U.S. Department of Homeland Security
Washington, DC 20472

FEMA

March 3, 2025

The Honorable Robert Garcia
U.S. House of Representatives
109 Cannon House Office Building
Washington, D.C. 20510

Dear Congressman Robert Garcia:

Thank you for your letter dated February 3, 2025. The FEMA Office of National Continuity Programs (ONCP), Integrated Public Alert and Warning System (IPAWS) Program shares your concerns about the evacuation alert from January 9, 2025, that errantly reached all Los Angeles County inhabitants and the subsequent repeating alerts. As the Acting Associate Administrator for FEMA ONCP, I am responding on behalf of the Agency.

The IPAWS Program plays a critical role in protecting lives and property by enabling life-saving alerts and emergency messaging. In 2024, over 600 unique agencies used IPAWS to send more than 16,000 alerts. While IPAWS has proven to be an essential tool to share critical information with the public during fast-moving emergencies, like wildfires, ongoing efforts are needed to increase training with alerting authorities, enhance standardization with service providers, and further collaboration with wireless providers to improve the delivery of Wireless Emergency Alerts to the public.

Between January 7 and January 27, 2025, California state and local Alerting Authorities utilized IPAWS to send 146 alerts to the public, helping to rapidly disseminate emergency information. The IPAWS program has conducted an internal review of this critical incident period and has prepared responses to the questions submitted in your correspondence from February 3, 2025.

FEMA and the IPAWS Program remain committed to supporting continuous improvements in emergency communications to strengthen public safety, enhance resilience in affected communities and localities, and maintain the public's trust.

We sincerely appreciate your partnership in enhancing emergency communications capabilities in California. Following are responses to the questions sent with your letter. If you have any additional questions, comments, or concerns, please have a member of your staff contact FEMA's Congressional Affairs Office at 202-646-4500 or FEMA-Congressional-Affairs@fema.dhs.gov.

Sincerely,

Thomas Breslin
Acting Associate Administrator
Office of National Continuity Programs

cc:
Joseph (Andy) Couch, Acting Deputy Associate Administrator, Office of National Continuity Programs
Manuel Centeno, Director, Integrated Public Alert & Warning System (IPAWS)
Robert J. Fenton, Jr., Regional Administrator, FEMA Region 9

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Response to questions

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1. **Provide a copy of the minimum requirements for state, tribal, and local governments to participate in the public alert and warning system and that are necessary to maintain the integrity of the public alert and warning system, as required in Section 1756 of the fiscal year 2020 National Defense Authorization Act.**

   An Alerting Authority is a public safety agency with responsibilities to provide emergency alerts, warnings, and information to the public when the public safety in their jurisdiction is threatened. Alerting Authorities are authorized to use the FEMA IPAWS after executing a Memorandum of Agreement (MOA) with FEMA.

   An Alert Originator (AO) is the position in an Alerting Authority that composes and sends alerts to IPAWS using a commercially available software that is compatible with IPAWS technical interface standards. This individual decides when and what alerts to send and composes the alert message in accordance with their agencies local plans, policies, and procedures for public alerting.

   An agency that wants to use the IPAWS to send emergency alerts and warnings to their community must, sign a Memorandum of Agreement with FEMA that specifies managerial and system interoperability and additional stipulations detailed in the document, submit a completion certificate for course IS-247.C: *Integrated Public Alert and Warning System (IPAWS) for Alert Originators*; and have an alerting tool compliant with the IPAWS-OPEN Web Service Interface Design Guidance.

   Local authorities must submit a state approved Public Alerting Application. , The webpage https://www.fema.gov/emergency-managers/practitioners/integrated-public-alert-warning-system/public-safety-officials/sign-up provides a step-by-step guide for agencies seeking to become an IPAWS Alerting Authority. A copy of the Memorandum of Agreement is attached for your review.

   To assist Alerting Authorities with maintaining proficiency in using IPAWS, FEMA requires Alerting Authorities to complete a proficiency demonstration by sending a practice message to a protected IPAWS environment, demonstrating alert systems at least once each month. The IPAWS Demonstration Environment is not connected to live active private sector systems (e.g., the wireless carrier networks) but enables approved Alerting Authorities to practice sending alerts without disturbing the public.

