IPAWS Alert Origination Service Provider Webinar Series

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Agenda

- Concept and Purpose
- Technical Requirements Demonstrated
- The Scenario Flow and Observations
- Alerting Tool Company Introductions

FEMA

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- **Concept and Purpose**
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IPAWS Vision

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

- Facilitate single en~~try~~ ~~to all~~ available public dis~~tribution~~
- Easier to use by pu~~blic~~

Alerting Authorities;
Local, State,
territorial, tribal,
and Federal public
safety official

IPAWS Alert Aggregator

Television & Radio

EAS
Emergency Alert System

Mobile Services

WIRELESS **EMERGENCY ALERTS** CAPABLE ™

All Hazards
NOAA
Weather Radio

Internet Services

Home Phones

Public Signage & Sirens

- Improves and Enh~~ances~~ critical ways:
  - Reliability that cit~~izens~~
  - likelihood that citizens react to emergency alerts

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IPAWS Architecture
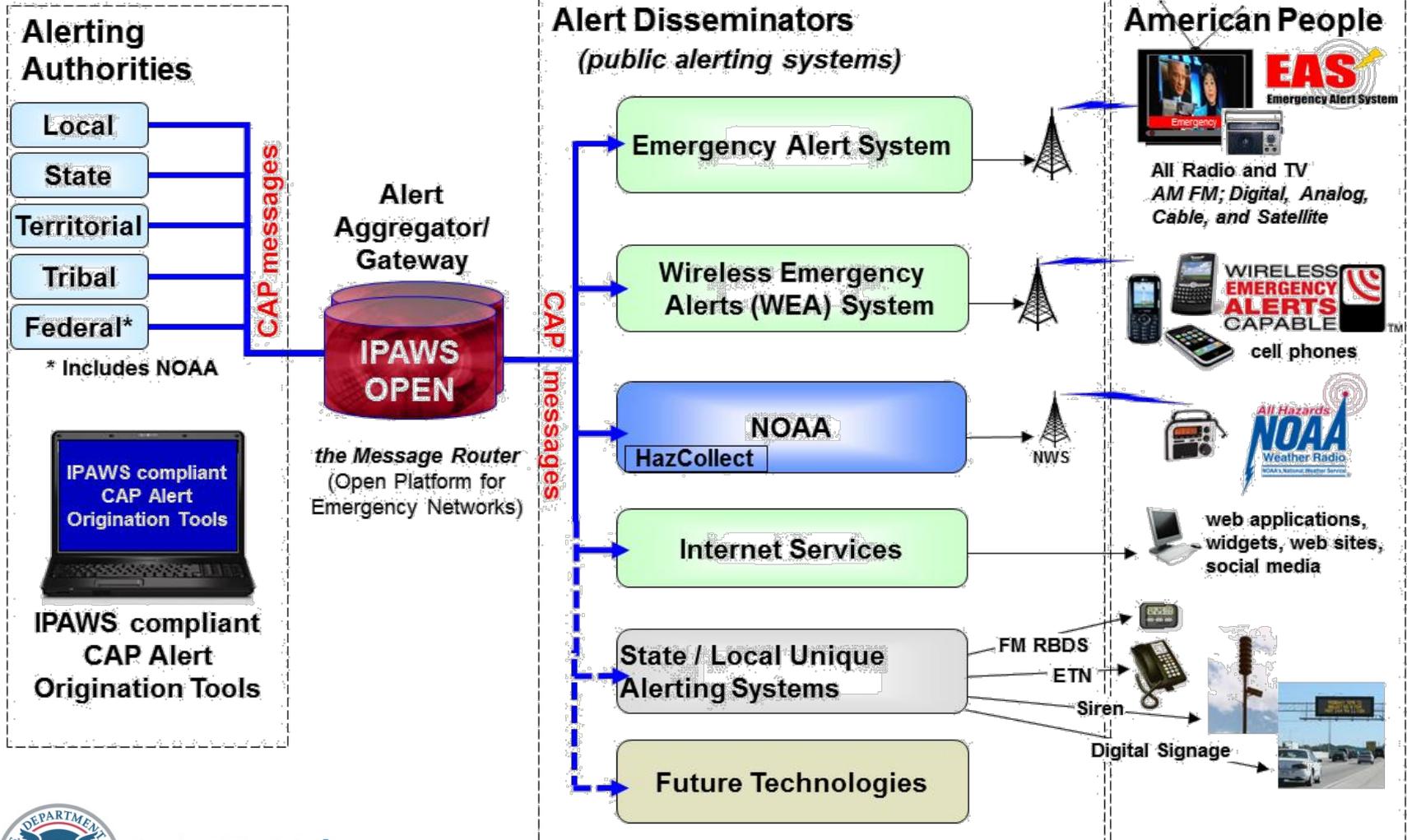
Concept and Purpose

