The Integrated Public Alert and Warning System (IPAWS)

Get Alerts, Stay Alive

Governor’s Hurricane Conference
Session TS36
Emergency Communications Support, Failure is Not An Option
May 13, 2014

Wade Witmer, FEMA IPAWS Division
www.fema.gov/IPAWS  IPAWS@dhs.gov
What is IPAWS?

- IPAWS is a *National System* for *Local Alerting*
  
  - supports sending of local alerts from local, state, tribal, territorial officials during emergencies and from the President in the event of a catastrophic national emergency.
  
  - provides authenticated emergency alert and information messaging from emergency officials to the public through:
    - radio and television via the Emergency Alert System
    - cellular phones via Wireless Emergency Alerts
    - NOAA All Hazards Weather Radio via IPAWS-NOAA gateway
    - Internet applications and websites via the IPAWS Public Feed

- FEMA, tasked by DHS, is responsible for:
  
  - Development, operation, integration and maintenance of the IPAWS which includes the EAS, WEA, NOAA HazCollect, and public alerts feed components plus future connections for alerting TBD.
IPAWS is Not:
- Not a subscription based mass notification system
- Not an ETN or reverse dial phone system
- Not an SMS or email sign up system
- Not a paging or limited distribution notification system
  - e.g. can’t send a recall notice to a select group of employees

IPAWS is for:
- **Emergency** Alert and Warning information
  - i.e. - urgent information impacting public safety
  - e.g. - not meant for messaging about changes to trash collection schedule
- Alerting **all** citizens in an given area

IPAWS Can:
- Activate EAS Radio and TV stations
- **Alert** all (WEA capable) cell phones in a defined geographic area, even when cell networks are congested
- Send a warning message for broadcast over NOAA Weather Radio

*IPAWS does not know your phone number or your location!*
Notional State/Local Alerting Architecture

Public Safety / Alerting Authorities

- Local Authorities
- Emergency Management
- Police
- 911 Call Center
- State Authorities
- Others?

Local Alert and Notification Systems

- Emergency Telephone Networks
- Subscription based SMS or email services
- Local Siren and/or sign systems

Connection to Local Radio and TV stations

Connection/Procedure with Local NOAA Weather Forecast Office
Notional State/Local Alerting plus IPAWS

- Local Authorities
  - Local Alert and Notification Systems
    - IPAWS Spec CAP Interface
  - IPAWS OPEN

IPAWS Alerting Channels
- IPAWS EAS Feed
- Wireless Emergency Alert
- NOAA
  - HazCollect
  - Internet Services

Local Citizens
- ETN & Subscription
- SMS/email
- Sirens / Signage
- Web applications, widgets, sites, social media

IPAWS adds:
- Redundant Paths to EAS, NOAA
- New Connection to WEA
- New Connection to web services

FEMA
Alerting Authorities

- **Local**
  236 County level w/ Public Alerting
  (215 County level in process)

- **State**
  43 State level w/ Public Alerting
  (5 in process)

- **Territorial**
  2 Territory w/ Public Alerting

- **Federal**
  NOAA National Weather Service (NWS); since Jun 2012:
  ~850,000 NWS CAP messages processed by IPAWS
  ~10,000 NWS Wireless Emergency Alerts sent

National Center for Missing and Exploited Children (AMBER Alerts)
>100 Wireless Emergency Alerts sent since Dec 2012

Alert Dissemination Channels
(public alerting systems)

- **Emergency Alert System**
  Over 20,000 EAS participants monitoring the IPAWS EAS Feed

- **NOAA**
  All Hazards NOAA Weather Radio network

- **Wireless Emergency Alerts**
  60 Cellular Carriers connected
  Millions of handsets deployed

- **Internet Services**
  41 vendors with access to monitor IPAWS Public Alerts Feed

Note: FEMA doesn’t send Alerts!
The alerts appearing on citizens cell phone are from local or state sources!

