GOVERNOR'S CONFERENCE
on Emergency Management & Homeland Security

IPAWS
Integrated Public Alert and Warning System

IPAWS WEA Alerting: Waukesha County Lessons Learned

March 8, 2022

WAUKESHA COUNTY
LEADING THE WAY

IPAWS
Integrated Public Alert & Warning System

Wisconsin Emergency Management
(Statewide Authority)

Wisconsin IPAWS Alerting Authorities

- Approved
- In Progress

by Wisconsin Emergency Management, 1/27/22
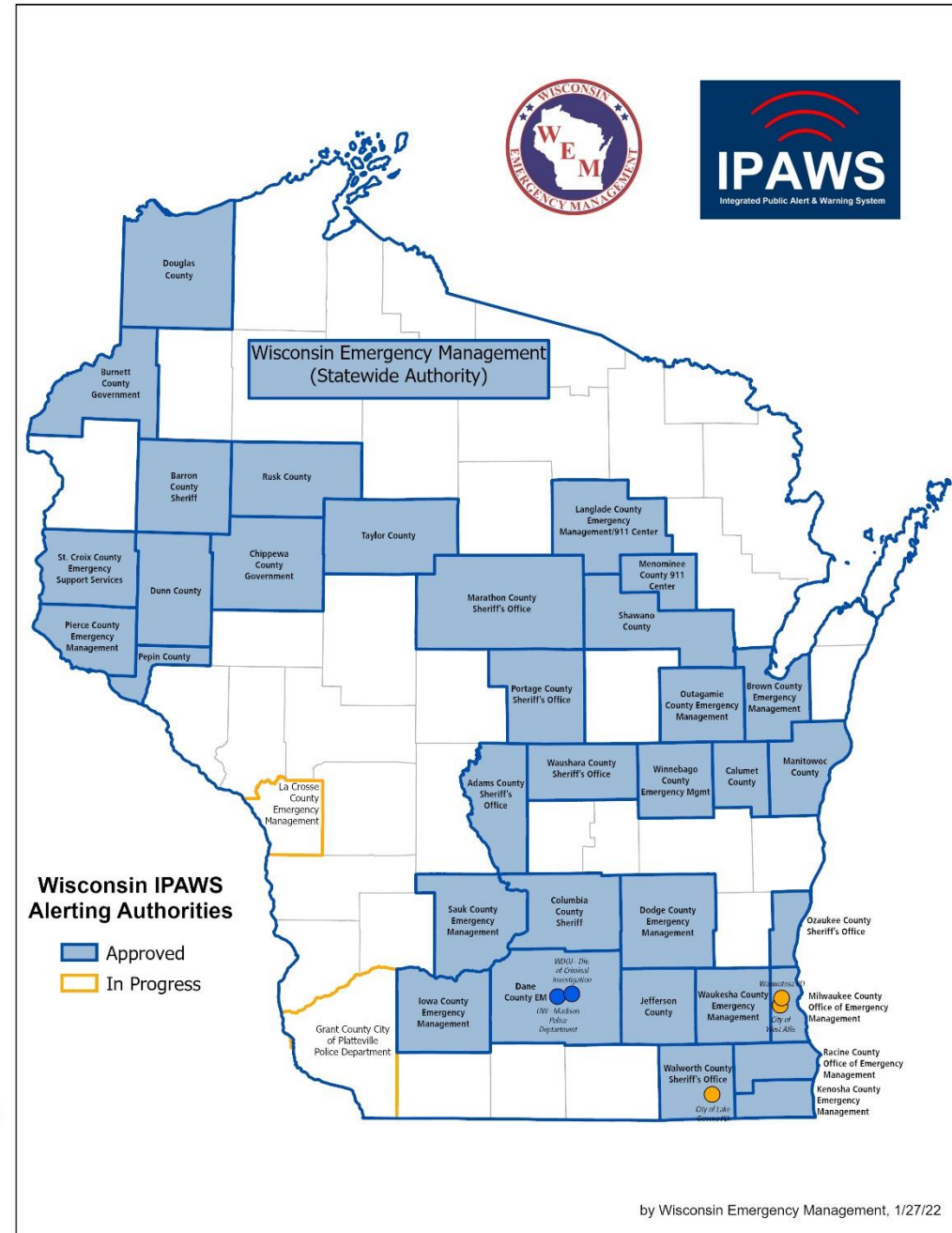
Presentation Overview