- State and local EMA must use an alerting tool to access IPAWS
  - Q: "What alerting tools work with IPAWS?"
  - A: "The U.S. government neither endorses nor guarantees in any way the external organizations, services, advice, or products"
- 150 tools to choose from
  - 150 companies have developer MOAs with IPAWS
  - 75 claim to have public alerting capability
  - #? actually work
-

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Concept and Purpose

- Demonstrate the alerting tool has successfully integrated with IPAWS for public alerting
- Alerting tool will have **20 minutes** to demonstrate
- Utilize the IPAWS demo environment at JITC
  - Observe EAS and WEA devices trigger via web cam
  - Verify valid/invalid in the IPAWS admin console
- All alerting tools will follow the same scenario

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Technical Requirements

- 4 requirements based on most essential IPAWS functions

    1. *Demonstrate successful posting of an IPAWS-conforming Common Alerting Protocol (CAP) alert*
        - *Send a valid Emergency Alert System ████ message*
        - *Send a valid Wireless Emergency Alert ████ message*
        - *Send a valid Non-Weather Emergency Message ████ aka NOAA HazCollect and NOAA Weather Radio*

    2. *Retrieve ████████ to verify alert was successfully transmitted to the intended audience*

    3. *Demonstrate interoperable CAP exchange with other IPAWS users aka ████████ messaging*

