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Integrated Public Alert and Warning System (IPAWS)

IPAWS Best Practices - Test, Exercise, and Train with the IPAWS Lab

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IPAWS Training
via the IPAWS Lab

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Training Purpose

- To make proficient by instruction and practice
- Benefits:
  - Understand IPAWS capabilities and functionalities
  - Hands-on use or observation of software capabilities
  - Craft IPAWS messages
  - Observe IPAWS message dissemination
  - Troubleshoot, if necessary
  - Q&A

Please note: IPAWS personnel and contract support do not endorse any vendor product. Technical support provided during training is for educational purposes.

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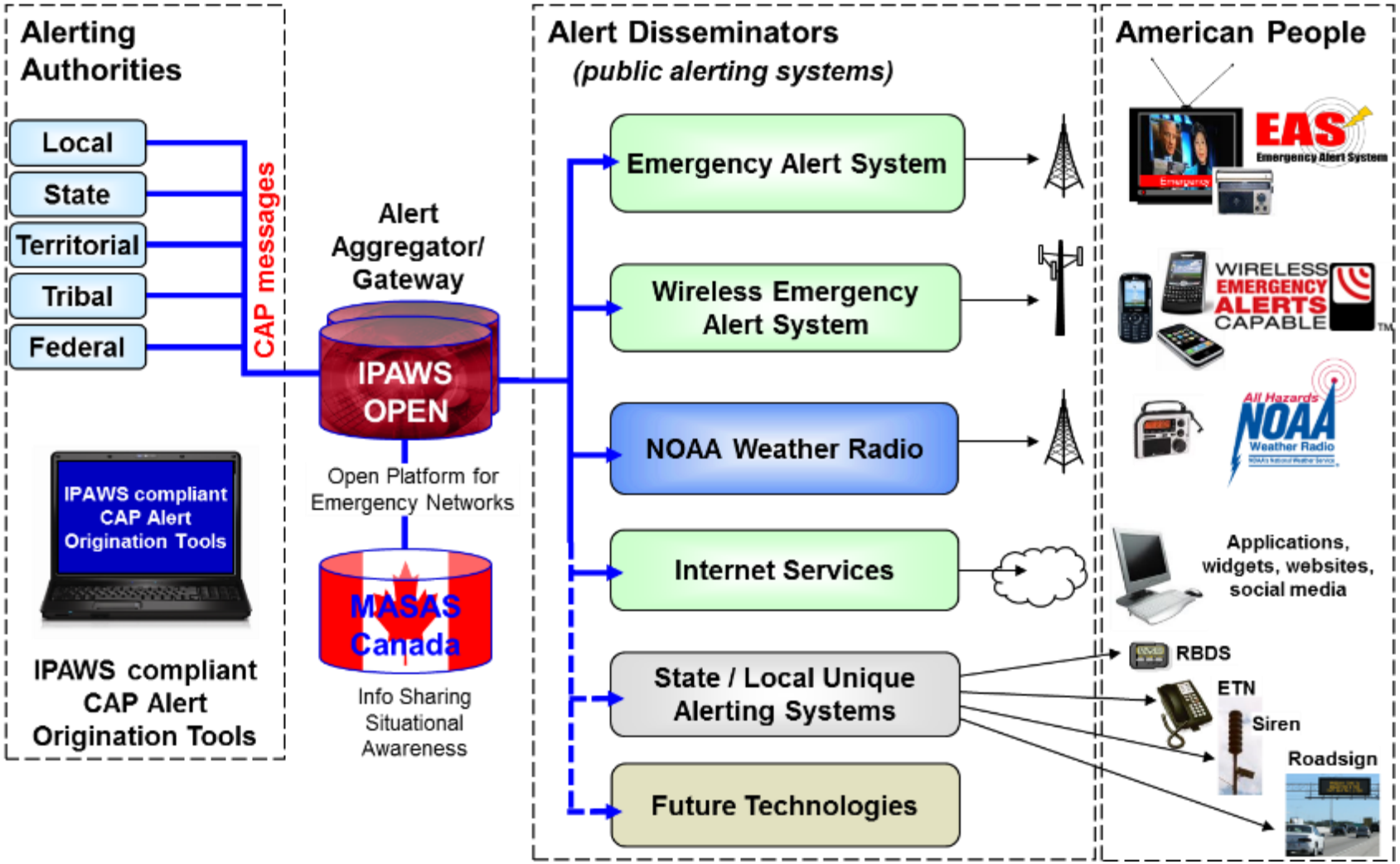
IPAWS Architecture



