**OPERATIONAL COMMUNICATIONS**

- **Mission Area**: Response Support

- **Description**: To ensure the capability for timely, redundant communications in support of security, situational awareness, and emergency operations by any and all means available; among and between affected communities in the impact area and response and support forces at appropriate levels.
GOVERNANCE

• **Statewide Interoperability Governance Board (SIGB), AKA the Florida Executive Interoperable Technologies Committee (FEITC)**
  – Chuck Hagan, Co-Chair FDEM State Logistics Chief
  – Bill Rogers, Co-Chair Director DMS Division of Telecommunications
  – The responsibilities of the SIGB/FEITC are:
    – Oversight and management of interoperable technology issues.

• **State Interoperable Communications Committee**
  – Greg Holcomb, Co-Chair – Lake County E911 Coordinator and Division Manager
  – Carlton Wells, Co-Chair – DMS Communications Engineer Supervisor
  – Facilitated a wide array of projects, all of which serve the primary goal to enhance interoperable communications.
  – These include the development of Tactical Interoperable Communications Plans, construction of a statewide interoperability network, placement of mutual aid stations on all bands throughout the state, deployment of various transportable communications systems, placement of radio equipment in Mobile Communications/Command vehicles throughout the state, and acquisition of portable radios caches.

• **Statewide Interoperability Coordinator (SWIC)**
  – Phil Royce, SWIC - FDEM Communications Branch Manager, Logistics Section
  – The responsibilities of the SWIC are:
    – Interfaces with federal, state and local agencies regarding interoperable communication issues.
    – Flow of information regarding interoperable communication issues between the federal government, DSOC, SIGB/FEITC and ICC SWG.
    – Responsible for updating and maintaining the Florida SCIP.

• All of the boards, committees and positions listed above work together to ensure that the state continues to move forward in improving interoperable communications throughout the state.
**Interoperable Systems**

- FIN
  - Full Time InterOp System)
- SLERS
  - All RF Radio Bands
- MARC
- EDICS (InterOp System)
- EDWARDS (InterOp Data)
- National Mutual Aid Frequencies
- National EMS Frequencies
- LOCAL Trunked and Non-Trunked Communications Systems (800, UHF, VHF)

**Stand Alone Systems**

- EMnet (Alert and Notification System)
- NAWAS (Federal / State Alert and Notification System)
- EAS / IPAWS / CMAS / WEA (Alert and Notification System)
- MSAT (Satellite Radio Dispatch and Telephone)
- VSAT (Satellite Data and VoIP)
- Military SINCgars unless through an approved switch
Interoperable Communications Exercises and Training

**EXERCISES:**
- *February 2010 – RADAR at Camp Blanding*
- *21 Regional IO Exercises*
- *February 2013 – RADAR II at Camp Blanding*

**TRAINING:**
- FIN
- SLERS
- EDICS/EDWARDS
- MARC
- COM-L
- COM-T
FIN NETWORK

- The Florida interoperability network (FIN) utilizes Motorola's Motobridge hardware and software. FIN is managed by Florida DMS.
  - Primary components are Operations and Maintenance Center (OMC) servers and System Initiation Protocol (SIP) servers at the system level; and Radio Gateway Units (RGUs), and Dispatcher Application software at the local level.
  - DMS' MyFloridaNet (MFN) service provides the connectivity and redundancy for the network. Other characteristics of FIN are:

  - IP-Based Network
  - Distributed architecture with no central switch and redundancy to insure 24/7 system services
  - Support for all radio frequency bands and proprietary systems
  - Secured, encrypted network
  - Scalable components for future expansion, if desired
  - Motorola's Network management & system maintenance
Florida's Statewide Law Enforcement Radio System (SLERS) is a single, unified radio network that meets the radio voice communications needs of state law enforcement and other participating agencies throughout the state. SLERS is a 800/700 MHz system consisting of 200 Microwave, RF multi-sites, and RF simulcast sites.