   The FEMA IPAWS Program provides guidance, training, and technical assistance to support the preparedness and proficiency of the Alerting Authorities and Alert Originators to effectively use the IPAWS. Examples of guidance and assistance include the IPAWS Best Practices Guide, IS-247 online training course, virtual and in-person training and exercises, interactive tools such as the IPAWS Message Design Dashboard (MDD), and 24/7 technical assistance of public alerting subject matter experts at the IPAWS Technical Support Services Facility (TSSF). Alerting Authorities are encouraged to obtain recurring user training from their Alert Origination Software Providers (AOSP) vendors, and to regularly exercise and test using their AOSP software. Alerting Authorities can also send WEA test messages that are distributed through the CMSP networks and broadcast to phones as a "Test Alert", a category that is only received by phones that are opted in to "Test Alerts". The "Test Alerts" option is not enabled by default on cell phones but can be enabled by selections in phone settings. Additionally, the FCC permits Alerting Authorities to send two "live" WEA messages as

alerts to the public per year without coordination with the FCC. These tests allow Alerting Authorities to conduct coordinated public outreach and education about WEA and to use and evaluate their alerting procedures and local wireless infrastructure before a real emergency occurs.

In addition to the IS-251b, *IPAWS for Alerting Administrator s*training course hosted on FEMA's Emergency Management Institute (EMI) website, the IPAWS Program TSSF supports Alerting Authority training, exercising, and testing. IPAWS TSSF support is available 24/7 if an Alerting Authority is experiencing problems or has questions. FEMA encourages Alerting Authorities to reach out to the TSSF for public alerting subject matter expert support, guidance, and training assistance at any time.

Following the appropriation of funds in FY 2023, the FEMA IPAWS Program began activities in 2024 to implement an IPAWS user certification program inclusive of the full scope described in Section 1756 of the FY 2020 National Defense Authorization Act and anticipates introducing a pilot for user certification in 2025. Certification paths for AOs and Alerting Authorities are planned and an initial training certification pilot is planned to launch in 2025. The training and certification program will provide Alert Originators critical alerting skills and proficiency, enabling more knowledgeable users with greater capabilities and confidence in using the IPAWS.

2. **How do the minimum requirements for IPAWS relate to third-party technology employed by governmental participants for protective communications tools?**

The commercially available software used by Alert Originators must comply to the technical standards defined in the IPAWS-OPEN v3.11 Web-Service Interface Design Guidance. A list of alerting tools offered by AOSP that have successfully demonstrated compliance to the interface specifications, is available on the FEMA IPAWS Program webpage on FEMA.gov (Alert Origination Software Providers | FEMA.gov).

The AOSP software connects the alert message written by Alert Originator to the IPAWS Open Platform for Emergency Networks (IPAWS-OPEN). The IPAWS-OPEN authenticates that the message is from an authorized AA, checks that the message complies with the Alerting Authorities account profile and permissions, and then distributes the message to one or more private sector communications systems that participate as IPAWS alert dissemination pathways. These pathways include:

- Wireless Emergency Alerts (WEA): alerts broadcast to mobile phones by Federal Communications Commission (FCC) regulated Commercial Mobile Service Provider (CMSP) networks;
- Emergency Alert System (EAS): alerts inserted into radio and television content by local radio and television stations in accordance with FCC regulations;
- NOAA Weather Radio (NWR): alerts broadcast to weather radios by NOAA radio network transmitters; and
- Other information systems and technologies that choose to distribute authenticated public alert and warning messages retrieved from the IPAWS feeds (e.g., national outdoor digital sign vendors).

Using IPAWS benefits state, local, and tribal public safety by enabling AAs to quickly get emergency information to people in their communities, by multiple publicly available communications systems, all at one time. _The likelihood that an alert will successfully reach people and motivate them to take protective actions is increased by using multiple communication pathways.

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3. **What potential problems or vulnerabilities, if any, do the use of third-party technology providers by State, Tribal, and local government alerting authorities pose?**

There are 40 AOSPs that provide third-party technology to 1,963 Alerting Authorities (AAs) throughout the United States and its territories. Each AOSP offers distinct software products with varying user interfaces, technical capabilities, and processes for the person creating and sending the alert. The inconsistency between software products complicates FEMA's ability to provide standardized training, guidance, and technical assistance to state, local and tribal agencies using IPAWS.

Section 1756 in the FY20 National Defense Authorization Act (NDAA) requires FEMA to develop the requirements and implement a certification program for software tools used by AAs to issue public alerts through the IPAWS. In FY 2023, FEMA was appropriated funds and initiated software certification projects in 2024. The FEMA IPAWS program plans to pilot the AOSP software certification program in 2025. The AOSP certification program will establish common user interfaces, standardized processes, and enhanced security measures, ensuring a more consistent and reliable process for issuing public alerts.