See list at: http://www.fema.gov/integrated-public-alert-warning-system-authorities
as of May 8, 2014
Wireless Emergency Alerts (WEA)

- Enables 90 character, cell tower targeted, emergency alerts to be broadcast to cellular phones in a defined alert area

- Uses "cell broadcast" technology to avoid network congestion
  - Different channel than voice, SMS, email or web

- Cellular carrier participation voluntary
  - Most Commercial Mobile Service Providers (CMSP) have opted into WEA

- New phones are delivered opted-in
  - Citizens may opt-out of receiving alerts

- **WEA use is free to alerters and alertees** – no usage or text message charges

- Significantly different from SMS/email based alerting systems
  - **Not subscription based** -- true location based alerting via broadcast from cell towers
  - Sends alerts to phones in an area - not to a database of phone numbers
  - **For “Alerts” only**…. not for notification type messages
  - Categorizes Alerts in three types:
    - **Imminent Threat** (Severity, Urgency, Certainty)
    - **AMBER / Child Abduction Emergency**
    - **Presidential** (**Cannot Opt-Out**)

**IPAWS is the only way emergency managers can send Wireless Emergency Alerts (WEA)**
Wireless Emergency Alert Capabilities:

- **WEA reality check:**
  - 90 characters only
  - Not all handsets work *(yet...)*
  - Display & behavior inconsistent among different handset types
  - Still some network issues:
    - Duplicate alerts on some handsets
    - Some alerts delivered miles outside alert area
  - No local “test code”
  - Public perception and education, “Why am I getting this?” and “Screechy” ring tone
### WEA Messages Generated by NWS WFO

**WEA Messages Originated by NWS**

<table>
<thead>
<tr>
<th>Warning Type</th>
<th>WEA Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tsunami Warning*</td>
<td>Tsunami danger on the coast. Go to high ground or move inland. Go to high</td>
</tr>
<tr>
<td></td>
<td>ground or move inland. Listen to local news. –NWS</td>
</tr>
<tr>
<td>Tornado Warning</td>
<td>Tornado Warning in this area till hh:mm tzT. Take shelter now. Check local</td>
</tr>
<tr>
<td></td>
<td>media. –NWS</td>
</tr>
<tr>
<td>Extreme Wind Warning</td>
<td>Extreme Wind Warning this area till hh:mm tzT ddd. Take shelter. –NWS</td>
</tr>
<tr>
<td>Hurricane Warning</td>
<td>Hurricane Warning this area till hh:mm tzT ddd. Check local media and</td>
</tr>
<tr>
<td></td>
<td>authorities. -NWS</td>
</tr>
<tr>
<td>Typhoon Warning</td>
<td>Typhoon Warning this area till hh:mm tzT ddd. Check local media and</td>
</tr>
<tr>
<td></td>
<td>authorities. -NWS</td>
</tr>
<tr>
<td>Flash Flood Warning</td>
<td>Flash Flood Warning this area till hh:mm tzT. Avoid flooded areas. Check</td>
</tr>
<tr>
<td></td>
<td>local media. -NWS</td>
</tr>
<tr>
<td>Dust Storm Warning</td>
<td>Dust Storm Warning in this area till hh:mm tzT. Avoid travel. Check local</td>
</tr>
<tr>
<td></td>
<td>media. -NWS</td>
</tr>
</tbody>
</table>

**Legend**
- tzT = timezone
- ddd= three letter abbreviation for day of the week

*WEA activated for Tsunami Warnings when Tsunami Watch or Tsunami Advisory not previously in effect.*
WEA - Technical Notes!

Things you need to know about how carriers deliver alerts to cell phones

- Different WEA coverage footprints depending on wireless carrier implementation

- FCC rules allowed for variation in technical implementation in wireless carriers networks

- Three variations of how alerts are targeted from cellular towers in the field today
Carrier WEA Implementation: Variation 1

Alert is broadcast only from towers located inside alert area polygon defined in the IPAWS message.
Carrier WEA Implementation: Variation 2

Alert is broadcast from towers with est. coverage that includes a part of the alert area polygon defined in the IPAWS message.
Carrier WEA Implementation: Variation 3

