

# State of 911

## Webinar Series

NATIONAL 911 PROGRAM  
October 10, 2017



## State of 911 Webinar Series

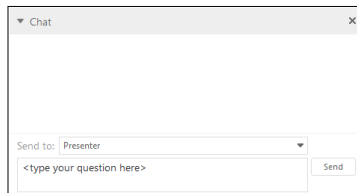
- Designed to provide useful information about Federal and State participation in the planning, design, and implementation of Next Generation 911 (NG911) coupled with real experiences from leaders overseeing these transitions throughout the country
- Webinars are held every other month and typically include presentations from a Federal-level 911 stakeholder and State-level 911 stakeholder, each followed by a 10-minute Q&A period
- For more information on future webinars, access to archived recordings and to learn more about the National 911 Program, please visit [911.gov](http://911.gov)
- Feedback or questions can be sent to: [National911Team@mcp911.com](mailto:National911Team@mcp911.com)



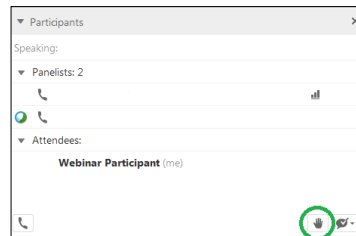
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**FEMA**

## Integrated Public Alert and Warning System

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October 10, 2017

## Agenda

- Overview of IPAWS
- How IPAWS is used today
- Changes to WEA coming
- National Advisory Council Subcommittee



## IPAWS Federal Guidance

### *Policy:*

- ▶ **Executive Order 13407 - Public Alert and Warning System**
  - Establishes policy of the United States to have a national warning system used by government officials at all levels of government to alert and warn people of all hazards

### *Law:*

- ▶ **Public Law 114-143, The IPAWS Modernization Act**
  - Enacts to law the policy statement and similar requirements found in Executive Order 13407
- ▶ **Section 706 of 47 U.S.C. 606, The War Powers Act**
  - Provides for Presidential access to commercial communications during "a state of public peril or disaster or other national emergency"
- ▶ **Public Law 93-288, The Stafford Act**
  - Sec. 202. Disaster warnings – directs FEMA to provide technical assistance to State and local governments to insure that timely and effective disaster warning is provided

### *Regulation:*

- ▶ **47 CFR Part 11 — Emergency Alert System (EAS)**
  - Provides for alert and warning on private sector radio and television infrastructure
- ▶ **47 CFR PART 10 — Wireless Emergency Alerts (WEA)**
  - Provides for alert and warning to devices on wireless carrier networks



## 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



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



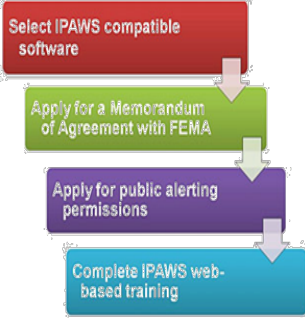
Public  
Signage  
& Sirens

- Improves and 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




FEMA  
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## Getting Access to IPAWS



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 send you a certificate to “digitally sign” your alert messages
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](http://www.fema.gov/how-sign-ipaws)



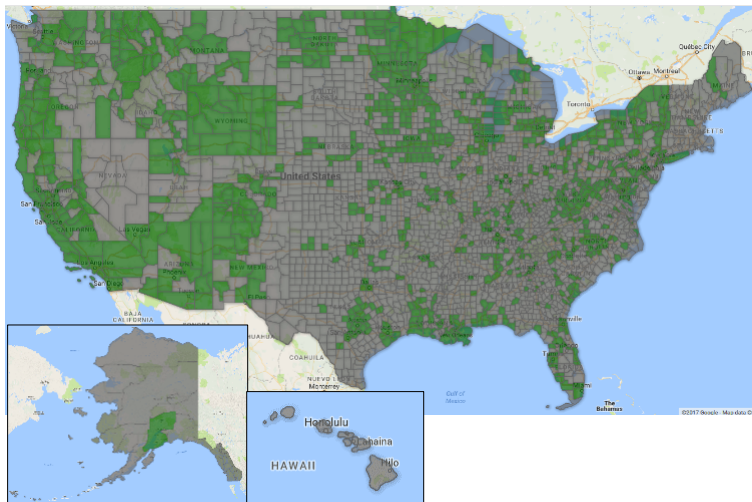
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- How IPAWS is used today
- Changes to WEA coming
- National Advisory Council Subcommittee



