Integrated Public Alert and Warning System

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Agenda

• IPAWS Program Overview
• Getting Access to IPAWS
• Integration Challenges
• Upcoming Changes
• Examples
IPAWS Vision

“Timely Alert And Warning To American Citizens In The Preservation of Life And Property”

- Facilitate single emergency alert message delivery to all available public dissemination channels
- Easier to use by public safety/alerting authorities

- Improves and Enhances emergency alerting capability in two critical ways:
  - Reliability that citizens receive alert via at least one path
  - likelihood that citizens react to emergency alerts
Emergency Alert System Capabilities

- Emergency Alert System
  - Trigger TV and Radio alerts via IPAWS
  - FCC requires all licensees to monitor feed
  - Supports audio attachments (mp3)
  - Supports audio links
  - Text to speech
NOAA Weather Radio Capabilities

• NOAA Weather Radio
  – Non Weather Emergency Messages through the NOAA HazCollect system
  – 1000 transmitters (162.400-162.550 MHz)
  – Can wake up radios in the middle of the night
  – Many schools have them

Currently testing to prevent duplicates alerts
What Are Wireless Emergency Alerts (WEAs)?

Wireless Emergency Alerts (WEAs) are used to send concise, text-like messages to WEA-capable mobile devices during emergency situations.

WEAs are sent by your state and local public safety officials, the National Weather Service, the National Center for Missing and Exploited Children, and the President of the United States.

Types of Alerts

**Presidential**
Alerts issued by the President or a designee during a national emergency.

**Imminent Threat**
Alerts issued when an imminent threat to life or property exists in your area, including severe man-made or natural disasters such as earthquakes, wild fires, hurricanes, and tornadoes.

**AMBER**
Alerts issued to help law enforcement search for and locate an abducted child.
What You Need to Know

WEAs are designed to get your attention and alert you with a unique sound and vibration. WEAs are rebroadcast until the emergency situation has passed and is no longer a threat to those in the area.

WEAs are not affected by network congestion and will not disrupt text, calls, or data sessions that are in progress.

WEAs are no more than 90 characters, and they include the following information:
- Who is sending the alert
- What is happening
- Who is affected
- What action to take

Mobile users are not charged for receiving WEAs and are automatically enrolled to receive them.

There are a number of success stories across the United States on how WEAs have saved people's lives.

Check with your wireless provider to confirm WEAs are available in your area and your device is capable of receiving WEAs.
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IPAWS Public Alerting Requirements

1. Obtain an IPAWS-compatible alerting tool
2. Complete a Memorandum of Agreement
   - Fill out the MOA Application (link below)
   - FEMA will create an MOA for you to sign
   - With a signed MOA, FEMA will set up your COG and create your PKI certificate (to be installed in your alerting tool)
3. Complete the “Public Alerting Application”
   - Coordinate with the state and obtain signature
4. Complete IPAWS web-based training
   - With a signed “Public Alerting Application” and training certificate, FEMA will enable your alerting permissions and you’re good to go

www.fema.gov/how-sign-ipaws
Required Documentation

• 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
Required Documentation

- **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
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MOA Process (What’s the Status?)

• We cannot enable your access until:
  – MOA is signed
  – State signs public alerting form
  – Online training is complete

• We need you to follow up!

• Signatures could take a while

Ask the IPAWS Office for help
IPAWS@FEMA.GOV
Digital Certificates

• Lots of passwords, confusing terminology
• One live cert, one test cert
  – don’t get them mixed up!
• Emails often get blocked
• Certs expire after 3 years

Ask the IPAWS Office for help
IPAWS@FEMA.GOV
Differences in Alerting Software

• You have restricted alerting permissions, but your software gives you carte blanche
• You don’t know if your alert went out or not
• Your alert failed, but you don’t know why
• Test your tools before you need them!

Ask the IPAWS Lab for help
IPAWS@FEMA.GOV
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WEA Improvements

• Increase message length from 90 to 360 characters
  – 2.5 years (May 2019)

• Add new alert category, “Public Safety Messages”
  – 2.5 years (May 2019)

• Support URLs and phone numbers
  – 30 days for text URLs and phone numbers (Nov 2016)
  – 1 year for “clickable” URLs and phone numbers (Nov 2017)

•Spanish language WEA
  – 2 years (Nov 2018)

• WEA test code
  – 2.5 years (May 2019)
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Current Usage and Statistics (as of January 24, 2017)

- **29,101** • Total Wireless Emergency Alert (WEA) messages sent
- **27,695** • WEAs sent by NWS
- **861** • WEAs sent by NCMEC
- **545** • WEAs sent by state/local public safety
Who Can Alert Today (as of January 24, 2017)

