

Science and Technology

High-Level Overview

The Department of Homeland Security (DHS) envisions a future where all Americans are able to receive accurate alerts and warnings, regardless of communications technology used. This vision is being achieved through the Federal Emergency Management Agency's (FEMA) Integrated Public Alert and Warning System (IPAWS). IPAWS is a modernization of the Nation's alert and warning infrastructure, integrating new and existing public alert and warning systems and technologies. In partnership with DHS Science and Technology Directorate (S&T), IPAWS is working to incorporate alerts to mobile devices through Wireless Emergency Alerts (WEA), formerly known as the Commercial Mobile Alert Service (CMAS). This inclusion is an acknowledgement of the important role that wireless technologies play in Americans' lives today. Given the wide use of wireless mobile devices, WEA ensures more people can receive actionable alerts to help avoid danger or respond more quickly during crises—thereby saving lives and property. For more information on IPAWS and WEA, please visit FEMA's WEA website at http://www.fema.gov/wireless-emergency-alerts.

What is WEA?

WEA is a major component of IPAWS. The WEA component provides an interface to participating commercial mobile service providers (CMSP) for delivery of critical alert information to cellular phones in a danger zone. Specifically, the WEA capability provides local, tribal, state, territorial, and Federal government officials the ability to send 90-character, geographically-targeted text alerts to the public.

How does WEA work?

Authorized alert originators who have access to the IPAWS-Open Platform for Emergency Networks (IPAWS-OPEN) aggregation gateway can submit alerts for delivery to participating carrier networks. IPAWS-OPEN facilitates the aggregation of alerts from the first responder community, translating alerts into a standardized format that is optimized for the carriers to broadcast to WEA-enabled mobile devices being serviced by their network.

What does a WEA message look like?

The WEA service uses the Common Alerting Protocol (CAP) to deliver a text message that will show the type and time of the alert, any action you should take, and the agency issuing the alert. The message will be no more than 90 characters.

Do I have to sign up to receive WEA messages on my mobile device?

No, customers of participating carriers are automatically signed up to receive all alert types. WEA allows authorized officials to send emergency alerts to all subscribers with WEA-enabled devices.

When will I start receiving WEA messages?

It depends on your mobile device. WEA capabilities were available beginning in April 2012, but many mobile devices, especially older ones, are not WEA-capable. If you purchase a new mobile device, it probably will be able to receive WEA messages.

What types of alerts will I receive?

WEA facilitates the dissemination of three types of alerts: extreme weather and other threatening emergencies in your area, AMBER Alerts, and Presidential Alerts during a national emergency.



Science and Technology

How will I know the difference between WEA and a regular text message?

WEA messages include a special tone and vibration, which repeat twice. WEA uses a Short Message Service (SMS)-Cell Broadcast (SMS-CB), one-to-many alert delivery service, rather than SMS Point-to-Point (SMS-PP), which delivers one-to-one or one-to-few alerts. Using SMS-CB to deliver messages, WEA sends simultaneous messages to multiple recipients within in a specified geographic area, allowing for faster delivery of messages to large numbers of people during an emergency.

How often will I receive WEA messages?

You may get very few WEA messages, or you may receive frequent messages when conditions change during an emergency. The number of messages depends on the number of imminent threats to life or property in your area.

Will a WEA message interrupt my phone conversations?

No, the alert will be delayed until you finish your call.

What should I do when I receive a WEA message?

Follow any action advised by the message and seek more details from local media or authorities.

Will I receive a WEA message if I'm visiting an area where I don't live, or outside the area where my phone is registered?

Yes, you can receive WEA alerts anywhere if you have a WEA-capable phone and your wireless carrier participates in the program. For information about which mobile devices are WEA-capable and carrier participation, please visit <u>http://www.ctia.org/wea</u> or contact your wireless carrier.

What if I travel into a threat area after a WEA message is already sent?

If you travel into a threat area after an alert is first sent, your WEA-capable device will receive the message when you enter the area.

Does WEA know where I am? Is it tracking me?

No. Just like emergency weather alerts you see on local TV, WEA messages are broadcast from area cell towers to mobile devices in the area. Every WEA-capable phone within range receives the message, just like how a TV shows the emergency weather alert if it is turned on.

What if I don't want to receive WEA messages?

You can opt-out of receiving WEA messages for imminent threats and AMBER alerts, but not for Presidential messages. To opt out, adjust the settings on your mobile device. You may opt in again at any time.

Will I be charged for receiving WEA messages?

No. This service is offered for free by wireless carriers. WEA messages will not count towards texting limits on your wireless plan.

What types of weather-related WEA alerts does the National Weather Service send?

NOAA's NWS will only originate alerts for weather emergencies that are most dangerous to life and property including tsunami, tornado, flash flood, hurricane, typhoon, dust storm, extreme wind, blizzard, ice storm, and lake effect snow warnings. For more information, please visit NOAA's "Weather-Ready Nation" website at http://www.nws.noaa.gov/com/weatherreadynation/wea.html



Science and Technology

What are AMBER alerts?

AMBER Alerts are urgent bulletins issued in the most serious child-abduction cases. The America's Missing: Broadcast Emergency Response (AMBER) Alert Program is a voluntary partnership between law-enforcement agencies, broadcasters, transportation agencies, and the wireless industry. The National Center for Missing and Exploited Children (NCMEC), in coordination with State and Local public safety officials, sends out AMBER alerts.

Is WEA the same service that public safety agencies have asked the public to register for?

No, but they are complementary. Local agencies may have asked you to sign up to receive telephone calls, text messages, or emails. Those messages often include specific details about a critical event. WEA messages are very short and are designed to get your attention in a critical situation. They may not give all the details that you can receive from other notification services.

Who are the critical partners in the development of WEA?

Multiple CMSPs, the Federal Communications Commission, and FEMA are critical partners in developing the WEA alerting capability.

Will WEA change over time?

DHS S&T is working to improve WEA through its WEA Research, Development, Testing and Evaluation (RDT&E) program. Currently, the RDT&E Program is funding research to better understand and improve public response to WEA messages, and to enhance wireless geographic targeting capabilities of WEA alerts.