



Arizona

Statewide Communication Interoperability Plan (SCIP) Implementation Report

September 2011

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SCIP Implementation Report Overview

The Statewide Communication Interoperability Plan (SCIP) Implementation Report provides an annual update on Arizona's progress in achieving the initiatives and strategic vision identified in the SCIP. Further, this information provides the Department of Homeland Security (DHS) Office of Emergency Communications (OEC) with a clearer understanding of Arizona's capabilities, needs, and strategic direction for achieving interoperability statewide.

SCIP Implementation Update

As required by Congress, States provide updates and changes to the status of their Statewide Interoperable Communications Plans. Each State created a SCIP in 2007 and all have been regularly updated. The report sections match those required in the original SCIP, and extensive instructions were provided to the States to understand the requirements of these sections and assist in the development of their SCIPs. The initiatives within each report include milestones identified in the NECP which will be standardized, as well as State-specific efforts.

County Interoperability Communications Assessment

In 2011, capability data (identical to the questions asked of UASIs in the 2010 report) and response-level performance data were collected at the county level to meet the National Emergency Communications Plan (NECP) Goal 2 mandate of assessing response-level communications in "non-UASI" jurisdictions. The data collected provides OEC with broader capability data across the lanes of the Interoperability Continuum which are key indicators of consistent success in response-level communications. Arizona submitted Capabilities and Performance information through the online Response Level Communications Tool. This information is not included in this report.

SCIP Implementation Update

State Overview

Overview of the State and its interoperability challenges:

Arizona has a total area of approximately 113,000 square miles, which makes it the sixth largest State in the United States. There are two major desert environments: the lower desert and the high desert. Each desert has its own special set of requirements for equipment, protection, weather conditions, and environmental concerns. The major natural disasters that impact Arizona are fires and flooding.

Arizona is bordered by the States of New Mexico, Utah, Nevada, and California, and the country of Mexico. Arizona shares a 389 mile international border with Mexico that is mostly unregulated and unprotected. Major challenges exist in adequately patrolling the area due to the limited number of existing border patrol resources. Arizona has bi-national agreements with Mexico that outlines each party's mutual support role in times of emergency or disaster, and provides training and exercise opportunities.

The most economically important port in Arizona is Nogales. Nogales is one of the four primary ports of entry between the United States and Mexico. Almost \$19 billion in trade comes through this port annually, with 89 percent of all surface mode trade (e.g., truck, rail) between Arizona and Mexico passing through Nogales.

Arizona's critical infrastructure is focused around water, electricity, and telecommunications. The State has more than 400 dams, of which 130 are classified as requiring critical infrastructure protection. Hoover Dam, the largest freshwater reservoir in the United States, is a major component of the State's infrastructure because of the lakes, water supply, and hydroelectric production linked to its operation. It is also a major supplier of electric power to the western grid, which includes the States of Arizona, California, and Nevada.

The Palo Verde Nuclear Generating Station, the largest nuclear power generation facility in the United States, is on 4,000 acres of land and produces over 30,000 gigawatt-hours of electricity annually to serve approximately four million people in Phoenix, Arizona and Southern California. In addition, some of the Nation's largest defense industrial contractors have facilities located in Arizona.

Arizona's population is growing rapidly, and Phoenix is one of the fastest-growing cities in the United States. The 2010 Census estimates the statewide population of Arizona at 6.4 million citizens. The Phoenix metropolitan area (Maricopa County) having a population of 3.8 million and Pima County at 1 million residents. These two counties represent 75 percent of Arizona's population.

Arizona is home to 22 Federally-recognized tribes that occupy a combined landmass of approximately 25 percent (21 million acres) of the State's land. There is a significant amount of Federal land in Arizona occupying over 28 million acres, making it important to have Federal participation in the interoperable radio systems deployed in Arizona.

As of 2011, Arizona has approximately 170 law enforcement agencies, 255 fire districts, 78 ground ambulance companies, and 18 licensed air ambulance companies. Arizona has approximately 15,000 sworn law enforcement officers and 9,000 correctional service officers. Arizona has approximately 11,524 certified Basic Emergency Medical Technicians (EMTs), 40 certified intermediate EMTs and 5,488 certified Paramedics.

Vision and Mission

Overview of the interoperable communications vision and mission of the State:

Arizona's SCIP initiatives have a timeframe of 1 to 8 years (2011 - 2019). Arizona's SCIP was revised in 2011 and approved by its Statewide Interoperability Governing Body (SIGB) on April 19, 2011. (See the Governance section below.)

