

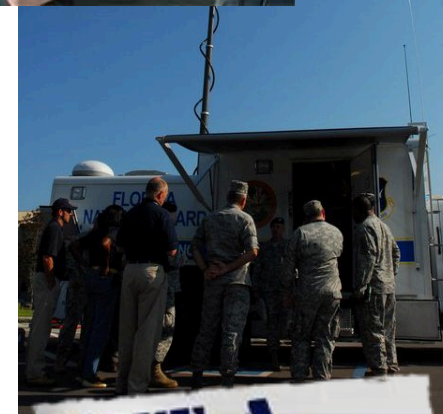
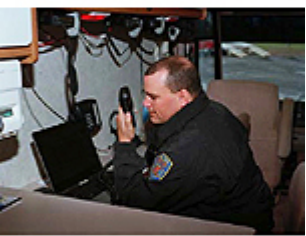
EMERGENCY MANAGEMENT COMMUNICATIONS

FLORIDA
INTEROPERABILITY

Critical Issues In Emergency Management 2015

Chuck Hagan
State Logistics Chief

Phil Royce
Communications Branch
Manager



**GET A
PLAN!**
FloridaDisaster.org

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.



**GET A
PLAN!**
FloridaDisaster.org

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 SINGARS unless through an approved switch



Interoperable Communications Exercises and Training

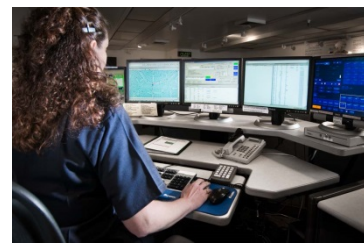


- **EXERCISES:**
 - February 2010 – RADAR at Camp Blanding
 - 21 Regional IO Exercises
 - February 2013 – RADAR II at Camp Blanding
- **TRAINING:**
 - FIN
 - SLERS
 - EDICS/EDWARDS
 - MARC
 - COM-L
 - COM-T



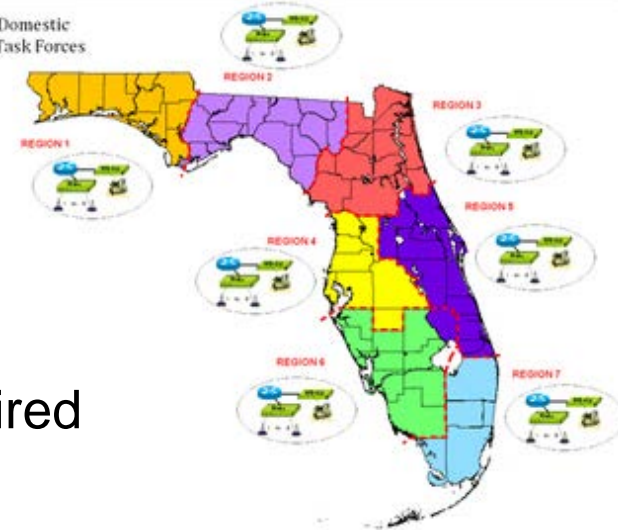
**GET A
PLAN!**
FloridaDisaster.org

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

Regional Domestic Security Task Forces



**GET A
PLAN!**
FloridaDisaster.org

SLERS

System Description



- 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.
- SLERS Training is on line at <https://slerstraining.state.fl.us/Welcome/tabid/67/Default.aspx?returnurl=%2fdefault.aspx>



EDICS / EDWARDS



- The **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



NAWAS



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.



**GET A
PLAN!**
FloridaDisaster.org

Florida Emergency Management Network

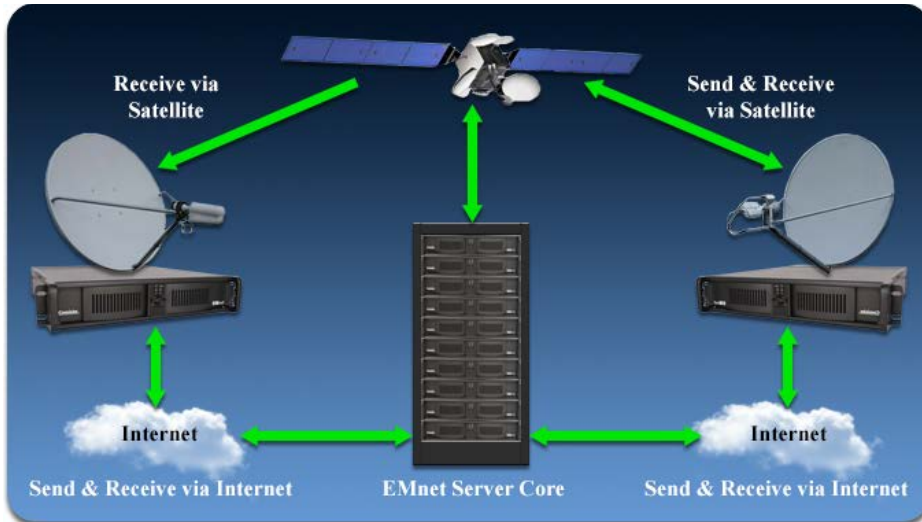
The screenshot displays four overlapping windows from the EMnet software suite:

- EMnet Message Manager:** Shows an inbox with a list of received messages. The list includes columns for 'Received', 'From', 'Subject', 'Files', and 'Size'. Messages are dated from 11/07/2008 to 11/14/2008.
- EMnet Station Monitor - E-news:** Displays a table of station status for various addresses (AL.000 to AL.452). The table includes columns for 'Address', 'Status', 'Alarms', 'Histogram', and '% ready'. A histogram bar chart is visible for each address.
- EMnet Voice Manager:** Shows a grid of buttons for managing voice calls, with names like Tom, David, Jenny, Roland, Jared, Randy, and Robert.
- Compose a new EMnet message:** A form for creating a new message. The 'To' field is 'CL.003' and the 'Subject' is 'Flood Damage Information'. The message body contains a placeholder for an image and a text message: 'Here is a picture of the flood damage. Please send me your resource status report on EMnet and have your field coordinator call me on EMnet voice.' The signature is 'Thanks, Steve'.



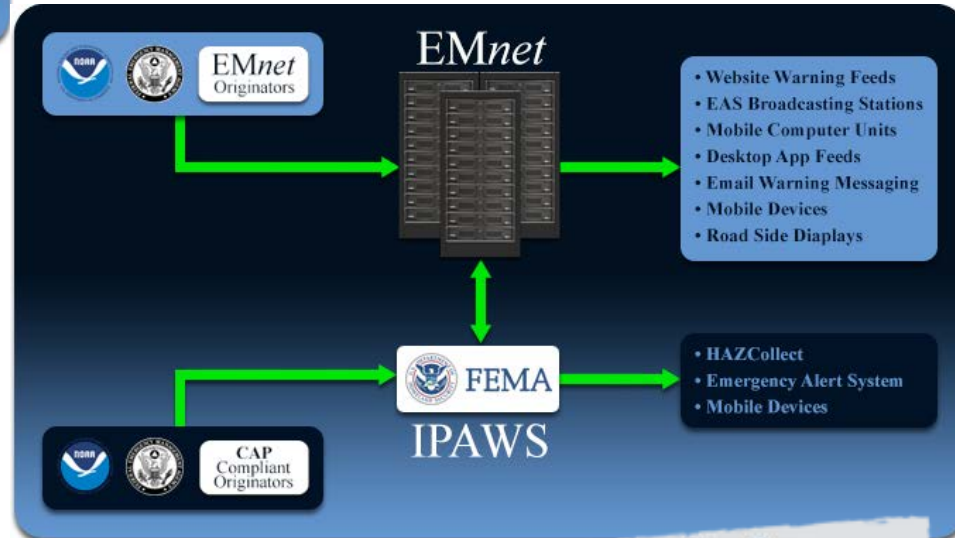
GET A PLAN!
FloridaDisaster.org

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)



GET A PLAN!
FloridaDisaster.org

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
 - Baker – Columbia – Liberty – Calhoun – Gulf – Franklin – Wakulla – Gilchrist – Taylor – Lafayette – Dixie – Hendry - Monroe
- 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



FEDERAL EAS PLAN



FEMA/WHCA

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

RELAY to PEP

RELAY to NPR

PEP

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

PEP Stations in Florida:

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

NPR

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

RELAY to LP Stations

LP-1 & LP-2

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

MONITOR PEP

MONITOR NPR

RELAY to All Stations

RELAY to All Stations

MONITOR PEP Stations

RELAY

MONITOR

MONITOR NPR Stations

ALL OTHER BROADCAST STATIONS & CABLE OPERATORS

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.

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.

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

RELAY to LP Stations

RELAY to LP Stations

LP - 1

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

MONITOR

LOCAL PRIMARY STATIONS

MONITOR

LP - 2

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

RELAY to All Stations

RELAY to All Stations

MONITOR LP - 1

MONITOR LP - 2

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.