Regardless of the AOSP technology used, Alerting Authorities must establish internal policies, procedures, and protocols to effectively issue alerts, warnings, and notifications. Regular training and coordination activities, particularly in large metropolitan areas like Los Angeles, are critical. Cross-jurisdictional exercises that incorporate alerting procedures help improve warning capabilities and strengthen collaboration during real emergencies.

4. **Has FEMA considered, or implemented, guidance or recommendations requiring State, Tribal, and local governments that utilize the IPAWS WEA system add time stamps for warnings, including the date and time within emergency alerts?**

For AOSP tools to successfully interface with IPAWS, each alert message must include both a "sent" and "expires" timestamp for the message to be processed. Additionally, FEMA's IPAWS Program guidance and training recommend that alerts include time-related information about the hazard and expiration directly within the message text displayed to recipients of a Wireless Emergency Alert (WEA).

To support effective alerting, the IPAWS Program publishes various resources, including tips, checklists, toolkits, and education materials. Additionally, the IPAWS Best Practices Guide recommends the text of alert messages include six key information elements:

- Source – name of issuing agency
- Hazard description – nature of the threat
- Hazard impact – potential consequences
- Location – areas affected
- Protective action guidance – recommend actions for public safety
- Expiration – when the alert is no longer valid.

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5. **Has FEMA considered, or implemented, guidance or recommendations requiring State, Tribal, and local governments that utilize the IPAWS WEA system add text specifying specific locations/neighborhoods for emergency alerts?**

Yes. The IPAWS Best Practices Guide recommends the text of alert messages include six key information elements:

- Source – name of issuing agency
- Hazard description – nature of the threat
- Hazard impact – potential consequences
- Location – areas affected
- Protective action guidance – recommend actions for public safety
- Expiration – when the alert is no longer valid.

In addition to the IPAWS Best Practices Guide, the IPAWS Program released the IPAWS Message Design Dashboard (MDD) in July 2024. The MDD is a free tool available through the IPAWS website to assist AAs craft timely and effective public alert and warning messages. The MDD assists an Alert Originator to quickly generate alert message text for 46 types of emergencies based on a data base of simple and plain language words and phrases developed by social science research and tested to be effective at quickly communicating to the public emergency hazard information and protective action guidance. The MDD provides an interactive step-by-step process for an Alert Originator to quickly choose words and phrases relevant to the local emergency with prompts to specify local area descriptions and names in the six key information elements needed by a person receiving an alert to quickly understand and follow the protective actions described in the message.

The FEMA IPAWS Program continues to communicate the availability and benefits of using the MDD through multiple engagement channels to the alerting authority community. The MDD is available to users via the IPAWS Alerting Authority Assistive Tool Platform website and currently has over 1,800 registered users.

6. **Has FEMA considered, or implemented, guidance or recommendations requiring State, Tribal, and local governments that utilize the IPAWS WEA system add visual maps in the body of WEA text messages for emergency alerts?**

Yes. The FEMA IPAWS Program is actively involved in the private sector technical standards group that defines the technical specifications for WEA delivery systems and phone behavior. Improvements are under development, but there is an effort specifically focused on the ability to include a map or integrate with a phone's built-in mapping software, which would allow recipients to see a visual representation of the alert area relative to their phone location. The timeline for these updates to private sector WEA distribution systems is still to be determined. However, most cell phones and the current technical standards already support the inclusion of web links in WEA messages. If internet access is available, recipients can click these links to access additional information including visual maps and expanded alert details.

Additionally, television stations that participate in emergency alert distribution can choose to display information sent by state and local authorities through IPAWS, including visual elements like maps. In accordance with FCC regulations, all U.S. television and radio providers monitor the IPAWS and can retrieve alert messages to broadcast emergency content with both audio and video components.

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AOs select one or more IPAWS distribution channels (e.g., WEA, EAS, NOAA radio) for each alert they send.

Unlike some CMSP equipment that was damaged due to the fire, Emergency Alert System (EAS) equipment used to broadcast emergency communications with the public remained fully operational during the LA County disaster. Southern California Alerting Authorities chose not to send any emergency communication with the public through EAS during the January 2025 wildfires.