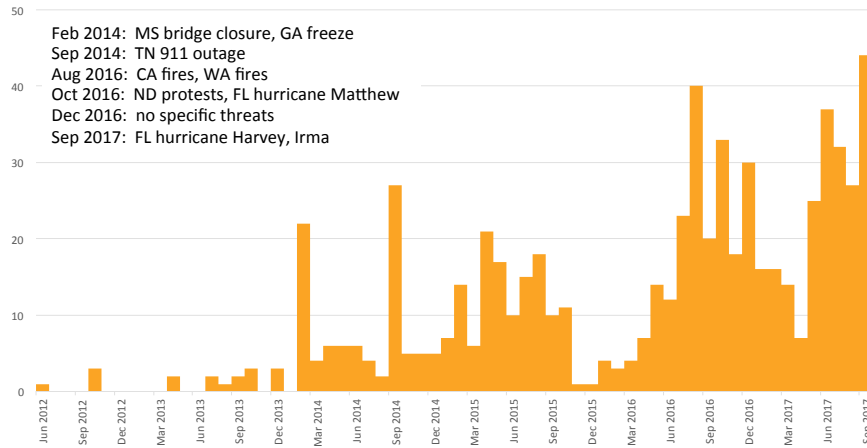
## Alerting Authorities (as of August 3, 2017)



