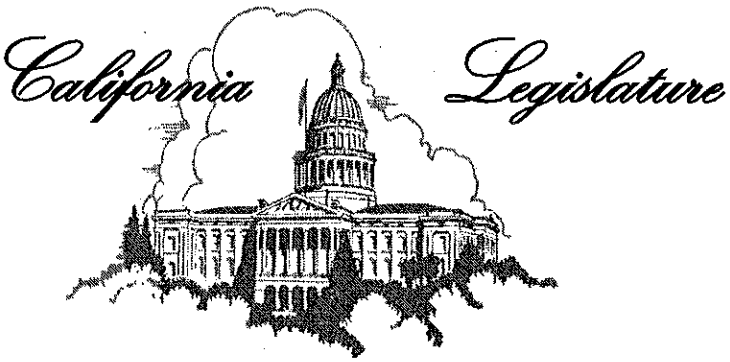

Assembly Committee on Utilities & Commerce
and
Joint Legislative Committee on Emergency Management

Briefing Paper on:
Wireless Emergency Alert System

This hearing focuses on the importance of the Wireless Emergency Alert System, examines the role of the various federal, state, and local government agencies to operate the system and conduct public awareness and education, and identifies barriers and possible solutions to improving the program and technology. This informational hearing will examine steps which may be necessary to ensure the effectiveness of the Wireless Emergency Alert (WEA) Program in California, specifically:

1) Have local governments taken the steps necessary to participate in the Federal Energy Management Agency's (FEMA) Integrated Public Alert Warning System (IPAWS), and if not, why not? What can or should be done to assist local governments?

2) What are local government policies with regard to use of WEA?

3) To what extent are individuals aware of WEA and how it is used? Are individuals keeping WEA active on their handheld devices?

4) To what extent is WEA available with respect to current handheld device technologies?

Background

In 2006, President George W. Bush issued Executive Order 13407 (Public Alert and Warning System) dictating to the Department of Homeland Security that "... 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 .... and to ensure under all conditions the President can communicate with the American people."

Several emergency alert mechanisms were already in place at that time, significantly, the Emergency Alert System (EAS). EAS was established in 1997. EAS is administered through the Federal Communications Commission and applies to all analog radio and television stations, wired and wireless cable television systems, Direct Broadcast Satellite (DBS), Digital Television (DTV), Satellite Digital Audio Radio Service (SDARS), digital cable, Digital Audio Broadcasting (DAB), and wireline video systems. Operators are required, under the FCC's rules, to comply with EAS rules. EAS is now jointly coordinated with FEMA.

IPAWS was created by FEMA as a means to ensure that, under all conditions, the President of the United States can alert and warn the American people of impending danger and to ensure that evacuation and rescue instructions are relayed post-disaster. IPAWS also allows Federal, State, territorial, tribal, and local authorities to send alerts and warnings within their individual jurisdictions simultaneously through multiple communications technologies, including:

- Emergency Alert System (EAS)
- National Weather Service Dissemination Systems, including National Oceanic and Atmospheric Administration (NOAA) Weather Radio
- Unique systems, including but not limited to emergency telephone networks, sirens, or digital road signs.
- Wireless Emergency Alerts (WEA)
- Future systems, including, for example, computer gaming systems, digital signs, siren systems, Internet search engines, social sharing websites, and instant messaging.

Today, less than half of American households maintain traditional "wireline" phone service in 2013. According to the Center for Disease Control and Prevention, National Health Interview Survey, January – June 2012, approximately 35.8% of American homes have only wireless telephones. An additional 15.9% have landlines (i.e. wireline) but rarely use them. It is likely these figures will continue to decrease as more mobile communications products become available to consumers.

With this in mind, the WEA program was created as a public safety system that allows individuals who own certain wireless phone devices and other enabled mobile devices to receive geographically-targeted, text-like messages conveying alerts issued by the President of the United States, alerts involving imminent threats to safety, and AMBER Alerts (child abduction notifications). In the past six years, WEA has also been called the Commercial Mobile Alert System (CMAS) and the Personalized Local Alerting Network (PLAN).

WEA permits government officials to target emergency alerts to specific geographic areas through cell towers to WEA-enabled mobile devices.