A custom App is deployed on carriers’ smart phones

• The WEA App communicates with the carrier’s alerts database and if the phone is in an alerted zone, then the WEA is sent as an SMS text message to the phone

➢ This variation is dependent upon SMS channel availability
   potential for alert delivery to be affected by SMS congestion in local wireless network

➢ WEA Roaming may not be supported by app based WEA implementation
Rural Consideration for WEA coverage:

- Cell towers are fewer and farther apart in rural areas
- WEA may not be broadcast if alert area does not include a tower location

No WEA broadcast if Variation 1 implemented!
How to: Become IPAWS Alerting Authority

1. Obtain an IPAWS-compatible alerting tool

2. Complete a IPAWS Memorandum of Agreement
   - Email completed MOA Application to IPAWS inbox
   - After signature process, FEMA will assign a “COG ID” for your organization setting up access to IPAWS-OPEN and deliver a PKI certificate to be used by your alerting tool to authenticate message exchanges with IPAWS

3. Complete IPAWS web-based training

4. Complete the “Public Alerting Application”
   - With approval of state IPAWS coordinator

Florida Division of Emergency Management
Primary: Alternate:
Robert Little Charles Hagan
Systems Project Administrator, Logistics Chief, State Logistics
Section

Robert.Little@em.myflorida.com Charles.Hagan@em.myflorida.com
Robert.Little@em.myflorida.com 850-528-7506
850-413-9888

With training certificate and signed “Public Alerting Application” your COG ID will be permitted to send alerts via IPAWS directly to the public

IPAWS application forms & instructions at: www.fema.gov/alerting-authorities
Step 1: Select an Alerting Tool

- Recommend considering/documenting alerting requirements and procedures.
  - Who will send what alerts when?

- Your operations center or dispatch may already have a tool that can work with IPAWS.
IPAWS-Compatible Alerting Tools as of Feb 2014

Alerting Authority alert origination tools

- More than 60 different tools are currently in use by state/local authorities with IPAWS connections
- Vendors supporting 10 or more IPAWS users:
  - EMNet
  - WebEOC
  - Hyper-Reach
  - E-Team
  - Everbridge
  - Code Red
  - GSSNet
  - Blackboard Connect
  - Cassidian Communication Geo Cast
  - Nixle
  - Digital Alert Systems (DASDEC)
  - FirstCall Emergency Notification
  - On-The-Go Alerting
  - Roam Secure Alert Network
  - Federal Signal
  - Amatra SmartSource for Mass Notification
  - The Communicator! NXT

- Tools vary widely in operational look & feel
- Some tools do not support all capabilities available via IPAWS

Evaluate tools for one that fits your operational plans and use cases!
## Alerting Tools Information – Webinar Presentations

IPAWS hosted Webinars for vendor tools that demonstrated four minimum IPAWS functions:

1. Post of a message to IPAWS that generated EAS, WEA, and Public Alerts Feed alert
2. Retrieve message status to verify alert was successfully transmitted to the intended audience
3. Interoperable message exchange with other IPAWS COG
4. Verify & display of connectivity status with IPAWS

- **Recordings of past webinars can be viewed at:**

<table>
<thead>
<tr>
<th>Webinar</th>
<th>Alert Origination Tool Vendor</th>
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<tbody>
<tr>
<td>Webinar 1</td>
<td>MyStateUSA AlertSense</td>
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<td>Eyestreet Solutions On-The-Go Alerting</td>
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<td>Webinar 8</td>
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Summary of tool observations during the scheduled Webinar: the following are notes observed during the webinars - please verify tool capabilities and features with the vendor!

<table>
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<tr>
<th>Company</th>
<th>Alerting Tool</th>
<th>WEA</th>
<th>EAS</th>
<th>NWEM</th>
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<th>Map/Polygon</th>
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<th>Templates</th>
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</table>

notes:
1. NWEM post failed during the demo (probably due to user error when crafting the message)
2. COG-to-COG xml was not retrieved
3. Allows manual entry of polygon, but there is no mapping tool
4. Cog-to-COG retrieval was not successful during the demo
5. Templates will be in the next software release
Recommended!

