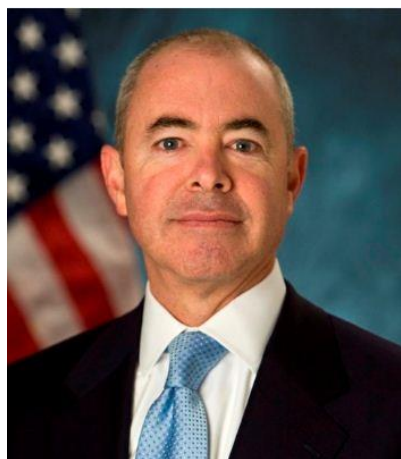


DAY ONE

INTRODUCTION

On November 3-4, 2015, SAFECOM and the National Council Statewide Interoperability Coordinators (NCSWIC) members convened in Norman, Oklahoma, to collaborate on current and future initiatives affecting public safety emergency communications. Meeting sessions focused on a variety of pressing topics related to emergency communications, including governance for emergency communications, maintaining and upgrading land mobile radio systems, T Band spectrum, the Communications Unit, grant guidance for emergency communications, and encryption.

KEYNOTE ADDRESS: A MESSAGE FROM THE DEPARTMENT OF HOMELAND SECURITY (DHS) DEPUTY SECRETARY ALEJANDRO MAYORKAS



DHS Deputy Secretary Alejandro Mayorkas addressed SAFECOM and NCSWIC members through videoteleconference. The Deputy Secretary expressed his continued commitment to SAFECOM's and NCSWIC's missions, highlighting the importance of public safety communications across all levels of government, the private sector, nongovernmental organizations, and even the public. He also emphasized the importance of coordinated partnerships at the federal, state, local, and territorial levels for achieving sustainable interoperable communications, and conveyed his commitment toward realizing the work SAFECOM members and the Statewide Interoperability Coordinators (SWICs) do in their respective associations and states.

The Deputy Secretary provided information on a number of public safety events he attended over the last few months. On August 25th, he worked in cooperation with Senator Jon Tester (D-MT) to host a listening session in Helena, Montana, involving representatives from the state's first responder community to discuss emergency communications capabilities. Here, he heard directly from practitioners on major interoperability issues affecting them at the state and local levels. Specifically, he listened to leaders seated at the table discuss the dispersion of grant funds supporting their trunked radio system, issues related to sustaining the state's vital Land Mobile Radio (LMR) system and their mission critical voice needs, as well as questions regarding the future identification of dedicated resources for training, operations, maintenance, and the growth and implementation of new and emerging public safety communications technologies. Deputy Secretary Mayorkas also mentioned an award he presented Chief Harlin McEwen on October 25th in recognition of his life-long support promoting interoperable emergency communications and his service on SAFECOM. He also attended a Major City Chiefs Association round table and heard from Commissioners and Chiefs from across the country on their need for communications support. He validated the importance of agenda topics at the joint meeting, including T-Band. Additionally, he recognized and congratulated SAFECOM and NCSWIC members on the release of the *2015 Emergency Communication Governance Guide for State, Local, Tribal, and Territorial Officials*.

Deputy Secretary Mayorkas promised to work closely with the Office of Emergency Communications (OEC) to determine next steps for prioritizing public safety communications. On August 6th, he sent a signed letter to each Governor commending SWICs and other emergency communications experts in their states on their critical role coordinating crucial support services through OEC, such as Technical Assistance (TA) offerings and Priority Telecommunications Services. Matt Leveque, Alaska SWIC, and others in the audience thanked the Deputy Secretary for his letter, noting its importance as an initial step capturing the attention of governors and their staff on the importance states play implementing a national vision of interoperability for the public safety community. The Deputy Secretary asked SWICs and SAFECOM members to continue to work closely with OEC and provide input on crucial issues, such as how to further engage state officials and their staff and reprioritize interoperability as a central topic on the agenda. He will be working closely with OEC Director Ron Hewitt over the next few months to strategize action, especially related to funding, sustainability, and governance.



Meeting Photo: SAFECOM and NCSWIC Members coming together to discuss communications interoperability

INTRODUCTORY REMARKS FROM ASSISTANT SECRETARY CAITLIN DURKOVICH

Caitlin Durkovich, Assistant Secretary of the Office of Infrastructure Protection under the National Protection and Programs Directorate (NPPD) at DHS, provided additional opening remarks. She noted her history with OEC, dating back to 2007 when she served as Chief of Staff at NPPD and worked with Chris Essid, OEC Deputy Director, and the team to bring together programs like SAFECOM and TA. She also mentioned the value of the SAFECOM Baseline Report and its significance contributing toward the development of the 2008 National Emergency Communications Plan (NECP), which led to a better understanding of state and local public safety interoperability needs. The SAFECOM Baseline Report became a key contribution to the NECP and served as a yardstick against which progress was measured on NECP Goals Assessments. Assistant Secretary Durkovich also highlighted governance and the role the SWICs play as key tenets of the NECP. Governance and the SWICs' role continue to evolve as the communications ecosystem expands and evolves, and as new technologies are integrated into response efforts.



Assistant Secretary Durkovich mentioned the progress NPPD has made streamlining its mission support functions to help DHS staff work more collaboratively and improve services. Pending Congressional approval of changes to NPPD's structure, OEC will serve a critical role within the new Office of Infrastructure Security. This evolution, she emphasized, is a recognition that there is no capability more critical and fundamental to emergency response than communications, and that it is one of the few issues that cuts across all areas of infrastructure security. NPPD has long recognized the value of stakeholder input through groups like SAFECOM and NCSWIC, and she assured participants OEC's transition into the Office of Infrastructure Security will serve to strengthen its support for the public safety community. Although the Department remains focused on counterterrorism, national security also depends on the protection of cyberspace and infrastructure. OEC's transition, she noted, is an opportunity to merge cyber infrastructure protection capabilities with its core legacy emergency communications efforts.

Kevin McGinnis, National Association of State Emergency Medical Service Officials, mentioned that the Assistant Secretary's comments were reassuring and he hoped the realignment would increase SAFECOM's ability to prioritize the public safety communications community's operational needs and determine solutions for sustaining the role of the SWIC. Craig Allen, Iowa SWIC, emphasized that many states are dealing with maintaining and upgrading antiquated communications systems instead of focusing on new and emerging technologies, and stressed the continued importance of developing standards and best practice for achieving statewide interoperability. Assistant Secretary Durkovich suggested the Office of Infrastructure Protection has much to offer in terms of helping OEC identify priorities and gaps, especially in consideration of stakeholder needs. Jim Goldstein, International Association of Fire

Chiefs, mentioned his work with staffers on Capitol Hill to preserve the critical work done through OEC on interoperability, such as continuing to underscore the importance of maintaining and upgrading state LMR systems. The Assistant Secretary reassured SAFECOM and NCSWIC that OEC will remain intact, including its organization and leadership, and will continue to serve the needs of its stakeholders. In a final note, Assistant Secretary Durkovich responded to a comment from Victoria Garcia, Hawaii SWIC, by acknowledging the need to better supply stakeholders and federal representatives from these offices with resources used to educate decisions-makers on public safety communications issues within states and territories.