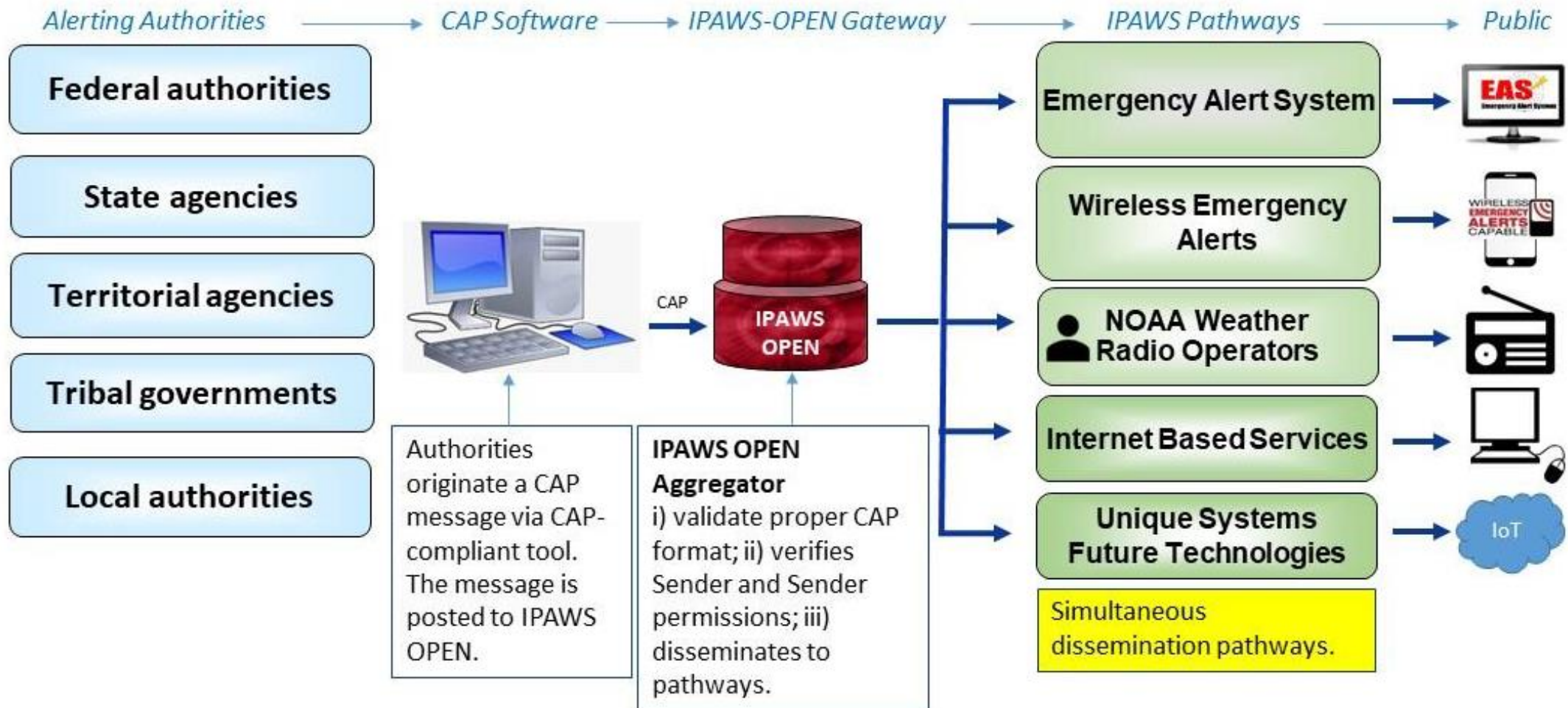- IPAWS 101: What is it? / Dissemination streams / Sign-up process