- The SLERS all-digital radio network covers over 60,000 square miles (including 25 miles offshore) with 98% mobile coverage and portable coverage in selected areas.
- Effective interagency, interoperable communications;
- Coordinated communications with local public safety entities;
- Replacement of older, agency-specific systems without duplication of effort.
- In 2006, FDEM was granted permission to establish a State Emergency Management Network on SLERS
  - This replaced the old Civil Defense VHF Low-Band network
- SLERS Radio rollout to counties now affords this interconnectivity across the state that is interoperable with other systems.
**EDICS / EDWARDS**

- **EDICS** System is a tactical field based InterOperable voice communications system consisting of:
  - VHF-low band
  - VHF-high band
  - VHF-Aircraft
  - UHF low band
  - UHF high band
  - Multi-band Radios
  - SLERS
  - Cellular PBX Switches
  - SINCGARS Military *(Only under special situations)*
  - Satellite Radio Dispatch System
  - 800MHz Trunked Type I, II/IIA, EDACS, and LTR
  - HF Option for future expansion
  - VoIP FIN Bridge from the EDWARDS System Package

- **EDWARDS** is a tactical field based InterOperable VSAT Satellite Data and VoIP system
1. The **National Warning System** (NAWAS) is an automated 4-wire telephone system developed in the 1940’s used to convey warnings to United States-based federal, state and local governments.

2. NAWAS is managed, operated and fully funded by the Federal Emergency Management Agency (FEMA) and remains the primary system to warn the public of nuclear attack.

3. The system is designed to provide protection for lightning strikes so they may be used during storms.

4. The interconnecting lines provide protection by avoiding local telephone switches. This ensures they are available even when the local system is down or overloaded.

5. Federal NAWAS has major terminals at each state Emergency Operations Center.

6. State NAWAS includes secondary terminals include County Warning Points, Emergency Operations Centers, National Weather Service field offices and Public-safety answering points (PSAPs).

7. NAWAS is used to disseminate warning information for natural and technological disasters to approximately 2200 warning points throughout the continental United States, Alaska, Hawaii and the Virgin Islands.
Florida Emergency Management Network
109 Florida EMnet Stations

- 67 Counties
- 28 LP-1 Stations (EAS)
- 3 NPP
- 7 NWS Offices (Weather)
- FLNG X 2
- FDLE X 2 (AMBER Alerts)
- FDEM X 2 (SWP)
EMNet Alert & Warning

- True “All-Hazards” Alert and Warning Data Stream
  - NOAA/NWS
  - EMnet States and Provinces
  - Federal Agencies
  - IPAWS, WEA and PLAN Compliant

- Supports Multiple Languages
- Outdoor Public Alerting (Sirens, Etc.)
  - Florida NOAA iDirect Sites

- RSS Atom Feeds (CAP Feeds)
- Advanced Notification Features
- EAS is a flexible, survivable, and secure distribution network developed back in the 1950’s and modernized over the years.
- NOAA Hazcollect Interface
The Presidential Message is passed to the White House Communications Agency (WHCA) for implementation. The WHCA contacts the Federal Emergency Management Agency (FEMA) with EAS implementation instructions.

FEMA, using a network, relays the message to the National Primary (NP) broadcast entities. Also known as Primary Entry Point (PEP) Stations.

- WOKV (690 AM) - Jacksonville
- WFLF (540 AM) - Orlando
- WAQI (710 AM) - Miami

NPR’s are also known as Participating National Stations (NP). The test will be disseminated nationwide through an NPR satellite channel (Squawk Channel).

If you have inadequate PEP Coverage, you must rely on the NPR to receive the test.

Local Primary Stations (LP-1 & LP-2) must monitor a PEP station & NPR to receive the message and relay the message forward.

LP Stations must monitor 2 National EAS Sources.

All other broadcast stations and cable operators in the area will receive the message from either or both the PEP station and/or NPR station, or their respective LP stations.

*These stations should monitor 2 EAS Sources.
STATE EAS PLAN

EAS ACTIVATION

EAS activation is initiated by the Florida Division of Emergency Management (The Governor is authorized to activate EAS via FDEM), or the National Weather Service, or the County Emergency Management Coordinator.

FDEM

In the event that an emergency or disaster event impacts Florida on a regional or statewide basis, the Florida Division of Emergency Management must activate EAS to warn citizens.

COUNTY EOC

In the event of emergencies or disasters local emergency managers have the authority and must immediately advise the population by communicating directly with LP-1 Stations.

NWS

When a significant weather system covers a large portion of the state, more than one NWS Forecast Office may be required to activate EAS.