It is important that our public programs, such as WEA, keep pace with technological advances and that state and local governments are trained to utilize these important technologies, as well.

Importance of WEA technology

WEA enables an effective, reliable, integrated, flexible, and comprehensive system to alert and warn the American people in situations of war, terrorist attack, natural disaster, or other hazards to public safety and well-being.

WEA guidelines specify that all new mobile phones come equipped with the necessary alert wireless technology pre-installed – through a voluntary agreement by all major mobile phone providers. Mobile phones purchased since the end of 2012 are equipped to receive alerts issued from FEMA and local emergency managers via WEA. Some phones may require only software upgrades to receive alerts. Older mobile devices may need to be replaced with a WEA-capable device in order to receive WEA communications.

Alerts are sent via cell broadcast with a distinct tone and vibration pattern – crafted specifically to mimic the emergency alerts that people are used to hearing over their televisions and radios. Wireless users are not assessed an additional charge for this alert. The broadcast is currently limited to 90 characters but will likely increase in size in the future. Messages last for approximately 10 seconds.

Messages can also be targeted to a certain geographic area – sending the message to all cell phones within that area.

On this platform, four different types of alerts can be issued:

1) A Presidential Alert
    a. Likely acts of war, terrorism, or massive destruction
    b. Issued by the President (or his Administration)
2) An Extreme Alert
    a. Tornadoes, extreme winds, hurricanes, typhoons, and tsunamis (coming in the next few months)
    b. Issued by the National Weather Service/NOAA
3) A Severe Alert
    a. Flash floods, dust storms, blizzards, ice storms
    b. Issued by the National Weather Service/NOAA
4) An Amber Alert
    a. Issued by the National Center for Missing & Exploited Children (NCMEC) and/or the statewide Amber Alert Coordinator (the California Highway Patrol in California)

As this program expands further, WEA will be used in conjunction with "reverse 9-1-1" technologies and other standard communications as a way to maximize outreach.

Role of Federal Government

The FCC and FEMA are the key government agencies responsible for implementing WEA. These agencies initially agreed to conduct an extensive public and emergency manager outreach campaign regarding WEA, its capabilities, and benefits.

To this extent, FEMA developed a public service announcement regarding WEA in June 2013 and trained approximately 7,500 public safety officials. This includes nearly 400 public safety officials in California representing the state and 16 counties. Various other training tools such as kits and webinars have been developed to assist public safety officials.

Applications of WEA

As WEA was being developed, the system was beta tested in 2011 in New York City and Washington, DC, due to their involvement in 9/11 and San Diego, California with its propensity for wide-ranging wildfires impacting the public. Since the system went live in 2012, it has been used many times to issue Extreme and Severe Alerts to regions impacted by large weather systems. Significantly, it was used in the following large-scale events:

a) The City of New York used WEA to target populations with evacuation orders during Hurricane Sandy in October 2012. In this instance, as the storm situation changed, alerts were issued to specified zones with take shelter advisories, stay-off-the-streets orders, and a request to only use 9-1-1 for emergencies.
b) WEA was used to issue "shelter in place" alerts to residents and tourists within Boston during the Boston Marathon Bombings in April 2013. The Massachusetts Emergency Management Agency (MEMA) used WEA throughout the two-day manhunt to alert the public of changes in the shelter in place order as authorities searched for one of the two who placed the bomb at the race's start-gate. Notably, when the first WEA was sent as part of this event, MEMA simultaneously issued a press advisory to media outlets to provide information about the technology and program.
c) As recently as Sunday, November 17th, a series of tornadoes ripped through the State of Washington. State officials credit the ability to target WEA messages to those directly in the path of the storms with directly helping to minimize the death toll.
d) Like California, the State of New York also used the system to issue a large-scale Amber Alert earlier this year, as well.

