

New system delivers weather alerts to cell phones

DES MOINES – A new national program will allow some cell phone users to receive alerts for the most dangerous weather directly to their phones beginning this week.

Under the Wireless Emergency Alert (WEA) system, the National Weather Service will begin issuing alerts for the most severe weather through participating wireless carriers directly to cell phones in designated areas. The alerts will be broadcast by cell towers. Cell phones within the selected area will immediately pick up the signal, provided they have the capability to receive the alerts. If someone travels into a threat area after an alert is first sent, a WEA-capable device will receive the message when the person enters the area.

The availability of WEAs will be dependent on whether the carrier and cell phone are equipped to receive them. All major wireless carriers and hundreds of smaller carriers are taking part in WEA on a voluntary basis. In Iowa, Verizon, U.S. Cellular and AT&T have reported they are ready to carry WEA alerts, however, other cellular carriers may be ready to carry the alerts. People should check with their cellular carriers to find out if WEA alerts are available in their area and whether their cell phone is capable of receiving the alerts. Provider-specific information is available at www.ctia.org/consumer_info/safety/index.cfm/AID/12082.

The WEA system is part of the Federal Emergency Management Agency's (FEMA) Commercial Mobile Alert System (CMAS). It is one more tool for federal, state, local, tribal and territorial officials to alert and warn the public. In addition to weather alerts, WEAs will relay Presidential, AMBER and Imminent Threat alerts to mobile phones using cell broadcast technology that will not get backlogged during times of emergency when wireless voice and data services are highly congested.

"This is the first step in implementing a new emergency notification system that has great promise for Iowans," said Mark Schouten, Iowa Homeland Security and Emergency Management Division (HSEMD) administrator. "HSEMD is applying for permission to issue WEAs so in the future we will be able to use these alerts to get critical information directly to citizens through their cell phones."

According to FEMA, WEAs will look like a text message, and will automatically appear on the mobile device screen showing the type and time of alert along with any action that should be taken. The message will be no more than 90 characters, and will have a unique tone and vibration, indicating a WEA has been received. If an alert is received, citizens should follow the instructions and seek additional information from radio, television, NOAA Weather Radio and other official sources for emergency information. Cell phone users will not be charged for the emergency messaging and may choose to opt out of receiving the WEA alerts.

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“These alerts are another way citizens can ensure the safety of their families,” said Schouten. “There are many great tools out there, including NOAA Weather Radio, the Emergency Alert System and now Wireless Emergency Alerts. The key is for citizens take advantage of the safety tools available to them.”

As with all new cellular services, it will take time for upgrades in infrastructure, coverage, and handset technology to allow WEA alerts to reach all cellular customers. The wireless industry estimates by 2014 most all cell phones on the market will be WEA-capable.

More information on CMAS and WEA can be found at www.fema.gov/emergency/ipaws/emas.shtm. Additional information is also contained in the Frequently Asked Questions, below.

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Wireless Emergency Alerts: Frequently Asked Questions

What is the Commercial Mobile Alert System (CMAS) and Wireless Emergency Alerts (WEA)?

The Commercial Mobile Alert System (CMAS) is the system interface to the Wireless Emergency Alerts (WEA) service that wireless carriers are rolling out across the nation in 2012. CMAS is a partnership between FEMA, the Federal Communications Commission (FCC), and wireless carriers, to enhance public safety.

CMAS allows public safety authorities to use FEMA’s Integrated Public Alert and Warning System Open Platform for Emergency Networks (IPAWS-OPEN) to send geographically targeted, text-like Wireless Emergency Alerts to the public. WEAs will relay Presidential, AMBER, and Imminent Threat alerts to mobile phones using cell broadcast technology that will not get backlogged during times of emergency when wireless voice and data services are highly congested.

CMAS/WEA complements the existing Emergency Alert System (EAS) which sends warnings to television and radio via broadcast, cable, satellite, and wireline communications pathways.

Who sends CMAS/WEA alerts?

Most CMAS/WEA alerts will be issued by NOAA’s National Weather Service (NWS). The NWS can send weather-related alerts to any region in the country. CMAS will be used by the NWS only for the most imminent and severe weather conditions (e.g. tornado warnings).

