment of the IPAWS suite of capabilities. FEMA IPAWS will also be demonstrating geo-targeting alerting capabilities during the IAEM conference.
Since the testimony, Mr. Penn has visited two of the ten FEMA regions, and discussed IPAWS with all 10 Regional Administrators. He will visit three more before the holidays. All ten Regions understand the importance of the system, and are actively discussing the system with the state and local emergency managers.
FEMA understands that the challenge of ensuring the resilient/reliable operation of the IPAWS requires a partnership with the private sector that allows close communication and coordination between public and private sector entities in an environment grounded in trust. Successful execution of our partnership will also require an environment in which members of the public and private sectors can interact freely and share sensitive information and advice.

Question#:	3
Topic:	stakeholders
Hearing:	This is NOT a Test: Will the Nation's Emergency Alert System Deliver the President's Message to the Public?
Primary:	The Honorable Eleanor Holmes Norton
Committee:	TRANSPORTATION (HOUSE)

FEMA will work with the Department of Homeland Security's Office of Infrastructure Protection and the Communications and the Emergency Services sectors, to establish public-private partnership and coordination working groups within the existing Critical Infrastructure Protection Partnership Advisory Council (CIPAC) to address the IPAWS initiative. The working groups will include representation from the State, Local, Tribal and Territorial Government Coordinating Council (SLTTGCC). CIPAC provides the operational mechanism for executing the necessary partnership interactions between public and private sectors, and provides exemption from the Federal Advisory Committee Act (Public Law 92-463) to support the free exchange of sensitive information. The range of activities under CIPAC include public-private planning, cooperation, security program implementation, and operational activities related to incident response, recovery, and reconstitution. Information sharing about threats, vulnerabilities, protective measures, best practices and lessons learned to address the entire range of IPAWS program activities fall under its scope of work.

FEMA and the IPAWS staff are committed to working and coordinating closely with our private sector partners. An effective partnership will be built and will be predicated on the ability to have ongoing, immediate, and multi-directional communication and coordination between the two bodies.

Question#:	4
Topic:	funding
Hearing:	This is NOT a Test: Will the Nation's Emergency Alert System Deliver the President's Message to the Public?
Primary:	The Honorable Eleanor Holmes Norton
Committee:	TRANSPORTATION (HOUSE)

Question: How much money has been spent in total on all pilot projects?

Response: The attachment below provides a summary of the pilots conducted from FY2004 to FY2007. There were no pilots conducted in FY2008 or FY2009.

IPAWS Obligations by Pilot & Fiscal Year

	FY 2004	FY 2005	FY 2006	FY 2007
DEAS NCR Pilot: Demonstrate how DHS can send alert and warning messages using DTV broadcasts over WETA and PBS affiliate stations. - Test voice, text, data, and video formats - Develop interoperability with industry (internet, satellite radio, TV, cellular, etc.) - Demonstrate alerting to PCs, cell phones, pagers, analog/digital radio & TV, etc.			$4,499,932	
GTAS Pilot: Develop and test a federal capability to rapidly map hazard and alert zones, collaboration with NOAA and local government (s), and send a coordinated alert message via landline telephones to a specific geographic area - Integrate hazard zone predictions, map-based alert zone determinations, and geo-targeted telephone alerting in the National Capital Region (NCR) - Jointly develop, test, & deploy GTAS in the NCR that uses NOAA FXC and R 9-1-1 callouts		$1,360,503		
GTAS Pilot Follow-on: Pilot expands on initial GTAS Pilot in the NCR - This expanded pilot will test how DHS can provide geo-targeted alerting beyond just landline telephones to cell phones and other devices - Provide Geo-targeting over test CDMA alerting - This pilot will integrate NOAA hazard zone prediction, map-based alert zone determinations, and geo-targeted alerting to a variety of devices		$1,739,108		
EAS Satellite and Network Upgrade Pilot: PEPs for all 50 States and 5 US Territories; Satellite comms to all PEPs and State EOCs;Connect legacy EAS system to federal, state and local systems capable of reaching the public directly, regardless of location (12 State Pilot) - Phase 1A: XM Radio to 30 CONUS PEP stations - Phase 1B: 2-way satellite path to 34 PEP stations and to 3 territories without satellite connectivity - Phase 2: XM Radio to 21 States currently without PEP stations and to 48 CONUS State EOCs		$1,593,503		