Complete
833 Local
65 State-wide
16 Federal
3 Tribal
2 Territory

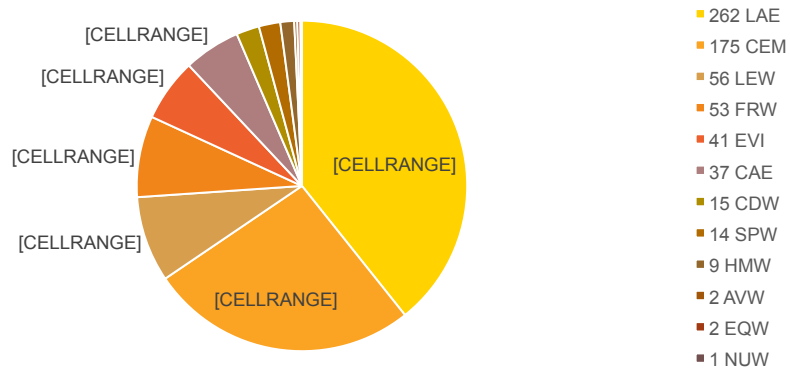


## State and Local WEA Usage (as of October 2, 2017)



## State and Local WEA Usage (as of October 2, 2017)

State and Local WEA Usage



## Hurricane/TS Harvey, Irma

09/17/17	FL Florida DEM	Monroe County has issued a Boil Water Notice
09/14/17	FL Florida DEM	There is NOT a boil water notice for Volusia County
09/14/17	FL Florida DEM	Generators Produce deadly odorless fumes. Do not use indoors or in garages
09/14/17	FL Florida DEM	Volusia County boil water notice. Residents are advised to boil water before consumption
09/14/17	FL Florida DEM	Monroe County water boil notice. Residents are advised to boil water before consumption.
09/11/17	FL Florida DEM	Coastal Citrus County, Dangerous Surge Imminent
09/11/17	FL Seminole County	The curfew for Seminole County will be rescinded at 11 a.m. today, Monday September 11th
09/10/17	FL Pinellas County	Strong winds are beginning to occur across Pinellas County. Take Shelter Immediately!
09/10/17	FL Florida DEM	Orange Co Gov issued Mandatory Evacuation Order for Mobile Homes effective immediately.
09/10/17	FL Florida DEM	Jefferson Co issued Voluntary Evacuation Order of Mbl Homes, Low Lying areas immediately
09/09/17	FL Seminole County	Seminole County evacuation issued for mobile manufactured homes and low lying areas
09/09/17	FL Citrus County	EXTREME HIGH STORM SURGE ANTICIPATED FOR WEST CITRUS COUNTY, EVACUATE NOW, DON'T WAIT.
09/09/17	FL Pinellas County	Pinellas under evacuation level A, B, All mobile homes. Evac to be completed by dusk today
09/08/17	FL Citrus County	Citrus County Mandatory Evacuation ordered. Check media outlets.
09/11/17	TX Galveston County	FOR FEMA ASSISTANCE CALL 1-800-621-FEMA (3362) OR <a href="http://www.fema.gov/apply-assistance">www.fema.gov/apply-assistance</a>
08/28/17	TX Galveston County	DICKINSON is under a MANDATORY EVACUATION. We may not be able to rescue anyone who stays.
08/27/17	TX Montgomery County	Spring Creek will be in major flood stage in the next 24hrs if you can leave, do so now.
08/27/17	TX Galveston County	First responders working on rescues, if able flag down rescue boats and personnel.
08/27/17	TX Harris County	Call 911 for LIFE THREATENING emergencies ONLY. STAY PUT IF SAFE. Monitor media
08/27/17	TX Galveston County	Creeks are in flood stage. If you are in a low lying area, move to higher ground.
08/27/17	TX Galveston County	Montgomery County Evacuation event Expires August 29 seek shelter



## WEA Gotchas

- Mercer Island's boil-water advisory has been lifted. See city website for more information
- Mercer Island's boil-water advisory has been lifted. See city website for more information



## Creative Work Arounds

09/15/14	TN Tennessee EMA	In an emergency in Shelby County, use 9015436333 or landline to call 911
09/15/14	TN Tennessee EMA	In an emergency in Weakly County, use 7313645454 or landline to call 911
09/15/14	TN Tennessee EMA	In an emergency in Obion County, use 7318853316 or landline to call 911
09/15/14	TN Tennessee EMA	In an emergency in McNairy County, use 7316453406 or landline to call 911
09/15/14	TN Tennessee EMA	In an emergency in Madison County, use 7314249677 or landline to call 911
09/15/14	TN Tennessee EMA	In an emergency in Henry County, use 7316422424 or landline to call 911
09/15/14	TN Tennessee EMA	In an emergency in Henderson County, use 7314256202 or landline to call 911
09/15/14	TN Tennessee EMA	In an emergency in Haywood County, use 7317721215 or landline to call 911
09/15/14	TN Tennessee EMA	In an emergency in Hardin County, use 7319259007 or landline to call 911
09/15/14	TN Tennessee EMA	In an emergency in Gibson, use 7315623714 or landline to call 911
09/15/14	TN Tennessee EMA	In an emergency in Hardeman County, use 7316585101 or landline to call 911
09/15/14	TN Tennessee EMA	In an emergency in Gibson, use 7315628176 or landline to call 911
09/15/14	TN Tennessee EMA	In an emergency in Fayette County, use 9014653456 or landline to call 911
09/15/14	TN Tennessee EMA	In an emergency in Dyer County, use 7312854019 or landline to call 911
09/15/14	TN Tennessee EMA	In an emergency in Decatur County, use 7318523911 or landline to call 911
09/15/14	TN Tennessee EMA	In an emergency in Crockett County, use 7316962104 or landline to call 911
09/15/14	TN Tennessee EMA	In an emergency in Chester County, use 7319892787 or landline to call 911
09/15/14	TN Tennessee EMA	In an emergency in Carroll County, use 7319868947 or landline to call 911
09/15/14	TN Tennessee EMA	In an emergency in Benton County, use 7312794280 or landline to call 911



## Agenda

- Overview of IPAWS
- How IPAWS is used today
- **Changes to WEA coming**
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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)



## FCC Further Notice of Proposed Rulemaking (a.k.a. Under Consideration)

- Defining the Modes of Participation in WEA
  - What do “in whole” and “in part” really mean?
- Infrastructure Functionality
  - Is WEA really available everywhere there’s coverage?
- Alert Message Preservation
  - Review old messages on the phone
- Earthquake Prioritization
  - Alert delivery in less than 3 seconds, or your pizza is free
- Disaster Relief Messaging
  - Many-to-one messaging
- Multimedia Alerting
  - **Cell broadcast images to phones**
- Multilingual
  - Beyond English and Spanish
- Matching the Geographic Area
  - **Reach 100% of phones in targeted area with no more than 0.1 mile overshoot**
- WEA on 5G networks



