



Emergency Communications Forum

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A Note from OEC Leadership

By: OEC Director Ron Hewitt and Deputy Director Chris Essid

The pages of the *Emergency Communications Forum* give us a chance to highlight successes, innovative approaches, and ongoing efforts to improve emergency communications nationwide. An effective way to accomplish that and explain why planning and training matters is through real-world accounts from the field.

On September 16, 2013, a gunman opened fire at the Washington D.C. Navy Yard, killing 12 and injuring three. First responders did their jobs bravely and ably under difficult circumstances that day. We know that cross-agency communications and coordination during an emergency event, such as an active shooter, and in-building coverage are still among the more challenging aspects of emergency communications. As a review of the problems experienced with land mobile radio (LMR) systems inside the Navy Yard complex continues, it is important to note what went well in the response.

Given the number of Local and Federal agencies involved with the response to the shootings, planning and coordination played a major role. Over the years, District of Columbia officials worked hard to improve both which was evident in the Navy Yard response. OEC's Technical Assistance (TA) program supported D.C. officials in enhancing their governance, coordination, planning, and training through a wide-range of offerings over the years. We also worked with the District in 2013 to update their Statewide Communication Interoperability Plan (SCIP).

During and after the shooting, OEC's Priority Services successfully supported emergency responders and government officials by enhancing call completion and emergency communications continuity. The OEC Wireless Priority Service ensured that more than 98 percent of calls were completed at a time when cell service was more than 10 times the normal usage and later spiked to nearly 50 times normal usage.

Incidents like this one emphasize the importance that training and preparedness make to ensure readiness in responding to an emergency like this one. That's why OEC is committed to working with partners like you to ensure you have access to the programs and resources necessary to plan for today and prepare for the future.

To shine the spotlight on progress being made in the field, this issue features articles on innovative approaches by Iowa in statewide planning and Ohio through their Border Interoperability Demonstration Project. We are also including updates on how our TA program is working with States nationwide to support them in planning for the Nationwide Public Safety Broadband Network (NPSBN).



In addition, we have updates on OEC partnership groups working to enhance coordination along U.S. borders with Canada and Mexico.

On behalf of OEC, thank you for all that you do. We look forward to continuing our work with you to keep America safe, secure, and resilient.

Respectfully,
Ron Hewitt and Chris Essid

Iowa Collaboration Leads to a SCIP That Looks to the Future of Emergency Communications

By Jim Bogner, Iowa Statewide Interoperability Coordinator

In 2007, Iowa enacted legislation creating the Iowa Statewide Interoperable Communications System Board (ISICSB) to address the State's interoperability issues. That same year, the board completed Iowa's first Statewide Communication Interoperability Plan (SCIP). SCIPs help states establish and strengthen governance, prioritize resources, assess interoperability, and establish goals. They also provide an opportunity for different disciplines to come together across agencies and jurisdictions to create a mission and plan for improving emergency communications.

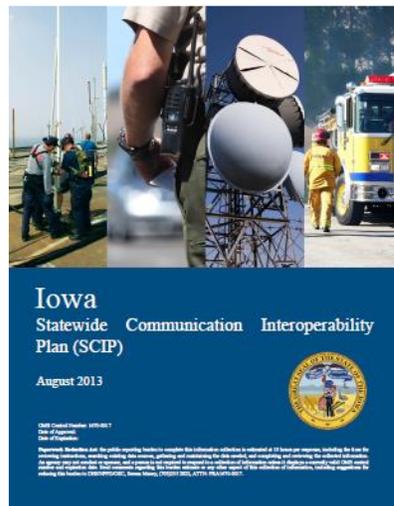
Iowa's 2007 plan and its subsequent updates were primarily focused on improving interoperability with land mobile radio, which provided the backbone of emergency communications then and will continue to do so for the foreseeable future. In 2010, however, Iowa was one of 21 entities granted an FCC 700 MHz spectrum waiver to explore the build-out of a public safety broadband network. Unfortunately, Iowa did not receive any Federal grant funding with its waiver and did not have sufficient State funds to build the network alone. What the waiver did allow Iowa to do was to begin planning for broadband and examining what the network could mean for the future of public safety communications. That planning was reflected in the 2011 and 2012 updates to the SCIP. In 2012, with the passage of the *Middle Class Tax Relief and Job Creation Act of 2012*, the authorization for the structure and funding for the National Public Safety Broadband Network (NPSBN) became a reality.

In a parallel manner, Iowa's work on NG9-1-1 (Next Generation) has made it the first State to provide each of its 117 public safety answer points (PSAPs) with an NG9-1-1 Internet Protocol (IP) network. As the wireless carriers' IP systems are enhanced to offer citizens new public safety capabilities, Iowa's public safety answering points (PSAPs) will be able to receive digital information in the form of texts, and eventually photos and video.