FEMA & FCC

1. **What is the status of the joint investigation between Los Angeles County, the Federal Emergency Management Agency, and the Federal Communications Commission into WEA alert messages sent following the cancellation and "echoes" continuing to transmit to phones across LA County?**

   During the wildfire disaster, the California Governor's Office of Emergency Services (Cal OES), along with a federal interagency group consisting of the FCC, FEMA, and DHS's Cybersecurity and Infrastructure Security Agency (CISA), worked to address the issue of repeated WEA alerts. The interagency group provided support to the FCC and FCC-regulated wireless carriers as they investigated and worked to fix the issue. The IPAWS-OPEN was 100% operational throughout the Los Angeles County wildfires. The IPAWS Program thoroughly researched and found no system-related issues that would have caused an erroneous LA County-wide evacuation alert or the repeated broadcast of WEA messages after the LA County alert cancellation or after the expired time in the messages. The IPAWS Program confirmed that the CMSP network gateways successfully acknowledged receipt of the messages sent from the Alerting Authorities and of the cancel message sent by the County of Los Angeles, retracting the erroneous county-wide alert.

   The IPAWS Program has limited visibility of technical issues that may affect WEA distribution and delivery within CMSP networks and equipment. Because FEMA does not regulate or oversee CMSPs, the FEMA IPAWS program relies on strong partnerships with interagency stakeholders – including the FCC, CISA, FCC-regulated wireless carriers, alerting authorities, broadcasters, and the public - to understand and address telecommunications challenges impacting WEAs. Additionally, CMSP participation in IPAWS remains voluntary and FEMA does not have statutory authority to request or receive information from CMSPs about their networks or operations. Instead, FEMA relies on the FCC to provide updates on the CMSP network and equipment status that may affect alert delivery.

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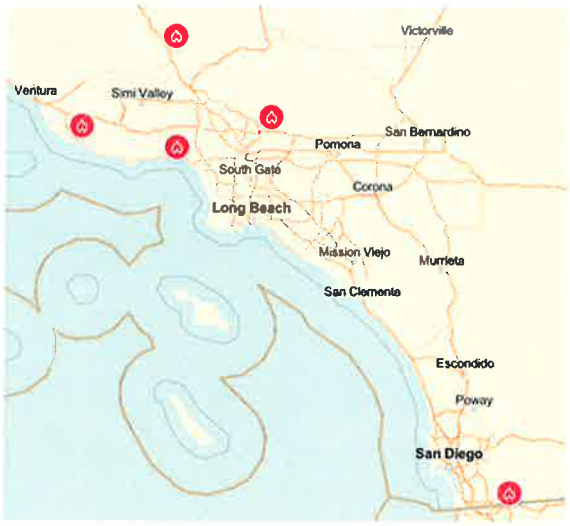
A summary of messages sent through the IPAWS from Alerting Authorities in LA County related to the wildfire events is summarized in a following graphic. There are twenty-eight (28) IPAWS AAs in Los Angeles County, in addition to the California Office of Emergency Services (Cal OES), that can send an alert to the LA County geographic area. During the recent wildfires, ten Alerting Authorities sent alerts through IPAWS to areas in LA County.

Reporting Period All Counts for Southern California Wildfires 2025

Southern California Wildfires

Current Reporting Period: 01/07 – 01/27 08:30 ET



By Alerting Authority (COG)

CA County of Los Angeles	68
CA San Diego County Office of Emergency Ser..	24
CA City of Los Angeles	21
CA California Governor's Office of Emergency ..	15
CA Riverside & San Bernardino Counties (LECC)	11
CA City of Long Beach	3
CA City of La Canada Flintridge	1
CA City of Riverside	1
CA City of Santa Monica Office of Emergency ..	1
CA Ventura County Sheriff's Office - Office of ..	1
Grand Total	146

By Date (UTC)

January 7, 2025	20
January 8, 2025	53
January 9, 2025	8
January 10, 2025	15
January 11, 2025	2
January 13, 2025	2
January 20, 2025	3
January 21, 2025	5
January 22, 2025	19
January 23, 2025	3
January 24, 2025	13
January 25, 2025	3
Grand Total	146

By Channel

WEA	144
NWR	2
Grand Total	146

By Event Type

Fire Warning (FRW)	72
Evacuation Immediate (EVI)	52
Local Area Emergency (LAE)	22
Grand Total	146

2. Will there be a public after-action report, or recommendations following the conclusion of the investigation?

The IPAWS Program will be creating an internal after-action report, to include recommendations and proposed corrective actions. FEMA defers to the FCC regarding any after-action report pertaining to CMSP networks and equipment because, as noted above, FEMA does not have the authority to obtain the information for an after-action report on equipment issues from CMSPs.

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3. **What technological improvements are necessary for cell towers that have been knocked offline to correctly delete cached WEA messages which have been cancelled by the alerting authority?**

   FEMA recommends FCC as the primary responder to this question.

4. **What technological improvements, procedures, or requirements are necessary for telecommunications providers to prevent the accidental repeat of WEA messages?**

   FEMA recommends FCC as the primary responder to this question.