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## IPAWS Subcommittee Working Groups

- IPAWS leadership determined that Working Groups were the preferred approach to address requirements as laid out in the IPAWS Modernization Act of 2015 (Public Law 114-143). The Working Group tasks reflect the Act's requirements
- The key deliverables and tasks are as follows:
  - **Through to April, 2019:** Working Groups hold monthly / bi-weekly webinars to conduct research, deliberate, and provide recommendations for their assigned areas
  - **October 2018:** Working Groups submit recommendations to the IPAWS Subcommittee for deliberation and approval
  - **November 2018:** The IPAWS Subcommittee submits all the Working Group initiatives to the National Advisory Council (NAC) for their consideration and approval
  - **November 2018-April 2019:** Working Groups consider lesser priority areas while also addressing questions the NAC may have on your submission



## Working Groups and their areas of focus

- **Group 1: Alert Writers and Alerting Authorities**
  1. Assess alert and warning protocols, standards, and terminology to provide timely and effective warnings
  2. Ensure there are redundant alert mechanisms to reach the greatest number of people
  3. Examine non-IPAWS subscription-based alerting systems (e.g., opt-in SMS text and email services)
- **Group 2: Public Needs**
  1. Identify how to distribute alerts based on location, risks, personalization, and integrate symbology, while respecting privacy
  2. Assess how alerts can be provided to visitors (domestic and international) to ensure they receive timely warnings
  3. Provide effective alerts to the access and functional needs, and limited-English proficiency communities
- **Group 3: Stakeholder Engagement and Coordination**
  1. Examine how public education for public and private entities can improve the understanding of and responding to alerts
  2. Promote local and regional partnerships to enhance community preparedness and response, and engage with the FCC
  3. Provide recommendations on training, test, and exercise programs, including an IPAWS certification program
- **Group 4: Future Technologies**
  1. Examine how future alerting technologies and the modernization of IPAWS can improve public alerts and warnings
  2. Provide recommendations to ensure a resilient and secure public alerting system
  3. Identify how alerts can reach the largest portion of the affected population feasible in a timely manner

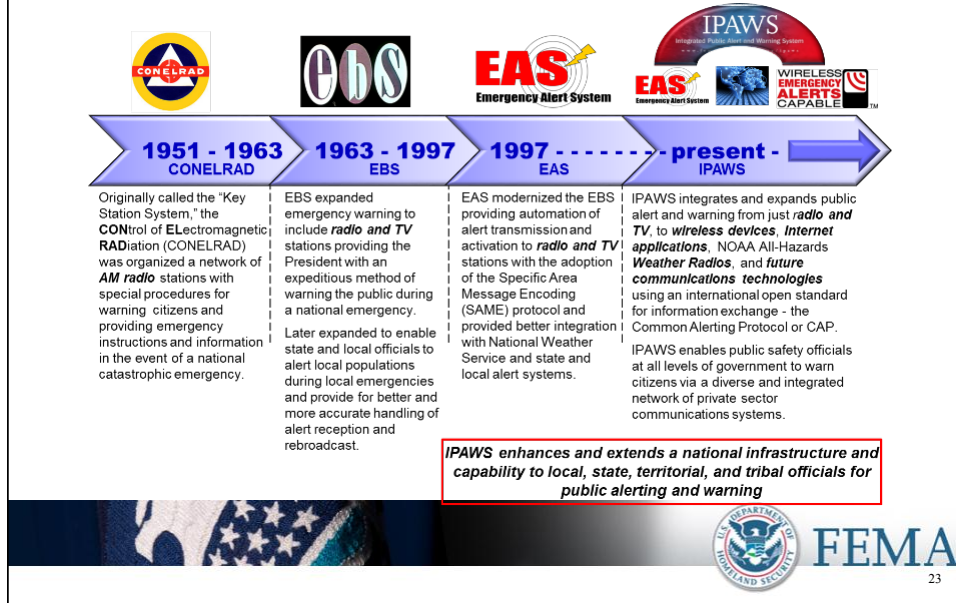


# FEMA

*[ipaws@fema.dhs.gov](mailto:ipaws@fema.dhs.gov)*



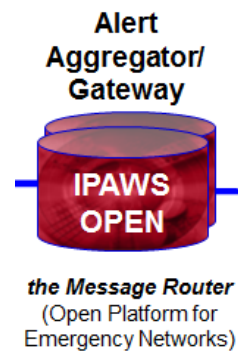
## The Evolution of Emergency Alerting



## Alert Aggregation

What the Aggregator does:

