

STATEMENT

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BEFORE

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UNITED STATES SENATE  
WASHINGTON, D.C.

“Hawaii False Missile Alert: What Happened and What Should We Do Next?”

Submitted

By

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## **Introduction**

Good morning Chairman Thune, Ranking Member Nelson, and Members of the Committee. My name is Antwane Johnson, and I am the Director of Continuity Communications within the National Continuity Programs Directorate (NCP) at the Federal Emergency Management Agency (FEMA). On behalf of FEMA Administrator Brock Long and John Veatch, the Assistant Administrator for NCP, I appreciate the opportunity to speak today on the importance of the Integrated Public Alert and Warning System (IPAWS), how the system was used during the events of January 13, 2018, and the steps we are taking to improve the system.

## **What is IPAWS?**

An effective, timely, and far-reaching public alert and warning system is critical to communicating threats to public safety and providing people with guidance during times of crisis.

*Executive Order 13407* and *The IPAWS Modernization Act of 2015* define FEMA's responsibility to provide a public alert and warning system. *The Robert T. Stafford Disaster Relief and Emergency Assistance Act* directs FEMA to provide technical assistance to state, local, tribal, and territorial (SLTT) governments to ensure that timely and effective disaster warning is provided. In accordance with these statutes, IPAWS was created to enhance and extend a national infrastructure and capability to SLTT officials for public alert and warning.

IPAWS is a national warning infrastructure that provides a single interface for public safety officials to alert and warn the public about emergencies. There are two main system components:

- (1) IPAWS supports warnings and communications from the President in the event of a catastrophic national emergency. The President can reach the American people through the National Public Warning System, where the message is transmitted through FEMA Primary Entry Point (PEP) radio stations and Emergency Alert System (EAS) radio television, and cable stations.
  
- (2) IPAWS also supports geo-targeted alerts sent from federal, local, state, tribal, and territorial officials during emergencies, such as those issued last year by Florida and Texas, in anticipation of hurricanes Harvey, and Irma.

These federal, local, state, tribal, or territorial alerting authorities can, via the "IPAWS OPEN" gateway, send emergency messages to people in their geographic jurisdiction by radio and TV Emergency Alert System (EAS) broadcasts, Wireless Emergency Alerts (WEA) to cell phones, broadcasts from National Oceanic and Atmospheric Administration (NOAA) Weather Radios, and other IPAWS internet-connected services. The DHS Science and Technology Directorate

(S&T) conducted research to improve geo-targeting capabilities and public response to alerts and warnings, through funding provided by the Department of Commerce's National Telecommunications and Information Administration. Today, IPAWS supports more than 26,000 radio, TV, and cable EAS connections, 63 cellular carrier gateways reaching millions of cell phones, connections to NOAA dissemination systems, and 73 internet application vendors that tap into the IPAWS alert feed.

States determine who their state alerting authorities are, and validate requests from potential local alerting authorities to gain access to the IPAWS. A profile is created in the system for each validated authority describing the geographic jurisdiction, types of alerts, and which alert dissemination systems will be used by the authority. Following completion of required FEMA-developed training by the authority, access to send alerts directly through IPAWS to people is turned on. This training provides skills to draft effective and accessible warning messages, and best practices in effective use of the Common Alerting Protocol. In addition to the initial training, in June 2014 FEMA released an advanced course to further develop these skills among alerting authorities. Messages that match the authorities profile pass automatically through the system to EAS, WEA, and the other alert dissemination systems to population's TV, radio, and cell phones.

IPAWS supports "broadcast" type alert and warning services. Unlike subscription based-alert services, warnings are sent to all people located in a specified area, both residents and visitors.

FEMA is responsible for development, operation, integration, and maintenance of IPAWS infrastructure, which includes the EAS, WEA, NOAA, and IPAWS Alerts Feed components plus any future connections. IPAWS was designed so it can easily adapt to technological advances.

As of March 2018, there are 1,075 total IPAWS public alerting authorities. Since its inception in 2011, more than 2.7 million alert messages have been processed by IPAWS.

Authorities have used IPAWS connections to successfully alert people of a wide variety of threats to public safety. This includes, but is not limited to: natural disasters, gas plant explosions and evacuations, armed robbers, active shooters, dangerous water advisories, 911 service outages, and electrical power outages.

### **AMBER Alerts**

In 2003, President George W. Bush signed the *Prosecutorial Remedies and Other Tools to end the Exploitation of Children Today (PROTECT) Act of 2003* (Public Law 108-21). This act established the national coordination of state and local programs, including the development of guidance for issuance and dissemination of AMBER alerts.

The National Center for Missing & Exploited Children (NCMEC) is responsible for America's Missing: Broadcast Emergency Response (AMBER) plan, which allows broadcasters and transportation authorities to immediately distribute information about recent child abductions to the public and enables the entire community to assist in the search for and safe recovery of the child.