With those two initiatives, it became clear that we needed better coordination and a single vision and plan for incorporating IP-based technologies into emergency communications in Iowa. Although they are not always viewed that way, 911 and public safety’s interoperable communications go hand in Hand. The services provided by 911 and Enhanced 911 (E911) primarily focus on the public communicating with the PSAP. On the other end, land mobile radios, and the nascent NPSBN, provide public safety personnel with first responder communications. What we are trying to do in Iowa is to look at public safety communications from end to end, and ensure that we are planning and coordinating our communications from the public through the PSAP (as a hub) and then out to the first responder community. Our goal is to be prepared for the day when a citizen can capture and send a video of a suspect or crime to the PSAP, which can relay it, if needed, out from the PSAP to first responders seamlessly and securely.

Coming Together to Create a Unified Plan

The ISICSB and the E911 Communications Council had already established a strong working relationship. With monthly meetings running consecutively, a representative from each entity was already attending the other’s meetings, and the two groups were coordinating and collaborating on certain efforts. But when the State was due to revise its SCIP, the ISICSB and Statewide Interoperability Coordinator (SWIC), who had historically drafted the plan, reached out to the E911 Communications Council and proposed they jointly participate in the SCIP planning workshop and produce a single document that contains the goals and guidance for both groups in a unified vision for Iowa.



During a three-day workshop in July 2013, OEC representatives worked with the ISICSB and the E911 Communications Council in facilitating separate planning breakouts combined with whole group interactive sessions to help us create a unified mission, establish goals and initiatives, and set a timetable in which to accomplish them. The SCIP also formalized a strategy for the statewide build-out of the NPSBN in Iowa, while not losing focus on land mobile radio.

Working with OEC helped each group provide their expertise and add value to the final plan. The E911 Communications Council works closely with the PSAPs, who provide a local perspective. The needs of the PSAPs must be reflected in State planning, and the PSAPs need to understand the NPSBN so they can explain and endorse it locally.



At the same time, ISICSB's stakeholders needed the wider vision that the E911 Communications Council brought. Future equipment purchases and the network designs of both the NG9-1-1 and NPSBN systems must be interoperable. We can't afford to make the same mistakes we made with our disparate legacy land mobile radio systems. Every effort and investment must be complementary and compatible with our end-to-end public safety communication systems.

Although some tasks and goals relate to only one group, the overall plan ensures an effective, coordinated approach. Now both groups are looking at the bigger picture of the two systems and how these systems will merge.

The ISICSB and the E911 Communications Council recently adopted the revised SCIP. E911 Communications Council Chair Steven Ray calls it, "the most comprehensive thing the 911 Council has done in its 12 or 13 years." And the plan will keep the State focused and proactive in achieving its goals.

"The SCIP is not something that can be done and put away on a shelf, says Ray. "It must be continually reviewed and worked on."

OEC's Technical Assistance Program Supports States in Advance of FirstNet Consultations

During May and June of 2013, the First Responder Network Authority (FirstNet) held six regional meetings with public safety stakeholders across the United States to gather input and data on the structure and design of the Nationwide Public Safety Broadband Network (NPSBN). The next phase of FirstNet's outreach will include work with individual States and Territories to create the localized plans that will inform and direct the build out of the nationwide, high-speed communications network.

Through its Interoperable Communications Technical Assistance Program (ICTAP), OEC is traveling to capital cities nationwide to prepare States for their upcoming consultations with FirstNet. It is a priority for OEC to reach all 56 States and Territories for a consultation preparation workshop, and FirstNet has stressed that the workshops are an important step for States to take in advance of their meetings to discuss coverage priorities.

The first aim of the planning workshop is to give participants an overview of broadband technology, the NPSBN, and FirstNet. OEC's subject matter experts will be on hand to answer questions about the planning, structure, and operation of the proposed network.

The balance of the workshop is then spent helping the officials understand what will be included in the State plans and how to begin the process of gathering data, building consensus, and determining priorities for coverage and system needs. States also need to consider how they engage and share information and how broadband tools can make public safety efforts more efficient and effective.

During the four-hour workshop, attendees are given State-specific data as a starting point for discussions on system users, coverage areas, and levels of coverage. The first data set presents geographic information on boundaries, roads, population density, and the location of agencies, facilities, and critical infrastructure. The second data set focuses on coverage levels, including in-building/handheld, handheld/partial in-building, vehicular modem/partial handheld, and satellite/deployable. The presentation then shows the State's current coverage at each of these levels as well as where commercial LTE and voice coverage is advertised to exist in the State. Data is also provided at a county-by-county level.