20TH ANNIVERSARY OF THE OKLAHOMA CITY BOMBING

In honor of the 20th Anniversary of the Oklahoma City Bombing, SAFECOM and NCSWIC members invited representatives from Oklahoma to speak about the event, and the impact the attack had on the future of communications in Oklahoma. Nikki Cassingham, Oklahoma SWIC, and Lucien Jones, Communications Center Manager for the City of Oklahoma, discussed the events and the ensuing changes to emergency response in the City.

Lucien Jones provided background information about the event, noting that the City was in the process of contracting with a vendor to improve their current public safety communications system when the attack on the Alfred P. Murrah Federal Building occurred. Lucien noted the massive and coordinated effort executed in the response, and emphasized that the event underscored the critical role of communications, both during and after emergency response.

The attack on the Murrah Building remains the largest act of domestic terrorism in the United States, requiring massive and extended response and recovery operations from all levels of government; however, Oklahoma also faces continuous threats from tornadoes and other natural disasters. Over the past several years, Oklahoma has experienced more than ten high-force tornadoes spanning multiple jurisdictions and resulting in a significant number of fatalities and injuries as well as massive damage to property. Lucien noted that jurisdictions have worked to improve communications by coordinating across jurisdictions, expanding tactical channels, establishing Incident Management Teams and emergency operations centers, improving management of “incidents-within-incidents,” securing funding for communications training (Communications Unit [COMU] and Communications Unit Leader [COML]), and coordinating response efforts.



Lucien noted that the recent loss of the Urban Area Security Initiative (UASI) status has hindered efforts to improve communications and communications-related training. Nikki noted the improvements that have been made as a result of the Oklahoma City Bombing, including recognition of the importance of communications in response. She noted that Oklahoma is working to strengthen governance structures, which has helped to better represent communication needs and to ensure coordination continues to occur. Lucien emphasized the need for continual training, exercises, and improvement in emergency communications. Recently, Oklahoma sponsored a “Black Box Rodeo”—an exercise with mobile units to test response and communications during a simulated event—to ensure continued training among first responders. Through constant training, exercises, and assessments, Oklahoma is continually striving to improve communications and response.

THE T-BAND SPECTRUM PANEL SESSION: A PUBLIC SAFETY COMMUNITY CONCERN

The first T-Band session focused on the current status of states and urban areas affected by the T-Band migration mandate, and why this issue affects the entire public safety community. This session was led by a panel of subject-matter experts, including introductions by Steve Proctor, SAFECOM Chair, and Bob Symons, NCSWIC Acting Chair,

and discussion points by Stu Overby, National Public Safety Telecommunications Council (NPSTC) Spectrum Management Committee Vice Chair and T-Band Working Group Co-Chair; Raymond Edey, Interagency Communications Interoperability System (ICIS), Executive Director; and Steve Staffier, Massachusetts SWIC.

Stu Overby, NPSTC Spectrum Management Committee Vice Chair and T-Band Working Group Co-Chair

Stu Overby explained the T-Band issue and the importance of spectrum to public safety communications. Stu reported that the Public Safety T-Band was originally allocated in 1971 and has been used for mission-critical communications, especially in and around large metropolitan areas where spectrum is scarce.

Section 6103 of the Middle Class Tax Relief and Job Creation Act (Act) requires public safety licensees on the T-Band spectrum to migrate to another (unnamed) spectrum and the Federal Communication Commission (FCC) to auction Public Safety T-Band spectrum and use a portion of the proceeds from the auction to relocate public safety licensees. Stu raised several critical points regarding these requirements:

- **Relocation from the T-Band will affect operability and interoperability for many users in and around major metropolitan areas.** Affected jurisdictions include New York, Boston, Los Angeles, D.C., Dallas, Miami, Chicago, Philadelphia, Pittsburg, San Francisco, and Houston. Coverage is not restricted to just the urban area, but also surrounding areas. T-Band base stations may be placed within a 50-mile radius of those cities. Mobiles can operate within 30 miles around that radius, which means the T-Band effectively covers an 80-mile radius around the urban area. Many users will be affected by a migration.
- **FCC actions to freeze further investment in the T-Band are affecting plans to maintain and sustain public safety systems.** In April 2012, the FCC froze licensing for new systems and expansions in the T-Band. While limiting expansion makes sense in that it prohibits users from encumbering the T-Band, the freeze has affected plans that were underway (e.g., Los Angeles Regional Interoperable Communications Systems [LA-RICS]), and the ability of public safety agencies to maintain and sustain current systems. NPSTC provided [comments](#) to the FCC, urging them to cancel the freeze as it is affecting the ability of public safety agencies to maintain current systems.
- **Proceeds from the auction may not cover the full costs of relocation.** The law requires proceeds from the auction to be made available to cover “sums necessary” to relocate the public safety licensees. NPSTC believes the costs of relocation may exceed the amount that may be raised from the auction.
- **NPSTC is studying this issue.** NPSTC assembled a [working group](#) comprised of public safety and industry. There were over 60 people in the working group. NPSTC prepared a [report](#) based on its analysis.
- **There is a need to understand the number of public safety users affected.** NPSTC used FCC licenses to analyze usage on the T-Band. Table 1 provides a summary of users by region. This analysis reveals that usage across the regions varies. Usage is heavy in Boston, Chicago, New York, and Philadelphia; there is less usage in the remaining areas.
- **There is a need to understand spectrum alternatives for each region.** NPSTC looked at spectrum alternatives, and related costs. NPSTC found that the likely place to move is 700 MHz; however, in some regions (Boston, Chicago, LA, New York, and Philadelphia), there is not enough spectrum to relocate all users. In other areas (San Francisco, D.C., and Pittsburg), spectrum is limited, and a full transition may not be possible.

Region	Licenses	Channels Licensed	FR Sites	Repeaters	Mobiles/ Portables
Boston	209	596	636	1,081	30,439
Chicago	114	279	212	477	23,965
Dallas	19	55	51	95	3,392
Houston	6	7	8	8	277
Los Angeles	50	546	474	7,814	41,701
Miami	15	43	28	70	2,067
New York	222	1054	751	3,348	94,831
Philadelphia	150	790	467	2,893	61,734
Pittsburg	30	107	88	369	9,598
San Francisco	54	216	234	694	16,990
Washington, DC	22	129	87	465	10,103
Totals	925	3,822	3,036	17,314	295,097

Table 1 – Summary of Public Safety Users by Region



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- **There is a need to understand coverage and capacity provided by alternative solutions.** Coverage is also an issue. NPSTC worked with frequency coordinators to identify needs, usage, and coverage. NPSTC did a channel analysis to see how to gain the same type of coverage that is currently offered under the T-Band (see coverage maps in the attached slides). In most regions, there is not a one-for-one swap between solutions; in the transition, agencies could lose coverage or channels. There has been some action by the FCC to release reserve channels for public safety; NPSTC is reviewing the impact of these decisions on T-Band users and the eventual migration.