Imminent Threat alerts may be issued by state and local officials who have completed a four-step application process and executed a Memorandum of Agreement with FEMA governing system security. Alerts must meet certain criteria that are established in the FCC rules to ensure that only the most urgent messages are sent over CMAS. More information on the application process may be found at www.fema.gov/emergency/ipaws/alerting_authorities.shtm#3.

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For a list of state and local jurisdictions who have applied for IPAWS access, see the Authorized IPAWS Localities web page at www.fema.gov/emergency/ipaws/authorized_localities.shtm.

Who receives WEA messages?

IPAWS CMAS is operational now and all major cell carriers, as well as hundreds of smaller carriers, are participating in CMAS on a voluntary basis. For a list of participating carriers, see the current FCC Registry file at www.fema.gov/emergency/ipaws/emas.shtm.

As with all new cellular services, it will take time for upgrades in infrastructure, coverage, and handset technology to allow CMAS/WEA alerts to reach all cellular customers.

Wireless carriers are currently selling mobile devices with CMAS/WEA capability included. While not all handsets now on the market are capable of receiving WEAs, some phones may be upgradeable and it is anticipated that most commercially available phones will be WEA-capable by the end of 2014. Lists of CMAS/WEA-capable handsets are available from the individual wireless carriers, and many carriers have made their lists available on one website located at www.ctia.org/WEA. The boxes of devices capable of receiving WEAs are marked with the Wireless Emergency Alert logo:

Customers of participating wireless carriers with CMAS/WEA-capable phones will not need to sign up to receive the alerts and should automatically receive WEAs in the event of an emergency, if they are located in, or travel to the affected geographic area. Wireless customers are not charged for the delivery of Wireless Emergency Alerts.

What does a WEA look like on a mobile phone?

WEAs use a unique ring tone and vibration to signal that an alert has arrived. The unique vibration, which distinguishes the alert from a regular text message, is particularly helpful to people with hearing or vision-related disabilities. Alerts will automatically “pop up” on the mobile device screen and will be limited to 90 characters.

WEAs will not preempt calls in progress. In addition, individuals will be able to opt-out of Imminent Threat or AMBER alerts. Individuals will not be able to opt-out of Presidential alerts.

What should I do if I get a WEA?

Due to the 90 character limit, alerts will contain only basic information. In most cases the alert will only indicate the type of event (e.g. tornado), the time until the alert expires, and recommended action. To get more specific information, the best response is to check other sources of information, including radio or television, to see if there is a corresponding Emergency Alert System (EAS) message with additional details and/or local news coverage of the event.

How does a CMAS/WEA alert reach a mobile device?

CMAS/WEA alerts are activated by authorized alerting authorities (generally, a local or State agency or the National Weather Service). The alerts are targeted to specific geographic areas, generally a county.

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If a CMAS/WEA-capable mobile device is physically located in that area, it will automatically receive and display the message. Every WEA has an expiration date/time and will be resent within the affected area until it expires; however, each individual wireless device will display the alert only once. If a wireless customer travels into the affected area after the WEA was originally sent, and the alert has not expired, they will still receive the alert.

Will wireless customers be charged for CMAS/WEA alerts?

Wireless customers will not be charged for the receipt of WEA messages. In addition, alerting authorities will not be charged by wireless carriers for distributing CMAS/WEA alerts.

Are WEAs the same as text messages?

No, WEA are not the same as text messages. WEA will not have to be opened like SMS text messages, but will “pop up” on the device’s screen. A key differentiator between the CMAS/WEA capability and the existing Short Message Service Point-to-Point (SMS-PP)--a one-to-one or one-to-few alerting service--is that WEA uses SMS-Cell Broadcast (SMS-CB), a one-to-many service, which simultaneously delivers messages to multiple recipients in a specified area. By using SMS-CB as the delivery technology service, WEAs avoid the congestion issues currently experienced by traditional SMS-PP alerting services, which translates into faster and more comprehensive delivery of messages during times of emergency

Will CMAS/WEA track a person’s location?

No, CMAS/WEA will not track an individual’s locations or personal data, as it uses SMS-CB, a broadcast (one-way) technology. This assures that authorities cannot collect any subscriber-related data, including details on who is in the targeted area, who has successfully received the emergency alert, or who may have opted out.