Participation in WEA

In order to participate in WEA an entity must use WEA-compatible software. Federal, state, territorial, tribal, and local governments must then apply for a Memorandum of Agreement (MOA) to participate in WEA. Once the MOA is approved, the entity must then apply for public alerting permissions. The application is reviewed and signed by the State's designated official, in California, that designated official is the California Governor's Office of Emergency Services. The final step is completion of a one-hour web-based training course. Following completion of these steps, an entity will be able to send alerts and warnings in their geographically prescribed areas.[1]

Currently, the following California jurisdictions have received IPAWS designations (some of these jurisdictions may cover other nearby jurisdictions):

- California Governor's Office of Emergency Services

[1] http://www.fema.gov/alerting-authorities

- Northern California Regional Intelligence Center
- Riverside & San Bernardino Counties Local Emergency Communications Committee
- County of Los Angeles
- Monterey County
- Orange County
- County of Sacramento
- County of Tulare
- Siskiyou County
- Contra Costa County Office of the Sheriff
- San Diego County Office of Emergency Services
- San Francisco Department of Emergency Management
- San Joaquin County Office of Emergency Services
- San Luis Obispo County Office of Emergency Services
- Ventura County Sheriff's Office - Office of Emergency Services
- City of Monterey Park
- City of San Leandro
- City of Moreno Valley Emergency Operations Center

The following jurisdictions have pending IPAWS applications:

- San Mateo County
- Santa Barbara County
- Yolo County
- City of Anaheim
- City of Beverly Hills
- City of Culver City
- City of Rancho Cucamonga
- City of Santa Monica

California's First Experience with a Statewide Amber Alert

On August 5th, 2013 at roughly 11:30 p.m., and again on the morning of August 6th at approximately 9:20 a.m., mobile devices across California received a distinct vibration and alarm signaling that an Amber Alert had been issued based on a child abduction that occurred in San Diego. The child has since been safely found. This was one of the first uses in California of this new wireless telephone warning system, and some individuals may have elected to opt out of the WEA system by modifying their device settings because they were inconvenienced or startled by the alert. Other citizens complained that the message was too brief to understand the nature of the alert. Individuals who disable the alert would no longer be able to receive alerts, except for alert messages issued by the President.

Several news sources encouraged citizens to opt-out of WEA. Directions for opting-out of the alerts vary, so most news sources encouraged wireless subscribers to consult with their carrier for specific instructions. Some articles focused solely on the effectiveness of the Amber Alert program and not WEA generally. (Law enforcement maintains that Amber Alerts do save lives with nearly 700 children have been saved nationally since the program's inception.)

According to one newspaper poll administered in the San Diego area in the days after the event, 68% of 317 respondents stated they would keep the Amber Alert function enabled, while 31% said they would turn it off.

Local Policies on Use of Emergency Alerts

In October 2013, a local fire official in Santa Clara County used a local emergency alert system known as AlertSCC to announce a charity event at a pancake breakfast. Emails, telephone calls, and text messages were disseminated. The local fire chief maintained a concern that a simulated helicopter rescue at the event could cause the local emergency call center to be inundated with calls, thus the alert was issued to avoid that concern. The local official received approximately 10 complaints about the alerts.

The local alert system used in this situation was not part of WEA. Rather, this system is a service offered by Santa Clara County to provide emergency warnings directly to a cell phone, mobile device, email, or landline. AlertSCC can provide information and instructions in a variety of emergency situations, which may include:

- Flooding, wildfires and subsequent evacuations
- Public safety incidents, including crimes, that immediately affect your neighborhood
- Post-disaster information about shelters, transportation, or supplies

Alert SCC sends voice messages to phone numbers included in the emergency 911 database, 411 telephone directory database, and any other phone numbers. AlertSCC will also send text messages to e-mail and SMS addresses signed up at AlertSCC.com. AlertSCC does not replace other communication methods used by emergency responders.

Other local governments may use similar services from private providers, such as CodeRed, Nixle, WebEOC and others.

Public Education on WEA

The IPAWS 2013-2014 Strategic Outreach Plan includes goals to increase the awareness and understanding of IPAWS by all partners and the American people, increase the adoption and use of IPAWS by all partners, and strengthen existing partner relationships and develop new partnerships and interests. However, federal budget funds may not provide sufficient resources to address the IPAWS Outreach goals.

Assembly Speaker John Perez encourages citizens to keep the WEA enabled and committed to helping identify ways to address public concerns about the WEA. The Speaker is contributing funds from the California State Assembly budget to the California Governor's Office of Emergency Services to create a public education campaign in an effort to better inform consumers about the technology. Specifically, the Speaker and the Office of Emergency Services will enter into a Memorandum of Agreement that will create a public education campaign on the importance of the WEA.