1. Authenticates sender
  - A. Web Service Security
  - B. Digital Signature
2. Validates CAP message
3. Verifies permissions
  - A. What alerts can you send
  - B. Where can you send them
  - C. How can you send them
4. Non-repudiation, message integrity
5. Gateway to EAS, WEA, NOAA WX



## Alert Dissemination

- **Emergency Alert System**
  - TV, Radio, Cable, Satellite
  - ~20,000 connected via EAS Feed
- **Wireless Emergency Alerts**
  - Opt-in Carriers
  - 61 connected via Fed Alert Gateway
- **National Weather Service**
  - NOAA Weather Radio/HazCollect
  - 1000 WX transmitters
- **Interoperating Systems**
  - 72 connected via Public Alert Feed

**Alert Disseminators**  
*(public alerting systems)*

- Emergency Alert System
- Wireless Emergency Alert System
- NOAA Weather Radio
- Internet Services
- State / Local Unique Alerting Systems
- Future Technologies

**American People**

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## WEA Gotchas

<p style="text-align: center;"><b>Allowed</b></p> <p><b>Unicode Character 'APOSTROPHE'</b></p> <div style="border: 1px solid gray; padding: 5px; margin-bottom: 5px;"> <small>Browser Test Page Outline (as SVG file) Fonts that support U+0027</small> </div> <p style="font-size: 2em; font-weight: bold; margin: 0;">'</p> <p style="font-weight: bold; margin: 0;">UTF-8 (hex)     <span style="color: red;">0x27</span></p>	<p style="text-align: center;"><b>Not Allowed</b></p> <p><b>Unicode Character 'ACUTE ACCENT'</b></p> <div style="border: 1px solid gray; padding: 5px; margin-bottom: 5px;"> <small>Browser Test Page Outline (as SVG file) Fonts that support U+00B4</small> </div> <p style="font-size: 2em; font-weight: bold; margin: 0;">´</p> <p style="font-weight: bold; margin: 0;">UTF-8 (hex)     <span style="color: red;">0xC2 0xB4</span></p>
<p><b>Unicode Character 'HYPHEN-MINUS'</b></p> <div style="border: 1px solid gray; padding: 5px; margin-bottom: 5px;"> <small>Browser Test Page Outline (as SVG file) Fonts that support U+002D</small> </div> <p style="font-size: 2em; font-weight: bold; margin: 0;">-</p> <p style="font-weight: bold; margin: 0;">UTF-8 (hex)     <span style="color: red;">0x2D</span></p>	<p><b>Unicode Character 'EN DASH' (U+2013)</b></p> <div style="border: 1px solid gray; padding: 5px; margin-bottom: 5px;"> <small>Browser Test Page Outline (as SVG file) Fonts that support U+2013</small> </div> <p style="font-size: 2em; font-weight: bold; margin: 0;">—</p> <p style="font-weight: bold; margin: 0;">UTF-8 (hex)     <span style="color: red;">0xE2 0x80 0x93</span></p>

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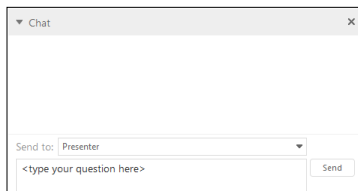
## Background of WEA Laws and Regulations

- 2006 – WARN Act passed by Congress
- 2008 – Original WEA rules and regulations
- 2012 – WEA system operational
- 2013 – CSRIC IV review rules, recommend changes
  - 3 of 31 members from emergency management discipline
  - Submitted final report to FCC October 2014
- 2015 – CSRIC V recommended additional changes
  - 10 of 48 members from emergency management discipline
  - Submitted final report to FCC September 2016
- 2016 – New WEA rules and regulations