INFO FOR CURRENT IPAWS USERS:

- Non-Weather Emergency Messages (NWEM) now active at NWS
- Wireless Emergency Alert (WEA) Features and Overshoot Issue
- Common WEA Errors + New Silver Alert WEAs
- 2021 Use of WEA Messages in Wisconsin
- Waukesha County Lessons Learned using WEA

IPAWS Alerts via EAS, WEA, NWS, Websites

Wisconsin Counties using IPAWS

Now up-and-running:

(34 counties / 47%)

Adams	Kenosha	Shawano
Barron	Langlade	St. Croix
Brown	Manitowoc	Taylor
Burnett	Marathon	Walworth
Calumet	Menominee	Waukesha
Chippewa	Milwaukee	Waushara
Columbia	Outagamie	Winnebago
Dane	Ozaukee	
Dodge	Pepin	Authority in-progress:
Douglas	Pierce	(2 counties / 50%)
Dunn	Portage	Grant
Iowa	Racine	La Crosse
Jefferson	Rusk	
	Sauk	Per FEMA as of 1/6/22

IPAWS
Integrated Public Alert and Warning System

WEM REGION		TOTAL	IPAWS Active	IN PROCESS
SE (Waukesha)	[8 counties]	7	7	0
EC (Fond du Lac)	[14 counties]	7	7	0
WC (Eau Claire)	[13 counties]	7	6	1
SW (Madison)	[13 counties]	6	5	1
NE (Wausau)	[13 counties]	5	5	0
NW (Spooner)	[11 counties]	4	4	0

As of 01/06/22

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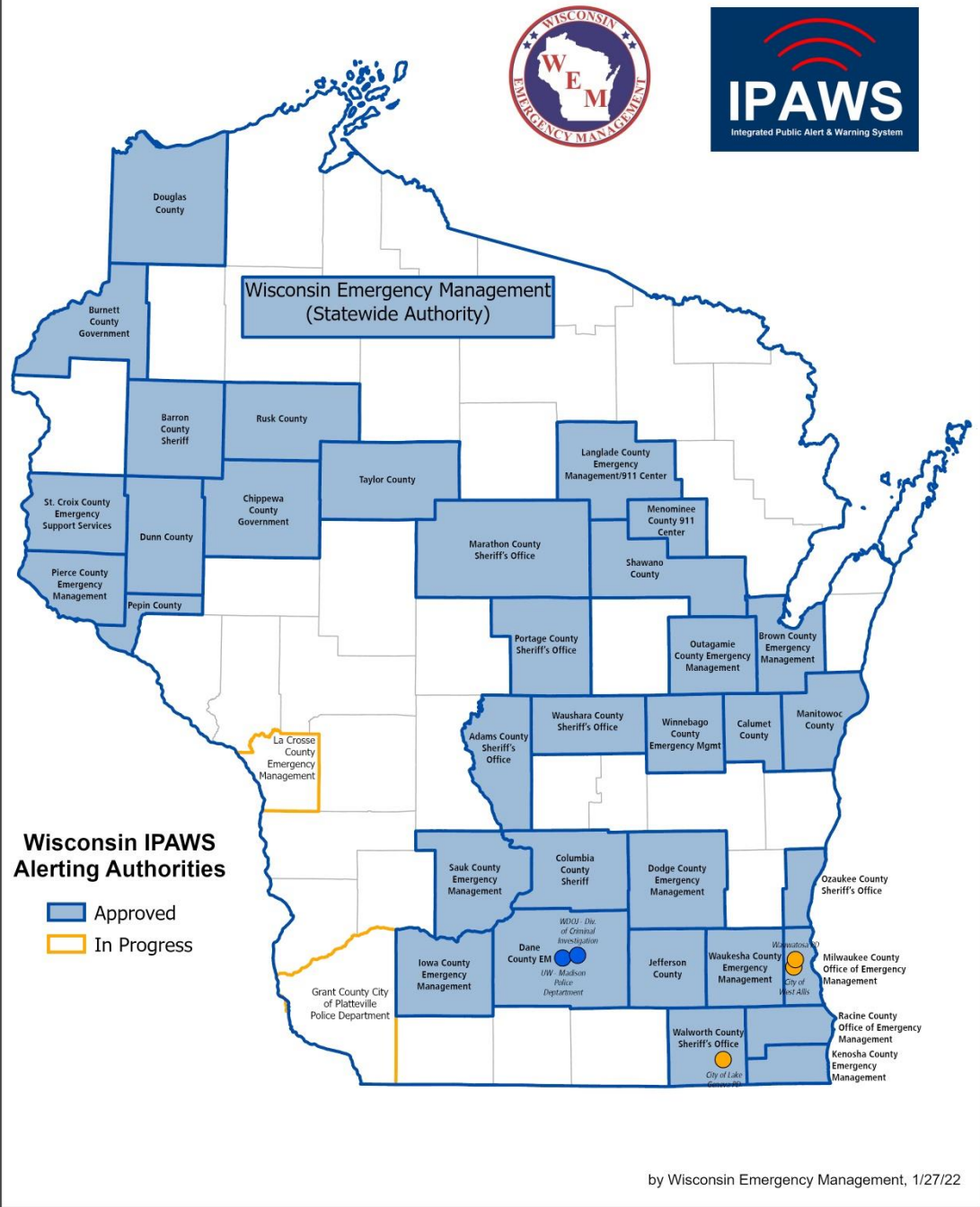
Non-Weather Emergency Messages (NWEM)