Question#:	4
Topic:	funding
Hearing:	This is NOT a Test: Will the Nation's Emergency Alert System Deliver the President's Message to the Public?
Primary:	The Honorable Eleanor Holmes Norton
Committee:	TRANSPORTATION (HOUSE)

EAS PEP Satellite Network Upgrade Pilot: Follow-on to EAS Satellite & Net Upgrade Pilot - Will complete C & A and OGAT - Provides maintenance through FY07 - Provide integration with NPR		$1,099,327		
DHS WARN Pilot and Conference: Pilot to provide DHS an opt-in DHS WARN web site for governmental and public users to sign up to receive DEAS messages on their PCs/PDAs through email and on their cell phones through text messaging. - Provide C&A and OGAT support to JTIC and report to Congress - Maintain DHS WARN through FY07 - DHS WARN conference logistics and planning		$3,474,083		
Annual Obligated Funds - Pilots	**$0**	**$9,266,523**	**$4,499,932**	**$0**

Obligated Funds Pilots	**$13,766,455**

Pilots conducted by Sandia National Laboratory: - Cell broadcast pilots TX, MS, AL, LA WI and New York City - RBDS alerting pilot - GTAS internet alerting in Gulf states using weather bug - Deaf and Hard-of-Hearing Notification System Pilot - Emergency Telephone Notification System Pilot - Additional WARN Pilot (as described above) - Enhanced National Warning System Pilot These pilots were conducted within the IPAWS funding provided to Sandia.				
Cost are estimates calculated before specific pilots were conducted; final cost breakout is not available to the IPAWS PMO				**$5,799,000**

Obligated Funds Sandia	**$5,799,000**

Total Obligated Funds Actual and Estimates	**$19,565,455**

Question#:	5
Topic:	test
Hearing:	This is NOT a Test: Will the Nation's Emergency Alert System Deliver the President's Message to the Public?
Primary:	The Honorable Eleanor Holmes Norton
Committee:	TRANSPORTATION (HOUSE)

Question: As you mentioned in your testimony before Congress, FEMA plans to conduct a system-wide test in January to validate current emergency awareness capabilities. Please provide the Committee with specific details of this plan that addresses the following issues; what is the plan?; how will FEMA obtain results and follow up; and why was this particular site chosen?

Response: The Phase Two Alaska test will utilize the well-defined and regularly exercised Alaska State EAS distribution plan and is expected to provide valuable insight into how to prepare EAS participants and the public for a nationwide live code EAS test. Most stations and systems monitor more than one source which should deliver the national test message. Because the Alaska State EAS is exercised twice a year, few, if any monitoring or mechanical problems are anticipated. Another reason Alaska was chosen is due to their isolation from the rest of the national network, which reduces any risk associated with the cascade. In addition, Alaska's population presents challenges we expect to face in rural and urban environments.

The exercise and assessment will follow a phased approach. The EAS exercise will focus on the national-level EAS EAN message and distribution only. This exercise is not designed to directly assess state-level EAS operations. However, data is expected to be generated that could be useful to state authorities.

The exercise will also include the creation of a simulated EAS network in a laboratory setting. This simulation will include as many EAS Encoder Decoder (ENDEC) devices as possible. This "sandbox" network will simulate EAS device interoperability, monitoring, and distribution. The simulation will support the identification of limitations, gaps and operational baselines of the national-level EAS. Next-generation alert devices, such as IP-based Common Alerting Protocol (CAP) alert generation and decoding systems, will also be included.