Ray Edey added information to the discussion on transitioning to FirstNet, noting that approximately one percent (1%) of T-Band use is for data, while almost eighty percent (80%) is using that spectrum for mission-critical voice. The possibility of migrating to FirstNet is dependent on when and whether mission critical voice solutions become available on the Nationwide Public Safety Broadband Network (NPSBN). NPSTC, Ray mentioned, projected the total costs of migration to reach approximately \$5.8B. Many believe the auction may not raise enough to cover these costs. Others feel that this policy forces a double-migration (once off the T-Band, and then again to the NPSBN), causing additional and unnecessary costs.

Given the shortage of spectrum in certain areas, the cost of relocation, and the potential disruption to public safety communications, NPSTC concluded that the transition from the T-Band is not practical or feasible, and urged Congress to reconsider this mandate. NPSTC is working to update this report, to reflect new developments, including recent FCC decision to make reserve spectrum available for public safety, and to revisit the number of users, spectrum available, and channels available.

Ray Edey, Executive Director, ICIS

Ray Edey addressed issues in Los Angeles, California, covering the area's current state, future state, major issues, and provision history. Overall, the Los Angeles area is very short on spectrum, and turned to the T-Band to accommodate more agencies, users, and jurisdictions. The original migration took a significant amount of time to complete, but now ICIS serves the entire metropolitan area, including small, local, and rural areas. There have been substantial investments into the ICIS system, which was funded through local dollars and expanded with some federal funding.

The LA-RICS was designed to provide integrated communications across jurisdictions and agencies. LA-RICS was originally a T-Band system, but when the Act was passed, the project shifted to a hybrid system leveraging both 700 MHz and UHF T-Band Project 25 (P25) technologies that will provide improved LMR and broadband communications. The project will link LA-RICS to ICIS, and leverage multi-band radios to allow users to talk, regardless of spectrum.

Los Angeles does not have the spectrum to accommodate all users—there is no T-Band left in LA-RICS or additional spectrum (700 MHz) to employ. Ray explained that Los Angeles is assembling a “patchwork quilt” of spectrum to accommodate all users, and removing users from the T-Band will cause major issues in LA.

When the legislation was being developed, the T-Band provision was not included. Public safety was surprised that the T-Band provision was included in the final Act. Members noted this provision was added at the last-minute; members believed Congress was convinced there would be a Long-Term Evolution solution for voice in the coming years, and that the transition would be easy. However, little to no impact analysis was performed. Agencies acted quickly to implement the Act, freezing the spectrum and federal funding through Broadband Technology Opportunities Program, greatly affecting the LA-RICS project.

In effect, the Act will force the T-Band agencies to migrate twice – once from the T-Band, and again to the NPSBN. This provision will disrupt a working public safety communications system, putting lives and property at risk. Ray noted that approximately \$90M has been invested to date; another \$150M is needed to move. LA requested an independent analysis of the potential spectrum revenue. It was projected at \$40M – far below what it could cost LA to migrate. The general consensus is that the spectrum is not that valuable, there is not a lot of demand for this spectrum, and revenues will not cover the costs of relocation. Los Angeles recognizes that this is the law, but wants to educate

others on the impact of this provision. LA is seeking the support of public safety community on this issue – those affected by T-Band and areas not affected by this issue. Spectrum decisions affect public safety.

Steve Staffier, Massachusetts SWIC

Steve Staffier opened by stating that before the Boston Marathon Bombing, there was a comprehensive communications plan in place. With this, the entire response was dependent on the area's LMR system, which utilizes the T-Band. Much of the response's success was attributed to Boston's robust LMR system and related protocols in place. Massachusetts has asked the FCC to lift its freeze in order to better sustain and further expand its system.

Beyond Boston, "edge communities", surrounding suburban and rural communities, rely on the T-Band for public safety communications. Migrating off the T-Band would affect those areas as well, as the alternative solutions may not provide the coverage and capacity to serve those areas. Steve noted that in Massachusetts, there are no counties; instead, small towns depend on the state for communications. The state has applied for and invested millions of DHS grant dollars on its state and local LMR systems. These systems work. To dismantle those systems, lose those investments, and un-do those communications capabilities would not be a good decision.



Meeting Photo: Steve Proctor, Bob Symons, Stu Overby, Raymond Edey, and Steve Staffier discussing Public Safety T-Band

T-BAND WORKING SESSION: DEVELOPING AN EXECUTIVE BRIEFING FOR T-BAND ISSUES

The second session on T-Band focused on developing an executive briefing for T-Band issues through a working session led by the Joint SAFE COM and NCSWIC Technology Policy Committee, in coordination with NPSTC. The goal of this session was to develop talking points on the current status of the T-Band spectrum migration to assist associations and states in educating officials on the issues. Led by the same panel of experts as the first session, the group considered the following issues for drafting the T-Band Executive Briefing:

- **Recommendation:** Stakeholders recommended that SAFE COM and NCSWIC collect specific input from affected jurisdictions, including information about the number of agencies, users, and jurisdictions affected; coverage lost due to the transition; and, capabilities affected by the transition
- **Recommendation:** Stakeholders recommended SAFE COM and NCSWIC focus on educating decision-makers on spectrum issues and the impact of spectrum decisions on public safety as well as track spectrum issues. Members felt spectrum decisions have occurred in the past and the full impact to public safety was not



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considered. Members stressed the need to educate decision-makers on the impact of decisions related to spectrum on public safety, and the fact that there is not enough spectrum to relocate users.