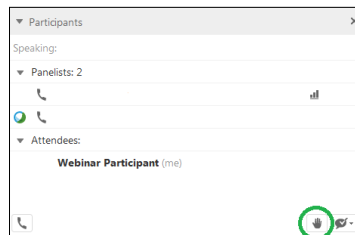


## Q&A Period

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## LEGISLATIVE PROCESS –THE IDAHO EXPERIENCE

- ▶ Idaho Public Safety Communications Commission
  - ▶ Governance & Responsibilities (9-1-1 Commission)
  - ▶ Created PSAP Standards & Training Committee in 2010
    - ▶ Committee is comprised of regional representatives
      - ▶ 6 regions; city, county, state representatives
    - ▶ Tenacious, collaborative, committed, and flexible

## LEGISLATIVE PROCESS –THE IDAHO EXPERIENCE

- ▶ Buy-in from key stakeholders
  - ▶ Sheriffs Association (44 Counties) and Police Chiefs of 5 city Primary PSAPs
  - ▶ Other stakeholders
    - ▶ ICoPA; ISP; ITD; IPAA; Idaho POST Council; Idaho EMSAC; IAC; Idaho FOP; IFCA; Idaho DHW; Nampa Police Department; Blaine County Emergency Communications; DIGB 1; DIGB 2; DIGB3; DIGB5; IPSCC; Idaho EMS Physicians Commission; and TSE Council
  - ▶ Legislative Support

## LEGISLATIVE PROCESS –THE IDAHO EXPERIENCE

- ▶ Tips
  - ▶ Listen
  - ▶ Compromise
  - ▶ May need to take “baby” steps; staged effort

## LEGISLATIVE PROCESS –THE IDAHO EXPERIENCE

- ▶ Education
  - ▶ Goal is to enhance public awareness
  - ▶ Statewide educational tour - DALF
    - ▶ Advertise
    - ▶ Invitees – dispatchers, first responders, chiefs, sheriffs, media
  - ▶ Publish proposed language-make it accessible



## LEGISLATIVE PROCESS –THE IDAHO EXPERIENCE

- ▶ Transparency
  - ▶ Publish meeting minutes
  - ▶ Hold forum meetings
    - ▶ Include Chiefs & Sheriffs
  - ▶ Proposed legislative language - make it accessible
    - ▶ Make all stakeholders confident they will not be blindsided with surprises

## LEGISLATIVE PROCESS –THE IDAHO EXPERIENCE

- ▶ Find a Sponsor – Idaho Sheriff's Association
  - ▶ Use advocates with positive and extensive recognition
- ▶ Solicit every conceivable stakeholder "letter of support" possible
- ▶ One-on-One meetings with key legislators on key committees
  - ▶ Share packet to include agency head letters of support, and proposed legislative language
- ▶ Judiciary & Rules committee

## LEGISLATIVE PROCESS –THE IDAHO EXPERIENCE

- ▶ The Idaho Laws....
  - ▶ I.C. 19-5101 - Defines ECO (emergency communications officer) as, "any emergency call taker or dispatcher whose primary responsibility is to receive or dispatch calls for emergency services in the state of Idaho."
    - ▶ No distinction between primary PSAP and secondary PSAP emergency communications officers – ALL must meet the new law
  - ▶ I.C. 19-5116 - Stipulates that any monies directed to the Idaho POST Academy funds from citations and etc, must now also be expended to support this mandated training and certification.
  - ▶ I.C. 19-5119 - Establishes the authority and directs that the Idaho POST Council SHALL:
    - ▶ Establish the requirements of minimum basic training for all emergency communications officers, in order to be eligible for permanent employment as an emergency communications officer, that can be completed within eighteen (18) months of employment as an emergency communications officer;
    - ▶ Establish such basic training and certification, to include alternative authorized council training, so that certification can be attained within eighteen (18) months of employment as an emergency communications officer;
    - ▶ Establish the requirements of minimum training standards for employment as an emergency communications officer in probationary, temporary, part-time and emergency situations;
    - ▶ Certify emergency communications officers as having completed all requirements established by the council to be eligible for permanent employment as an emergency communications officer;
    - ▶ And, Maintain permanent files and transcripts for all emergency communications officers certified by the council, to include only courses or advanced courses of instruction successfully completed by such emergency communications officers and specifically required to obtain and maintain emergency communications officer certification while employed in this state. Such information shall be made available by the council to any employer upon the receipt of a signed waiver from the emergency communications officer to release such files and transcripts.

