

Written Statement of
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“EAS and IPAWS”



FEMA

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Introduction

I am Damon Penn, Assistant Administrator for National Continuity Programs at the Federal Emergency Management Agency (FEMA). It is an honor to appear before you on behalf of FEMA, to discuss the Integrated Public Alert and Warning System (IPAWS) program and our recent nationwide Emergency Alert System (EAS) test.

FEMA serves as the nation's focal point for government continuity planning, guidance, and operations support, and is also responsible for ensuring the President is able to address the nation in any circumstance. The technology for these missions has changed several times, beginning in 1951, when CONELRAD, the Control of Electromagnetic Radiation system, was the chief federal communication method during a disaster. CONELRAD was replaced by the Emergency Broadcast System in 1963, followed by the Emergency Alert System (EAS) in 1994. IPAWS is a modernization and integration of the nation's alert and warning infrastructure.

Under 47 U.S. C. § 606 and regulations implemented by the Federal Communications Commission (FCC) (47 C.F. R. Part 11), *et seq.*), broadcast radio and television stations, cable television stations, direct broadcast satellite services, and satellite radio operators are required to carry national (Presidential) EAS alerts and support state and local EAS alerts and tests. Executive Order 13407 states, "It is the policy of the United States to have an effective, reliable, integrated, flexible, and comprehensive system to alert and warn the American people." To support these requirements, FEMA created IPAWS to be a 'system of systems' designed to: (1) Modernize the EAS and expand the Primary Entry Point (PEP) station system; (2) Create an Open Platform for Emergency Networks, or IPAWS-OPEN, which can be used at no cost by Federal, state, local, territorial, and tribal public safety partners; (3) Promote collaboration with industry to leverage existing standards or develop new standards, and to seamlessly integrate current and future technologies into IPAWS; (4) Expand traditional alerting and warning communications pathways, and; (5) Work with the Department of Commerce and the National Oceanic and Atmospheric Administration (NOAA) to deliver alerts through NOAA Weather Radio All-Hazards.

The Nationwide EAS Test

On November 9, 2011, at 2:00 p.m. EST, FEMA conducted the first-ever nationwide EAS test. This was the first time that an EAS test was coordinated nationwide, testing the capability to communicate emergency information simultaneously across the United States, and enabling FEMA to learn the limitations of the EAS on a national level. This test of the broadcast, cable, satellite TV and radio network was critical in identifying successes and room for improvement in strengthening FEMA's capabilities.

In preparation for the test, FEMA partnered extensively with the FCC, the broadcast, cable, satellite TV, and radio community, and the emergency management EAS community (particularly the state of Alaska Department of Homeland Security and Emergency Management Agency) to better understand the current EAS configuration. This test is an essential step in measuring and moving toward improving the EAS. Full results will be available to the FCC and FEMA on December 27, 2011. Sometime soon thereafter, FEMA will have the information and analysis to determine the extent of the EAS successes and limitations, and how to improve the system and its components. For example, making the EAS fully accessible for people with access and functional needs is one of our major points of focus, and we are working closely with the disability community towards this goal.

FEMA has remained engaged with stakeholders across numerous agencies, organizations, conferences, and private industry to promote IPAWS' capabilities and opportunities to integrate alert and warning technologies for people with access and functional needs. We have partnered with private organizations such as Signtel, Deaf-Link, Alertus, NPR, Readspeak, Roam Secure, VPN Voice Corp, and public organizations, such as NOAA, to demonstrate products that incorporate Common Alerting Protocol-enabled (CAP) technologies to alert persons with access and functional needs. These technologies and products are routinely incorporated into IPAWS demonstrations and have been displayed at events like the International Association of Emergency Managers (IAEM) Annual Conference, the National Association of Broadcasters Show, the National Council on Independent Living Annual Conference, the IPAWS Congressional Demonstration, and the National Disabilities Rights Network Annual Conference.

Commercial Mobile Alerting System/Personal Localized Alerting Network

In addition to improving the EAS, FEMA is developing PLAN (Personal Localized Alerting Network), also referred to as the CMAS (Commercial Mobile Alerting System), to allow individuals with an enabled mobile device to receive geographically targeted messages alerting them of imminent threats, AMBER alerts, or emergency messages from the President. Adding the CMAS/PLAN capability allows trained and authorized local public safety officials to pass 90-character emergency alert messages directly through IPAWS to participating wireless carriers for delivery from wireless towers to any CMAS-capable cell phone located in the geo-targeted area. CMAS/PLAN technology avoids wireless call congestion, so cell phones can receive emergency alerts even if wireless towers in their location are overwhelmed and can no longer support cellular phone calls or subscriber-to-subscriber text messaging.