- **Recommendation:** Stakeholders recommended that SAFECOM and NCSWIC strategize how to further educate decision-makers on the cost of this provision. Members were concerned about costs. Costs were calculated based on a move to 700 MHz. If there is not enough spectrum to relocate, additional infrastructure may be required, and costs will be higher. Additionally, there needs to be candid discussions on capital vs. expense funds. If there are not enough funds to migrate, state and local funds may be needed. State and local agencies are having difficulty raising funds for capital or ongoing costs, and there may be gaps in funding.
- **Recommendation:** Stakeholders recommended that SAFECOM and NCSWIC closely assess the required/mandated timeline and define feasible options or a strategy for the near- and long-terms. There is a need to convey that relocation planning and migration take significant effort and time, and that many factors affect that timeline (e.g., National Environmental Policy Act, local approvals, funding). There is also a need to discuss when and if these technologies will converge (i.e., voice capabilities will be fully available on the NPSBN), not only in terms of technology and timing, but also in terms of coverage and capabilities. Stakeholders posed additional questions regarding roles and responsibilities for timing of relocation to which the FCC noted that it has certain responsibilities under the law.
- **Recommendation:** Stakeholders recommended increased coordination on spectrum and impact (i.e., SAFECOM with the Regional Planning Commissions). Additionally, stakeholders asked if there has been coordination with National Translators.
- **Recommendation:** Stakeholders recommended that SAFECOM and NCSWIC strategize how to further educate decision-makers on the bigger picture and broader mission. Members specifically suggested leveraging the *9/11 Commission Report* as a starting point, rallying the support of jurisdictions not affected by the T-Band provision to assess how the migration could more broadly affect interoperability within their urban areas, and determining whether the FirstNet Request for Proposal (RFP) could include a T-Band solution.

GOVERNANCE AND SUSTAINMENT PANEL SESSION: CURRENT STATE OF GOVERNANCE

The Current State of Governance Panel Session highlighted existing governance structures in four states: Texas, Minnesota, Oklahoma, and Utah, and the challenges associated with using various types of authority (i.e., statutory vs. executive order) to support the SWIC position.

Karla Jurrens, Texas Deputy SWIC, explained the regional bottom-up approach to governance in Texas. In 2007, 24 regions came together to form the Texas Association of Regional Councils. The regions worked together to propose a statewide governance structure, establish working groups, create a process for developing and approving a Statewide Communications Interoperability Plan (SCIP) and Public Safety Interoperable Communications (PSIC) timeline. Karla noted that a key benefit of a bottom-up approach to governance is that the state provides access to individuals at the local level at all times, who are already connected to radio channels.

Jim Stromberg, Minnesota SWIC, stated that the Minnesota Statewide Emergency Communications Board (SECB), originally called the Statewide Radio Board, was created by the Minnesota Legislature in 2004. Today, Minnesota has one statewide and seven regional Communications Boards, each with subcommittees and workgroups. This governance structure ensures the SECB acts on issues with the full input of public safety and government officials from across Minnesota and is representative of the diverse geographies, disciplines, authorities and areas of expertise throughout the state.

Nikki Cassingham, Oklahoma SWIC, discussed the funding received in 2007 through PSIC and Interoperable Emergency Communications Grant Program (IECGP), which resulted in a lot of excitement and increased participation in emergency communications committees. At one point, there was an executive order to redo the

governance structure in Oklahoma; however, implementation was not easy as a result of decreased funding when PSIC and IECGP funds ran out, low tribal participation, and the lack of a 9-1-1 coordinator. It has also been challenging for Oklahoma to get all of the various agencies to work together. Moving forward, Oklahoma is interested in implementing a more regional approach to governance.

Steve Proctor concluded the panel session by discussing Utah's governance structure. Prior to the 2002 Winter Olympic Games, Utah realized there was a need for a statewide communications system; however, building a system was not a top priority. When Utah won the bid to host the Olympics, public safety communications became a priority and provided the state a chance to improve their communications and governance structure. Utah formed a task force to study public safety communications across the state. By the start of the games, Utah had 6,500 radios on their statewide network. Today, the network supports over 25,000 radios. The worth of the system increased from \$187,000 in 2002 to \$135 million today. In July 2014, after almost 20 years of planning, the state legislature created the Utah Communications Authority to support public safety communications and 9-1-1 services for federal, state, and local government agencies on a regional and statewide basis.

Following the panel session, members participated in a facilitated question and answer session. Many of the questions surrounded the need for legislatively driven progress to strengthen governance. Nikki noted the importance of having aggressive legislation to strengthen governance, adding that Oklahoma is at a point where it will take clear legislation with specific roles and responsibilities surrounding LMR, Broadband and 9-1-1. Charlie Sasser remarked that if a state chooses to go the executive order or legislative route, it must be careful how it is written because other entities may challenge what is being done, how it is being done, and by whom. Therefore, it is important to focus on roles and responsibilities, and who will have authority to manage the various communications systems. Steve Proctor added that clear legislation is important as many people will often interpret the laws in their own way and local exchange carriers may try to shape the bill to their benefit. Victoria Garcia noted the importance of having legal counsel in the room. Lawyers and decision makers need to be educated on the issues and their importance to public safety. In response to a participant's question on the ability for statewide systems to set National Incident Management System, standards, and plain language, Jim and Nikki stated that Minnesota and Oklahoma have the ability to do these things, but are often challenged with turnover and people not understanding the issues. In Texas there are regional focus groups that prioritize specific projects and purchases are reviewed by the SWIC office. Finally, Steve discussed the opportunities and challenges faced with borrowing funds in Utah, stating that the idea was to initially increase the 9-1-1 fee by \$0.65; however, the state received heavy criticism and disapproval from mobile carriers. The carriers said that if they were going to act as tax collectors, then wanted to be compensated. Utah continues to look at alternative funding sources, as the replacement cost for Utah's system is \$20 million per year, not including operational costs making it a difficult to sell.

GOVERNANCE AND SUSTAINMENT WORKING SESSION: REASSESSING THE ROLE OF THE SWIC—"THE SWIC OF THE FUTURE"

The second Governance and Sustainment session focused on discussing and defining the role of the SWIC to help update the SWIC Roles and Responsibilities document, and develop content for a SWIC job description. Bob Symons, NCSWIC Acting Chair, introduced the working session and discussed the current state of the SWICs, focusing on *Figure 1* that shows the declining number of full-time SWICs. Bob emphasized the need for a full-time SWIC in each state, adding that the SWICs and SAFE COM members in attendance could help with defining the new SWIC role.

Participants then spent time at their tables filling out worksheets to help the NCSWIC Governance Committee update the six main SWIC roles as defined in the current SWIC Roles and

Responsibilities document. Each of the tables focused on key questions related to Program Management, SCIP

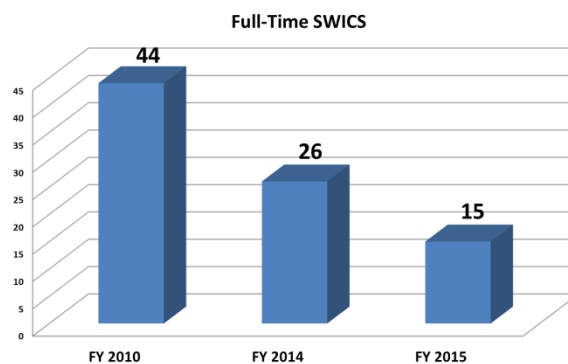


Figure 1: Declining Number of Full-Time SWICs

Implementation, Governance, Policy Development, Grants Coordination, and Education and Outreach. For each of the six roles, members discussed how SAFECOM members and other associations can help support and advance the SWIC by promoting the role of the SWIC in their state with a unified message; including SWICs in best practices and standards discussions; and, by supporting dedicated funding. Following the meeting, the NCSWIC Governance Committee will review and analyze the responses to the worksheets, and update the current Roles and Responsibilities document, and develop a SWIC Job Description Guide and other promotional products to assist in sustaining and elevating the SWIC role.