- NOAA Weather Radio now carries NWEM you send via IPAWS .
- May be called "NWEM", "HazCollect" or "NWS" in your software.
- Can be sent on its own, or in combination with EAS and/or WEA.
- This is county-wide distribution; it does not recognize polygons.
- The NWEM message will be derived from the Description and Instruction fields you type into your software. They should be a good headline "Description" and a call-to-action "Instruction".
- Be sure your software vendor has the name of your agency in the IPAWS "senderName" field (may be in your software menu) – NWEM will say, "…message at the request of… (your senderName field)".

Non-Weather Emergency Messages (NWEM)

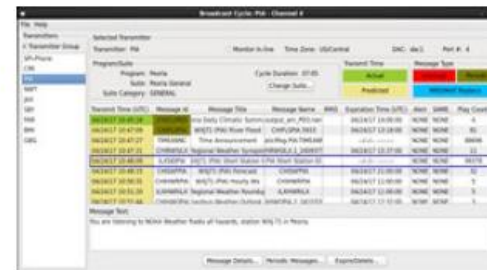**Non-Weather Emergency Messages – the process**

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

Wireless Emergency Alert (WEA) Features

- Same system as the Amber Alerts we receive on our cellphones.
- There is no sign-up needed. Most WEA-enabled wireless devices will receive your WEA message within the alerted area.
- WEA alerts reach locals, as well as visitors, right in their pocket!
- WEA uses a special channel that is separate from voice and text channels, so WEA alerts will normally get through, unaffected by any congestion on the networks.
- However, WEA will only reach about 75% of targeted handsets.
- Missed alerts could be due to issues with the carrier's network, or individual handset reception, a call-in-progress, or user opt-out.

WEA Overshoot beyond Targeted Area

On November 30, 2019, the FCC implemented "WEA 3.0"…

- The new FCC rule says: Cellular carriers must deliver messages that are specified by a circle or polygon (1) to an area that matches 100% of the target area (2) with no more than 0.1 mile overshoot.

- (2) Controlling the overshoot relies on new cellphone software. Customers typically keep phones for 3 years, and FEMA estimates currently only 34% of phones have the new anti-overshoot software – so this will take time.

- (1) Carriers now send WEA to more cell towers than previously, to be sure they comply with the FCC's "100% coverage of targeted area" rule.

- (=) So many more phones with older software are over-alerted by the FCC 100% coverage rule started before adequate penetration of new software.