Vision: Arizona is pursuing a vision for statewide interoperability that will enable public safety and service agencies/organizations to have access to quality interoperable communication systems, to be adequately trained, and to utilize such systems effectively in multi-disciplinary, multi-jurisdictional incident response.

Mission: The mission for Arizona's SCIP is to advance public safety communications interoperability statewide. Elements and strategies presented in Arizona's SCIP support this ongoing mission.

Governance

Overview of the governance structure, practitioner-driven approaches, and funding:

Arizona's governance is a multi-level structure established to oversee interoperable communication efforts within the State.

The Public Safety Interoperable Communications (PSIC) Office in the Arizona Department of Administration - Arizona Strategic Enterprise Technology (ADOA-ASET) is responsible for advancing interoperable communications in Arizona and supporting the Public Safety Communications Advisory Commission (PSCC or Commission) and Statewide Interoperability Executive Committee (SIEC or Committee) in performance of their missions.

PSCC (Arizona's SIGB) was organized in 2000 and established under Arizona State law in 2004. Arizona's PSCC is legislatively enabled as an advisory body for statewide interoperability efforts. PSCC consists of 15 governor-appointed members reflecting multi-disciplinary public safety and emergency management agencies including representatives from police, sheriff's office, fire, EMS, communications and State agencies. Appointments to the Commission are made so that the existing five federal emergency response regions in the State are as equally represented as possible. The ADOA Director or his designee functions statutorily in the role of Chairman for PSCC. PSCC meets every other month to take actions in support of Arizona's SCIP and interoperability initiatives statewide.

SIEC is a sub-committee of PSCC and is responsible for technical and operational recommendations to PSCC. SIEC also has authority over 700 megahertz (MHz), very high frequency (VHF), and ultra-high frequency (UHF) interoperability frequencies. SIEC has five members: two SIEC Co-Chairs appointed by PSCC and three members selected by the SIEC Co-Chairs. SIEC encourages broad participation in working groups from the public safety community including State, local, tribal and non-governmental public safety/service representatives. The SIEC is supported by a number of workgroups that evaluate and make recommendations to the SIEC on operational and technical policies, standards and procedures, training, exercises and outreach, VHF, UHF and 700 MHz spectrum management,, utilization of the Communications Asset and Mapping (CASM) Tool and agreements between operational entities.

Arizona established a full-time statewide interoperability coordinator (SWIC) in November of 2008. The SWIC point of contact for Arizona is Lisa Dee Meyerson, Statewide Interoperability Coordinator & Manager of the PSIC Office.

The key functions of the PSIC Office are as follows:

- **Serving as Arizona's Interoperability Representative** – Arizona's SWIC and her staff, serve as the principal State of Arizona contact to the Federal government, and other states regarding public safety communications interoperability initiatives. The SWIC and her staff also serve as the key point of contact for public safety and service agencies/organizations throughout Arizona in regard to public safety interoperable communications. As Arizona's interoperability representative, PSIC is responsible for communicating with appropriate authorities regarding resources needed by Arizona, educating stakeholders regarding best practices from around the country and participating in multi-state, regional, national and border initiatives with Federal, state, local, tribal and non-governmental partners.
- **Advancing Arizona's SCIP** – The second key function of the PSIC Office is advancing Arizona's SCIP which includes initiatives in each of the SAFECOM continuum lanes. This is accomplished through planning, consulting and implementation of projects managed by the PSIC Office and through oversight and monitoring of projects managed by others. The SCIP sets forth the lead agency for each Strategic Initiative as well as the supporting agencies for each of those initiatives.
- **Supporting Funding & Preparing Reports** – The PSIC Office pursues or supports pursuit of funding opportunities related to advancing interoperable communications and interacts with multiple funding sources including State, Federal, local, tribal and non-governmental entities. The PSIC Office is also responsible for preparing or supporting preparation of numerous Federal, regional and State reports and responding to questions regarding their contents from stakeholders and policymakers. Copies of previously submitted reports can be found at: <http://www.azpsic.gov/library/reports/>.
- **Logistics & Operations** – Support Commission, Committee and Workgroup meetings, develop action plans, RFPs, RFQs, and other documentation to support operations.
- **Stakeholder Engagement & Interactions** - Engage public safety stakeholders statewide to share information, identify needs and resources, participate in training and exercise, and ensure that stakeholder feedback is reaching PSCC and SIEC.