The AMBER Alert program is a voluntary partnership among law enforcement agencies, broadcasters, transportation agencies, and the wireless industry to activate an urgent Wireless Emergency Alert in the most serious cases of child abduction.

Since the AMBER alert program's inception, 53 children across the country have been safely returned to their families as a direct result of these WEAs.

### **IPAWS Use during Recent Hurricanes, Wildfires, and Mudslides**

For the three major hurricanes in 2017 – Harvey, Irma, and Maria – nearly 700 emergency messages were sent via IPAWS by both the National Weather Service and state and local alerting authorities.

Prior to Hurricane Irma, state and local alerting authorities issued a series of timely WEA and EAS alerts to advise the public to take appropriate protective measures. The Florida Division of Emergency Management (FDEM) issued several evacuation alerts that facilitated the safe and timely evacuation of nearly 6.5 million residents and visitors. FDEM issued IPAWS alerts on behalf of counties that were unable to issue an alert because they were not an authorized alerting authority, demonstrating state-local coordination.

For Hurricane Maria, FEMA IPAWS developed an innovative arrangement with SiriusXM to deploy satellite radios to Puerto Rico. Extensive efforts by the IPAWS project management office successfully kept PEP stations broadcasting in Puerto Rico to provide critical response and recovery information to the island's residents. These efforts included coordination of fueling where power was unavailable, and providing technical assistance to ensure the PEP stations remained up and running. In the U.S. Virgin Islands, FEMA IPAWS had primed the backup generator for the PEP station two years ago and had replaced the fuel tank generator and fuel distribution systems in June 2017. This continued maintenance allowed for radio broadcasts and alerts to be sent to residents in the U.S. Virgin Islands through this station while the power was out following Hurricane Irma.

In October 2017, WEAs were issued to warn California residents about the wildfire danger. This event highlighted a few strengths as well as areas for improvement. Strengths include some local authorities using a variety of warning and communications methods to reach as many people as possible, including WEAs, police sirens, opt in reverse 911 and text alerts, door-to-door

notifications and social media. Areas for improvement include the regular testing of IPAWS to ensure the system, and user access, is operational and working correctly. One alerting authority's user access was recently updated and was not tested prior to attempted use during the wildfires, at which time it was discovered to have not worked. It has since been fixed.

During the January 2018 flooding and mudslides in Southern California, 10 WEAs were sent: five by the National Weather Service, three by Santa Barbara County, and two by the City of Los Angeles.

### **Implementation of IPAWS Modernization Act**

The IPAWS Modernization Act of 2015 (PL 114-143) directs FEMA to implement and modernize the IPAWS and to establish an IPAWS subcommittee under the National Advisory Council (NAC). This council advises the Administrator on all aspects of emergency management to ensure input from and coordination with state, local, tribal, and territorial governments, non-profit organizations, and the private sector communities on the development and revision of plans and strategies.

Additionally, the law directs the IPAWS subcommittee to consult with users and experts to consider new and developing technologies that may be beneficial to the public alert and warning system; develop recommendations for IPAWS and submit a recommendation report to the NAC for approval. The recommendations will be on matters related to common alerting and warning protocols, standards, terminology, and operating procedures. The subcommittee will also make recommendations to the NAC on having the capability to adapt the distribution and content of communications based on locality, risks, or user preferences. As outlined in the law, the subcommittee will terminate no later than April 2019.

FEMA announced the IPAWS subcommittee membership in July 2017. Membership includes participants from: state, local, and tribal governments and emergency management agencies; communications service providers; third-party service bureaus; commercial mobile radio service industry; satellite industry; organizations representing individuals with access and functional needs and limited English proficiency; privacy advocates; and senior federal leaders. The subcommittee members are divided into four working groups, focused on: alert writers and alerting authorities; public needs; stakeholder engagement and coordination; and future technologies.

As of January 2018, the working groups have held 45 webinars, with 48 guest speakers presenting to subcommittee members. These guest speakers include educators and researchers, state and local alerting authorities, and private sector partners to help inform the recommendations.

The subcommittee will continue developing and refining recommendations in the coming months, in order to present draft recommendations to the NAC in fall 2018. The subcommittee will also take into consideration recent uses, including best practices and lessons learned, when developing the recommendations. Once a draft is complete, the subcommittee will work with NAC to develop the final approved recommendations to present to the FEMA Administrator, the head of each agency represented on the subcommittee, this committee, the Senate Committee on Homeland Security and Governmental Affairs, and the House committees on Homeland Security and on Transportation and Infrastructure.