- Overshoot is not the fault of Alert Originators who can do nothing to remedy this FCC lack of thought – only passing time will resolve this issue.
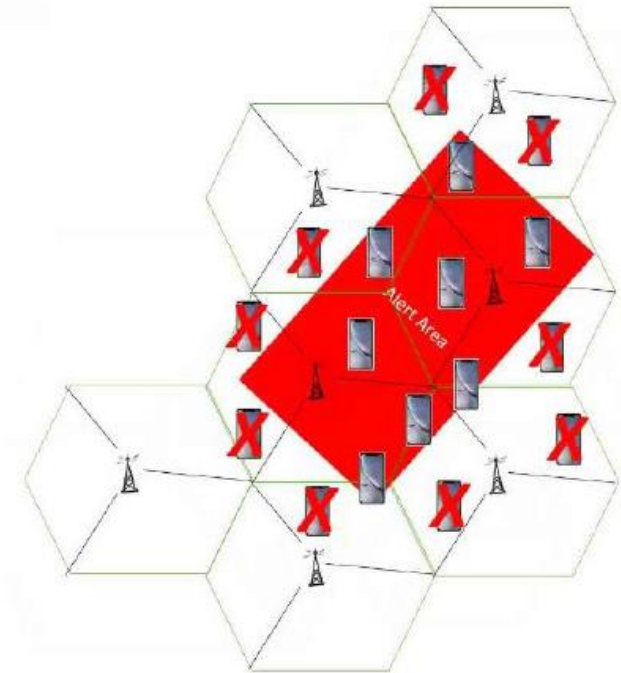
WEA Overshoot beyond Targeted Area

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/audienc
- WEA testing
- Carriers will continue to impro
- Technology will catch up

Majority of handsets today

Handsets in the future

Images by Brian Daly, AT&T

Common WEA Errors

- Urgency, Severity and Certainty must be at top settings for WEA, Urgency = Immediate or Expected, Severity = Extreme or Severe, Certainty = Observed or Likely. (otherwise, WEA will not work!)
- Drawing polygon or circle outside of permitted area
- Criss-crossing or unclosed polygons (let software close it for you)
- Using GIS shape files or drawing freeform polygons that contain more than the WEA maximum of 100 points/vertices
- Failure to Update or Cancel a WEA when the incident ends

  [Cell towers repeat WEA every few minutes until your expiration]
  - Cancel = Cell towers stop sending initial message / is not seen on phones
  - Update = Cell towers replace initial message with new one / is seen on phone

Common WEA Errors + New Silver Alert WEAs

- Limit the WEA polygon to the area needed. (Some Wisconsin counties have sent a WEA to the entire county for an incident on 1 city block.)

- Only use EAS for a wide-area emergency. (Some Wisconsin counties have issued an EAS message for an incident on 1 city block – not advised!)

- Some counties have been given oversized polygon ability by their vendor, but still be careful not to draw polygons that extend outside your county. Again, keep the polygon as small as practical.

- As of 12/08/21, the Wisconsin Dept. of Justice was granted the authority to issue WEAs for Silver Alerts that meet certain criteria (subject is on foot, missing less than 24 hours, issued for 5-mile radius, only from 8AM-9PM. To date, no subject has met the criteria and no Silver Alert WEAs issued.)

2021 Use of WEA Messages in Wisconsin

Agency	WEA Messages	Number of Incidents
National Weather Service	70	58
Waukesha County	**41**	**15**
NCMEC (Amber Alerts)	19	9
Brown County	7	3
Racine County	4	2
Kenosha County	3	2
Outagamie County	2	1
Columbia County	1	1
Winnebago County	1	1
In 2020:		
Ozaukee County	2	1
Calumet County	3	1
Walworth County	1	1

47% of Wisconsin Counties are on IPAWS

Select IPAWS compatible software

↓

Apply for a Memorandum of Agreement with FEMA

↓

Apply for public alerting permissions

↓

Complete IPAWS web-based training

County Sign-up Process Details:

- Usually an annual fee charged

- Send form to ipaws@fema.dhs.gov

- State must grant permissions

- County person must take FEMA training course IS-247

- Contact Paul Hughes for "Steps to Sign up" guide.