LP - 1

LP – 1 must monitor state relay network (FDEM and LP – 2)

LOCAL PRIMARY STATIONS

RELAY to LP Stations

RELAY to LP Stations

MONITOR

LP - 2

LP – 2 must monitor state relay network (FDEM and LP – 1)

MONITOR

MONITOR LP - 1

MONITOR LP - 2

RELAY to All Stations

RELAY to All Stations

ALL BROADCAST STATIONS AND CABLE OPERATORS

All Broadcast Stations and Cable Operators in the area will receive the message from LP stations.

*These stations should monitor appropriate LP Stations according to their Operational Area
NEW ADDITIONS - EMNet

• 2-Years pre-paid service for all 67 Florida counties
• Second Handset for County EOC
• EAS Origination Software for counties to issue Civil Emergency Messages
  – Users must be trained and certified on an individual basis to initiate an EAS Message
    • User Name and password based
• MOU with FEMA then issued Alerting Authority by FDEM
CMAS / WEA

- 5+ National Cell phone carriers have agreed to carry CMAS / WEP so far.
  - Sprint
  - Verizon
  - AT&T
  - T-Mobile
  - U.S. Cellular

- In Florida, all CMAS / WEA targeted alerts will be sent through EMnet.
  - State and County

- EMnet connects through the IPAWS Aggregator
Issuing an Alert - WEA

EMNet Interface to IPAWS

Wireless Emergency Alerts
- Presidential National Emergencies
- Severe Weather
- Civil Emergencies

Inside the Tower Footprint
County wide by FIPS at present

Outside the Tower Footprint

Get a Plan! FloridaDisaster.org
FirstNet Project Status Update

• The **First Responder Network (FirstNet)** Authority was created on February 22, 2012, under the Middle Class Tax Relief and Job Creation Act.

• **FirstNet** is an independent authority within the U.S. Department of Commerce's National Telecommunications and Information Administration.

• **FloridaNet** is a multi-year program designed to provide a framework for Florida First Responders to work with the First Responder Network Authority (**FirstNet**) in the design efforts for the nation's first **Public Safety Broadband Network**.

• The goal of this program is to work with **FirstNet** to create a network design that can meet the requirements of the public safety mission in Florida.
FloridaNet Project Status Update

- State and Local Implementation Grant (SLIGP) awarded to Florida Department of Emergency Management in 2013
- Agencies benefitting from this program include:
  Law Enforcement • Emergency Management • Emergency Medical Services • Tribal Public Safety Agencies • Health Services • Public Works • Fire Services
- Florida Department of Highway Safety is sub recipient of SLIGP and provides the full time staffing for the FloridaNet project
- On April 27, 2015, FirstNet issued the First Responder Network Authority's Special Notice draft RFP which explains the proposed design and operation of the Nationwide Public Safety Broadband Network (NPSBN).
- The final RFP will be issued before the end of the calendar year, yet it could take another 12-to-18 months before an award is made.
Contract Vehicle Survey
Florida County Survey of Communications Systems
White Paper Results

Jurisdictional Level

- Local: 45%
- County: 37%
- State: 10%
- Private: 3%
- Other: 2%
- Federal: 1%
- Public Health: 1%

Commercial Carrier

- Verizon: 83%
- AT&T: 32%
- Sprint: 28%
- T-Mobile: 4%
- Other: 2%

Data Usage Monitoring

- Yes: 7%
- No: 12%
- Not Known: 17%

Procurement Method

- Master contract - State: 37%
- Local RFP/Bid: 22%
- Based on price quotes: 17%
- Unknown: 15%
- Master contract - Other: 12%
- Carrier selected by other: 8%
- Master contract - Other: 5%
- Based on price quotes: 2%

Discipline

- Law Enforcement: 33%
- Fire Service: 25%
- Public Safety: 12%
- Other: 10%
- Emergency Management: 8%
- Emergency Medical Services: 4%
- Public Health: 3%
- Public Utilities: 3%
- Military: 1%
Data Collection

Next Steps

• Continue to send Netmotion Wireless data to FirstNet

• Currently reaching out to agencies with data monitoring tools; asking them to provide data to FirstNet

• Minimum data requested: location, responder type, time, applications

• Submit as much data as we can to FirstNet by September 30, 2015

• FirstNet to produce nationwide Request for Proposal (RFP) by the end of 2015

• Develop vendor specifications for data collection
  • Deliverable timelines, data formats, etc.

• Vendor begins in-depth data collection effort January 2016
Questions

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