### **Hawaii False Missile Alert and Next Steps**

On January 13, 2018, at 8:07 am local time, the Hawaii Emergency Management Agency (HI-EMA) mistakenly issued an alert through FEMA's Integrated Public Alert and Warning System-Open Platform for Emergency Networks (IPAWS-OPEN) to residents of Hawaii notifying them of an inbound ballistic missile threat. The alert was issued as an IPAWS WEA displayed on cell phones and via EAS on television and radio. The live EAS and WEA messages used the event code Civil Defense Warning (CDW). The WEA message read:

**“BALLISTIC MISSILE THREAT INBOUND TO HAWAII. SEEK IMMEDIATE SHELTER. THIS IS NOT A DRILL”**

HI-EMA canceled the WEA cell broadcast at 8:13 am local time, thereby preventing additional cell phones from receiving the alert. FEMA was contacted by HI-EMA at 8:30 am local time to seek confirmation to use the Civil Emergency Message (CEM) event code to issue a follow-up message. At 8:45 am local time (approximately 38 minutes after the erroneous alert was sent), HI-EMA issued a second IPAWS message to inform the public there was no missile threat. The second WEA message stated:

**“There is no missile threat or danger to the State of Hawaii. Repeat. False Alarm”**

The alert issued on January 13 brought to light gaps in existing alerting plans, protocols, and procedures, including those for responding to an erroneous public alert. These gaps exist at multiple levels. Standard operating procedures for the release of alerts need to include additional review steps to ensure the accuracy of a public alert. Additionally, all plans, protocols, and procedures need to include clear guidance and steps for rectifying an erroneous alert if one is sent.

FEMA continues to assist state and local agencies with their specific training requirements and has assisted multiple state and local agencies with IPAWS-specific training, testing, and exercise requirements during 115 separate engagements. Two of those trainings were with HI-EMA.

FEMA is taking steps to review and improve public alert and warning guidance, planning, training, practice, and exercises, and incorporate them across FEMA programs and into the National Incident Management System.

To help share the lessons learned from the Hawaii missile alert and other recent events (including the use of IPAWS during the 2017 hurricane season and recent California wildfires), FEMA is highlighting best practices to help guide alerting authorities as they review and update their policies and procedures. To facilitate dissemination within the emergency management community, FEMA will launch an online collaborative forum in the spring of 2018 to enable alerting authorities and software developers to share best practices, experiences, operating procedures, and lessons learned.

FEMA has also issued recommendations to Alert Origination Software Providers (AOSP) that go beyond recommendations provided to AOSPs in 2015. In particular, FEMA recommends that vendors providing alert origination software ensure critical capabilities be included in their products to make alert and warning more effective and include steps to mitigate alerting errors.

The success of IPAWS depends on public confidence in the reliability of the system to issue timely, accurate, and actionable information. While alerting authorities have their own public outreach strategies, FEMA conducts a series of awareness programs to ensure the American people understand the functions of IPAWS and how to respond to alerts and warnings from public safety officials. Project Management Office (PMO) efforts have included releasing Public Service Announcements (PSAs) on radio and television, providing a 15-minute online course “IPAWS and the American People,” and incorporating IPAWS and WEA information on [Ready.gov](https://www.ready.gov).

The PSAs educate the public on what a WEA is and how to recognize a message when received, advise the public to heed the warning and take the prescribed protective action in the message, and direct viewers to learn more about life-saving alerts on [www.fema.gov/ipaws](https://www.fema.gov/ipaws) and [www.ready.gov/alerts](https://www.ready.gov/alerts). Public safety officials are encouraged to work with local broadcasters to make the WEA PSAs a part of local public education campaigns.

IPAWS will also continue to make State, local, tribal, and territorial emergency managers aware of the “IPAWS Lab.” This lab, located at the Naval Surface Warfare Center in Indian Head, Maryland, provides alerting authorities with test and evaluation, operational assessments, IPAWS demonstrations, and expert technical support. The lab provides an interactive and closed IPAWS testing environment, and allows users the opportunity to practice and train to increase familiarity and confidence using IPAWS.

In accordance with new WEA rules established by the Federal Communications Commission (FCC) in 2016, IPAWS is working with wireless carriers and alerting software vendors to enhance WEA capabilities based on research conducted by S&T. This includes creating room for more detailed information in messages, allowing links to instructions and images, Spanish language support, and dedicated test message type for use by SLTT alerting authorities.

The IPAWS PMO continues to collaborate with our alerting authority partners to look for opportunities to incorporate best practices and lessons learned into program guidance and training.

## **Conclusion**

Every day I am grateful for the opportunity to work with a program dedicated to helping alert and provide guidance to people during times of crisis. Thank you for your interest in the program and we look forward to collaborating with this subcommittee on ways the program can improve. I am happy to take any questions you have at this time.