The State Administrative Agency (SAA) for the State of Arizona is the Arizona Department of Homeland Security (AZDOHS), and the SWIC now serves on the Homeland Security Senior Advisory Committee (HSAC). The HSAC plays a critical role in homeland security efforts by working with AZDOHS to ensure coordination, collaboration and integration of homeland security preparedness initiatives across funding streams, disciplines, agencies, and all levels of government in Arizona, as well as offering advice in reference to homeland security issues. The HSAC also provides expertise to AZDOHS to ensure homeland security initiatives leverage Federal Department of Homeland Security (DHS) resources in addition to other State, local and Tribal resources.

Governance Initiatives

Governance is a formalized system that provides a unified approach to decision-making to reflect shared objectives across multiple disciplines and jurisdictions. Strong governance is essential to interoperability because it provides a framework for planning, collaboration and implementation between and among multiple disparate communication systems and stakeholders.

Arizona is a leader in establishing and maintaining interoperable communications governance bodies and plans, which includes:

- A statewide governance body for interoperability (PSCC) established in statute.
- An active technical //operational subcommittee (SIEC) operating in support of PSCC.
- A Statewide Interoperability Coordinator (SWIC in the PSIC Office) established in statute.
- A strong group of engaged stakeholders who participate in interoperability workgroups (that support development of policies and programs).
- An updated statewide plan for interoperability (SCIP) that is aligned with the national plan for interoperability (NECP).
- A plan for the SWIC's Office (PSIC Office Plan) in support of SWIC activities.

In 2011, PSIC made significant progress in:

- Advancement of statewide governance structures and planning.
- Assessment of Arizona counties against national standards.
- Advocacy of governance for interoperability at the regional level.

In the area of statewide governance structures/planning advancement, progress included:

- Development and approval of operating principles (charter) for PSCC and SIEC to assure transparency and accountability.
- An annual update to Arizona's SCIP (approved by PSCC) to reflect stronger alignment with NECP and progress in Arizona's interoperability.
- An annual update to the PSIC Office Plan which details how the SWIC Office will use its resources in alignment with its statute and in advancement of Arizona's SCIP.
- Provision of input to ADEM, AZDOHS and FEMA to assure that their plans for Arizona are in alignment with Arizona's SCIP. These plans include ADEM's State Emergency Response and Recovery Plan (SERRP), AZDOHS's State Homeland Security Strategy (SHSS) and FEMA's Emergency Communications Plan (ECP).

In the area of assessment of Arizona counties against national standards, the PSIC Office undertook a major effort to measure Arizona's progress towards meeting the goals outlined in the NECP. The NECP is the nation's first strategic plan to improve emergency response communications. It includes three national goals for improving interoperability, operability and continuity of communications. Goal One assessments of Phoenix and Tucson Urban Area Security Initiatives (UASIs) were conducted in early 2010. All non-UASI jurisdictions were required to be assessed against NECP Goal Two criteria in 2011.

PSIC prepared a Goal Two assessment methodology and guide approved by the PSCC. With the cooperation of County Emergency Managers, the PSIC Office and observations teams from multiple jurisdictions conducted assessments of planned events between February and September 2011. The results of these assessments are being documented in After Action Reports (AARs) which will include detailed observations and recommendations for improvement. The PSIC Office will also produce a high level summary NECP Goal Two report to distribute to the PSCC and Arizona public safety stakeholders.

In the area of advocacy of governance at the regional level, workshops were held in several counties to assist in the development of Regional Interoperable Communications Plans (RICP) and Tactical Interoperable Communications Plans (TICP). These plans follow a national framework, align with the NECP and Arizona's SCIP, and assist local jurisdictions to evolve governance structures in support of interoperability on the regional level.

The following table outlines the strategic governance initiatives, gaps, owners, and milestone dates Arizona outlined in its SCIP to improve interoperable communications.

