

Alabama First Responder Wireless Commission

Alabama 9-1-1 Board 11/13/2014





Executive Order 34



- Before Executive Order 34, no one body was tasked to work towards a resolution to the state's first responder communication problems.
- This executive order created a commission that focused on how to best meet the communication needs of all first responders across the state.
- Federal, State, Local & Tribal jurisdictions currently operate numerous disparate communication systems that cover the same area.
- State communication infrastructure (towers, microwave, shelters, etc.) is limited and in most cases will not facilitate additional equipment to provide public safety grade communications.
- Required ALL state agencies to work together for the common goal.

Office of the Governor



ROBERT BENTLEY

Governor

Press Office

August 16, 2012

EXECUTIVE ORDER NUMBER 34 Amendment Number 1

Under and by virtue of the authority vested in me by law and pursuant thereto, I do hereby amend Executive Order Number 34, executed on August 7, 2012, by deleting the same in its entirety and inserting in lieu thereof the following:

WHEREAS, since the tragic events of April 27, 2011, interoperability of voice and data communications among our first responders is of paramount importance;

WHEREAS, current state and local public safety communication systems infrastructure is limited and in most cases does not facilitate interoperable communications;

WHEREAS, federal, state, local, and tribal jurisdictions presently operate numerous disparate analog and digital radio communication systems for first responder operations with Public Safety, Public Health, Public Works and others;

WHEREAS, Congress has passed legislation which has been signed into law allocating 10 MHz of radio spectrum in the 700 MHz Band (commonly referred to as the "D Block") to public safety for the purpose of building a nationwide broadband communications network:

WHEREAS, the bill creates an independent authority known as the First Responder Network Authority within the National Telecommunications and Information Administration and provides funding to use the D Block and adjacent public safety spectrum to build the network:

WHEREAS, the D Block and other 700 MHz Spectrum will provide frequencies for exclusive use by first responders to communicate with other first responders and support personnel in areas subject to emergency incidents or disaster;

WHEREAS, there is a need for direction and coordination in implementing the First Responder Network in Alabama and this administration is committed to taking all actions deemed necessary to provide for preparation of the establishment and the coordination of these state efforts to insure the use of this spectrum for first responders responding to emergencies; and,

WHEREAS, the necessity of reliable communications and interoperability among our first responders has been demonstrated in the aftermath of numerous natural disasters affecting our state.

NOW, THEREFORE, based upon these considerations, and for other good and valid reasons related thereto, I, Robert Bentley, Governor of the State of Alabama, by virtue of the authority vested in me by the Constitution and Laws of the State of Alabama, do hereby order and direct as follows:

ALABAMA FIRST RESPONDER WIRELESS COMMISSION



ACT 2013-330



- Act 2013-330 (House Bill 92), codified the Governor's Executive Order 34 and permanently created the Alabama First Responder Wireless Commission.
- The AFRWC is comprised of 28 commissioners representing State, County, and Municipal first responders from Law, Fire, EMA, EMS and other disciplines.



Commission Membership



- The Secretary of the Alabama State Law Enforcement Agency;
- The Director of the Alabama Emergency Management Agency;
- The Director of the Alabama Department of Public Safety;
- The Director of the Alabama Department of Transportation;
- The Adjutant General of the Alabama National Guard;
- The Commissioner of the Alabama Department of Conservation and Natural Resources;
- The Director of the Alabama Department of Corrections;
- The Director of the Alabama Department of Finance (CIO);
- The State Wide Interoperability Coordinator;
- The Commissioner of the Alabama Forestry Commission;
- The Director of the Alabama Department of Public Health;
- The Director of the Alcoholic Beverage Control;
- The Director of the Alabama Dept. of Economic and Community Affairs;
- The Alabama Fire Marshall;
- The Commissioner of Alabama AG & Industries;

- A representative as appointed by the Alabama Sheriffs Association;
- A representative as appointed by the Alabama Association of Volunteer Fire Departments;
- A representative as appointed by the Alabama Association of Rescue Squads;
- A representative as appointed by the Alabama Association of Chiefs of Police;
- A representative as appointed by the Alabama Association of Emergency Managers;
- A representative as appointed by the Alabama Association of Fire Chiefs;
- The Chairperson of the Federal Communications Commission's Region 1, 700MHz Regional Planning Committee;
- A representative of the Poarch Creek Band of Creek Indians;
- A representative as appointed by the National Emergency Number Association of Alabama;
- A representative as appointed by the Alabama Association of 911 Districts;
- A representative as appointed by the ACCA;
- A representative as appointed by the AL League of Municipalities; and
- A representative as appointed by the Governor.



So now what?



- Act 2013-330 (HB92) created the Commission and gave the appropriate authority to begin addressing deficiencies relating to communications for our First Responders.
- It also provided the governance structure needed to bring all the relevant players to the table from both state and local response agencies.
- Most of all, it provided a unified approach that did not alienate local input into a statewide solution.