Tenants of the Exercise:

- Functional analysts will be positioned in at least, 16 locations throughout the State of Alaska to monitor the EAS activation. The analysts will be able to directly monitor the LP-1 radio stations and other EAS distribution nodes, as well as some of the stations monitoring the LP-1s. Monitored stations will include cable television providers. Functional analysts will

Question#:	5
Topic:	test
Hearing:	This is NOT a Test: Will the Nation's Emergency Alert System Deliver the President's Message to the Public?
Primary:	The Honorable Eleanor Holmes Norton
Committee:	TRANSPORTATION (HOUSE)

be sourced and selected from existing personnel from FEMA, the Federal Communications Commission, the National Oceanic and Atmospheric Administration, the Joint Interoperability Test Command, the Department of Homeland Security's Science and Technology Directorate, and volunteer broadcast organizations in the State of Alaska. Additional support for monitoring the exercise will be provided by the State of Alaska Government. Appropriate documentation, logging instruments, and reporting instructions will be made available to the analysts.

- All agencies involved will capture information that will help in evaluate how EAN propagates in a "real world" environment. During this Phase, interoperability of interconnected EAS ENDEC devices will be assessed. By executing an EAN in an isolated area, such as Alaska, errant activations in other areas are minimized.

- Appropriate educational outreach efforts have been initiated in order for Alaska EAS participants to be aware of EAN activation and transmission procedures for their stations and/or systems. We are working very closely with the FCC to coordinate our efforts. Contact to date with Alaska authorities indicates that such voluntary participation will be at a very high level.

- Continued coordination between necessary agencies, State of Alaska government, broadcast trade groups and associations, and other organizations involved and affected by the State-level EAS Exercise remains very positive and is key to the success of the test.

- A series of After Action Reviews will be conducted at all levels. FEMA will assess the EAS monitoring baseline for the State of Alaska, including unpublished EAS distribution networks.

- This test will provide valuable data and "lessons learned" that will support a more effective execution of a national end-to-end exercise.

Upon completion of the National EAS Exercise and Assessment, a full report detailing the outcome and results of the Exercise will be completed by FEMA.

Question#:	5
Topic:	test
Hearing:	This is NOT a Test: Will the Nation's Emergency Alert System Deliver the President's Message to the Public?
Primary:	The Honorable Eleanor Holmes Norton
Committee:	TRANSPORTATION (HOUSE)

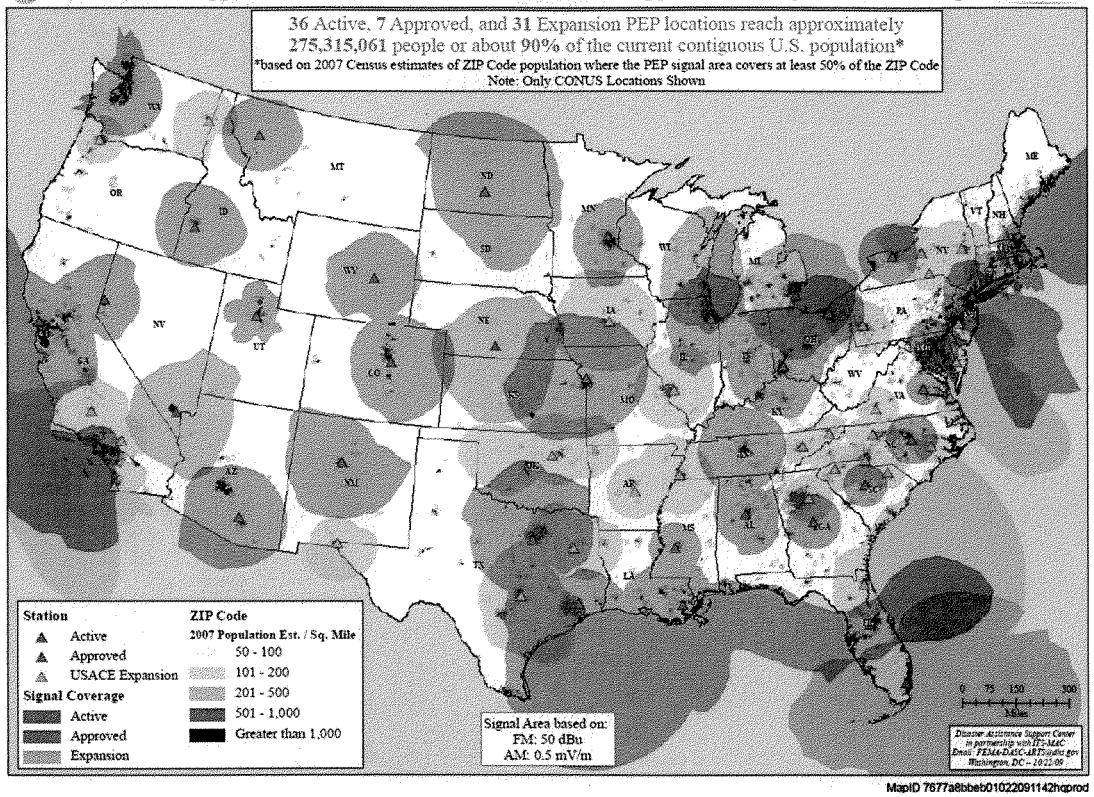
Question#:	6
Topic:	training
Hearing:	This is NOT a Test: Will the Nation's Emergency Alert System Deliver the President's Message to the Public?
Primary:	The Honorable Eleanor Holmes Norton
Committee:	TRANSPORTATION (HOUSE)