Initiative (Name / Purpose)	Gap (Brief Description)	Owner (Agency, Department, and/or POC)	Milestone Date (Month/Year)	Status (Complete, In Progress, Not Started)
NECP Initiatives				
<i>Establish a full-time statewide interoperability coordinator or equivalent position.</i>	None	PSIC Office	2008	Complete
<i>Incorporate the recommended membership into the Statewide Interoperability Governing Body (SIGB).</i>	None	PSIC Office PSCC	2004	Complete
<i>Establish the SIGB via legislation or executive order.</i>	None	PSIC Office PSCC	2004	Complete
Additional State Initiatives				
<i>#1: Expand and Implement Interoperable Communications Governance Model and Plan</i>	Arizona stakeholders must continually work to evolve the governance model and plans to further advance interoperability for Arizona.	PSIC Office PSCC SIEC Regional partners	2012	In Progress
<i>#2: Develop Regional Communications Governance Structures</i>	Arizona regions, counties, and/or localities need to develop and/or enhance governance structures to provide regionalized coordination and cooperation in pursuit of communications interoperability.	PSIC Office SIEC Regional Partners	2013	In Progress
<i>#3: Implement a Strategy for Supporting National Level Goals Applicable to Regional, State, Local and Tribal Interoperable Communications</i>	Arizona is committed to meeting the regional, state, local, and tribal level objectives, initiatives, and milestones identified in the NECP and additional national guidance from FEMA, the FCC, and other federal entities. Areas within Arizona vary as to their level of achievement regarding these guidelines.	PSIC Office PSCC SIEC Regional Partners	Long-term	In Progress

Standard Operating Procedures

Overview of the shared interoperable communications-focused SOPs

PSCC is legislatively charged with providing recommendations to the PSIC Office on the development of standards based systems to provide interoperability between public safety and service agencies/organizations statewide. PSIC is the body tasked with development of statewide SOPs. Because the PSIC Office is managed by the Arizona SWIC, the development of the SOPs is well aligned and prioritized with other statewide interoperability initiatives.

Several entities in the public safety interoperable communications governance structure play a role in the development of statewide SOPs. The Technical and Operational Workgroups of SIEC consist of state and local practitioners throughout Arizona who contribute practical input and guidance in support of SOP development. Statewide SOPs are discussed in public meeting forums and stakeholder feedback is incorporated throughout the development process. Arizona's stakeholder engagement program (managed by the PSIC Office) creates awareness of the development work and assists with efforts to publicize and educate regarding SOPs. Agencies included in the development of each SOP vary, but the agencies expected to comply with each SOP are signatory to that SOP either directly or through associated Memorandums of Understanding (MOUs).

AZDOHS has oversight responsibilities to ensure State plans are National Incident Management System (NIMS) compliant. Every jurisdiction in Arizona, either by ordinance or by order of the county executive, has implemented procedures to obtain and maintain NIMS and Incident Command System (ICS) compliance. An appointed NIMS compliance officer in each public safety agency is responsible for ensuring that SOPs and MOUs comply with NIMS and the National Response Plan. AZDOHS and the Department of Emergency and Military Affairs (AZDEMA) assist local and tribal governments regarding NIMS compliance through regularly scheduled NIMS training courses and outreach programs.

Documents for coordination of statewide interoperable communications include (1) the Arizona Interagency Radio System (AIRS) SOP described below, (2) the Arizona SIEC VHF and UHF Minimum Equipment Standards, which detail minimum channel capacity, channel display, frequency range, narrowband capability and Project 25 (P25) capability, and (3) the Arizona Statewide Interoperable Channels Plan also described below.

SOP Initiatives

A reliable policies, standards and procedures framework enables stakeholders to implement interoperability projects consistently across the State. During 2011, PSIC made solid progress on SCIP Initiative #4, Establish a Policies, Standards and Procedures (PSP) Framework, and Implement PSPs, Including SOPs, for Statewide Interoperable Communications Solutions. Policies, standards and procedures developed and approved this year included:

- **Statewide Interoperable Channels Plan** - establishes requirements for programming of statewide and national interoperable channels into public safety radios and guidance on the use of 16 specific channels in each of the VHF, UHF and 700/800 MHz interoperability bands.
- **Arizona Interagency Radio System (AIRS) SOP** – documents the policies and procedures for the use of AIRS (a suite of cross-banded mutual aid channels) in the VHF, UHF and 800 MHz frequency bands.
- **Communication Unit Training Coordination Procedure** – a statewide procedure developed by PSIC (with input from ADEM and SIEC), to support the delivery of communication unit training courses in advancement of Arizona’s All-Hazards Communication Unit Leader (COML) recognition program. A COML plans and manages the technical and operational aspects of the communications function during an all-hazards incident or event.

In addition, PSIC developed a draft policy for DPS (at its request and with approval of the SIEC), concerning requests for use of AIRS by non-governmental public safety organizations. Further, PSIC has made progress in researching national standards and early adopters with the goal of defining a broadband framework for public safety for Arizona, consistent with national trends.