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Training Best-Practices

- Establish a working relationship with your Vendor
  - Take part in vendor-provided training (encourage use of the IPAWS Lab)
  - Understand vendor-provided technical support
    - Helpdesk phone number
    - 24/7/365 availability
    - Software update notification
  - Refresher training
  - Ask questions
  - Give feedback on current and desired features

Training Best-Practices

- Establish training policies and procedures
  - Develop training guidelines and SOPs
  - Designate roles and responsibilities
  - Apply and reexamine User access controls (update when employees leave)
  - Incorporate training into current operation plans
  - Develop a training schedule – include regular refresher training
  - Establish new employee training procedures
  - Hold employees accountable for maintaining proficiency
  - Use training to improve processes and develop best practices

Training Best-Practices

- Practice using your alerting tool
  - Understand your alerting roles and responsibilities
  - Know your alerting permissions
  - Understand alert types and alerting criteria
  - Learn what can cause errors and how to overcome
  - Develop scenarios/templates based on hazards
  - Practice, practice, practice
  - Note items to update in procedures/best-practices
  - Make mistakes in **TEST** so you avoid them in **LIVE**

IPAWS Tests and Exercises via the IPAWS Lab

Purpose

- To test or exercise a particular process, method, or functionality
- Benefits:
  - Verify requirements
  - Assess capabilities
  - Evaluate procedures
  - Identify gaps
  - Mitigate concerns
  - Improve processes

Test & Exercise Best-Practices

- Alerting Authority:
  - Effectively receives and shares information
  - Understands an emergency as it evolves
  - Develops and maintains clear policies, guidelines, and procedures
  - Includes a decision-making process and authority to alert and warn
  - Identifies and participates in test and exercise opportunities
  - Provides a method or device to originate an IPAWS message
  - Provides adequate security to prevent unauthorized access
  - Maintains system security measures
  - Engages with warning partners
  - Identifies and mitigates gaps in procedures

Test & Exercise Best-Practices

- Considerations:
  - Identify local hazards and vulnerabilities
    - Man-made
    - Natural
    - Physical
    - Unique alerting situations (e.g., cross or multi-jurisdictional, backups)
  - Identify person(s) authorized to originate alerts
    - Admin/User permissions
    - Trust/accountability
    - Availability
    - Adequate standby staffing
    - Capable/knowledgeable

Test & Exercise Best-Practices

- Participate in tests and exercises
  - Develop local tests and exercises
  - Multi-jurisdictional tests and exercises
  - FEMA-supported exercises (e.g., National Level Exercise, National Exercise Division)
  - Exercise your IPAWS capabilities in a closed environment
  - Extract data from lab tests
  - Evaluate results

Test & Exercise Best-Practices

- Include warning partners
  - Build relationships with broadcasters, SECCs, other jurisdictions, other stakeholders
  - Discuss expectations
  - Develop Memorandum of Understanding (what will air/what won't?)
  - Coordinate exercise participation
  - Execute tests and exercises
  - Share results
  - Mitigate issues

Test & Exercise Best-Practices

- Standard Operating Procedures (SOPs)
  - Develop scenario/hazard specific templates and alerting criteria
  - Clearly specify roles and responsibilities
  - Evaluate SOPs effectiveness and readiness
  - Identify gaps
  - Mitigate
  - Improve processes
  - Incorporate and practice false alert recovery plan
  - Continue to update

