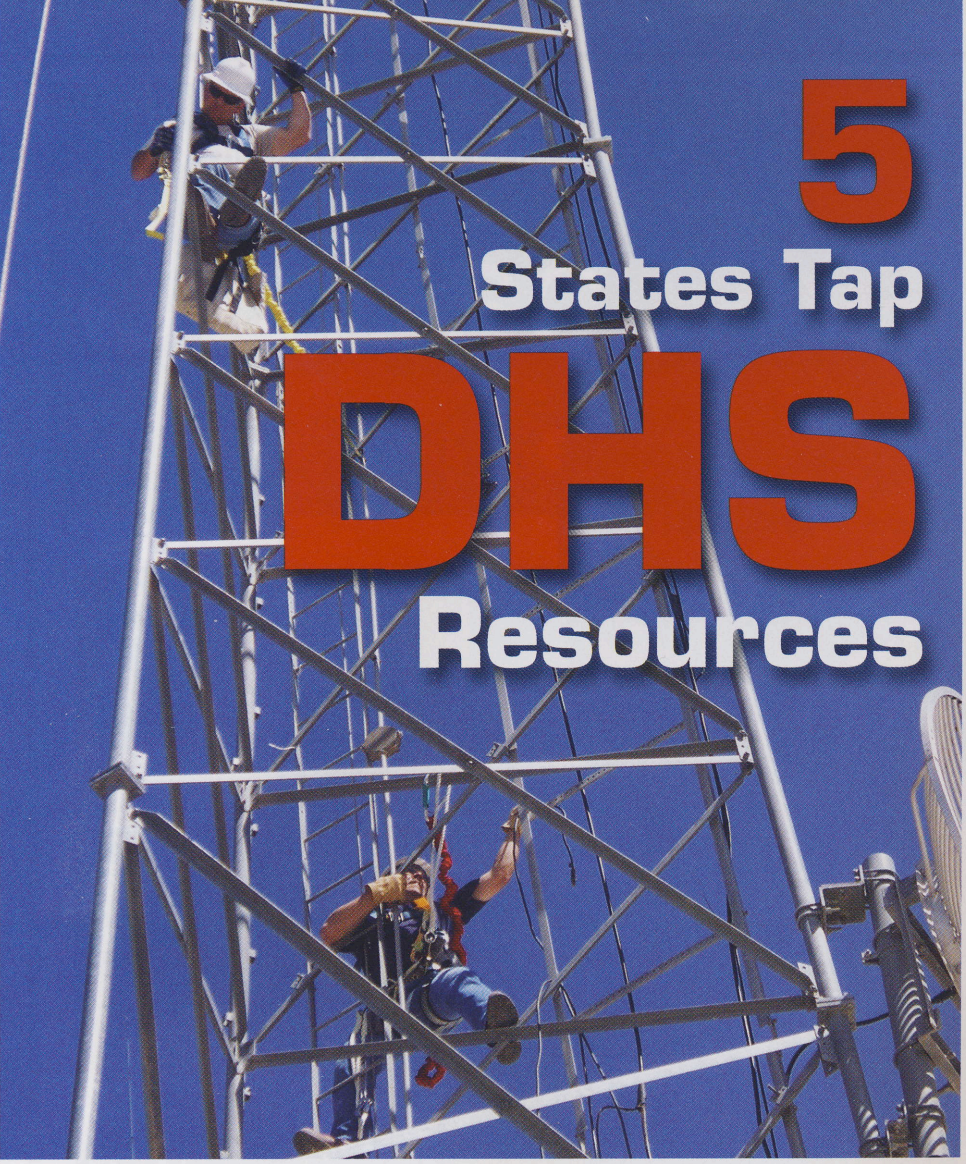

5 States Tap DHS Resources

Several states around the country are working with a new federal group to ensure interoperability among federal, state and other users.