After the data is introduced, participants are asked to react and add to what was presented and provide additional information specific to the State and the operation of public safety within it. In this exchange, States can share important details that will determine coverage decisions. At the end of the presentation, attendees discuss the next steps the State or territory needs to take to advance their preparation for meeting with FirstNet.

More information on OEC's technical assistance program and the forms needed to request a FirstNet consultation preparation workshop can be found at www.publicsafetytools.info. Coverage workshops do not count against each State's annual technical assistance allotment.

Ohio's 'Operation Waterbug' Demonstrates BIDP-Funded Advances

On September 19, 2013, Lake County, Ohio, and six partnering counties conducted a full-scale exercise to demonstrate new capabilities funded under the Border Interoperability Demonstration Project (BIDP). BIDP is a one-time, \$25.5 million grant focused on developing innovative solutions to improve interoperable communications along U.S. borders.

"Operation Waterbug" took place in Port Clinton and evaluated the integration of voice communications and maritime data sharing throughout Ohio's northern border region. Lake County completed a radio roll call with 57 agencies to demonstrate the enhanced coverage into Michigan and Pennsylvania made possible through existing infrastructure upgrades.

Through the deployment of 700/800 MHz portable radios, partnering agencies can now communicate across a 120-mile span along the border and over Lake Erie.

The exercise also tested new Vessel Tracking System (VTS) capabilities that allow public safety officials to track and monitor small, non-commercial vessels through seamless maritime data sharing. The exercise scenario involved acquiring two target vessels suspected of engaging in human trafficking. Each of the county boats had the VTS technology installed, allowing them to collect data on small vessels and transmit the data using virtual private network technology through remote radio sites along the border and back to Customs and Border Protection (CBP) Sandusky Station. At Sandusky Station, CBP agents compiled the individual vessel data feeds to create a common operating picture. In the future, Ohio hopes to expand the number of boats that have VTS installed, to include Federal partners such as the U.S. Coast Guard. Canada has also expressed interest in deploying a similar type of technology on its side of the border to enable greater interoperability.

The remaining BIDP recipients will conduct full-scale and functional exercises over the next six months to demonstrate new grant-enabled capabilities. OEC will work closely with recipients to provide technical assistance during the exercise planning and execution phase, as well as to document lessons learned and share best practices with other communities.

Supporting Emergency Communications Along the Border

Southwest Border Communications Working Group

As part of OEC's role in providing support to Federal, State, Local, and Tribal agencies in establishing interoperable emergency communications, OEC initiated the Southwest Border Communications Working Group (SWBCWG). The working group serves as a forum to share information on common emergency communications issues, collaborate on existing and planned activities, and facilitate Federal involvement in multi-agency projects within the Southwest Border Region, which includes Arizona, California, New Mexico, and Texas.

The unique communications challenges along the Southwest Border have resulted in several key member-driven focus areas, including enhancing interoperability, enhancing efficient use of scarce communications resources, providing perspectives to Federal regulatory officials on key spectrum policy issues, and connecting State, Local, and Tribal agencies with Federal counterparts.



The SWBCWG holds quarterly meetings, where members have an opportunity to share information on topics ranging from broadband planning to best practices and lessons learned through OEC's Border Interoperability Demonstration Projects (BIDP) located in member States.

In the fall, the SWBCWG held a meeting in San Diego, California. During the meeting, FirstNet Board member Sue Swenson provided an update on FirstNet activities, including spectrum lease negotiations with Broadband Technology Opportunities Program (BTOP) 700 MHz Long Term Evolution (LTE) public safety broadband projects. Ms. Swenson also noted that FirstNet has requested input for specific needs of the border States through regional meetings, with the goal of delivering individualized State build-out plans that ensure sufficient local control of the NPSBN and address local considerations.

Representatives from the Los Angeles Regional Interoperable Communications System (LA-RICS), Bay Area Regional Interoperable Communications System (BayRICS), the Texas Department of Public Safety (TxDPS), and the New Mexico Department of Information Technology (NM DoIT) also provided overviews of their agencies' current broadband activities. The panel emphasized that FirstNet should leverage State communications assets to reduce duplication of effort and partnership costs.

The FCC updated the group on current Southwest Border regulatory issues, as well as guidance on methods to resolve radio interference and intentional communications jamming. Following the meeting, the SWBCWG facilitated a connection between the FCC and Customs and Border Protection (CBP) regarding the possible usage of 800 MHz frequencies for cross-border interoperability communications with Mexico.

Customs and Border Protection (CBP) and the U.S. Department of State briefed members on the status of the Cross Border Security Communications Network and future opportunities to utilize the network for cross-border communications and information sharing.