Develop a Public Alerting Plan:

• Document local public alert standard operating procedures
• Coordinate with State and neighboring local jurisdictions about public alerting
• Inform citizens about how and where alerts will be distributed
• Practice: train, drill, & exercise sending alerts
FEMA Primary Entry Point (PEP) Stations

- To satisfy requirement for a nationwide alert capability for warnings about a national catastrophic event, FEMA maintains relationships and equipment at a number of private sector radio stations across the US.

- FEMA PEP stations include:
  - extended backup power generation system
  - special communications connections to FEMA
  - back up transmitter and EMP protection (newer stations only)

- IPAWS encourages planning and use of PEP stations in state and local disaster response

**Ask about FEMA PEP Stations in your area**

In coordination with the station owner, local public safety officials may leverage the more resilient infrastructure of the station for delivering local emergency information when the station is not being used for a national catastrophic emergency.
For more information

▶ Email the IPAWS inbox: IPAWS@dhs.gov
▶ IPAWS Website: http://www.fema.gov/ipaws/
▶ EMI Independent Study Courses:
  – IS-247a: IPAWS Introduction
    https://training.fema.gov/EMIWeb/IS/is247a.asp
  – IS-248: IPAWS for the American Public
  – IS-251: IPAWS for Alerting Authorities
    (to be release this summer)
▶ IPAWS Stakeholder Information and Webinar Mailing Lists:
Contacts:

Send User Applications to:
IPAWS@dhs.gov

Visit:
http://www.fema.gov/ipaws/
Additional Information Slides
IPAWS Architecture –

Alerting Authorities

- Local
- State
- Territorial
- Tribal
- Federal*

* Includes NOAA

Alert Aggregator & Gateways

IPAWS OPEN

The Message Router
(Open Platform for Emergency Networks)

Alert Dissemination Channels
(private sector systems)

- Emergency Alert System
- Wireless Emergency Alerts
- NOAA
  - HazCollect
- Internet Services

State / Local Unique Alerting Systems

Future Technologies?

Public end-user devices

- EAS
- WIRELESS EMERGENCY ALERTS CAPABLE
- All Hazards NOAA Weather Radio
- Subscription Mass Notification Systems
- web sites, apps, widgets, social media

(State and Local Systems)

(Private Sector Systems)

(FEMA Systems)
What the IPAWS-OPEN does

A Gateway to “Alert Dissemination Channels”

Alert Aggregation:

1. Authenticates sender
   - A. Web Service Security
   - B. Digital Signature

2. Validates message format

3. Verifies permissions
   - A. What alerts can you send
   - B. Where can you send them
   - C. How can you send them

4. Hands off alert messages to IPAWS Alert Dissemination Channels: EAS, WEA, NOAA Weather Radio, Internet Apps
IPAWS Alert Dissemination Channels:

- Emergency Alert System
  - TV, Radio, Cable, Satellite
  - 20,000+ monitoring IPAWS EAS Feed
- Wireless Emergency Alerts
  - Opt-in Wireless Carriers
  - 60 connected to IPAWS Alert Gateway
- National Weather Service
  - NOAA Weather Radio/HazCollect
  - 1000 WX transmitters
- Interoperating Systems/Services
  - 39 monitoring IPAWS Public Alert Feed
Emergency Alert System and IPAWS

- All EAS Participants are required to monitor the IPAWS EAS Feed for a national EAS emergency alert message.

- Stations may, if they deem it in the public interest, also broadcast alerts and warnings from the local, state, and National Weather Service officials which are relevant for the area they serve –
  - *meet with your local stations to coordinate local alerting!*

- IPAWS posts a test message (RWTs) for each time zone once per week on EAS Feed so radio and TV stations can confirm that their equipment is functioning.

- State and Local authorities may also use IPAWS to route alerts to local EAS stations.