## LEGISLATIVE PROCESS –THE IDAHO EXPERIENCE

- ▶ Continued.....
- ▶ The IPSCC (9-1-1 Commission) is responsible for recommending to Idaho POST what the minimum basic training and certification standards should be.
  - ▶ The council shall decertify any emergency communications officer convicted of any felony or offense that would be a felony if committed in Idaho. The council may decertify any emergency communications officer who:
    - ▶ Is convicted of a misdemeanor;
    - ▶ Willfully or otherwise falsifies or omits any information to obtain any certified status; or
    - ▶ Violates any of the standards of conduct as established by the council's code of ethics, as adopted and amended by the council. All decertification proceedings taken by the council shall be conducted in accordance with chapter 52, title 67, Idaho Code.
  - ▶ "Grandfather Clause" – not really - "Any emergency communications officers who begin employment after July 1, 2017, shall be trained and certified within eighteen (18) months of employment. Current emergency communications officers who began employment between July 1, 2012, and June 30, 2017, shall comply with the training and certification provisions of this section by January 1, 2019. Current emergency communications officers who began employment prior to July 1, 2012, may comply with the training and certification provisions of this section at the discretion of their employers.

## LEGISLATIVE PROCESS –THE IDAHO EXPERIENCE

- ▶ The training requirement....
  - ▶ Using the APCO/NENA recommended minimum training guidelines developed by a coalition of SMEs/organizations, with some Idaho specific requirements incorporated
    - ▶ Telecommunicator roles and responsibilities
    - ▶ 9-1-1 call processing
    - ▶ Radio communications
    - ▶ Emergency management
    - ▶ Emergency communications technology
    - ▶ Legal concepts
    - ▶ Interpersonal communications
    - ▶ Stress management
    - ▶ Quality assurance
    - ▶ On-the-job training guidelines
    - ▶ Ethics

## LEGISLATIVE PROCESS –THE IDAHO EXPERIENCE

- ▶ The Idaho Laws....
- ▶ SUCCESS IS SWEET! ☺
  - ▶ Unanimous House committee passage
  - ▶ Full House passage (65 yea, 4 nay, 1 absent)
- ▶ Governor signed on April 19, 2017
- ▶ Effective July 1, 2017

## LEGISLATIVE PROCESS –THE IDAHO EXPERIENCE

- ▶ Lessons Learned....
  - ▶ Keep it simple
  - ▶ Don't try to achieve too much
  - ▶ Emotional, tearful testimony is not always effective
  - ▶ Rule of 80 (retirement)

## LEGISLATIVE PROCESS –THE IDAHO EXPERIENCE

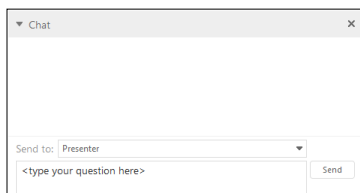
- ▶ My contact information....



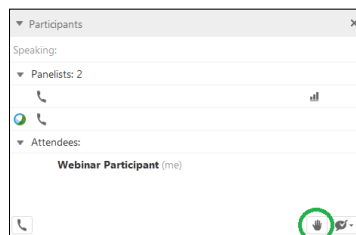
**Captain Kevin Haight**  
Statewide Communications  
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Meridian, ID. 83642  
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## Q&A Period

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## Future Webinars

2017 Scheduled Webinars:

- Tuesday, October 10, 2017 at 12 noon ET
- Tuesday, December 12, 2017 at 12 noon ET
- To register, visit: <https://tinyurl.com/2017Stateof911>
- Previous State of 911 webinars are available at: [www.911.gov/webinars.html](http://www.911.gov/webinars.html)

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## National 911 Program

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