Question: Please provide the Committee with a continuum on FEMA's IPAWS training programs, including how people are trained today and all specific training initiatives that FEMA is performing. This should include FEMA's plans to enhance training programs that meet the organization's future objectives.

Response: We recently completed the training outline for the program. This year, our focus is on ascertaining the best methods for training emergency managers and standing up our initial courses for emergency managers and their staffs. One of the first deliverables this year is a comprehensive training strategy. This strategy will include a plan for each position that will interface with any part of IPAWS. A series of plans will need to be produced to ensure technicians and managers alike, have the training necessary to operate and maintain the system. Additionally, a focus on sustainment training and cyclic seminars and evaluations will be developed. As we develop the training plan, we will work with the Emergency Management Institute to develop a certification program that requires renewal every 2-3 years. Since the initial course material will be on-line, they will be able to access the training to refresh their knowledge to maintain their certification. Classes this year will be focused on crafting an effective alert and warning message and on understanding the EAS as recommended by GAO. We are in final stages of EMI obtaining developer resources. We expect the first IPAWS EAS overview course to be released mid calendar year 2010. As we meet with stakeholders this year to develop the training, we will gather information from them to assist in the development of advanced training topics.

In addition, FEMA will strategically target state, local, territorial, and tribal venues, emergency management conferences and meetings, broadcaster community conferences, and other meetings to share crucial IPAWS information with and solicit input from the IPAWS community of stakeholders. FEMA, working with the Department of Homeland Security's Office of Infrastructure Protection and the national Communications and Emergency Services sectors, will establish public and private sector coordination committees within the existing council structure of these two critical infrastructure and key resource sectors. FEMA will also institute the necessary tools wherein these IPAWS councils will coordinate and collaborate under the framework as described in inquiry #5. Such councils will provide further opportunity to solicit valuable input from stakeholders to assist FEMA in the development and refinement of the training program.

FEMA **Active, Approved & Expansion PEP Locations and Approximate Population Coverage** ARTS



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IPAWS Obligations by Pilot & Fiscal Year