EAS Participants are defined by the FCC’s EAS rules in C.F.R. 47 Part 11 and include all radio and television broadcast, cable, satellite, and wireline providers (e.g. Verizon FiOS or AT&T Uverse).
Emergency Alert System Capabilities

via IPAWS, in addition to traditional EAS state or local configurations

- Trigger TV and Radio alerts
- FCC requires all licensees to monitor IPAWS EAS feed
- Supports audio attachments (mp3)
- Supports audio links
- Supports Text to speech
All-Hazards Emergency Message Collection System, or HazCollect interface enables emergency alert messages from local alerting authorities to be broadcast over local NOAA Weather Radio transmitters directly from an IPAWS alert message

- Permission to access Hazcollect via IPAWS must be coordinated and approved through the NWS in coordination with your local Weather Forecast Office (additional info at http://www.nws.noaa.gov/os/hazcollect/)

NOAA Weather Radio Capabilities

- Broadcast of *Non Weather Emergency Messages* to local weather radios
- 1000 transmitters nationwide (162.400-162.550 MHz)
- Alert can “wake up” weather radio in the middle of the night
- Radios include battery back-up (work when power is out)
- Most schools have weather radios
Emergency Alert System (reality check)

- Broadcasters are not required to air your alert (check your state EAS plan)
- Broadcast footprint is very large
- Potential for duplicate alerts (if multiple sources are used)
NOAA Weather Radio Capabilities

- Not all households have one
- “test code” currently not supported
- Weather radios require programming by citizens
- HazCollect is an old system with “quirks”
  - Proper message configuration is required
Internet Services / Applications

- Approved 3rd party internet web services and application can monitor and retrieve public alerts in CAP format and post or distribute the alert information via their websites, apps, subscription services, etc.

IPAWS Architecture

- Alerting Authorities:
  - Local
  - State
  - Territorial
  - Tribal
  - Federal (* Includes NOAA)

- Alerting Channels (public alerting systems):
  - CAP messages
    - Emergency Alert System
    - Wireless Emergency Alerts
    - NOAA HazCollect
    - Internet Services
    - State / Local Unique Alerting Systems
    - Future Technologies?

- American People
  - Computer or Smart Phone Apps
  - Social Media
  - Subscription Services
  - Website pop-ups

IPAWS OPEN

IPAWS compliant
CAP Alert Origination Tools

FEMA

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How IPAWS Works
How IPAWS Works...

- Alerts are created in the local alerting tool
- Tool exchanges digitally signed CAP messages with IPAWS-OPEN
Messages sent via IPAWS can be:
- posted to the EAS Feed
- sent to WEA
- sent to NOAA NWS
- sent to Public Feed
- sent to another IPAWS User
- posted for other IPAWS Users to retrieve

- The content and format of the CAP message determines how it is distributed.
- *If your tool supports*, Messages can be sent to all channels at once or only to select channels. (e.g. a message can be sent to EAS but not WEA.)
Local systems can be used as alert tool input to IPAWS or to retrieve alerts as an additional alerting channel.

Dissemination channels connected to or monitoring IPAWS-OPEN receive or retrieve alert messages and broadcast, distribute, or post alerts.

Alerts broadcast to local consumer devices!
IPAWS User Application Documents

How to sign up for IPAWS

1. Select IPAWS compatible software
2. Apply for a Memorandum of Agreement with FEMA
3. Apply for public alerting permissions
4. Complete IPAWS web-based training
Step 2: IPAWS Application Documents

- **Memorandum of Agreement**
  - MOA Application identifies county organization name, POCs, alerting tools used
  - MOA establishes the relationship between the county and FEMA, connection, communications, security
  - Includes the Rules of Behavior defining official use, password rules, accountability
Step 3&4: Public Alerting Authority Application

- Public Alerting Application
  - Defines what areas you can alert, what event codes

- Training Certificate
  - High level training on IPAWS alerting concepts
  - Strongly recommend specific training for your alerting tool, follow best practices, coordinate with state and neighboring counties
Walk Through MOA Form [1]

Your county Emergency Management Agency title

Who will sign?  (usually the EMA director)

Primary POC (who will process the paperwork?)

