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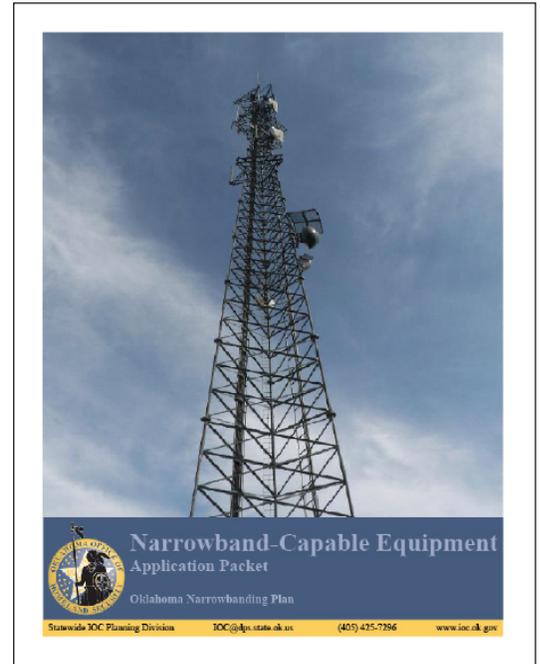
May 11:
Narrowbanding Technical
Assistance Workshop

Oklahoma Narrowbanding Plan Provides Assistance

The Federal Communications Commission (FCC) is mandating that all public safety licensees convert existing 25 kHz radio systems to minimum narrowband 12.5 kHz efficiency technology by January 1, 2013. The purpose of the narrowbanding mandate is to promote more efficient use of the VHF and UHF land mobile bands by opening up additional channels within the same spectrum space. All land mobile Part 90, 25 kHz efficiency systems operating on VHF (150-174 MHz) and UHF (421-512 MHz) frequency bands are subject to the narrowbanding mandate. If an agency is not in compliance with the narrowbanding mandate by the January 1, 2013, deadline the FCC may issue fines and/or cancel licenses.

To assist Oklahoma public safety agencies with this unfunded mandate, the Oklahoma Office of Homeland Security's (OKOHS) Statewide Interoperable Communications Planning Division has created the Oklahoma Narrowbanding Plan. The first part of the plan consists of an outreach component to ensure that Oklahoma public safety agencies remain aware of the mandate. This includes an upcoming Narrowbanding Technical Assistance Workshop that will be held on May 11, 2011. The workshop will focus on the specific FCC requirements and will also provide a demonstration of the Frequency Mapping Tool which enables agencies to check the status of their narrowband licenses.

The second part of the Oklahoma Narrowbanding Plan consists of an equipment



component. Through the data collected during the Interoperable Communications Capabilities Assessment, OKOHS determined that a number of public safety agencies are struggling to meet the narrowbanding mandate. Recognizing that the January 1, 2013, deadline is fast approaching, OKOHS has allocated Fiscal Year 2010 Interoperable Emergency Communications Grant Program funds toward a one-time opportunity to apply for funds to be used toward the purchase of narrowband-capable equipment. Oklahoma public safety agencies that are not currently narrowband-compliant are encouraged to apply. The Narrowband-Capable Equipment Application Packet is available at www.ioc.ok.gov. Applications must be received by May 31, 2011, to ensure consideration by OKOHS.

Oklahoma Shared Systems Begin Migration to Panacea (Project 25)

By Will Borden, Department of Public Safety

Panacea is defined as “a remedy for all ills or difficulties.” Three large proprietary trunked 800 MHz public safety communications systems currently exist in Oklahoma. Logically, one would think that adopting Project 25 (P25) standards would be the panacea for making these systems interoperable. In order to determine if P25 is the cure-all for these systems, one must have a basic understanding of P25 and how it could impact the existing 800 MHz systems.

The Oklahoma Wireless Information Network (OKWIN) is a 42-site, Motorola 800 MHz trunked public safety communications system that provides coverage to 70 percent of Oklahoma’s population. Within the footprint of OKWIN, the city of Oklahoma City (“OKC”) and the city of Broken Arrow (“BA”) both operate separate and unique Harris (800 MHz trunked) public safety communication systems. When it comes to seamless interoperability, Oklahoma is not unlike any other state. Dispatch intervention and fixed, over-the-air patches are required to provide limited interoperability between these systems.

The P25 initiative was established to address the need for common standards to be defined for digital Land Mobile Radio (LMR) systems. The Public Safety Communications Research (PSCR) program is funded by the U.S. Department of Homeland Security (DHS)/Office of In-

teroperability and Compatibility and actively participates in the development of P25 standards in support of practitioner requirements for their use of digital LMRs. The PSCR believes that when implemented, P25-compliant LMR systems would allow radios and infrastructure from different manufacturers the ability to interoperate.

What exactly does this mean? Imagine a world where you were only able to place calls to friends or fam-

ily that subscribed to the same wireless provider. First responders are faced with these dire circumstances on a daily basis.

A common misconception is that there is only one P25 standard. In reality, there are actually eight categories that encompass the P25 standard. The table below provides an explanation of the P25 interfaces.