Meeting Photo: SAFECOM and NCSWIC discussing among themselves the “SWIC of the future”

GOVERNANCE AND SUSTAINMENT OVERVIEW: A CALL TO ACTION

Penny Rubow, Arkansas SWIC and SAFECOM At-Large member, facilitated an open forum discussion for NCSWIC and SAFECOM members to discuss the development of a work product focused on defining and defending the SWIC position. She presented on Arkansas’ current governance model, including challenges faced, and efforts to change the status quo. Arkansas is a great example of how the newly released Governance Guide can be leveraged to improve the current situation in other states.

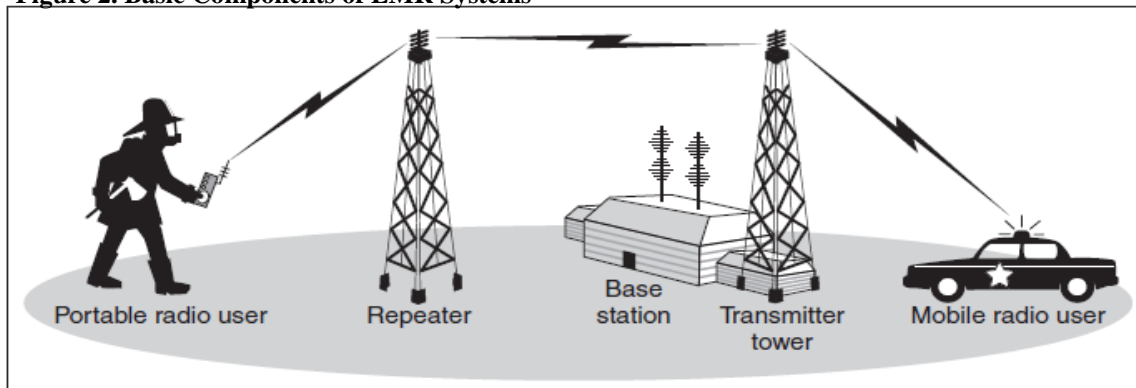
Penny described Arkansas as having an ad hoc governance structure. While there are advantages to this structure, including not having the structure or mission tied to legislation and the ability to tackle a multitude of issues, she noted at times it can be hard to maintain participation without a more formalized structure. She noted it is often difficult to get policies in place or to move forward on initiatives without a state mandate. As FirstNet moves forward, Arkansas would like to work on constructing legislation for its governance body; however, at this time, LMR remains the first priority for its governing body. One of Penny’s recommendations included obtaining buy-in and consensus from leadership. She mentioned the importance of figuring out who has the most influence, since it is not always the person at the top. In the coming years, Penny believes the SWIC will need to become a full-time role; therefore, it is crucial to have a briefing document, potentially the SWIC Job Description Guide, with standard information that can be tailored based on who will be receiving the document.

Penny closed out the forum by requesting input from stakeholders on how to move forward with formalizing outreach. The resulting discussion and highlights for moving forward included: developing a one page document on the role of a SWIC; advocating for the SWIC to fulfill more of an executive position that has more interface with the Governor; obtaining buy-in and consensus through simple and direct messaging; and, building relationships with public safety officials and senior leadership.

MAINTAINING AND UPGRADING LMR SYSTEMS: EDUCATING STATE AND LOCAL OFFICIALS

The goal of this panel session led by Steve Proctor, SAFECOM Funding and Sustainment Committee Chair, Tom Roche, SAFECOM Funding and Sustainment Committee Vice Chair, and Roberto Mussenden, FCC, was to share ideas on how to educate state and local officials on the importance of maintaining and upgrading LMR systems., including sharing effective outreach strategies. The panel presented basic information on LMR and Broadband technologies, and potential talking points stakeholders can use to educate state and local officials. Panelists emphasized the need to provide state and local officials with basic information on why public safety is important, current issues affecting LMR systems, and how public safety communications systems are different from communications that are used in day-to-day life (e.g. cell phones). Figure 2 , provides an example of a basic graphic that can be used to explain LMR systems to decision-makers.

Figure 2. Basic Components of LMR Systems



Sources: GAO and DHS.

Speakers noted it is crucial to help state and local officials understand the difference between LMR and Broadband/LTE. LMR systems are the primary means of communications for public safety personnel. These communication systems are specially designed to meet public safety’s unique needs to support time-sensitive, lifesaving tasks. LMR systems have been built to achieve high levels of reliability, redundancy, coverage, and capacity in harsh natural and man-made environments. With the timeline for the development and deployment of the Nationwide Public Safety Broadband Network unknown, it is critical that state and local officials continue to support existing LMR systems, to ensure the public safety community has access to mission critical voice. SAFECOM and NCSWIC members stressed the need for simple messaging, and simple graphics on all documents so decision-makers understand the issues. Additionally, panelists stressed the need to engage with decision-makers and partners at all levels of government to educate decision-makers and other users on the critical need to sustain LMR systems. The Joint Funding and Sustainment Committee is working on a set of LMR papers to educate decision makers on the need to sustain LMR systems. The committee is finalizing work on these papers and will circulate the documents to members for review following the meeting, and prepare a PowerPoint presentation that members can leverage to “tell their story.”



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DAY TWO

COMU PANEL & WORKING SESSION: CURRENT STATE OF COMU OFFERINGS & ESTABLISHING NEXT STEPS FOR COMU PRIORITY AREAS

Dan Wills, Arizona State Forestry, introduced the COMU Working Group and explained that it was established to explore evolving concerns regarding the current state of COMU, associated training programs, and the lack of awareness among the first responder community on COMU resources. NCSWIC and SAFE COM leaders prioritized COMU during the joint meeting in order to explain challenges, gather feedback from both programs' membership on establishing a national program, and determine next steps for the working group.

SAFE COM and NCSWIC agreed that it is critical to include all necessary personnel, agencies, and organizations involved in communications (i.e., across disciplines and levels of government) in the working group. Members specifically emphasized the importance of including operators and other communications disciplines (radio, voice, IT technicians) in the working group to develop an all-encompassing program. Members also suggested developing a council of executives. Although members suggested that FirstNet should not be a direct aspect of the working group, most agreed on the importance of positioning the program ahead of FirstNet to plan for technological advancements.