	FY 2004	FY 2005	FY 2006	FY 2007
DEAS NCR Pilot: Demonstrate how DHS can send alert and warning messages using DTV broadcasts over WETA and PBS affiliate stations. - Test voice, text, data, and video formats - Develop interoperability with industry (internet, satellite radio, TV, cellular, etc.) - Demonstrate alerting to PCs, cell phones, pagers, analog/digital			$4,499,932	
Develop and test a federal capability to rapidly map hazard and alert zones, collaboration with NOAA and local government (s), and send a coordinated alert message via landline telephones to a specific geographic area - Integrate hazard zone predictions, map-based alert zone determinations, and geo-targeted telephone alerting in the National Capital Region (NCR) - Jointly develop, test, & deploy GTAS in the NCR that uses NOAA		$1,360,503		
Pilot expands on initial GTAS Pilot in the NCR - This expanded pilot will test how DHS can provide geo-targeted alerting beyond just landline telephones to cell phones and other devices - Provide Geo-targeting over test CDMA alerting - This pilot will integrate NOAA hazard zone prediction, map-based alert zone determinations, and geo-targeted alerting to a variety of		$1,739,108		
PEPs for all 50 States and 5 US Territories; Satellite comms to all PEPs and State EOCs;Connect legacy EAS system to federal, state and local systems capable of reaching the public directly, regardless of location (12 State Pilot) - Phase 1A: XM Radio to 30 CONUS PEP stations - Phase 1B: 2-way satellite path to 34 PEP stations and to 3 territories without satellite connectivity - Phase 2: XM Radio to 21 States currently without PEP stations and to 48 CONUS State EOCs		$1,593,503		
EAS PEP Satellite Network Upgrade Pilot: Follow-on to EAS Satellite & Net Upgrade Pilot - Will complete C & A and OGAT - Provides maintenance through FY07 - Provide integration with NPR		$1,099,327		
Pilot to provide DHS an opt-in DHS WARN web site for governmental and public users to sign up to receive DEAS messages on their PCs/PDAs through email and on their cell phones through text messaging. - Provide C&A and OGAT support to JTIC and report to Congress - Maintain DHS WARN through FY07 - DHS WARN conference logistics and planning		$3,474,083		
Annual Obligated Funds - Pilots	**$0**	**$9,266,523**	**$4,499,932**	**$0**

Obligated Funds Pilots	**$13,766,455**

Pilots conducted by Sandia National Laboratory: - Cell broadcast pilots TX, MS, AL, LA WI and New York City - RBDS alerting pilot - GTAS internet alerting in Gulf states using weather bug - Deaf and Hard-of-Hearing Notification System Pilot - Emergency Telephone Notification System Pilot - Additional WARN Pilot (as described above) - Enhanced National Warning System Pilot These pilots were conducted within the IPAWS funding provided to S Cost are estimates calculated before specific pilots were conducted; final cost breakout is not available to th				**$5,799,000**

Obligated Funds Sandia	**$5,799,000**

Total Obligated Funds Actual and Estimates	**$19,565,455**

The Challenges of Communicating with Indigenous Farmworkers during Southern California's 2007 Wildfires: Solutions for Reaching all Communities in an Emergency

Presented at:

"This is NOT a Test: Will the Nation's Emergency Alert System Deliver the President's Message to the Public"

Submitted to:

U.S. House of Representatives Committee on Transportation and Infrastructure

Oversight and Investigations Hearing

Submitted by:

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Community Leader

Frente Indigena de Organizaciones Binacionales

Vista, CA

September 30, 2009

Good Afternoon. My name is Juan Ramon Reyes and I am a volunteer leader for the Frente Indigena de Organizaciones Binacionales (FIOB). Translated into English my organization, FIOB, is the Binational Front of Indigenous Organizations. For ten years I've worked as a community leader in the indigenous community in California. Before I began my work in the community I was a farmworker for twenty years. I have lived in the United States since 1984 and am originally from an indigenous community in Oaxaca, Mexico. I am bilingual in an indigenous language, Mixteco, and Spanish.

FIOB is a community-based organization and a coalition of indigenous organizations, communities, and individuals settled in Oaxaca, Baja California and in the State of California in the United States. FIOB's mission is to contribute to the development and self-determination of the migrant and non-migrants indigenous communities, as well as struggle for the defense of the human rights with justice and gender equity at the binational level. In San Diego County, where I work, we provide support to indigenous farmworkers. The majority of the people we work with come from the southern states of Oaxaca and Guerrero in southern Mexico, but some also come from countries in Central America. We help people meet their basic needs, including food, housing, and health services. Even though we have limited resources we help them in any way we can. We also organize the community and educate them about their rights in the United States.

I want to thank the chairwoman, Eleanor Holmes Norton and the ranking member Lincoln Diaz-Balart for inviting me to participate in this important committee hearing on the emergency alert system.