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P25 INTERFACES

#	INTERFACE	DESCRIPTION	STATUS
1	Common Air - Phase I and Phase II -Interface (CAI)	Enables digital wireless communication (voice and data) directly between P25 mobile and portable subscriber units (i.e., P25 radios) and between P25 mobile and portable subscriber units via a fixed/base station (and many times another radio, called a repeater, which is a component of the P25 equipment infrastructure).	Partially Defined
2	Subscriber Mobile Data Peripheral Interface	Enables interconnection via a direct wireline of a P25 radio with laptops, terminals or other data peripherals. A data peripheral connected to a vehicular mobile radio is referred to as a Mobile Data Peripheral (MDP).	Not Defined
3	Fixed/Base Station Subsystem Interface (FSSI)	Enables voice and control information to be transferred between an RF subsystem (RFSS) or console subsystem and a fixed/base station.	Not Defined
4	Console Subsystem Interface (CSSI)	Enables voice and control information to be transferred between an RFSS and a console subsystem (a console is equipment that a dispatcher or a supervisor uses to oversee and control mission-critical voice communications among field personnel).	Not Defined

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5	Network Management Interface	Enables administrators to comprehensively control and monitor P25 functional elements via RFSS connectivity.	Not Defined
6	Data Host Network Interface	Enables data to be communicated to/from external computers, data networks, data sources, etc., via RFSS connectivity.	Not Defined
7	Telephone Interconnect Interface	Enables field personnel to make connections through the public switched telephone network (PSTN) via RFSS connectivity by using their radios rather than, for example, using cellular telephones.	Not Defined
8	Inter-RF Subsystem Interface (ISSI)	Enables different manufacturers' RFSS equipment to interoperate, and includes support for roaming of P25 radio subscribers among different jurisdictions, agencies, cities, etc.	Defined but not tested

Despite a lack of definition for a majority of the P25 interfaces, there is still value in migrating to a P25-compliant system. For example, the partially-defined CAI allows for subscribers (handheld and mobile radios) to operate on any vendor's respective P25-compliant system. The ISSI would enable an OKWIN end-user radio the ability to affiliate with either the OKC or BA system and then transmit audio back to their primary dispatcher operating on the OKWIN system. Regardless of the immediate benefits associated with the P25 interfaces currently available, subject matter experts believe that P25-compliant systems will improve interoperability exponentially as interfaces are defined,

approved and implemented. In the interim, system owners interested in migrating from a proprietary system to a P25-compliant system have three basic areas that need to be addressed:

1. Proprietary switches must be replaced with P25-compliant digital switches
2. Subscriber equipment must be assessed:
 - a. Analog only subscribers must be replaced with P25-compliant digital subscribers.
 - b. Existing P25-capable subscribers must be upgraded with P25 firmware.
3. Repeater equipment must

be assessed:

- a. Existing repeaters that are not P25-capable would need to be replaced.
- b. Existing P25-compliant repeaters would need to be upgraded with P25 hardware and firmware.

Fortunately, the OKWIN system, the OKC system and the BA system recently replaced their proprietary switches with P25-compliant digital switches. All three systems are able to use emerging technologies to connect their P25-compliant digital switches to their existing tower infrastructure without negatively impacting their respective end users. All three systems are assessing existing subscriber and repeater equipment to determine the expense required to migrate to a fully P25-compliant system.

Oklahoma's three largest public safety communication systems are moving towards P25 compliance. For additional information regarding P25 and the three systems in Oklahoma, visit www.ioc.ok.gov.

Note: Will Borden is a project manager for the Oklahoma Department of Public Safety and has been assigned to the Oklahoma Office of Homeland Security to manage the implementation of 800 MHz projects funded by DHS.

NECP Goal 2 Workshop Kicks-Off Data Collection Process

On March 16, 2011, a Technical Assistance Workshop was held in Oklahoma City to kick-off the National Emergency Communications Plan (NECP) Goal 2 data collection process. The NECP is a strategic plan developed by the Office of Emergency Communications (OEC) which defines a series of goals that establish a minimum level of interoperable communications and a deadline for local, state, tribal and federal agencies to achieve that minimum level. Goal 1, which required 90 percent of all high risk Urban Areas designated within the Urban Area Security Initiative (UASI) to demonstrate response-level emergency communications within one hour for routine events involving multiple jurisdictions and agencies, was successfully fulfilled by the state of Oklahoma during an observation of the Oklahoma City National Memorial Annual Remembrance Ceremony on April 19, 2010.

Goal 2 requires 75 percent of non-UASI jurisdictions to demonstrate response-level emergency communications within one hour for routine events involving multiple jurisdictions and agencies. Capability and performance data must be collected from all Oklahoma counties and submitted to OEC by September 2011.

OKOHS is asking **County Emergency Managers** to assist with the Goal 2 data collection effort due to their knowledge of the various

communications-related capabilities within their counties and their involvement at various levels in the support and implementation of interoperability strategies and practices. If you were not able to attend the March 16th workshop, but you are willing to participate in this effort, a two-hour Response-Level Commu-



Public safety interoperable communications stakeholders participate in the NECP Goal 2 Workshop on May 16, 2011.

nications Training Webinar is available to enable participants to better understand the process for completing NECP Goal 2. Participants will also have the opportunity to complete the data collection process for their county during the webinar, if they should choose to do so. The webinar is available at www.public-safetytools.info.

To complete the NECP Goal 2 data collection process, it is recommended that each county:

1. Identify the desired point of contact,
2. Develop a team to assist with documentation,
3. Coordinate team-viewing of the webinar,
4. Select a local event accurately demonstrating interoperability within the county and
5. Complete the questionnaire.

Multiple webinar dates will be available throughout May, June, July and August, with project completion set for late August, so there is plenty of time to select the team members and gather the requested information.

If you are a county Emergency Manager or county designee and you are willing to participate in this effort, please contact Nikki Cassingham at ncassing@dps.state.ok.us or (405) 425-2869. For additional information about NECP Goal 2 and the webinars, visit www.ioc.ok.gov.