<table>
<thead>
<tr>
<th>Complete</th>
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</thead>
<tbody>
<tr>
<td>734 Local</td>
</tr>
<tr>
<td>64 State-wide</td>
</tr>
<tr>
<td>12 Federal</td>
</tr>
<tr>
<td>3 Tribal</td>
</tr>
<tr>
<td>2 Territory</td>
</tr>
</tbody>
</table>

NATIONAL WEATHER SERVICE

NATIONAL CENTER FOR MISSING & EXPLOITED CHILDREN
www.missingkids.com

FEMA
Who Can Alert Today (as of February 8, 2017)

<table>
<thead>
<tr>
<th>Code</th>
<th>Agency</th>
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<tbody>
<tr>
<td>200107</td>
<td>MI Berrien County Sheriff</td>
</tr>
<tr>
<td>200118</td>
<td>MI Charlevoix, Cheboygan, Emmet County</td>
</tr>
<tr>
<td>201034</td>
<td>MI Chippewa County EM</td>
</tr>
<tr>
<td>200904</td>
<td>MI City of Livonia DPS</td>
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<tr>
<td>200173</td>
<td>MI Clare County EM</td>
</tr>
<tr>
<td>200603</td>
<td>MI Clinton County OEM</td>
</tr>
<tr>
<td>200691</td>
<td>MI Detroit HSEM</td>
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<tr>
<td>200458</td>
<td>MI Eaton County Emergency Services</td>
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<tr>
<td>200861</td>
<td>MI Genesee County</td>
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<tr>
<td>200549</td>
<td>MI Grand Traverse County</td>
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<td>200821</td>
<td>MI Hillsdale County EM</td>
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<td>200042</td>
<td>MI Ingham County HSEM</td>
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<td>200508</td>
<td>MI Ionia County</td>
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<tr>
<td>200810</td>
<td>MI Isabella County EM</td>
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<td>200310</td>
<td>MI Lapeer County</td>
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<td>200467</td>
<td>MI Lenawee County EM</td>
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<td>201176</td>
<td>MI Marquette County</td>
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<td>200406</td>
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<td>200536</td>
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<td>200380</td>
<td>MI Muskegon County</td>
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<td>200276</td>
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<td>201215</td>
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<td>200153</td>
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<td>200719</td>
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<td>200079</td>
<td>MI St. Clair County HSEM</td>
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<td>200819</td>
<td>MI Taylor Police</td>
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<tr>
<td>200290</td>
<td>MI Washtenaw County</td>
</tr>
<tr>
<td>200134</td>
<td>MI Wayne County HSEM</td>
</tr>
</tbody>
</table>
NY-NJ Bombings, September 2016

• 3 alerts
  – Suspicious package
  – All clear
  – “Manhunt”

• Emphasized the limitations of text-only alerts

NY-NJ Bombings, September 2016

https://pbs.twimg.com/media/CsnHdouVMAA4ojw.jpg
NY-NJ Bombings, September 2016

NY-NJ Bombings, September 2016

NY-NJ Bombings, September 2016

Current Capability vs. Public’s Expectation

Emergency Alert now
WANTED: Ahmad Khan Rahami, 28-yr-old male. See media for pic. Call 9-1-1 if seen.
45th Inauguration, January 2017

- Polygon must enclose physical location of cell towers
- FCC regulates cell carriers not emergency managers
- Alert bleed over
45th Inauguration, January 2017

- Original Polygon vs. Compromise
45th Inauguration, January 2017

- Alert bleed over at least 2 miles southeast
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?

Will you use this system to send alerts via IPAWS?

Purpose: “Emergency Management software for public alert and warning” or something to that effect

Server Location: City, State (ask your vendor)

Is it COTS? What company developed the system?

Acknowledge that IPAWS doesn’t process Classified

What kind of data: “Unclassified alert and emergency response information” or something to that effect

Who is your software vendor POC?
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?

What county are you alerting for? (If you don’t know, we can fill in the FIPS code for you)

What kind of emergencies will you alert for? Here is a good list of definitions (http://www.srh.noaa.gov/lub/?n=nonweathercemdcriptions)

Don’t sign this. Your state reviewer fills this part out indicating that the state has coordinated with the county in accordance with state alert and warning plans
Capabilities at JITC

- Staffed to support operational users, testing, demonstration
JITC

Production

EAS

WEA

EAS (sim)

WEA (sim)

IPAWS OPEN

IPAWS Lab

IPAWS compliant CAP Alert Origination Tools