In my testimony today, I will discuss the experience of limited English proficient farmworkers in North County San Diego during the fall 2007 wildfires. I will also share our plans for improving communication during an emergency or natural disaster.

The Lives of Farmworkers in North San Diego County

I would like to begin by giving you a sense of how the farm workers I know live. In North San Diego County there are four or five remote areas where people from Oaxaca and Guerrero, states in southern Mexico, live in primitive conditions. They work in the agricultural industry and sleep on the ground under plastic tarps in the mountains of San Diego County. These farm workers do not have running water or electricity. Most of the farmworkers speak indigenous languages, like Mixteco, and do not speak Spanish or know how to read or write.

The farmworkers live in the hills because they do not have enough money to pay rent for an apartment. In San Diego the rent is at least $1,100 a month and the farmworkers' average salary is $150.00 a week. Most of these farmworkers live like this for a few years and once they are

more financially stable they are able to move into real housing in the towns and cities of San Diego County.

We at FIOB know that because they live and work outside in such horrible conditions, they face many dangers. We check on them frequently to make sure they have what they need, but we are even more attentive during any kind of emergency, whether it is flooding or a freeze.

The Experience of Indigenous Farmworkers during the 2007 Wildfires

Every fall in southern California there is the potential for large wildfires. Sometimes the fires are bigger or more difficult to control and many families have to evacuate their homes. In October 2007 the wildfires threatened several residential areas of San Diego County, especially in the North area where the agricultural industry is based. The local government issued evacuation orders for the towns and surrounding areas of Fallbrook, Pala, Valley Center, and Del Mar. These are all towns where many of the farmworkers we know live and work.

Those of us from FIOB saw where the fires and the evacuations were taking place and responded immediately. We organized ourselves and asked other organizations to help us collect face masks, water, and food to take to the farmworkers. We knew we had to go to where they were because they live in remote areas that are unknown to emergency responders. We were concerned that they would not receive the messages about evacuating and no one else would know where to find them or how to communicate with them. In the hills where they live and in the fields it is difficult for them to watch t.v. or listen to the radio. Their only means of communication is cell phones, but sometimes those do not work because they are not able to charge the phones or their phones cards run out. We always have a difficult time reaching them on their cell phones so we knew that if we wanted to communicate with them we had to go to them.

We had to go in person to exactly where they were to tell them that they needed to evacuate and that they could leave their work. We also knew that we would have a better chance of communicating with them because we speak their language, Mixteco, and they know us. Since we are from the same states and we speak the same language they trust us. We also rented vans to take them to a shelter because we knew that even if they wanted to evacuate they might not have any means of transportation.

We went to a ranch where some workers were still in the fields in an area where there was a mandatory evacuation order in place. The houses near the fields were empty because most of the families had already evacuated. The fire was about one mile away from these particular fields and the air was filled with smoke. When we arrived at the field I used a megaphone to speak to the workers in Mixteco. I told them that there was an evacuation order in place and that we could take them to a shelter where they would be safe. I also told them that the fire was dangerous and they could get hurt. I encouraged them to think about protecting their lives and their health.

We stayed at the edge of the fields for at least twelve hours. We were monitoring the fires and making sure that if the fire got closer or changed direction the workers would be able to leave with us. Some of the workers came out of the fields and we took them to a shelter operated by another Hispanic organization in Chula Vista. At least ten of the workers did not want to leave the fields because they were afraid of losing their jobs. They were also worried that if they went to a shelter they might be stopped by immigration officials.

We advised the farmworkers who did not leave that they should not return to their homes in the mountains because those were areas where the fires were still burning. Since they could not go home and they did not want to go to a shelter some of them slept underneath the tomato plants. Before we left for the night we brought them sleeping bags and $5 phone cards. We left the phone cards in case they needed us to go get them that night.

The next day we got up at 6:00 a.m. to go check on the farmworkers. For the whole week that the fires burned we were in the fields with the farmworkers making sure they were okay. I kept talking to them through the megaphone to let them know they could be risking their health and it would be safer for them to leave the fields.