TxDPS, NM DoIT, and the Arizona Public Safety Interoperable Communications Office provided best practices and lessons learned on infrastructure sharing partnerships among Federal, State, and Local agencies in relation to the NPSBN planning and development. The City of San Diego and the Yuma Regional Communication System provided an update on their Border Interoperability Demonstration Project (BIDP) projects.

On January 8-9, 2014, the SWBCWG held its most recent meeting, which was hosted by the Texas Department of Public Safety. Members received an update from TxDPS on its system of systems approach in enhancing emergency communications statewide and recent broadband planning activities throughout the region.

OEC also provided information on how the Executive Order (E.O.) 13616: Accelerating Broadband Infrastructure Deployment Working Group has been working to ensure a coordinated and consistent approach by Federal agencies in implementing procedures, requirements, and policies related to access to Federal lands, buildings, and rights of way, federally-assisted highways, and Tribal lands to advance broadband deployment in a timely and efficient manner.

For more information about the SWBCWG and its activities, please contact Robin.Beatty@HQ.DHS.GOV.

Canada-U.S. Communications Interoperability Working Group

Public safety officials and first responders along the Canada-United States border face unique challenges in establishing and maintaining interoperable communications with their international counterparts. Incidents such as train derailments, terrorist attacks, natural disasters, and vital Federal law enforcement efforts underscore the importance of effective cross-border communications.

In February 2011, President Barack Obama and Prime Minister Stephen Harper issued the Beyond the Border (BTB) joint declaration, articulating a shared approach to security in which both countries work together to address threats along the border while advancing lawful trade and travel. Public safety communications interoperability is a critical component of this vision, and the BTB Action Plan, released in December 2011, mandated the establishment of a working group to improve cross-border communications interoperability. In accordance with the Action Plan, OEC and Public Safety Canada established the Canada – U.S. (CANUS) Communications Interoperability Working Group (CIWG) to develop work plans and validation metrics to improve cross-border interoperability and harmonize emergency communications planning efforts.



The group held its first meeting at the Embassy of Canada in Washington, D.C., on October 17, 2012, and approved a five-year work plan.

The coordinated approach of the CANUS CIWG's work plan has produced a number of immediate successes. In March 2013, select members of the CANUS CIWG conducted the Canada - U.S. Enhanced Resiliency Experiment II (CAUSE II). This experiment successfully demonstrated the

ability to exchange information between State, Local, provincial, and national situational awareness systems and applications.

In June 2013, the CANUS CIWG held their semi-annual meeting to discuss important cross-border communications issues, including national broadband development, frequency coordination, Federal, State and Local border efforts, and national information sharing initiatives. On November 1, 2013, Public Safety Canada transferred the duties of CANUS CIWG Secretariat to OEC. The secretariat role alternates between the two countries.

For more information about the CANUS CIWG and its current efforts, please contact the group at CANUSCIWG@hq.dhs.gov.

OEC Team on the Road

As part of our stakeholder engagement activities, OEC will be participating in the following events:

Puerto Rico SCIP Workshop and TA FirstNet Consultation Prep Workshop

January 28-29, 2014

Oregon - TA Regional Communications Enhancement Support Workshop

January 29, 2014

Iowa - TA Public Safety Communications Center Operations Workshop

January 30, 2014

Arizona - TA FirstNet Consultation Prep Workshop

January 31, 2014

Nebraska - TA Communications Unit Leader Course

February 4, 2014

National Council of Statewide Interoperability Coordinators (NCSWIC) and SAFECOM Executive Committees In-Person Meetings

February 5-6, 2014 - Boulder, CO

Mississippi - TA Communications Exercise Final Planning Meeting

February 11, 2014

District of Columbia - TA Communications Unit (COMU) Planning and Policies Workshop

February 12, 2014



Kansas SCIP Workshop
February 19-20, 2014

Alabama - TA Communications Unit Technician (COMT) Course
February 20, 2014

Indiana - TA COMT Course
February 24, 2014

Missouri - TA COMT Course
February 24, 2014

Arkansas SCIP Workshop
February 25-26, 2014

US Virgin Islands SCIP Workshop
February 26-27, 2014

Florida SCIP Workshop
March 4-5, 2014

IWCE Conference & Expo
March 26-27, 2014 – Las Vegas, NV
*OEC's session on the update of the National Emergency Communications Plan is scheduled for March 27 from 9:45-11:00 AM.

The *Emergency Communications Forum* (ECF), published by OEC is intended to engage and inform the emergency response community, policy makers, and Federal, State, Local, and Tribal officials about issues and events that directly impact everyday nationwide emergency communications.

Interested in contributing articles for future editions? Please send any articles or content ideas to: OECOutreach@hq.dhs.gov.