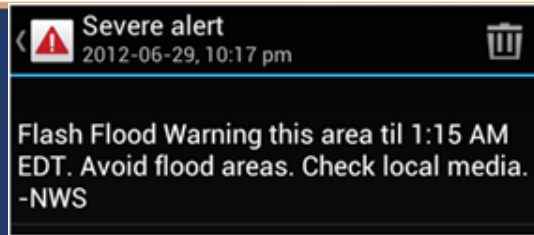
- Sprint
- Verizon
- AT&T
- T-Mobile
- U.S. Cellular



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

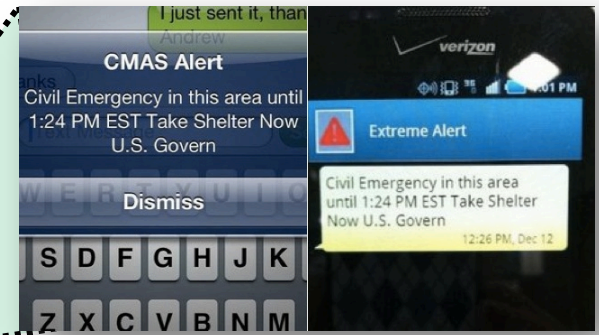
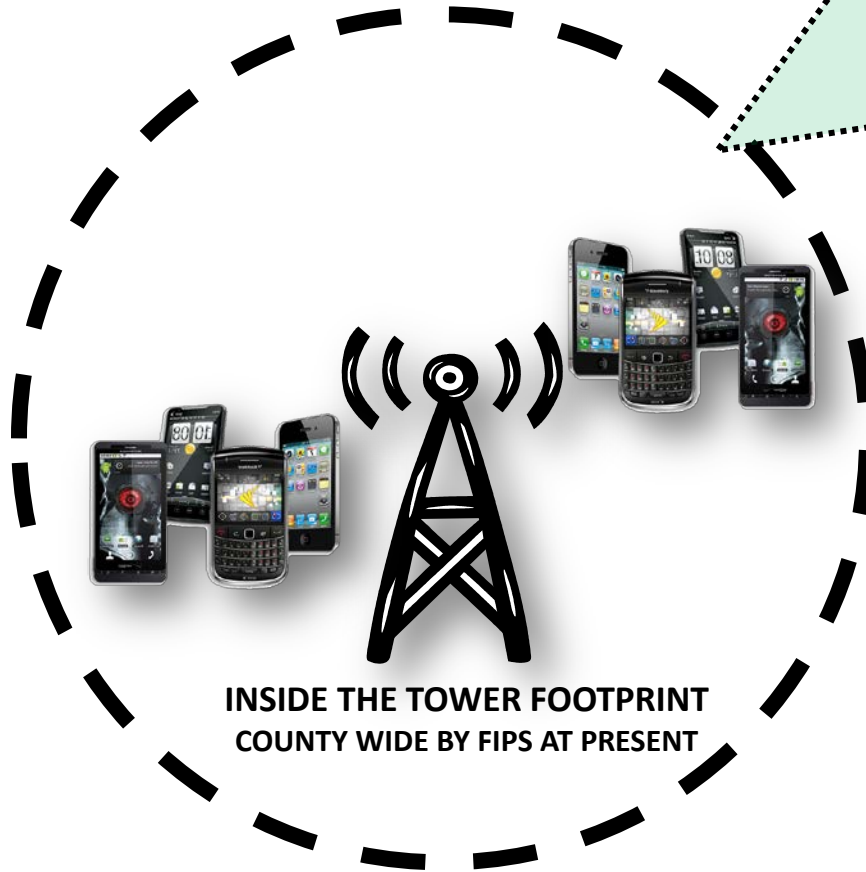


GET A PLAN!
FloridaDisaster.org



Issuing an Alert - WEA

EMNet Interface to IPAWS



WIRELESS EMERGENCY ALERTS

- Presidential National Emergencies
- Severe Weather
- Civil Emergencies



OUTSIDE THE TOWER FOOTPRINT



GET A PLAN!
FloridaDisaster.org



FirstNet™

FloridaNet Project Status Update

DEM

October 2015



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.



**GET A
PLAN!**
FloridaDisaster.org

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.

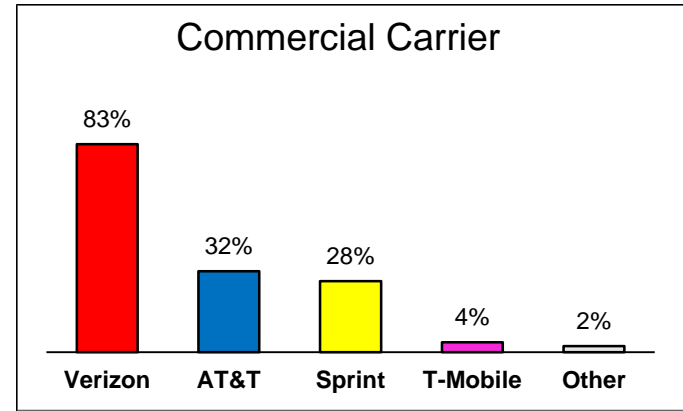
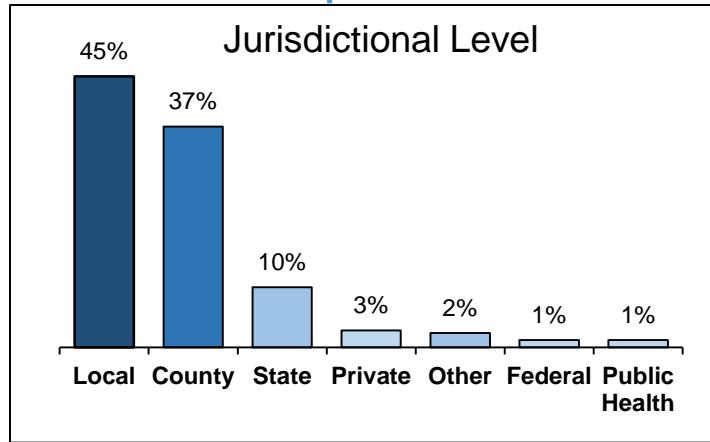