Most of the time my organization, FIOB, was the only group trying to communicate with the farmworkers in the fields. We saw one of the bosses from the ranch, a fire chief, and the Mexican Consulate. The consulate came out one day and tried to advise the workers to leave the fields. The fire chief was patrolling and did not attempt to communicate with the farmworkers. We spoke to the fire chief and he told us the area was under a voluntary evacuation so the workers did not have to leave if they did not' want to. I'm not sure why he did not try to talk to the farmworkers. It could be that he did not know how to communicate with them because he did not speak or understand their language.

After the fires were extinguished we went to ask the farmworkers if they were experiencing any health problems. For many of them the main complaint was that their eyes were watery and their throats itched. I was able to take some of them to get free medical treatment at a community clinic where I worked.

Despite these problems and some frightening moments we were fortunate that nothing worse happened to any of the farmworkers. However, we learned from this experience that more was needed to protect the lives of our community in any future emergencies or natural disasters.

How can communication be improved to reach all communities during an emergency?

Partnering with Community-Based Organizations (CBOs)

The most valuable lesson we learned from the 2007 wildfires was that in order to reach communities that do not have reliable means of communication community-based organizations

(CBO) are critical. Community-based organizations like ours know where communities are located and the best way to reach them. We were able to ensure that the message reached our community by physically going to them. We know that this level of outreach ca not always be done by government agencies and sometimes government agencies are not always the best messenger. For example, the people in my community may not trust someone they do not know and they may be afraid that a government worker is with the police or immigration enforcement.

Local governments can partner with CBOs to make sure emergency alerts reach everyone. We are willing and able to work with local governments and other emergency response agencies to prepare and carry out a communication plan for emergencies. During the emergency we could inform government agencies about the status of our community and transmit messages from government agencies to our community. We can also advise government agencies on the best ways to reach our community because we know what will and will not work. For example, after the 2007 wildfires the American Red Cross reached out to us and we have worked closely with them to improve their ability to reach all communities after an emergency. As much as we'd like to partner with our local government we have not been able to because we are not sure who to contact or where to start.

During the wildfires we also learned that we needed to organize ourselves as a community. Our plan is to create groups in each town or region. Each group will have a leader who will be responsible for transmitting information to his or her group during an emergency. We'd like to be able to give each leader a cell phone to be sure that we can contact all of our groups quickly.

We also want to incorporate preparedness education for each of the groups. We have started by doing some educational presentations on emergency preparedness and response. We want to incorporate more photos and videos so that we can make sure the members of our community who do not read or write understand the signs of danger.

While we'd like to work on all of these projects we are a small, volunteer organization with few resources. With a small investment in our work we would be able to work with local governments to save lives.

Means of Communication

Cell phones were also an important means of communication during the 2007 wildfires. In some cases cell phones were the only way to reach the farmworkers. The pre-paid phone cards we gave them were critical for the farmworkers to be able to reach us. Even though cell phones are a part of the solution we cannot rely on them as the only means of communication. Sometimes the workers are not able to charge their phones. Text messages are a big step forward and can help people who speak English, Spanish, Asian languages and other languages. However, the workers we went to find spoke a language without a written tradition. We are concerned that text messaging alone will not reach every community. We would recommend that the committee not

rely on cell phones or text messaging as the only means to reach all communities. We recommend the committee pursue additional options.

We recommend looking into other means of communication, such as the radio. The radio would be a good way to transmit messages during emergencies because they are inexpensive and can be used even in remote areas. I think that a regular radio program in our language for an hour or two on the weekend would be the best way to communicate preparedness information and messages during emergencies. The community could call in and let us know what they need and if they are confronting any problems related to the emergency. Another option is we could transmit messages in our language at regular intervals over radio stations that are dedicated to information and emergencies. For example, every hour the emergency alert could be broadcast in several languages with a phone number to contact for more information. We would have to educate the community to listen to that radio station for emergency messages.

During an emergency everyone should have the information they need to protect their lives. These proposals could help improve the emergency alert system during emergencies for all communities, not just mine.