PSIC also advanced a new Regional Communications Systems Connections (RCSC) project between the key regional systems in Arizona (YRCS, RWC, DPS, Maricopa County, TRWC) with the goal of enabling effective emergency communications between and among rapid response teams. PSIC also sought and received federal technical assistance awards for Arizona communities to advance SOP development.

The SIEC, with support of the PSIC Office, will update Arizona’s VHF and UHF Minimum Equipment Standards in the coming year. In addition, it will work on a next generation AIRS Plan. Finally, the PSIC Office will develop statewide protocols for use and security of the CASM tool in Arizona.

The following table outlines the SOP strategic initiatives, gaps, owners, and milestone dates Arizona outlined in its SCIP to improve interoperable communications.

Initiative (Name / Purpose)	Gap (Brief Description)	Owner (Agency, Department, and/or POC)	Milestone Date (Month/Year)	Status (Complete, In Progress, Not Started)
NECP Initiatives				
<i>Tactical planning among Federal, State, local, and tribal governments occurs at the regional interstate level.</i>	Need to continue to formalize and manage plans and assets	Regional Partners PSIC Office	2013	In progress
<i>All Federal, State, local and tribal emergency response providers within UASI jurisdictions implement the Communications and Information Management section of the National Incident Management System (NIMS).</i>	None	Federal, State, local and tribe emergency response providers	2007	Complete
<i>Incorporate the use of existing nationwide interoperability channels into SOPs.</i>	None	PSIC Office SIEC PSCC	2011	Complete
<i>Update SCIP to reflect plans to eliminate coded substitutions throughout the Incident Command System (ICS).</i>	None	PSIC Office SIEC PSCC	2011	Complete
<i>Define alternate/backup capabilities in emergency communications plans.</i>	None	PSIC Office Regional Partners	2011	Complete
Additional State Initiatives				
#4: <i>Establish a PSP Framework, and Implement PSPs, Including SOPs, for Statewide Interoperable Communications Solutions</i>	Arizona continues to develop a statewide PSP framework regarding interoperable communications. Furthermore, although some statewide interoperable communications solution SOPs exist, Arizona must update other SOPs and develop templates to ensure that future SOPs are developed in a consistent manner.	PSIC Office Regional Partners SIEC	2012	In progress

Technology

Overview of the technology approaches, current capabilities, and planned systems:

Arizona operates on multiple local, regional, and State shared land mobile radio (LMR) systems.

- The larger metropolitan areas have migrated to or are in the process of migrating to 700/800 MHz trunked P25 systems.
- State agencies operate mostly in the VHF or UHF radio bands, with some operating in the 800 MHz band.
- The majority of LMR systems serving the more rural areas of the State are conventional VHF or UHF systems.

Most counties also have gateway units, either mobile or at communications centers, where dispatching occurs. Police and fire agencies have caches of radios to exchange during special operations, large wildfires, or task force operations.

AZDOHS updated Arizona's statewide Target Capabilities Assessment (TCA) in partnership with local and state jurisdictions. The TCA provides an analysis of the State's communications capabilities as part of its analysis of 27 target capabilities, to identify gaps in the State's ability to prevent, respond to and recover from hazards (terrorism and man-made), and assess how to address those gaps. The TCA also helps target future funding and projects to ensure PSIC and AZDOHS are leveraging grant funds in the most efficient way and to result in the biggest impact.

Major Systems

The following tables lists the major systems in Arizona and includes those used for solely interoperable communications, large regional systems specifically designed to provide interoperability solutions, and large wireless data networks.

Shared Statewide System Name	Description	Status
AIRS	VHF, UHF, 800 MHz Conventional	Existing and being enhanced

State System Name	Description	Status
DPS Microwave Backbone Infrastructure	Analog technology; moving to digital; Southern Loop complete; Western Loop in progress	Existing and being enhanced
700 MHz System for State agencies (with possible usage by others)	P25 700 MHz digital trunked	In process by DPS in partnership with ADOT, YRCS and PSIC; Expansion subject to funding and digital microwave upgrade
Arizona Game & Fish, Arizona State Land, Arizona State Parks, Arizona Departments of Corrections, Agriculture and Juvenile Corrections	VHF conventional	Existing
Department of Public Safety	UHF conventional	Existing
Department of Transportation	VHF conventional, P25 700 MHz digital trunked	Existing
DEMA Radio Network (DRN)	VHF conventional	Existing
EMSCOM, Veterans Memorial Coliseum, Shared Government Operations	UHF conventional	Existing