**GET A
PLAN!**
FloridaDisaster.org

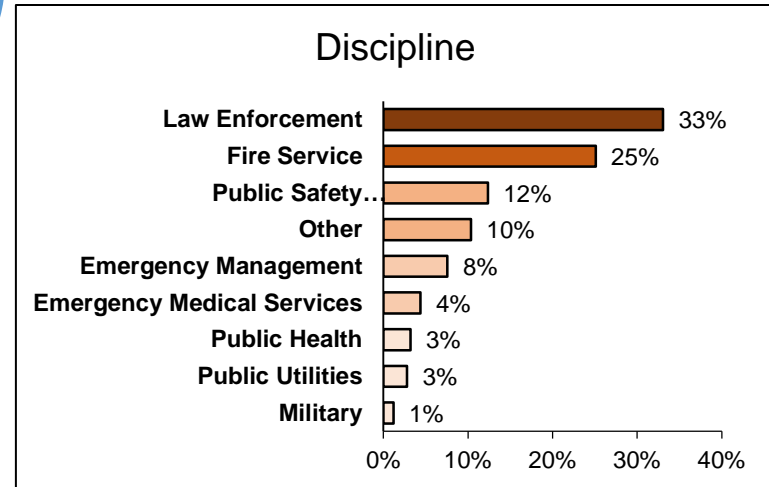
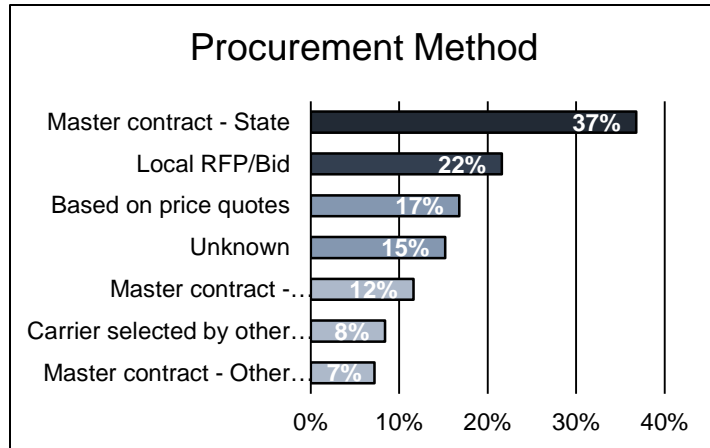
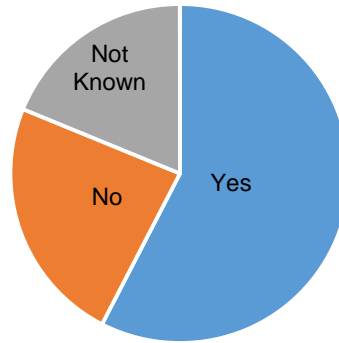
Contract Vehicle Survey

Florida County Survey of Communications Systems

White Paper Results



Data Usage Monitoring



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



FLORIDA
INTEROPERABILITY

Florida Executive Interoperable Technology Committee Co-Chairs

Bill Rogers

Director, Division of Telecommunications
DMS

Bill.Rogers@dms.myflorida.com

Chuck Hagan

State Logistics Chief
Florida DEM

charles.hagan@em.myflorida.com

State Working Group – Interoperable Communications Committee Co-Chairs

Carlton Wells

State of Florida, DMS
Comm Engineer Supervisor

carlton.wells@dms.myflorida.com

850-922-7426

Greg Holcomb

Lake County

Division Manager/E911 Coordinator

GHolcomb@lakecountyfl.gov

352-343-9491

Florida Statewide Interoperability Coordinator (SWIC)

Phil Royce , Communications Branch Director

Logistics Section

Florida DEM

Phil.royce@em.myflorida.com



**GET A
PLAN!**
FloridaDisaster.org