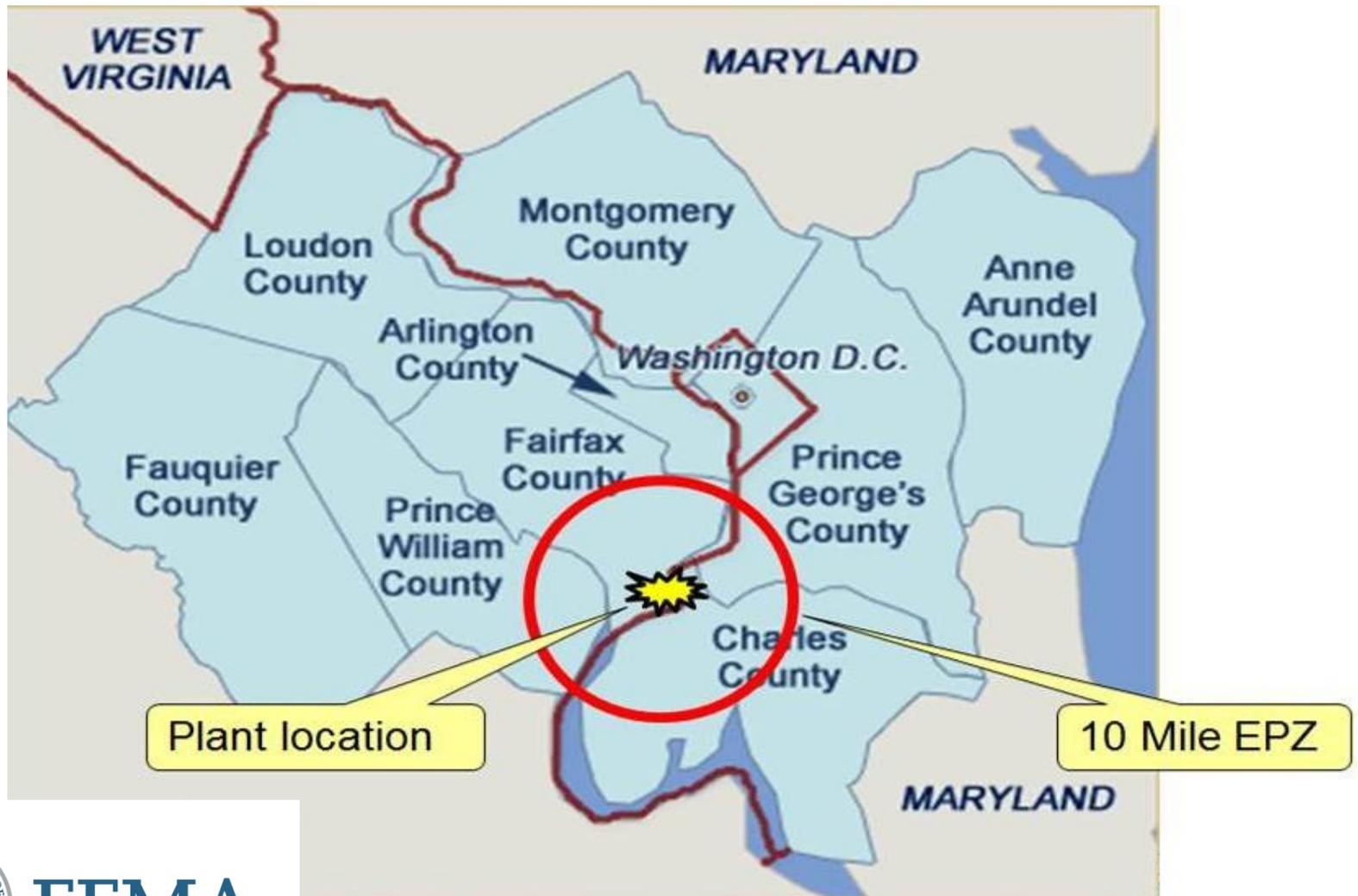   4. *████████ with IPAWS (using the getAck function)*

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Scenario Flow and Observations

Scenario Flow and Observations

Brief Plume EPZ Description

The Indian Head Nuclear Plant is located in the State of Maryland in west Charles County on the east bank of the Potomac River. The topography of the 10-mile plume Emergency Planning Zone (EPZ) is gently rolling terrain and low hills.

The 10-mile EPZ contains a population of 62,000 within three counties in two states: Charles County, Maryland - 19,400; Prince William County, Virginia - 27,300; and Stafford County, Virginia - 15,300. The land use is a mixture of residential, light industry, retail, and agricultural production.

The area is served by limited highway access, including MD Route 210, MD Route 301 in Maryland, and Interstate 95 in Virginia, all of which run mainly north-south. Two-lane access roads connect to and from these main highways. There is light commercial and recreational boat traffic on the Potomac River.

There are 17 schools, 6 senior centers/homes, and 12 pre-school/day-care centers; 4 state recreation parks and 1 National Park are located within the EPZ.

Temperature at the time of the accident is 65 degrees Fahrenheit, with 75% relative-humidity. Winds are WSW at 10mph.

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Scenario Flow and Observations

Accident Brief

At 1003 EDT, a magnitude 6.2 earthquake, with epicenter six miles below the city of Richmond, Virginia, rattles the entire Virginia, Maryland, and the District of Columbia area, as well as other states along the Eastern Seaboard from North Carolina to New York. The earthquake and subsequent aftershocks cause widespread power outages .