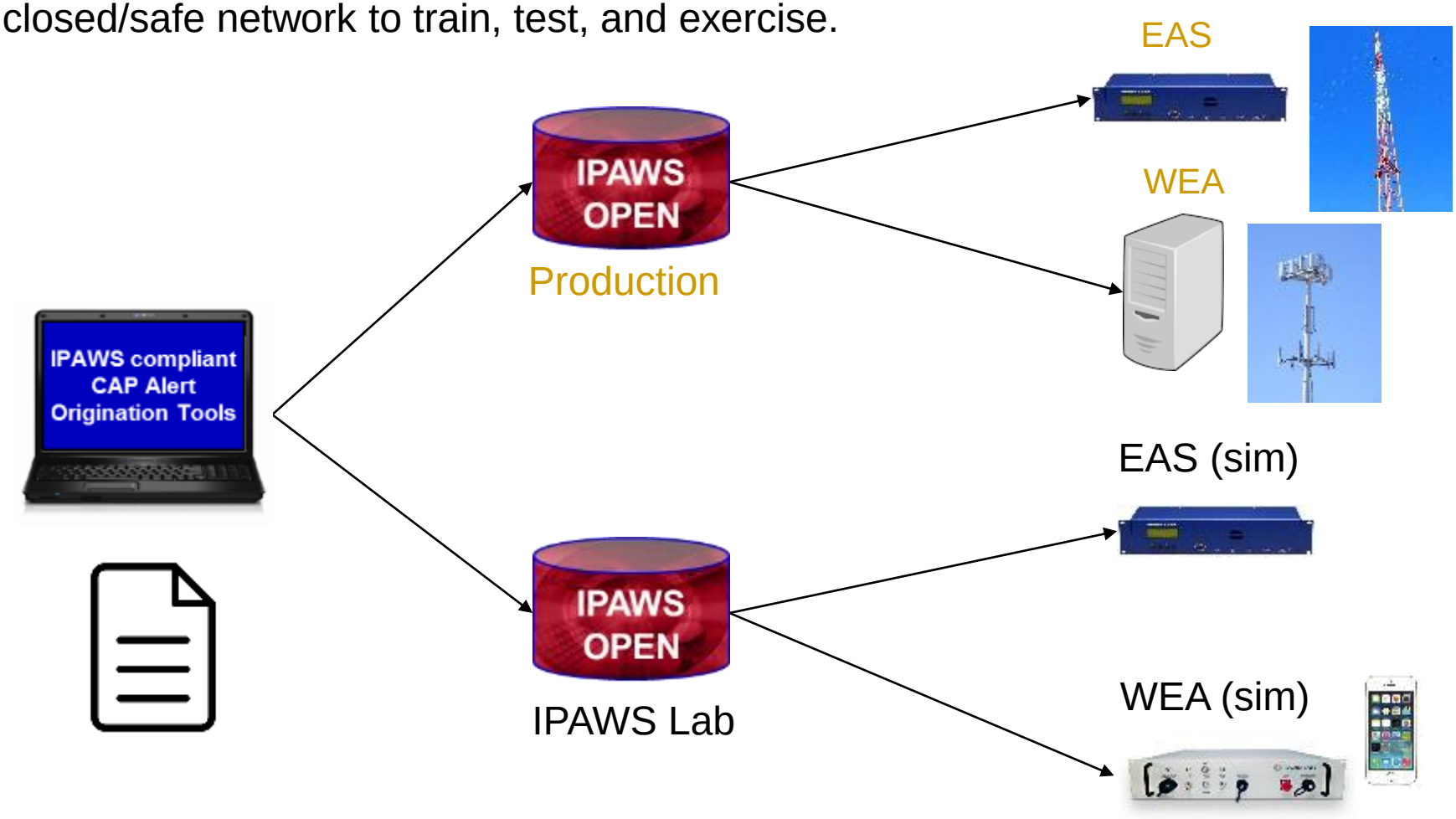
Test & Exercise Best-Practices

- Test and Exercise frequently
  - Closed tests
  - Use IPAWS for Required Monthly Test
  - Gain confidence using the system
- Review and update plans and policies in close coordination with partners
  - Share information
  - Encourage open communication - solicit feedback
  - Conduct roundtables
  - Bridge the gaps
- Educate the public on alert and warning practices
  - Public awareness campaigns
  - Solicit input

Use the IPAWS Lab

IPAWS Lab vs. Production

The IPAWS Lab is an offline version of IPAWS. The lab is a valuable resource to alerting authorities because it mimics live environment capabilities but is a closed/safe network to train, test, and exercise.