Mark Wrightstone, Pennsylvania SWIC, explained that the COMU project is currently managed by the OEC TA Branch, but recommended it be removed and reestablished as its own program. Steve Staffier, Massachusetts SWIC, shared current courses' shortcomings in helping him to meet intended qualifications. Additionally, to emphasize attention and current resources within Federal Emergency Management Agency's (FEMA) Incident Command Structure (ICS) Logistics Branch towards communications, members suggested elevating the positioning to a communications section chief or another position separate from Logistics. Furthermore, Bob Symons and many others agreed that OEC should house all communications programs; however, in the event that FEMA would not agree to relinquish the COML program, Michael Murphy, Louisiana SWIC, suggested OEC work directly with FEMA to establish the COMU/COML program under OEC's directorate while delegating roles and responsibilities between the two agencies, establishing a unique partnership.

On a state level, members agreed state interoperability offices or SWICs should manage COMU logistics and activation. Steve Staffier noted that in Massachusetts in the past, COMU activation occurred through the SWIC or local dispatch. Small scale events managed using a provided list of resources are typically activated through the local dispatch, but for larger-scale event planning or emergencies, planning and activation may go through the SWIC.

Communications credentialing is currently managed by the state, but some of these models are proving ineffective. The panel discussed a national credentialing baseline standard for communication units. The baseline is not intended to place restrictions on a state or communications unit, but instead to make credentials interchangeable between the states. Wynn Brannin, New Mexico SWIC, agreed with this initiative stating it is typical for one agency not to recognize another agency's credentials. Since this can create confusion and obstacles when responding to catastrophic events, SAFE COM and NCSWIC members also agreed there should be a general nationwide baseline curriculum credential program. Wynn suggested the baseline curriculum should cover different communication methods so that participants gain an understanding of the different communications areas (voice, IT, IP, etc.) critical to the big picture. If desired, agencies may then build specialty courses into their baseline training or endorsements. He also suggested coordinating curriculum with first responder academies to include a wider array of communications content and to streamline the credentialing process. Ferdinand Milanes, American Association of State Highway and Transportation Officials, stressed the importance of including vendors and utilities in the credentialing process as well. He is currently working on this initiative with others and will report back on findings.

A majority of the members agreed that it is much easier to showcase qualifications than display credentials, and as Bob Symons shared, credentials can vary in effectiveness between the states. For instance, a credentialed Wyoming COML, Bob noted, is not perceived as effective in Massachusetts as a credentialed Massachusetts COML, and vice versa. Panel members explained, however, that since COML personnel are not intended as managers to a given area,

but instead, respond to different emergencies nationwide, there is a pertinent need for national baseline training. Likewise, local responders are good aids for the adjusting COML to better understand the environment and resources. Michael Murphy explained there was a high volume of personnel responding to Hurricane Katrina; however, there was no clear way to determine who was credentialed and who was not. Cases like this exemplify the need for national credentialing so that teams can be deployed in a safe manner. The panel asked if creating a credential information card and database would be a good solution to minimizing obstacles. The members were split in their agreement of the proposition. Many appreciated the idea, but the costs and administration hours may surpass the value these tools provide.

In addition to credentialing trainings and identifying who needs to be credentialed, there is a serious need to update national-level trainings to include communications models. Members voiced that it is instrumental for Incident Command, Operations Chiefs, and other responding personnel to take communications training (refreshers included) in order to understand the resources and capabilities COML/COMU provides in an emergency response.

Members emphasized the need for the working group to explore integrated information training and education, promote COML pre-planning and communication plan discussions among responders and officials, and increase awareness for the ICS 205 playbook and function channels to promote COMU resources within the community. Members also encouraged each other to review post-event communications reports to identify strengths, weaknesses, and places for improvement. Joe Galvin, Illinois SWIC, shared that his and other states have already created teams to conduct stakeholder outreach, have developed COML and communications training programs, and are critically reviewing after-action reports to improve their strategies and execution.

Lastly, members agreed that it would be an effective means to emphasize the importance of a COMU program if OEC drafted and delivered a letter to each of the state's governors sharing the importance of this initiative. In addition, members suggested establishing a warehouse of training materials. OEC Director Ron Hewitt welcomed participants to explore the COMU online tool.

Ron also suggested members review after action reports for learning purposes. He suggested emailing any reports they would like to share to the [OEC Inbox](#).

The COMU Working Group thanked everyone for their attention and participation. Over the next few months, the working group will explore a communications curriculum and the process for developing COMU refresher training courses (in person or online) as well as discuss a COMU program template to help personnel complete the documentation program. Once the working group develops their recommendations and priorities, and evaluates how to make use of existing COMU program documentation, the working group will share next steps with SAFECOM and NCSWIC.

RESPONDING TO CIVIL UNREST: EMERGENCY COMMUNICATIONS DURING THE BALTIMORE PROTESTS

Ken Hasenei, Maryland SWIC and Chief Information Officer, provided an overview of his experiences responding to and coordinating communications efforts during the April 2015 Baltimore riots. Ken was directly involved in command responsibilities and assisting with logistics, planning, scheduling, tactical operations, and general operations for the event as a result of his unique position as Maryland's SWIC, Maryland State Police Major, Program Manager for the state's statewide radio project, Maryland FiRST, and supervisor of the Information Technology and Communications division.



Following the death of Freddie Grey—a 25-year-old African-American man arrested on April 12, 2015, by the Baltimore Police Department—protesters in Baltimore, Maryland, rioted across

the city. The rioting crowds formed quickly and dispersed just as fast, presenting problems for tactical and mobile field deployments. For additional assistance, hundreds of Maryland National Guardsman, State Troopers, and law enforcement from Ohio, New Jersey, and Pennsylvania reported to respond.

As the situation escalated, Ken worked with emergency personnel to establish lines of communications across the city in an effort to disband the threat of riot damage and bring peace back to Baltimore. Communications were quickly established and video systems were deployed in the Maryland State Police Command Vehicle. City Watch, a myriad of fixed cameras throughout the city, provided crowd surveillance, while State Police and Baltimore City Police helicopters flew overhead to monitor the disturbances in the city.

In order to assist the establishment of communications interoperability for all responders, the new statewide interoperable radio system, Maryland FiRST was used. This \$345 million project uses Project 25 Phase II technology on 700 MHz, allowing a multitude of frequencies and bands to be utilized across multiband radios. Ken worked with his COML to establish three radio channels: staging area, general police operations, and mobile field force. As more tactical units arrived a fourth channel was created. Radio traffic was kept at a minimum, and handled mainly by supervisors. Other jurisdictions offered additional equipment including radio caches, portable repeaters systems, COMLs and other assets. Most of the State of Maryland's cache of radios were not needed as other agencies came fully equipped and were able to connect to established radio channels.



Almost 1,000 radios were affiliated with the statewide system, and most agencies had easily activated national interoperability channels. Advanced communications with responding units from out-of-state proved useful in understanding the incoming radios and bands they operated on before boots hit the ground. Having a clearly-designated communications area played a significant role in the success of communications between agencies.

