The Basics for IPAWS Success
Drill Down on IPAWS Capabilities
Common Errors and Mistakes
Mass Notification vs. IPAWS

Mass Notification System:
• Require people to subscribe, opt-in, or install app to receive alerts
• Offer variety of notification methods
  • reverse dial back
  • social media integration
  • distribution lists
• May experience network congestion
• Alert delivery status and provides feedback

IPAWS:
• No “sign-up” required to receive alerts
• Alerts broadcast to all devices in a geographic area
• Alert delivery not affected by network congestion
• No delivery status or feedback – IPAWS is one directional
Procedures & Policies

- Identify requirements
- Assign roles and responsibilities
- Establish AWN criteria
- Standard Operating Procedures (SOPs)
- Approval process
- Assess incidents/lessons learned
- Evaluate and update plans
- Create desk references

Know your tool(s):

- Mass notification + IPAWS
- When to use mass notification
- When to include IPAWS
- Understand tool capabilities and limitations
- Build templates
- Establish user guides
- Practice and train
Practice, train, and exercise

Public notification covers all 5 mission areas

- Practice to build skills
- Train to increase knowledge
- Exercise to improve procedures and processes

Knowledge is a treasure, but practice is the key to it.

Lao Tzu
Wireless Emergency Alerts (WEA)

The facts:
- Broadcast capability
- Utilizes polygon(s) and circle(s)
- 90 and 360 characters
- English and Spanish
- Hyperlinks and phone numbers
- WEA testing

Recommended alert content:
[local, familiar, authoritative message source]. [description of threat or event] in [location and consequences]. [Protective Action]. [URL, phone number, media for more information]

DC Emergency Management notification.
Suspicious package at Washington Monument.
Police activity in surrounding area near 15th and 17th streets. Possible hazardous material. Avoid area, stay indoors and away from windows. Go to bit.ly/XXXX or www.dchsema.gov or phone number.
WEA Geo-Fencing

The facts:

- Device Based Geo-Fencing
- Approx 34% handsets today support capability
- Location services must be enabled
- Expect bleed-over
- Message content should identify targeted area/audience
- WEA testing
- Carriers will continue to improve
- Technology will catch up

Images by Brian Daly, AT&T
Key takeaways:
- Location-aware devices will follow the polygon.
- Non-location aware devices (all older devices and new devices with location awareness turned off) will get the message if any part of the cell sector they are connected to touches any part of the polygon.
Emergency Alert System (EAS)

The facts:

- Broadcast capability
- County-wide distribution
- Does **NOT** recognize polygon(s) and circle(s)
- Supports audio attachments
- Broadcasters carry local alerts on voluntary basis
Non-Weather Emergency Messages (NWEM)

The facts:

- Local alerts to NOAA weather radio
- Do not confuse with NWS warnings
- Broadcast capability
- County-wide distribution
- Does NOT recognize polygon(s) and circle(s)
Non-Weather Emergency Messages – the process

You’ve sent your NWEM via IPAWS:

Receive Notification of Incoming Alert in NWS AWIPS

WFO staff review/adjust alert

Places alert message in NWR broadcast suite for alert duration

https://www.weather.gov/stormready/contact
NWEM Guidance – Recommendations from NWS

Preparation:

- Ask your software vendor if they populate “Requesting Agency” in IPAWS alert <senderName> as: “COGID, COG Name, Requesting Agency.” This is at the request of NOAA and recommended in the IPAWS Design Guide (but not required)
  - Note: IPAWS does not reject messages based on content of <senderName> but NOAA could reject it or edit your message content before forwarding to NWR
- Practice so you are proficient. Know the knobs. Don’t wait for an emergency to happen.
- Know your State EAS Plan
- Leverage IPAWS resources

Operations:

- Select NWEM (or “HazCollect”, “NWS”, or similar) to achieve NWS (e.g. NWR) dissemination
- Enter good Description & Instruction because they make up the NWS alert narrative
- Check punctuation & avoid use of special characters
- Check for unexpected characters, particularly if pasting content in the alert software interface
IPAWS All Hazards Feed (or Public Feed)

What is it?
- A feed that contains all alerts sent via IPAWS
- Redistribution services with an MOA with IPAWS can pull and redistribute your alerts
WEA Common Errors/Mistakes

- Message Status not set to “Actual”
- Assuming a WEA will not be received outside of included polygon
- Incorrect WEA settings for Urgency, Severity and Certainty
WEA Common Errors/Mistakes

- Drawing polygons/circles outside of permitted area
- Criss-crossing, flagpole, unclosed polygons
WEA Common Errors/Mistakes

- Using GIS shape files
  - Too precise = too many points
- WEA supports up to 10 polygons/circles with no more than total 100 points
- Be careful drawing “freeform” polygons
  - Will easily exceed 100 points
- Remember: polygons and circles are meant to be simple

This will not work – too precise
WEA Common Errors/Mistakes

- Attempts to cancel an expired alert
  - Only active alerts can be canceled
- Misunderstanding of Update vs. Cancel
- Update:
  - Update will cancel original WEA
  - Send a new active alert
  - New alert presents on cell phones
- Cancel:
  - Cancels original WEA
  - Does not appear on cell phones
  - Stops re-broadcast at cellular towers

**TIP:** Pay attention to alert expiration time. You likely do not want a WEA set to a 24-hour expiration. Think about the situation when setting expirations.
EAS Common Errors/Mistakes

- Audio attachments
  - Attach as URI
  - No more than 2 minutes

- Format for file location in <web> or <URI> element should be: http://www.example.com/file

- EAS Text-to-Speech Rule (i.e., no audio attachment):
  - Construct your message phonetically, for example:
    - 9 1 1 instead of 911
    - Audio attachment recommended

- Headline is not required for EAS but good practice to complete Headline in accordance with incident or event
- CAP Description (or Message) is a required field. This must be completed.
- Instruction is not a required field but understand that if you add text to Instruction, it will follow the CAP Description (Message) content on the EAS text crawl. Do not simply cut and paste CAP Description into Instruction.
NWEM Common Errors/Mistakes

- Unfavorable senderName for NWEM processing
- Headline not stated clearly
- Incomplete CAP description
- Accidental activation of NWEM
  - User simply hitting all options
- IPAWS recommendation: work with NOAA on training and clarity
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