Regional System Name	Description	Status
Regional Wireless Cooperative (RWC) – City of Phoenix (Administrative Manager)	800 MHz P25, simulcast trunked	Existing
TOPAZ Regional Wireless Cooperative (TRWC) – The City of Mesa (Administrative Manager)	800 MHz P25, simulcast trunked	Existing
Pima County Wireless Integrated Network (PCWIN)	800 MHz P25, simulcast trunked	In development
Yuma Regional Communications System (YRCS)	800 MHz P25, simulcast trunked	Existing and being expanded to other areas of the State in partnership with DPS, PSIC and local communities (i.e., CRIT)
Central Arizona Project	800 MHz trunked	Existing
Maricopa County	800 MHz trunked (hybrid)	Existing; in transition to P25
Salt River Project	VHF conventional, UHF conventional, 800 MHz trunked (Open Sky)	Existing
Arizona Public Service	800 MHz trunked (analog)	Existing
Northern Arizona University and City of Flagstaff	800 MHz trunked (analog)	Existing; in transition to P25
Phoenix Fire Regional Dispatch	VHF conventional; 800 MHz P25, simulcast trunked (part of RWC)	Existing
Prescott regional communications	VHF conventional	Existing
Sedona fire regional	VHF conventional	Existing

Technology Initiatives

Arizona is currently pursuing a system-of-systems approach to interoperability, coordinating and encouraging interconnection of operability and interoperability communications assets to one another in order to provide communications between state, regional and local systems. Existing interoperability assets include shared systems, shared channels, gateways, radio caches and other communications technologies.

During 2011, PSIC and its partners continued advancing technology related SCIP Initiative #s 5 to 9:

- Enhance and Promote the AIRS Interoperable Communications Solution (SCIP Initiative #5)
- Implement, Enhance and Promote Functional Regional Systems in Support of Interoperable Communications (SCIP Initiative #6)
- Upgrade the Statewide Microwave Backbone Infrastructure to Digital Technology (DPS) (SCIP Initiative #7)
- Implement the State Strategic Technology Reserve (STR) (ADEM) (SCIP Initiative #8)
- Upgrade Operable Communication Systems for State Agencies in Support of Interoperable Communications (SCIP Initiative #9)

Initiative #9 includes the RICO project which utilizes \$2.2 Million in RICO funds for the advancement of communications interoperability along the southern Arizona border. The project will deploy standards-based P25 communications capabilities at six key transmitter sites, hardware and software upgrades to the Yuma Regional Communications System (YRCS) infrastructure, and is supported by DPS' upgraded digital microwave system. The project will provide high-level connectivity for existing and developing communication systems thus increasing interoperability capabilities during multi-jurisdictional, multi-agency response and recovery, and mitigating impacts from critical incidents in the region.

Additional technology related activities have included educating stakeholders on FCC narrowbanding requirements, advancing fire mutual aid licensing and statewide usage, and supporting a tri-band radio pilot.

The following table outlines the technology strategic initiatives, gaps, owners, and milestone dates Arizona outlined in its SCIP to improve interoperable communications.

Initiative (Name / Purpose)	Gap (Brief Description)	Owner (Agency, Department, and/or POC)	Milestone Date (Month/Year)	Status (Complete, In Progress, Not Started)
NECP Initiatives				
<i>Program nationwide interoperability channels into all existing emergency responder radios.</i>	Many radios lack programming of nationwide interoperability channels; this programming is being encouraged by our new statewide interoperable channel plan which includes these national channels.	Regional Partners	2011	In Progress
Additional State Initiatives				
<i>#5: Enhance and Promote the AIRS Interoperable Communications Solution</i>	The initial plan for AIRS sites has been completed; Evaluation of possible additional AIRS installations and enhancements will be undertaken as part of AIRS next generation plan development.	PSIC Office SIEC	2012	In Progress
<i>#6: Implement, Enhance and Promote Functional Regional Systems in Support of Interoperable Communications</i>	Although some robust regional systems exist and other systems are under development, many areas within Arizona do not have access to regional shared systems and currently operate on individual agency systems. Lack of or inadequate connectivity between systems also hinders interoperability (See progress on RCSC under SOPs above).	Regional Partners	Long term	In Progress
<i>#7: Upgrade the Statewide Microwave Backbone Infrastructure to Digital Technology</i>	An upgraded digital backbone is required for AZ to implement modern, standards-based, interoperable radio systems.	DPS/WBS	2017	In Progress
<i>#8 Implement the State STR</i>	Augmentation of current reserves to support continuity of government	ADEM	2011	In Progress
<i>#9 Upgrade Operable Communication Systems for State Agencies in Support of Interoperable Communications</i>	Existing LMR systems for AZ State agencies are in the process of being enhanced and will continue to be enhanced over time, subject to availability of funding	DPS/WBS	Long-term	In Progress

Training and Exercises

Overview of the diversity, frequency, and inter-agency coordination of training and exercises:

The first type of training in Arizona occurs at the local jurisdictional and discipline level and covers job basics, roles, and responsibilities. Additionally, each year local governments conduct their own training and exercise programs, which are generally multi-disciplinary and inter-jurisdictional within a county.