By Chris Essid

Recent large-scale disasters are compelling reminders of how critical it is for emergency responders — police officers, firefighters and medical personnel — to be able to communicate across agencies representing multiple levels of government. To address this challenge, the Department of Homeland Security's (DHS) National Protection and Programs Directorate, Office of Emergency Communications (OEC) currently works with five states, including Wyoming, Virginia, Oregon, Arizona and Texas, to improve coordination among state and local emergency responders and their federal counterparts.

The magnitude of high-profile emergencies, such as natural disasters and bombings, demands a multidiscipline, multijurisdictional response — including agencies from the federal, state, local and tribal levels of government. Many times, responding agencies arrive on the scene only to discover that their equipment or operations, or both, are incompatible. While some agencies swap or share radios, others may relay messages through dispatchers or resort to using runners to hand carry messages. Bridging this capability gap requires more than a technological solution; partnerships across all levels of government are essential components of any blueprint for successful agency coordination.

Cross-Government Partnerships

In support of improving interoperability at the federal level, OEC coordinates with 44 federal agencies through the Federal Partnership for Interoperable Communications (FPIC) to address interoperability issues, activities and solutions. Participating federal agencies represent multiple departments, including DHS; the departments of Justice, Interior, Treasury, Defense, Agriculture, Commerce, State and Transportation; U.S. Post Office; and Social Security Administration. These federal entities are working with the state, local and tribal partners to coordinate interoperability capabilities and initiatives.

FPIC recently launched a nationwide initiative integrating federal users onto statewide, regional and local communications systems, where feasible and appropriate. FPIC projects currently include efforts in Wyoming, Virginia, Oregon, Arizona and Texas. FPIC selected these states based on recommendations from member agencies and FPIC evaluation of benefits and feasibility.

Resource Sharing in Wyoming. In a rural state with limited resources, mutual-aid operations involving federal agencies are a critical component of effective emergency response. For federal users in Wyoming to operate on the state's VHF trunked LMR infrastructure — known as WyoLink — FPIC facilitates the integration of federal users onto the communications system. Reaching beyond technology, FPIC helps federal and state users align

standard operating procedures to ensure coordinated response operations. These common approaches and shared communications resources — such as system infrastructure and spectrum — provide federal users with cost-effective improvements to interoperability with state partners.

This partnership not only allows participating federal agencies to operate on Wyoming's statewide system, but it also provides interoperability for users responding to Wyoming incidents without trunked capabilities. Additionally, FPIC helps address frequency gaps within the WyoLink system. For more on frequency and site sharing in Wyoming, see "WyoLink Covers Wild West" on Page 26.

Statewide Interoperability in Virginia. In the commonwealth of Virginia, the Virginia State Police (VSP) is the lead agency in replacing a number of legacy LMR systems with a statewide, digital, trunked communications system. Because many federal law-enforcement users employed the legacy LMR system to communicate with state and local agencies, FPIC is assisting these agencies to transition onto the new statewide network.

Through FPIC, OEC incorporates federal operational and interoperability requirements, vets technical and operational issues and identifies available federal frequencies to provide enhanced capabilities and interoperability for participating federal agencies. In addition, OEC addresses the sharing of FCC and National Telecommunications and Information Administration (NTIA) frequencies and identifies requirements to move users from the legacy network.

I-5 Corridor in Oregon. FPIC is working with the state of Oregon to coordinate federal participation in a demonstration project aimed at developing a replicable, cost-effective and time-sensitive interoperability solution. This project involves installing multiband repeaters at six sites in western Oregon along the Interstate 5 (I-5) corridor. The I-5 corridor is considered to be one of the two highest-risk areas in Oregon — with 60 percent of the state's population living within 15 miles of the highway. The I-5 corridor is also the north-south route for interstate transportation for all West Coast states.