Commission's Vision



The Alabama First Responder Wireless Commission's (AFRWC) vision is to strengthen public safety emergency communications and interoperability and to create a unified and integrated voice/data communications platform, with the technology, equipment, and procedures necessary to allow first responder and public safety agencies at the State, County, Tribal, and Municipal levels to communicate to safely, effectively, and efficiently to protect the people of Alabama.



Mission Statement



The mission of the AFRWC is to establish and sustain innovative and consensus-based approaches to mission-critical wireless communications technology and interagency partnerships that lead to seamless communications among public safety agencies serving the citizens of Alabama. Responsibilities of the Commission include:

- Strategic planning of public safety spectrum and serving as the intergovernmental bridge between Federal, State, Local, Tribal and private entities to foster and promote collaboration and information sharing
- Promoting the efficient use of public resources to ensure that essential public safety personnel have effective communications
- Planning, building, implementing and maintaining radio access networks and their application in public safety, public health, and public works



AFRWC Workgroups



- The AFRWC has created workgroups to assist the commission in meeting it's goals and objectives:
 - Project 25 System Administrators Workgroup
 - State Agencies Workgroup
 - Broadband & Radio Users Workgroup
 - Comprised of Chairpersons from the Divisional Advisory Committees***
 - Policies and Procedures Workgroup





Divisional Advisory Committee





- The use of Division Advisory
 Committees (DAC's) will facilitate a
 collaborative decision-making process
 that supports interoperability efforts to
 improve communication, coordination,
 and cooperation across disciplines and
 jurisdictions.
- This will promote the efficient use of public resources to ensure that essential public safety personnel have effective communications
- This will assist the planning, building, implementing and maintaining radio access networks and their application in public safety, public health, and public works



DAC Development



- Establish Divisional Advisory Committees (DAC's) based on Stakeholder Groups within the 7 Geographical Divisions of the state.
- DAC's should appoint a Chair & Vice Chair.
- DAC's should meet once per quarter and no less than 30 days prior to a scheduled AFRWC meeting.
 - DAC is required to hold at least two face to face meetings annually.
 - Additional DAC meetings could be held by video and/or teleconference.
 - DAC meeting minutes should be documented and made available to all members of the DAC & AFRWC.



Statewide Governance Structure Divisional Advisory Committee (DAC)



DIVISION STAKEHOLDERS

- •EMA
- Sherriff
- Police Chief
- Private EMS
- Public EMS
- Public Health
- •911 Representative
- Volunteer Fire
- Fire Chief
- •Rescue Squad
- •County Elected Official
- Local Elected Official
- •DPS Division Commander
- Utilities Representative
- •Education Representative

DIVISIONAL ADVISORY COMMITTEE

- Chair
- Vice Chair
- Stakeholders

ALABAMA FIRST RESPONDER WIRELESS COMMISSION

- DAC Working Group
- Division A, Chair/Rep
- Division B, Chair/Rep
- Division C, Chair/Rep
- •Division D, Chair/Rep
- •Division E, Chair/Rep
- <u>Division</u> F, Chair/Rep
- Division G, Chair/Rep

OBJECTIVE
Collaborative Statewide Interoperable Public

•COl

ALABAMA FIRST RESPONDER WIRELESS COMMISSION



Current Issues



- Alabama does not have a unified communications system. This creates the inability for First Responders to communicate with each other on emergency scenes or during disasters.
- Alabama currently funds disparate communication systems for ADPS, AEMA, Alabama Forestry, AL DOT, ADOC, and other smaller agencies.
- None of the current systems are capable of serving our First Responder's needs statewide.
- The state's current communication systems are based on 40 year old technology. Coverage area for existing state owned systems is extremely bad and a liability.
 - This lack of coverage presents an ever growing safety issue for our responders.



Solution



- Move to a unified statewide communication platform.
- Use open standards (Project 25) to build a system that all first responder agencies/departments could utilize.
- Capitalize on existing taxpayer investments at the local level by partnering with those jurisdictions that have Project 25 systems.
- Upgrade state infrastructure by building towers, deploying microwave for backhaul connectivity, and laying fiber optic cable.