Alternate POC

The techno-geek (usually your comms person)
Walk Through MOA Form [2]

What software will you use? (ETEAM)

Will you use this system to send alerts via IPAWS

Purpose: “EMERGENCY MANAGEMENT AND INTEROPERABILITY SOFTWARE FOR THE STATE OF WEST VIRGINIA”

Location: “Charleston, WV”

Is it COTS? (yes) What company? (NC4/ETEAM)

Acknowledge that IPAWS doesn’t process Classified

What kind of data: “unclassified alert and emergency response information”

Who is your software vendor POC? Amber Arnold, Support Specialist, amber.arnold@nc4.us, 703-221-7707
Walk Through Alerting Authority Form

COG ID#: This will be assigned later, leave it blank

What kind of alerts do you want to send? (usually all are checked)

Are you alerting for the whole state? (no)

What county are you alerting for? (we can fill in the FIPS code for you)

What kind of emergencies will you alert for? (usually all except AVW, NUW, VOW, AVA, CAE, RMT)

Jimmy fills this part out indicating that the state has coordinated with the county in accordance with state alert and warning plans
IPAWS Local Implementation Aids
IPAWS is Just Another Tool in the Toolbox

Communications Tools used for Public Alerting:

- Reverse Dial Telephone systems
- Email and SMS registration systems
- Local Websites / Message Boards
- Social Media - Face book, Twitter, etc
- Local media coverage
- Sirens and Giant Voice systems
- Local Emergency Alert System (EAS)
- Local National Weather Service
Information about tools and use of IPAWS

- **IPAWS Practitioner Webinars**
  Source for information tailored towards IPAWS users
  - Register for email announcements on webinar subjects and information at:
  - Past webinar archives
IPAWS Lab

- FEMA supported Test Lab & Staff available for alerting tool evaluation, demonstration, exercises and testing
EMI Independent Study course for Alerting Authorities (IS-247a)

- EMI Independent Study course for Alerting Authorities available on-line
- As of Aug 2013, 7,549 people have completed IS-247/IS-247a
IPAWS Public Education Campaign

- Ready.gov/Alerts Website
- FEMA and the Ad Council produced Public Safety Announcements (PSAs) on Wireless Emergency Alerts (WEA) for distribution on radio and TV
- “IPAWS for the American People” Emergency Management Institute (EMI) Web Based Training Course
- IPAWS is working with Ready.gov to create content on Alerts and Warning for the Children’s Preparedness section
WEA Public Service Announcement

Link to PSA on FEMA website:

http://www.fema.gov/medialibrary/media_records/12177

FEMA Ready.gov site about emergency alerts:

http://www.ready.gov/alerts
IPAWS education for The American People
(EMI course IS-248)

- NEW EMI Independent Study course for The American Public available on-line as of August 2013

- The American People course is designed to educate the public and demonstrate the relevance and importance of IPAWS in their lives before, during, and after a disaster.

IPAWS Usage Examples
IPAWS/WEA News Clips

http://youtu.be/lfFEwe8VHIU
WIRELESS EMERGENCY ALERTS IN ACTION

Boston Bombings’ Man-Hunt

“Boston officials did use cellphone text messages, known as Wireless Emergency Alerts, in the aftermath of the marathon bombings…the Massachusetts Emergency Management Agency has the ability and authority to issue imminent threat WEA messages.

The Massachusetts Emergency Management Agency (MEMA) issued a shelter-in-place order stating, ‘Shelter in place still in effect, it does not prevent employees from returning home – MEMA.’

Boston residents then spread the word by tweeting; the WEA messages are intended to sound a siren on their devices to alert people to pay attention and get more information elsewhere.”

The Mississippi EMA sent Wireless Emergency Alerts (WEA) because several counties in the Mississippi Delta experienced iced roads and bridges where emergency only travel was advised.

WEAs were also sent to counties along the I-20 corridor during the shut-down of the Mississippi River Bridge in Vicksburg due to a multiple 18-wheeler accident involving hazardous materials.

“There was no way to test the system before its use, so it was a learning experience for both us and the cell phone companies… I am convinced this alerting system can save lives, as long as citizens do not disable it on their phones,” said MEMA Director Robert Latham.