Many challenges were discovered following the events in downtown Baltimore. In the aftermath, Maryland's COML and COMTs discussed the state's new system, statewide operational policies, proficiency, and types of technology used for training. Baltimore City Fire and emergency medical services personnel also discussed the limitations faced using only 16 channels, believing more were needed. The main challenge for the State Police was maintaining communications with out-of-state law enforcement agencies.

In most incidents, communications is cited as one of the worst issues; however, due to the effective planning among the dedicated personnel, the use of Maryland's new radio system, interoperable communications between the multi-agencies was cited as one of the best and most effective aspects of the emergency response. Key takeaways to remember during this type of event included keeping things simple, establishing strong points of contact, limiting the number of radios, and making decisions in a small group.

GRANT GUIDANCE WORKING SESSION

Bess Mitchell, OEC Policy and Planning Branch, briefed the group on OEC efforts and the current status of emergency communications grant guidance development. On a regular basis, OEC consults with stakeholders to develop grant guidance, including the SAFECOM Guidance on Emergency Communications Grants (SAFECOM Grant Guidance) and the list of grants funding emergency communications. OEC has specifically been working in consultation with the Joint SAFECOM and NCSWIC Funding and Sustainment Committee recently to inform grant guidance. Information on current grant guidance is available at: <http://www.dhs.gov/safecom/funding>.

Bess discussed trends in emergency communications, noting that states continually rank emergency communications as a top priority and major area of investment for DHS/FEMA grants. Bess also reviewed the timeline for the 2016



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SAFECOM Grant Guidance. A key change this year includes the incorporation of a DHS-specific Appendix that requires stakeholders to purchase standards-based (P25) equipment, unless there is compelling reason to purchase non-standards-based equipment. OEC will work with FEMA to develop a process for review. FEMA will continue to make all decisions regarding grant awards, but will consult with OEC on communications purchases to ensure grantees are using funds to invest in standards-based equipment.

OEC will engage with NCSWIC and SAFECOM stakeholders, primarily through the Joint SAFECOM and NCSWIC Funding and Sustainment Committee, through October and November 2015 to collect input on priorities and major messaging. OEC will add and share new content with stakeholders through December 2015 and January 2016. In February, OEC will share the SAFECOM Grant Guidance with the Emergency Communications Preparedness Center (ECPC) Grants Focus Group for comments.

The panel opened the floor for stakeholder comments and questions.

- There was some discussion on the P25 requirement. While many agencies are operating using legacy systems, it is critical that agencies begin to migrate toward standards-based systems. OEC and FEMA both spoke to their cooperative effort to define requirements for review and compliance and to determine conditions for when waivers are granted.
- Mike Simon, FEMA, stated that FEMA is working with OEC to define roles and responsibilities, to develop the Appendix, and to ensure that FEMA has the information and training it needs to ensure compliance. FEMA sees OEC as a subject matter expert.
- There were also questions about encryption and the need to ensure encryption features are also standards-based.
- Members asked Mike Simon about the Authorized Equipment List (AEL), noting that it was helpful in identifying P25-compliant equipment. Simon noted that FEMA understands that grantees rely on the AEL and is working on a more permanent solution for where that resource is located online.

FOSTERING FORMAL COLLABORATION WITH THE FEDERAL PARTNERSHIP FOR INTEROPERABLE COMMUNICATIONS (FPIC)

Bob Symons introduced Jim Downes, DHS OEC, and Eddie Reyes, International Association of Chiefs of Police, to discuss the most recent version of the Encryption Guide, and come to a consensus on methods for supporting a formalized partnership among SAFECOM, NCSWIC, and the FPIC.

Jim noted that FPIC serves as a coordination and advisory body to address technical and operational wireless issues relative to interoperability within the federal emergency communications community as well as state and local agencies. The FPIC includes more than 200 federal, state, local, and tribal public safety representatives focused on improving interoperability among all levels of government and addressing common public safety related communications issues.

Regarding the group's recent involvement in encryption efforts, FPIC approved and distributed [Guidelines for Encryption in Land Mobile Radio Systems](#) in September 2013; additional revisions are currently in progress. FPIC also distributed a final draft of the *Considerations for Encryption in Public Safety Radio Systems* document; all comments received have been considered and resolved. This document was requested by the public safety community to address the need and level of encryption that should be considered for public safety radio systems. The U.S. Coast Guard provided legal review and FPIC approved the final draft. FPIC intends to submit both documents to SAFECOM and NCSWIC for consideration and approval.

Additionally, FPIC developed a draft document addressing *Best Practices for Encryption in P25 Public Safety Land Mobile Radio Systems* draft, which was distributed to multiple forums for comment, including the Joint SAFECOM and NCSWIC Technology Policy Committee, the SAFECOM and NCSWIC Executive Committees (EC), the NPSTC Radio Interoperability Best Practices Working Group, and the One DHS Emergency Communications Committee. Approximately 200 comments were received and resolution of these comments is in progress. FPIC also developed a



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Timeline for Completion of Best Practices document for recommended comment resolution. The SWG Encryption Focus Group will convene to consider unresolved comments and a final draft will be distributed to user forums and to the ECs for approval and publication.

The Best Practices document is important because encrypted interoperability requires a desire to interoperate between agencies; the knowledge and understanding of encryption and key management; coordination between agencies; and a key distribution system. Key management and interoperability can be improved by establishing a relationship and direct coordination with the National Law Enforcement Communications Center (NLECC) and/or SWIC for interoperability keys and key management guidelines. Best practices are enhanced by following the National Allocation Reserved Storage Location Numbers (SLN) matrix developed by FPIC. Use of this table by all public safety agencies can be coordinated by the NLECC and the SWICs. This practice will further enhance public safety agencies' ability to interoperate in the encrypted mode during day-to-day operations or incident response and minimize the potential for duplicate or incorrect key distribution. Encryption is a complex process within a radio system that depends on the coordination of a number of parameters to ensure interoperability, including the SLN, key ID (KID) assignments, and traffic encryption keys (TEK). Different agencies with uncoordinated SLN/KID/TEK assignments can create an interoperability nightmare.

Following the completion of the Best Practices effort, FPIC plans to develop an Encrypted Interoperability Plan, based on the needs of the public safety community and addressing the relationship of the P25 Standards and Operational Capabilities in the encrypted environment. The development of the plan will be coordinated with SAFECOM, NCSWIC, and NPSTC, and FPIC will socialize the plan among the broader public safety user community to obtain further guidance. FPIC also plans to conduct education and outreach opportunities to provide a better understanding of the complex relationship between standards and procedures. FPIC intends to educate public safety agencies on how encryption decisions affect the ability to interoperate with neighboring jurisdictions. FPIC also plans to include encryption education in COML and COMU training. Finally, FPIC is considering the development of an Operational Best Practices document.