The second type of training and exercise program is conducted on a statewide level. ADEM within the Arizona Department of Emergency and Military Affairs (DEMA) has an extensive training and exercise program, with schedules posted on its website. ADEM actively recruits participants in its training classes by contacting local government emergency managers.

There are formal State training programs and train-the-trainer classes in the Homeland Security Exercise and Evaluation Program (HSEEP) process. ADEM has an outreach program for training and exercises, and offers FEMA Emergency Management Institute (EMI) programs, which include:

- ICS
- NIMS
- Professional Development Series
- Advanced Professional Series

The ADEM training program is designed to instruct emergency responders in NIMS and ICS. The Arizona State Land Department teaches and provides credentials for Communications Unit Leader (COML) and Communications Unit Technician (COMT) classes through the National Wildfire Coordinating Group (NWCG).

In terms of exercises, local, regional, and State entities across Arizona conduct public safety exercises to assess the effectiveness of training programs, demonstrate required job skills, practice coordinating with response partners, and test equipment, processes, and/or procedures. Exercises are conducted with other levels of government and regularly include After Action Reports and Improvement Plans.

Training and Exercises Initiatives

Implementing effective training and exercise programs is essential for ensuring that technology actually works as planned and that responders are able to show that they can effectively communicate using that technology. Accomplishments during 2011 regarding Training and Exercise initiatives and objectives include:

- Implementation of statewide AIRS Training program, including a DVD, lesson plan and other training materials to promote the use of AIRS frequencies statewide.
- Advancement of COML training and credentialing program consistent with national standards and ADEM requirements.
- Offering of workshops on Communication Unit Integration into National Incident Management System / Incident Command System (NIMS)/(ICS) to assist incident commanders, communications and operations staff, and public safety leadership to learn how to effectively integrate Communications Units into the NIMS/ICS structure.
- Participating in exercises and events in support of Arizona communities.

PSIC also obtained funding for training and exercise coordination, offering of all-hazards COML Training courses as well as Communications Technician (COMT) training and development of a COML Field Day Exercise to support advancement of COML/COMT skill sets through a hands-on field day.

The following table outlines the training and exercises strategic initiatives, gaps, owners, and milestone dates Arizona outlined in its SCIP to improve interoperable communications.

Initiative (Name / Purpose)	Gap (Brief Description)	Owner (Agency, Department, and/or POC)	Milestone Date (Month/Year)	Status (Complete, In Progress, Not Started)
NECP Initiatives				
<i>Incorporate the use of existing nationwide interoperability channels into training and exercises.</i>	Training and exercises are an ongoing activity of ADEM and local emergency managers	Federal, State, local and tribal emergency response providers	2011	In progress
<i>Complete disaster communications training and exercises.</i>	Disaster communications training and exercise is an ongoing activity of ADEM and local emergency managers	ADEM	2011	In progress
Additional State Initiatives				
<i>#10: Develop and Implement a Training Plan to Address Interoperable Communications</i>	Arizona recognizes a need to coordinate communications-focused training opportunities statewide in order to ensure that appropriate users and stakeholders achieve and maintain mission critical interoperable communications competencies.	PSIC Office	2013	In progress
<i>#11: Develop and Implement a Strategy for Exercises Focused on or Incorporating Interoperable Communications</i>	Arizona does not have a multi-year statewide comprehensive communications T&EP that incorporates interoperable communications needs or capabilities.	PSIC Office	2013	In progress

Usage

Overview of the testing of equipment and promotion of interoperability solutions:

Local governments rely on interoperable equipment for day-to-day situations and emergencies. Equipment testing is done with Federal, State, and local agencies and failures are found through usage. Testing is not done on a regular basis; rather, equipment is usually evaluated during roll call or through drills and exercises.