Designed as a proof-of-concept, the interoperability layer of the Oregon Wireless Interoperability Network (OWIN) defines and deploys the proposed solution at six radio sites. This interoperability solution connects agencies across all levels of government — ensuring network users can effectively operate and coordinate using OWIN. OEC, through FPIC, works to provide OWIN users with a common mode of operation and common channel nomenclature. Further, OEC will procure the necessary equipment to ensure interoperability among federal agencies and state, local and tribal OWIN users. Ultimately, the demonstration project is envisioned to expand to a statewide and nationwide model for spectrum and network sharing.

Interconnectivity in Arizona. In Arizona, FPIC established crossgovernmental partnerships and infrastructure-sharing agreements with the Arizona Public Safety Communications Commission (PSCC) and the Arizona Department of Public Safety (AZDPS). Arizona is expanding the Phoenix Shared Infrastructure Project, also known as the Phoenix Regional Wireless Network (PRWN), to extend interoperability to additional federal, state and local emergency response agencies. The existing PRWN will interconnect with the Yuma Regional Communications System (YRCS) to establish interoperability among participating agencies.

The project defines and deploys the proposed interoperability solution with PRWN and YRCS system expansions at AZDPS and YRCS sites. The project plan includes purchasing five conventional base station repeaters for three separate locations within Arizona. These base stations will allow federal users operating on VHF and UHF radios to interface with two major 700/800 MHz Project 25 (P25) trunked networks: YRCS and PRWN. The base stations enable federal users to interface with the Department of Defense (DoD) system implemented in the 380 – 399.9 MHz band, as well as local PRWN and YRCS 700/800 MHz trunked users via conventional channel gateways.

Regional Communications in Texas. With FPIC support, Texas plans to integrate federal agencies onto regionwide communications systems that will eventually be interconnected, establishing a statewide system. This initiative will enhance the tactical wireless communications capabilities and requirements of federal law-enforcement agencies, allowing interoperability with their state and local law enforcement partners. These partnerships will meet mandates for state and local use of federal radio spectrum on shared systems.

The initiative focuses on establishing a partnership with the five Texas Councils of Government along the 1,254-mile Texas border with Mexico. The Texas Border Communications Project entails construction of a VHF P25 trunked radio infrastructure along the nearly entire length of the Texas-Mexico border, with pockets of 800 MHz P25 trunked networks in the more densely populated border areas. These 800 MHz systems will be interconnected to the VHF P25 layer. Specifically, FPIC would partner with the Rio Grande Council of Governments, the Permian Basin Regional Planning Council, the Middle Rio Grande Development Council, the

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— James Downes, FPIC chair

South Texas Development Council, and the Lower Rio Grande Valley Development Council to provide access to federal VHF spectrum and federal tower space as may be required to facilitate the development of the Texas Border Communications Project. The federal partners within FPIC would then enjoy the use of a state-of-the-art communications infrastructure at minimal cost.

Common Denominator

These state projects represent important strides toward improving interoperability among federal, state, local and tribal emergency response agencies nationwide. While addressing interoperability challenges from different angles, project partners share a common goal: to ensure federal agencies can communicate with their state, local and tribal counterparts on demand. Based on analyses of state and regional activities, FPIC will be working with Nebraska, Wisconsin and Tennessee in the future on statewide planning efforts. The collaboration among current and future project participants has proven fundamental to the success of these interoperability initiatives.

"Many states have expressed their desire to use the FPIC because they recognize it to be a central focal point between the federal agencies, rather than trying to deal with multiple agencies individually," said James Downes, chair of the FPIC. "The FPIC is actively seeking opportunities for shared infrastructure projects between the federal government and existing and future state, regional and local systems." ■

Chris Essid is the DHS OEC director. OEC was established to support and promote the ability of emergency responders and government officials to continue to communicate in the event of natural disasters, acts of terrorism or other man-made disasters, and work to ensure, accelerate and attain interoperable and operable emergency communications nationwide. E-mail comments to editor@RRMediaGroup.com.