FPIC conducted an Encrypted Communications Exercise (COMEX) in coordination with the Baltimore UASI-sponsored Maryland Command and Communications Rally in October 2015. The event included more than 250 individual participants, and 33 Command and Communications vehicles, of which 10 were federal assets. The goal was to validate the use of the FPIC-developed National SLN matrix to conduct encrypted roll calls among 31 participants with P25-standard encrypted radios in the Very High Frequency (VHF), Ultra High Frequency (UHF), and 700 MHz bands. FPIC COMLs developed an Incident Command Structure (ICS)-205, distributed and loaded encryption keys to participants, and supervised the execution of the exercise. Although a number of potential improvements were noted, the exercise was a validation of the National SLN matrix, and showed that as long as an agency follows the recommended SLN guidelines, cross-platform and cross-agency encryption is possible and can be a model for a national plan. Additional Encrypted COMEXs are planned to further validate the FPIC Encryption Interoperability strategy.

Mark Wrightstone, Pennsylvania SWIC, noted that the state is hosting a vehicle rally exercise in April 2016 in Hershey, Pennsylvania, and is interested in getting federal agencies and federal field offices involved and would welcome FPIC members. Mark emphasized the need for end-user training for radio functions and how to use their radios. He also noted that training is often localized and funding continues to be an issue.



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ATTENDEE ROSTER

NCSWIC

Name	State
Cathy Dawson (Alternate)	Alabama
Matthew Leveque*	Alaska
Penny Rubow	Arkansas
Jack Cobb, Russell Gibson	Colorado
Jeff Wobbleton	District of Columbia
Brad Hokanson	Guam
Victoria Garcia*	Hawaii
Joe Galvin*	Illinois
Steve Skinner	Indiana
Craig Allen*	Iowa
Jason Bryant*	Kansas
Sammy Williams	Louisiana
Ken Hasenei*	Maryland
Steve Staffier*	Massachusetts
Brad Stoddard*	Michigan
Jim Stromberg	Minnesota
Dent Guynes	Mississippi
Sue Krogman (Alternate)	Nebraska
John Stevens*	New Hampshire
Craig Reiner, John Miller	New Jersey
Wynn Brannin	New Mexico
Michael Lynk	North Dakota
Nikki Cassingham*	Oklahoma
David Soloos	Oregon
Mark Wrightstone	Pennsylvania
Felix Garcia*	Puerto Rico
Thomas Guthlein	Rhode Island
Robert Steadman	South Carolina
Jeffrey Pierce*	South Dakota
Karla Jurrens (Alternate)	Texas
Gordy Coles	Utah
Jessica Stolz*	Vermont
Reuben Molloy	Virgin Islands
G.E. McCabe	West Virginia
Gene Oldenburg	Wisconsin
Bob Symons*	Wyoming

*Denotes NCSWIC Executive Committee (EC) Member; all members are Statewide Interoperability Coordinators, unless otherwise noted



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SAFECOM

Name	Organization
SAFECOM Executive Committee Members	
Bill Bamattre, Mike Duyck	Metropolitan Fire Chiefs Association
Tim Blute	National Governors Association
Richard Broncheau	National Congress of American Indians
Christopher Cahhal	Major Cities Chiefs Association
Jim Goldstein	International Association of Fire Chiefs
Patrick Irwin	National Association of Counties
Kevin McGinnis, Paul Patrick	National Association of State EMS Officials
Jon Olson	National EMS Management Association
Steve Proctor	Public Safety At-Large Member
Eddie Reyes	International Association of Chiefs of Police
SAFECOM Member Associations	
Andrew Afflerbach	National Association of Telecommunications Officers and Advisors
Rick Comerford	International Association of Emergency Managers
Mike Jacobson	SEARCH, National Consortium for Justice Information and Statistics
Mel Maier	Major County Sheriffs' Association
Philip Mann	American Public Works Association
Ferdinand Milanes	American Association of State Highway and Transportation Officials
Lloyd Mitchell	Forestry Conservation Communications Associations
Charlie Sasser	National Association of State Technology Directors
John Sweeney	National Criminal Justice Association
Paul Szoc	International Municipal Signal Association
Public Safety At-Large Members	
Don Bowers	Fairfax County Fire and Rescue (Virginia)
Mark Buchholz	Willamette Valley 9-1-1 (Oregon)
Anthony Catalanotto	Fire Department City of New York (New York)
Michael Davis	Ulster County 9-1-1 Emergency Communications
Bradley Hokanson	Guam Homeland Security/Office of Civil Defense (Guam)
Jay Kopstein	New York State Division of Homeland Security and Emergency Services (New York)
Michael Murphy	Many, Louisiana Police Department (Louisiana)
George Perera	Miami-Dade Police Department
Colin Rizzo	Port of Houston Authority
Tom Roche	Monroe County, New York (New York)
Wes Rogers	Fairfax County Fire and Rescue (Virginia)
Penny Rubow	Arkansas Wireless information Network (Arkansas)
Bob Symons	Statewide Interoperability Coordinator (Wyoming)
Steve Verbil	Office of Statewide Emergency Telecommunications (Connecticut)
Dan Wills	Arizona State Forestry (Arizona)



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FEDERAL PARTNERS

Name	Organization
Tim Pierce	Department of Commerce (DOC), National Telecommunications and Information Administration (NTIA), First Responder Network Authority (FirstNet)
Alejandro Mayorkas (via videoteleconference)	Department of Homeland Security (DHS)
Ralph Barnett, III, Ken Born, Ken Bradley, Kenzie Capece, Chris Essid, Dan Hawkins, Ron Hewitt, Jim Jarvis, Jessica Kaputa, Ted Lawson, Jim Lundsted, Bess Mitchell, Pam Montanari, Miriam Montgomery, Dusty Rhoads, Adrienne Roughgarden, Eric Runnels, Brandon Smith, Dick Tenney	DHS, Office of Emergency Communications (OEC)
Caitlin Durkovich, Cindy Taylor	DHS, Office of Infrastructure Protection (OIP)
Roberto Mussenden	Federal Communications Commission (FCC)
Mike Simon	Federal Emergency Management Agency (FEMA), Grants Program Directorate (GPD)
Brian Carney	FEMA, Disaster Emergency Communications Division, Regional Emergency Communications Coordination Working Group
Mike Tuominen	National Interagency Fire Center
Ellen Ryan, Lisa Soucy	National Institute of Standards and Technology, Public Safety Communications Research Program

GUESTS

Name	Organization
Raymond Edey	Interagency Communications Interoperability System
Sean Fensterwald	Virginia Communications CACHE -FX
Lucien Jones	City of Oklahoma City, Communications Center Manager
Andrew Murphy	Many, Louisiana Police Department
Stu Overby	National Public Safety Telecommunications Council