By the end of this month, and with significant cooperation from the four Tier 1 cellular providers, the IPAWS Commercial Mobile Alerting System (CMAS) capability, also known as the Personal Localized Alerting Network (PLAN), is scheduled to become operational in New York City and Washington, D.C. Nationwide roll-out of IPAWS CMAS will begin in April 2012. FEMA is working with the cellular industry and S&T to conduct test and pilots of this capability over the next several months to ensure its success. IPAWS CMAS will enable cities to send geo-targeted, timely, and accurate emergency alerts and warnings through the wireless carriers to citizens with CMAS-capable cell phones.

In addition to the strong working relationship between FEMA and the wireless community, we have received great cooperation from the New York City Office of Emergency Management, Sprint, Verizon Wireless, T-Mobile, AT&T, and the CTIA Wireless Association, who have all fully supported making CMAS/PLAN available in New York City and Washington, D.C.

IPAWS Adoption of Innovative and Adaptable Technologies

A core IPAWS objective is to foster the growth and development of future alerting capabilities by continuing to support the adoption and promotion of common technical standards and protocols. IPAWS has moved from a requirements-based, single technology network approach to an applications-based, open standards platform approach. This ensures IPAWS can easily

integrate with a broad range of information processing technologies, networks, and equipment from existing private sector communication systems. Remaining compatible with existing television, radio, and NOAA Weather Radio All-Hazards systems by leveraging open standards platforms and protocols, IPAWS allows the same alerts to be sent to citizens on cellular phones, the internet, and in the future, other developing technologies as those technologies mature.

IPAWS leverages the industry-adopted Common Alerting Protocol (CAP) Emergency Data Exchange Language standard to improve its interoperability with a wide variety of technologies and other solutions. More than 79 private sector vendors and 15 public sector organizations registered to be developers of products that leverage IPAWS application capabilities. For example, for people with visual or hearing impairments, National Public Radio (NPR) has demonstrated and is working on using CAP-compliant messages to deliver alerts through NPR digital radio to prototype devices that activate a bed shaker, display an audio alert in text, and output the text to a Braille printer. We are also working toward developing capabilities to alert people whose primary language is not English.

FEMA IPAWS officially adopted the CAP Standard on September 30, 2010, after it was developed by a partnership between DHS S&T and the Organization for the Advancement of Structured Information Standards, an international standards body. Similarly, FEMA IPAWS adopted the CAP to EAS Implementation Guide in May 2010 after it was developed by the EAS to CAP Industry Group. The FCC regulates CAP compliance actions by EAS participants (such as radio, cable, and television providers, etc.).

The PEP system is a nationwide network of broadcast stations and other entities used to distribute a message from the President or designated national authorities in the event of a national emergency. FEMA continues to expand the number of PEP Stations across the U.S., from 36 PEP stations providing direct coverage to 67% of the American people in August 2009, to 63 operational PEP Stations and three PEP Stations under construction providing direct coverage to 84% of the American people today. By the end of 2012, 77 PEP Stations will provide direct coverage to more than 90% of the American people.

New PEP Stations use a standard configuration, saving maintenance costs and ensuring ease of movement between stations. Stations also have the ability to operate under extreme conditions and possess backup equipment and power.. Legacy stations will be retrofitted to meet the current PEP Station resiliency standards.

To achieve these and future accomplishments, FEMA relies heavily upon, and works closely with, DHS's Science & Technology Directorate (S&T), industry, state, local, tribal, and territorial emergency managers, and our Federal interagency partners at the Federal Communications Commission (FCC), and NOAA. I cannot overemphasize the importance of the many contributions from all our partners and stakeholders in this venture.

Conclusion

The ability to effectively communicate with the public before, during, and immediately following a disaster is essential to fulfilling FEMA's mission. Therefore, FEMA is fully committed to increasing IPAWS resilience through improved accessibility and reliability. Furthermore, we will continue to review the data from the nationwide EAS test and develop action plans to address identified limitation and metrics to measure our progress and success.

I thank the Committee for the opportunity to testify. I would be happy to answer any questions you may have.