Advanced IPAWS Course: Effective Messaging

IS-251: IPAWS for Alerting Authorities

Increases skills to draft more effective messages.

Optional additional IPAWS training course, beyond required IS-247.

FEMA | Emergency Management Institute

Frequently Asked Questions

IS-251: Integrated Public Alert and Warning System (IPAWS) for Alerting Authorities

Course Date

6/12/2014

Course Overview

The Integrated Public Alert and Warning System (IPAWS) Program Management Office designed this course to provide Alerting Authorities with an increased awareness about Collaborative Operating Groups (COGs)—how they are issued, their structure, their capabilities, and their responsibilities, and skills to draft more appropriate, effective, and accessible warning messages using best practices in alerting.

Course Objectives:

Upon completion of this course, you will be able to:

- Have an increased awareness about Collaborative Operating Groups (COGs)—how they are issued, their structure, their capabilities, and their responsibilities, and
- Have skills to draft more appropriate, effective, and accessible warning messages using best practices in alerting

Primary Audience

The Alerting Authorities

Prerequisites

None

CEUs:

0.2

Course Length:

2 hours

TAKE THIS COURSE

Interactive Web Based Course

TAKE FINAL EXAM

Please note that the IS Program now requires a FEMA SID to be used instead of your SSN. If you do not have a SID, register for one here.

Take Final Exam Online

NOTICES

Test questions are scrambled to protect test integrity

Report on WEM IPAWS Working Group

- Formed in January 2019.

- Initial focus on establishing alerting roles and responsibilities during multi-jurisdictional events.

- Exploring how to keep all counties, both IPAWS-enabled and non-IPAWS counties, aware when IPAWS alerts are issued.

- Encourage IPAWS during exercises.

WEM Duty Officer and IPAWS

- Contact WEM Duty Officer 24 / 7 for IPAWS assistance & origination
- Know what you want to message – you know what is going on
- Have you considered additional options? Social media? Twitter?
- FEMA requires all COGs to perform monthly proficiency tests
  - Some counties have been suspended in WI
  - FEMA has begun the suspension process post COVID
- Draft with MS Word Pad or some simple text editor NOT WORD !
- Use IPAWS Lab team for assistance and exercise ideas
  - (844) 729-7522 IPAWS Lab 24/7/365
- We'll be in WEM Tech Talk, 2:45-4:00PM today, in Ironwood room.

Wisconsin County Live Mode IPAWS Testing

Current IPAWS Live Mode EAS Tests being conducted in Wisconsin:

Day of Week	Time (Central Time)	Agency
Mon – Every Monday	11:00 AM	FEMA – sends statewide
Wed – First Wednesday of month	10:00-10:15AM	WEM – sends statewide
Wed – First Wednesday of month	11:00AM	Milwaukee County OEM
Wed – First Wednesday of month	12:10PM	Dane County
Wed – Second Wednesday of month	12:01AM + 10:30AM+ 5:30PM	Waukesha County
Sat – Third Saturday of the month	10:45 AM	Kenosha County

** These are <u>in addition to</u> monthly proficiency tests **

Contact Gary Timm for Guidance Document on starting testing.

Waukesha County Lessons Learned

- **WEA Alerts are continuously re-broadcast by cell towers**
  - Need to issue an UPDATE or CANCEL if incident ends before expiration
- **Templates don't work for them**
  - Waukesha prefers check list such as:
    - Description of location, requesting agency, detail of what action is required by public
- **Each agency needs a decision tree**
  - Who is your approving authority? Your IC? Command on scene? PSAP Supervisor?
- **Consider alternate methods like reverse 911**
- **Public education is key before WEA use**
- ***What tips do Alert Originators in the audience have to add?***

Questions?

Remember….

For 1-on-1 consultation on IPAWS stop by to see us…

WEM Tech Time

Today: 2:45PM – 4:00PM

Room: Ironwood

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