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IPAWS Lab Capabilities

- Closed/safe environment
- Access to several alert origination tools
- All EAS dissemination devices
- Other devices pulling alerts from IPAWS
- IPAWS overviews and demonstrations
- Hands-on training/practice
- Test and exercise support
- Assistance with SOPs
- Expert knowledge
- IPAWS Message Viewer – allows for individual training/testing

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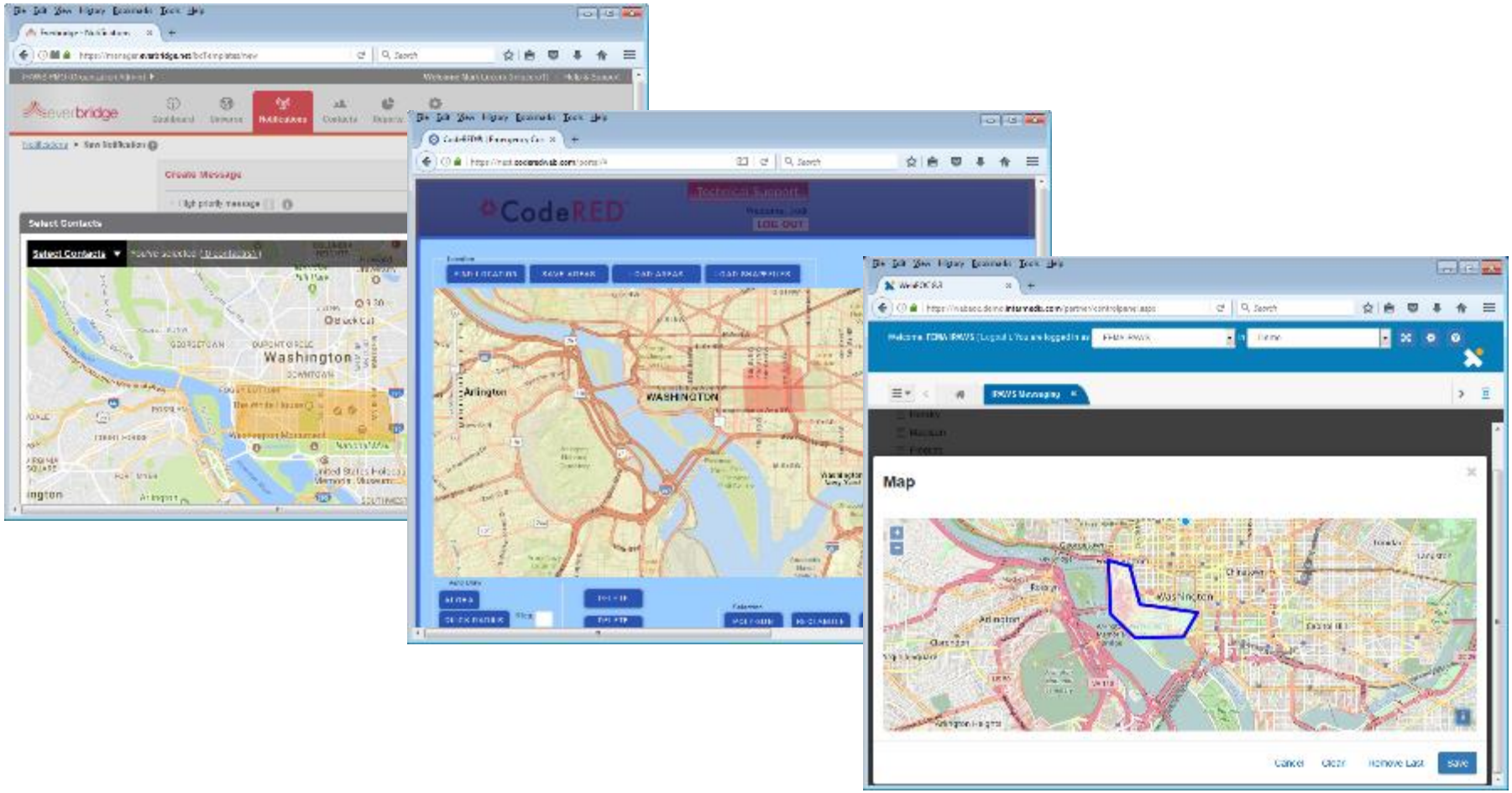
Create an IPAWS alert using your tool