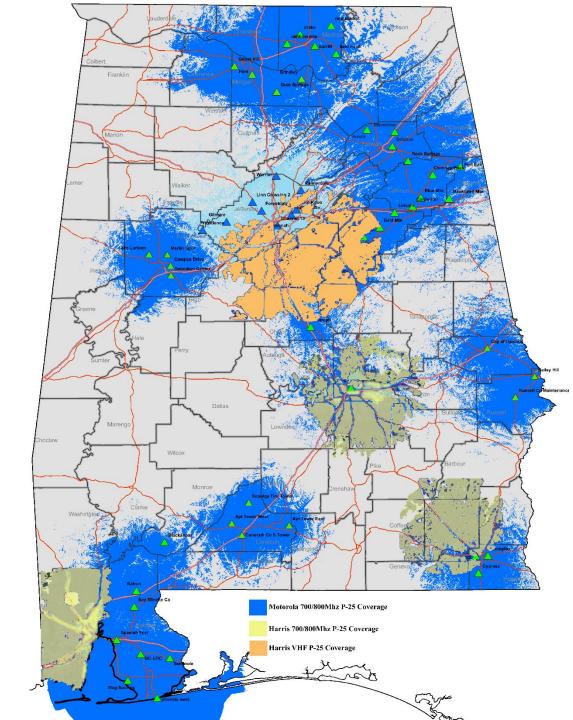
Project 25 Systems



- Project 25 (P25 or APCO-25) is a suite of standards for digital radio communications for use by public safety agencies to enable them to communicate with other agencies and mutual aid response teams in emergencies.
- In a nutshell, P-25 is meant to facilitate various vendor units operating on a specific vendor's communications infrastructure.
- Vendors submit their equipment for testing and certification to the Public Safety Communications Research (PSCR) program.

Motorola P-25 700MHz Coverage shown in Blue

Harris P-25 Coverage shown in Orange/Yellow





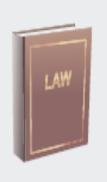


Overview of FirstNet and the National Public Safety Broadband Network (NPSBN)

Cathy Dawson
Education and Outreach Project
Manager

VISION

To provide emergency responders with the first nationwide, high-speed, wireless broadband network dedicated to public safety



THE LAW **2.22.12**

FirstNet becomes Law PL 112-96

GOVERNANCE



FirstNet Board of Directors' 15 members have backgrounds in police, fire, sheriff, emergency medical, city government, and commercial telecommunications.

Governor appoints 1 single Point of Contact and governing body to represent the state's interests to FirstNet.

41 member Public Safety Advisory Committee (PSAC) advises FirstNet on public safety intergovernmental matters.

FUNDING

authorized to build

the FirstNet Network. Funded by spectrum auctions through 2022. The first auction netted

₹\$1.6B

20MHz of bandwidth has been dedicated to public safety in the prime **700MHz** frequency range.

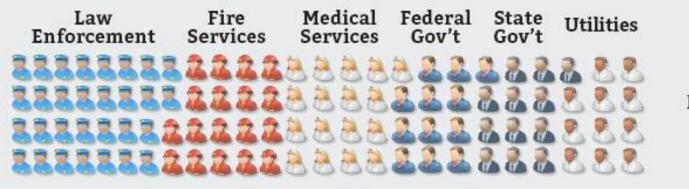


WHO WILL USE FIRSTNET





5.4 Million Potential FirstNet public safety users nationwide



FirstNet must provide service in all 50 US states, 5 territories, and Washington, DC.

3,800,000 Square Miles

60,000 **Public Safety Agencies**

> 3,250 Counties

> > 566

Tribes

THE COVERAGE CHALLENGE

FirstNet coverage challenge: geography is divided into 5 categories. Dense urban, urban and suburban are where most people live, but make up only 5% of the US land mass.

5%



Dense Urban Urban Suburban

Rural

Wilderness

FIRSTNET NETWORK

To meet this challenge, FirstNet is considering a 3-in-1 network architecture using land-based cellular, satellite and deployable systems to provide coverage.





2014-2016

Business plan Outreach and awareness Collect local data and design network Develop and award supplier RFP Establish network core



HOW MUCH WILL IT COST?

To offer public safety grade services at a cost that's competitive and compelling to users.

- FirstNet Tenet

2016+

Governor reviews design offer and opts in or out of FirstNet network deployment Integrate Next Generation 9-1-1

THE ROAD TO FIRSTNET

2022

Last spectrum auction Network substantially in operation



FirstNet Board



- Headed by a 15-member Board.
 - Multi-jurisdictional, Multi-discipline backgrounds, but mostly retired commercial wireless professionals.
- Holds the license to the entire 20 MHz of public safety broadband spectrum.
- The law requires FirstNet to consult with regional, state, tribal, and local jurisdictions on a number of different issues associated with the NPSBN design and build out.



FirstNet (cont.)



- FirstNet must develop a Request for Proposal (RFP) for the construction, operations, maintenance, and improvements of the NPSBN.
- When the RFP process is complete, FirstNet will notify the Governor of each state (or his/her designee) the details of the proposed plan for build out of the NPSBN in the state and funding levels for the state as determined by NTIA.
- No later than 90 days after being notified by FirstNet, each Governor must choose whether his/her state will participate in the deployment of the NPSBN as proposed by FirstNet or conduct its own deployment of the radio access network (RAN) in the state.
 - This is referred to as the Governor's "Opt-In" or "Opt-Out" decision.



What about voice?



- The NPSBN, will not satisfy our ever growing need for public safety wireless voice interoperable communications.
- The future goal for broadband networks is to satisfy both data and voice needs. However, this technology is still many years away from development.
 - Keep in mind, commercial VoIP is not public safety grade communications.
- Our efforts to establish a Unified Project 25 communication system must continue.



Outreach



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Questions?