Standby power at the Indian Head Nuclear Plant comes on-line as expected; however, an earthquake related fire causes the power switching equipment to suffer a catastrophic failure at 1005 EDT causing one of the three reactors to shut down. Additionally, a fire takes place in the main fuel storage facility. An unshielded fuel element catches fire rapidly, leading to a large explosion. A large quantity of radioactive material is released into the atmosphere and on-site and off-site emergency plans have been activated.
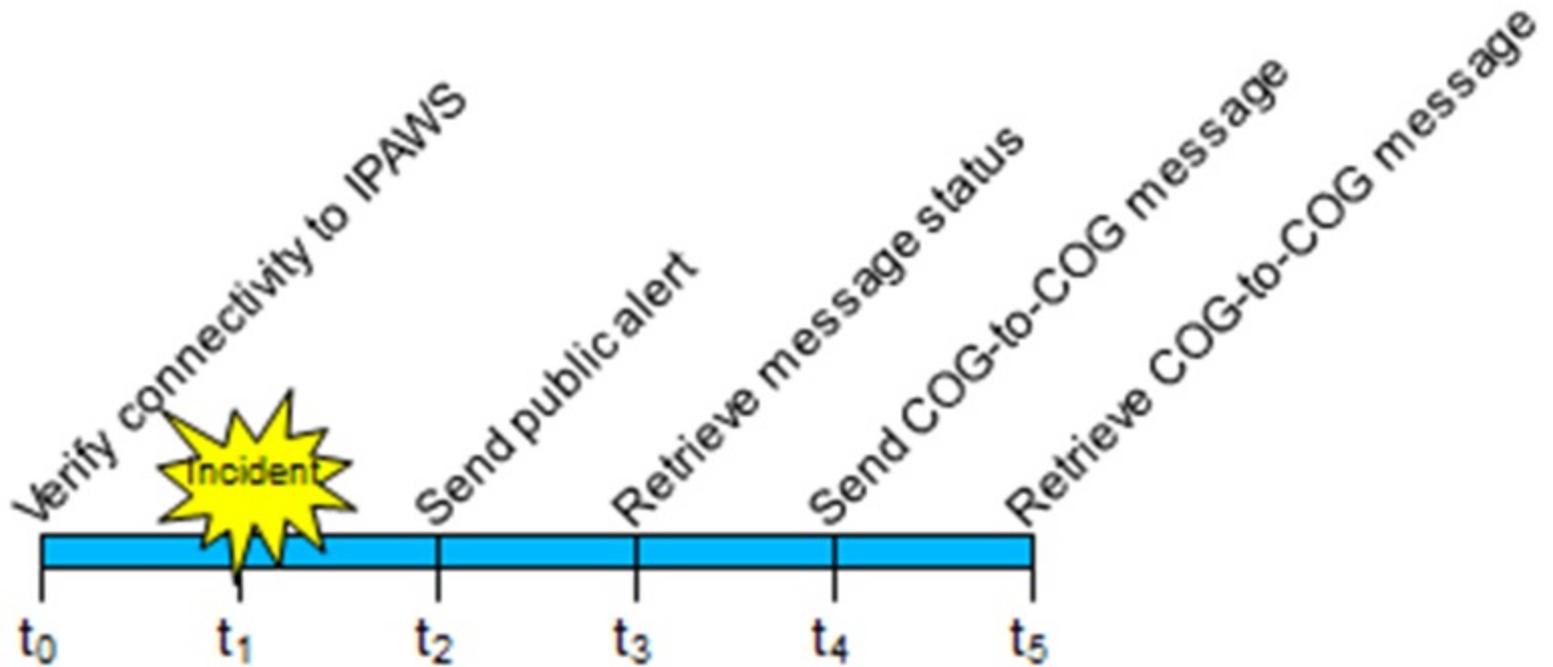
A Public Warning Message is drafted and sent

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Scenario Flow and Observations

- Scenario: Fictitious nuclear plant accident

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Scenario Flow and Observations

1. AOSP shows connectivity (Req #4)
2. AOSP sends alert (Req #1)
3. JITC Lab verify EAS and WEA alerts
4. AOSP shows message status (Req #2)
5. IPAWS admin verify valid/invalid EAS, WEA, NWEM alert
6. AOSP sends/receives COG-to-COG message to neighboring County (Req #3)
7. Neighboring County verifies receipt
8. Q&A if time allows

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Alerting Tool introductions

1. ## MyStateUSA
   AlertSense

   Elysa Jones, Joey Peters

2. ## EyeStreet Solutions
   On-The-Go Alerting

   Bryan Field, Kirby Rice

3. ## Comlabs
   EMnet

   Jared Maynard, Tom Restivo

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