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Observe Alert Dissemination

- EAS
  - Broadcast
  - Large footprint
  - County-based
- WEA
  - Broadcast
  - Medium footprint
  - Polygon based

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http://wset.images.worldnow.com/images/24768116_BG1.jpg
http://www.weathernationtv.com/app/uploads/2017/02/noaa-weather-radio-300x212.jpg
https://i.ytimg.com/vi/Y3m-HdhGsQo/hqdefault.jpg

Accessing the IPAWS Lab

- Obtain IPAWS test digital certificate
- User or vendor upload test certificate to origination software
- Check connectivity to the IPAWS Lab
- Use the lab for training, tests and exercises
- 3 Methods available
  - On-site
  - Virtual (webinar)
  - IPAWS Message Viewer (web interface)

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Method No. 1

- On-Site
  - Visit the IPAWS Lab
  - Interactive discussions
    - Implementation/use
    - Plan review
    - Scenarios and hazards review
  - Hands-on training
    - Access your alert origination tool
    - Practice EAS and WEA activation
    - Observe dissemination
    - Evaluate procedures

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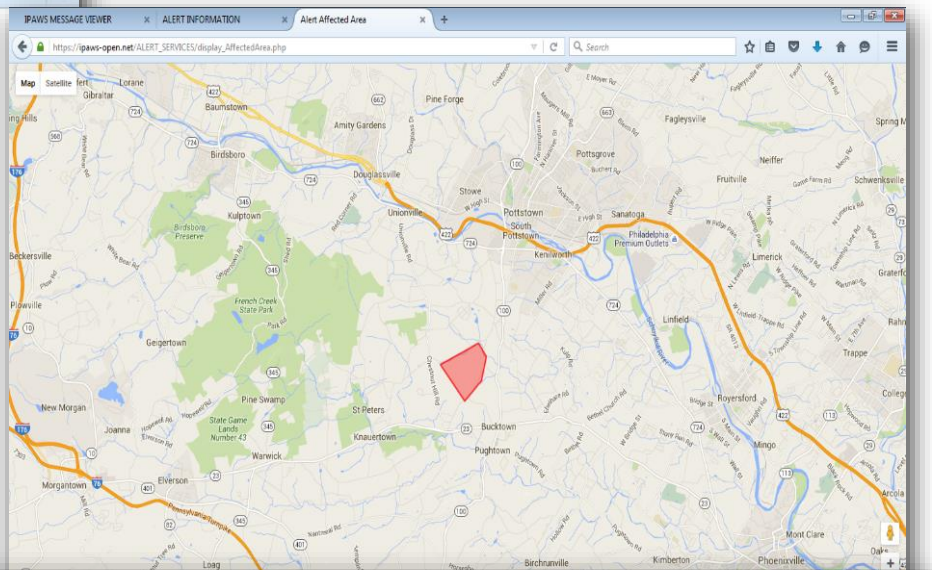
Method No. 2

- Virtual
  - Participate in a webinar with IPAWS Lab personnel
  - Virtual hands-on; attendee shares screen
  - Verification of connectivity to the Lab
  - Practice processes
  - Observe/discuss scenarios
  - Build templates based on hazards
  - Practice activation of EAS and WEA
  - Observe alert dissemination
  - Lab equipment included to demonstrate alert origination and dissemination

Method No. 3

- IPAWS Message Viewer
  - User-friendly web interface
  - Verify alert dissemination
  - View status/error codes
  - Troubleshoot, if necessary
  - Available 24/7
  - No need to schedule time with Lab personnel
  - Alerts available for review on IPAWS Message Viewer for 48 hours

IPAWS Lab – IPAWS Message Viewer



Alert Status Response View

Message Identifier: AS-MD-750be55a-06a7-410c-8966-629144050677

Channel Name	Status Item ID	Error	Status
CAPEXCH	200	N	Ack
CAPEXCH	202	N	alert-signature-is-valid
IPAWS	300	N	Ack
NWEM	401	N	message-not-disseminated-as-NWEM
EAS	500	N	Ack
CMAS	600	N	Ack
PUBLIC	801	N	message-not-disseminated-as-non-EAS-public
NeilG2	10	N	Ack
NeilG2	10	N	Ack

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