Arizona does not use a common, statewide radio system with the exception of AIRS. AIRS is generally used for localized emergency incidents rather than regional interoperability. Mutual aid frequencies, on which AIRS operates, are usually not used for pre-planned events.

The concept of interoperability is promoted by PSIC through an evolving statewide outreach program, open public meetings, as well as a user-friendly website and regular communications to interested parties. The State encourages and coordinates collaborative efforts and identifies and helps address State, regional, and local barriers to advancing interoperability solutions and usage. PSIC outreach activities include: stakeholder engagement; information sharing; identification of needs and resources; and participation in training and exercises. The benefits and value of PSIC outreach efforts are being realized through increased involvement in Workgroups, and PSIC is actively being sought out for involvement in meetings and to provide help and support for events statewide.

Arizona has developed partnerships with members of PSCC, SIEC and Workgroups as well as public information officers, communication managers, regional communication centers and emergency managers. These partnerships have allowed the State to leverage the knowledge and expertise of many people, to be able to share interoperable communication information with their constituencies, and at the same time bring back information to PSCC, SIEC and the PSIC Office for consideration.

Usage Initiatives

The PSCC and SIEC each met five times in 2011 and in these meetings approved interoperability projects and policies, heard updates from regional systems, provided guidance to and received technical advice from SIEC or its workgroups and provided significant feedback to PSIC regarding how to advance SCIP initiatives.

PSIC staff regularly attended and presented at numerous functions, including conferences, workshops, expos, taskforces, national, multi-state, State, regional, local and working group meetings. PSIC also conducted in-person meetings, web and telephonic conferences, posted updates to its website and communicated regularly by e-mail to its extensive (650+) interested parties list.

The PSIC Office promoted collaboration among members of public safety and service agencies/organizations by developing a Statewide Education and Outreach Plan Regarding Public Safety Communications Interoperability. The Plan (approved by the PSCC on April 19, 2011) highlights specific targeted interoperability topics of high priority in 2011:

- NECP Goal Two Performance Assessments, CASM and TICPs
- FCC Narrowbanding Compliance
- Interoperable Channels Usage (National, Regional, AIRS, etc.)

The following table outlines the usage strategic initiatives, gaps, owners, and milestone dates Arizona outlined in its SCIP to improve interoperable communications.

Initiative (Name / Purpose)	Gap (Brief Description)	Owner (Agency, Department, and/or POC)	Milestone Date (Month/Year)	Status (Complete, In Progress, Not Started)
#12: Create and Implement an Education and Outreach Plan in Support of Interoperable Communications	In a vast state with many remote areas and many critical public safety needs to address, it is difficult for all stakeholders to stay informed regarding critical public safety interoperable communications issues.	PSIC Office	2012	Completed Plan; Outreach is on-going

National Emergency Communications Plan Goals

The National Emergency Communications Plan (NECP) established a national vision for the future state of emergency communications. The desired future state is that emergency responders can communicate as needed, on demand, and as authorized at all levels of government across all disciplines. To measure progress towards this vision, three strategic goals were established:

Goal 1—By 2010, 90 percent of all high-risk urban areas designated with the Urban Area Security Initiative (UASI)¹ are able to demonstrate response-level emergency communications² within one hour for routine events involving multiple jurisdictions and agencies.

Goal 2—By 2011, 75 percent of non-UASI jurisdictions are able to demonstrate response-level emergency communications within one hour for routine events involving multiple jurisdictions and agencies.

Goal 3—By 2013, 75 percent of all jurisdictions are able to demonstrate response level emergency communications within three hours, in the event of a significant incident as outlines in national planning scenarios.

County Interoperability Communications Assessment

As part of the Goal 1 implementation process, OEC required UASIs to demonstrate response-level emergency communications during a planned event. Additionally, as part of the State's SCIP Implementation Report update in 2010, OEC required information on UASIs' current capabilities.

In 2011, capability data (identical to the questions asked of UASIs in the 2010 report) and response-level performance data were collected at the county level to meet the National Emergency Communications Plan (NECP) Goal 2 mandate of assessing response-level communications in "non-UASI" jurisdictions. The data collected provides OEC with broader capability data across the lanes of the Interoperability Continuum which are key indicators of consistent success in response-level communications. Arizona submitted Capabilities and Performance information through the online Response Level Communications Tool. This information is not included in this report.

¹ As identified in FY08 Homeland Security Grant Program

² Response-level emergency communication refers to the capacity of individuals with primary operational leadership responsibility to manage resources and make timely decisions during an incident involving multiple agencies, without technical or procedural communications impediments.