Five counselors and 29 children were in the Sports World Complex soccer dome when the manager received a WEA and evacuated everyone into an adjoining building. The EF-1 category tornado hit the dome within about two minutes of the alert which was also about the time it took to rush everyone into the adjoining building.

“Maybe two seconds after they got through the door, I looked back and heard a loud boom...and saw the top of the dome going flying into the air” said camp counselor Kyle Noonan. No children were injured, not even a scratch.

[Click on the image to open the article](http://www.nbcconnecticut.com/news/local/Tornado-Warning-in-Effect-for-Fairfield-County-213843351.html)
BOSTON BOMBINGS’ MAN-HUNT

- Boston officials used Wireless Emergency Alerts (WEA) in the aftermath of the marathon bombings.

- Massachusetts Emergency Management Agency has the ability and authority to use IPAWS and issued an imminent threat WEA stating, “Shelter in place still in effect, it does not prevent employees from returning home – MEMA”.

- Boston residents then spread the word by tweeting.
“As Hurricane Sandy headed for the city…, sirens began ringing on some New Yorkers’ cell phones. The alarms were accompanied by messages telling them to stay inside; not to drive; or for those in Zone A, to evacuate. -- New York Times, November 9, 2012

The emergency alerts showed up where and when they mattered.”
-- O’Reilly Radar, October 30, 2012
In Tulsa County, OK, a man at a fishing pond spotted the vehicle that had been plastered in AMBER alerts all over broadcast media, WEAs, Facebook, asking the public to look for a child taken by his father.

The man crawled through tall weeds to confirm the license plate and then called the police. The father and 2-year-old son were asleep inside the vehicle.

“I didn’t think none of it [the WEA]; just keep an eye out and next thing I know, I’m fishing the next morning and here we are...” --

The Wireless Emergency Alert (WEA) supported local outreach efforts to let county residents know about the outage and what to do to prepare.

Tennessee Emergency Management Agency issued a WEA about a planned county-wide power outage to Moore County and parts of Lincoln County, informing them that their power would be out for about four hours.

“This is a great capability for local emergency manager and agencies,” said Jason Deal director of the Moore County Emergency Management Agency. “Having multiple channels for distributing warnings makes us more effective in our efforts to protect the public.”

Cell phone users across Minnesota received a Wireless Emergency Alert (WEA) informing them about the abduction of 8-month-old in Minneapolis. Within an hour after the AMBER Alert was issued, a teenager, who saw the WEA on her father’s phone and the suspicious vehicle on her street, called the police who then arrested a suspect and reunited the boy with his mother.

When the WEA went out, more than 110 billboards across the state also displayed the AMBER Alert.

"It was very effective because I looked at the phone and saw the AMBER Alert, and what's interesting -- just five seconds before, I also saw the AMBER Alert on a highway sign," Ojeda-Zapata said. "They're doing it right. You can't ignore AMBER Alerts these days."

http://www.myfoxtwincities.com/story/21292496/emergency-alerts-cell-phones-abuzzwithwirelessalerts#ixzz2Mh6pxN9z
-- February 20, 2013
COMMUNITY GATHERINGS AND TORNADOS: ILLINOIS

- In Washington, IL, 600 – 700 people were in Sunday services when cell phones began to display Wireless Emergency Alerts (WEA).

- “Everybody started looking down,” the pastor said, and saw a message from the National Weather Service cautioning that a twister was in the area. The pastor stopped the service and ushered everyone to a safe place until the threat passed.

- A day later, many townspeople said those messages helped minimize deaths and injuries. “That’s got to be connected…the ability to get instant information.”

The City of Portland used IPAWS to send Wireless Emergency Alerts to people in Multnomah County after freezing rain blanketed the metro area with ice. The WEA read, "Portland strongly urges all residents to stay indoors today & not travel due to ice."

"The icy condition of sidewalks, in addition to the already slick roads, were key deciding factors in sending out the alert," Transportation Director Leah Treat said. February's alert was the first time WEA was used by the City of Portland.