SAFECOM NCSWIC
FALL 2020 VIRTUAL
ENGAGEMENTS

December 1-3, 2020 Sessions

- A Year in Review: 2020 and Unprecedented Change

- Nationwide Response to a Record-Breaking Fire Season

- Cybersecurity for Public Safety Communications

- Computer-Aided Dispatch System Interoperability

- Encryption: A Practitioner's View

December 8-10, 2020 Sessions

- Inauguration Preparation and Interoperability Support Panel Discussion

- Emergency Support Function-2

Access Virtual Engagement Session Recordings!

Visit the website to find more information on SAFECOM's and NCSWIC's products and events:

cisa.gov/safecom

Please contact the SAFECOM Inbox or NCSWIC Inbox with questions or feedback.

On December 1st, 2020, SAFECOM and the National Council of Statewide Interoperability Coordinators (NCSWIC) kicked off their bi-annual meeting. Conducted virtually for the first time, multiple informative and productive sessions took place over the course of a two-week period. Acting Director for the Cybersecurity and Infrastructure Security Agency (CISA), Brandon Wales served as the keynote speaker.

Members of SAFECOM and NCSIWC selected topics for this year's engagement series, focusing on the groups' most pressing priorities. Plenary session topics included public safety cybersecurity awareness, complicating factors impacting communications response to this year's fire season, communications challenges and strategies surrounding the 2021 presidential inauguration, computer-aided dispatch system interoperability, and more.

Both groups also met individually to discuss and vote on current work products and conduct strategic planning for 2021 activities. The SAFECOM Executive Board and NCSWIC Executive Committee will meet at the beginning of 2021 to discuss this coming year's strategic priorities and plan for future meetings.

Keynote and Welcome Address

CISA Acting Director Brandon Wales helped kick off the meeting by acknowledging the tremendous work done by the SAFECOM and NCSWIC programs over the last decade. This work has been crucial to many communications successes witnessed during the pandemic. He thanked members of SAFECOM and NCSWIC leadership for remaining steadfast partners and for working with CISA to ensure emergency communications continues to remain a priority. Lastly, Acting Director Wales recognized the continued work by members of SAFECOM and NCSWIC to implement the goals and objectives outlined in the National Emergency Communications Plan.

A YEAR IN REVIEW: 2020 AND UNPRECEDENTED CHANGE
December 1, 2020

Chief Gerald Reardon, SAFECOM Chair, and John Miller, NCSWIC Chair, thanked members of the SAFECOM and NCSWIC communities for their continued participation and dedicated and diligent efforts over the past year. They presented an overview of lessons learned from 2020, especially focusing on implementing unique approaches to response during the health crisis and beyond. They also discussed how recent cyber, natural, and man-made events, as well as geopolitical tensions, impacted public safety communications, and how SAFECOM, NCSWIC, and CISA developed relevant and timely products to support public safety during these tumultuous times.

Specifically, Chief Reardon and Mr. Miller acknowledged SAFECOM and NCSWIC members' ability to quickly adapt to the extraordinary and ever-changing circumstances of 2020 and praised their ability to ensure the continuity of emergency communications across the Nation.

This included standing up communications capabilities to support alternate care and testing sites, as well as developing unique solutions to address personnel safety and social distancing requirements, such as remote work capabilities in public safety answering points and emergency operations centers. Both speakers highlighted the relationship-building that forms the backbone of the SAFECOM and NCSWIC programs and how it resulted in seamless coordination and sharing of best practices even in the most difficult of situations. CISA Executive Assistant Director for Emergency Communications Billy Bob Brown, Jr. closed the session by again recognizing the notable accomplishments of SAFECOM and NCSWIC members, focusing on the successes stemming from the unified and collaborative approach to improving interoperability, dedication to strategic team building, and coordinated response across the Nation to the myriad events that occurred in 2020.

REAL-WORLD EVENT: NATIONWIDE RESPONSE TO A RECORD-BREAKING FIRE SEASON
December 1, 2020
As of October 27, 2020, 46,998 fires nationwide had burned 8,533,854 acres, almost doubling total land burned the previous year with a decade average increase of 34%, according to the National Interagency Fire Center (NIFC). This unprecedented year of response created unique challenges, such as response limitations and complications resulting from pandemic risk. As a result, incident leaders, including Communications Unit Leaders (COMLs), had to innovate as they struggled to recruit personnel who feared exposure; sustain operations yet stay nimble during fast-moving fires; and protect those against COVID-19 who already risk their lives daily. As the first true panel of the virtual engagements, this session drew insights from experts in the field on initial lessons learned and best practices coming out of this year's response, as well as potential standardized approaches for 2021 to safely execute response operations during a continued pandemic with no known end date.

Figure 1 Gabe Huck, a member of the San Benito Monterey Cal Fire Crew, stands along state highway 168 while fighting the Creek Fire in Shaver Lake, California (AP Photo: Marcio Jose Sanchez)

Moderator and SAFECOM Vice Chair Chief Chris Lombard drew perspectives from operational experts leading communications teams and managing resources for both wildland fires and urban search and rescue, including: Mike Tuominen, Incident Communications Operations, U.S. Forest Service NIFC; Jennifer Lord, Radio Communications Specialist, Wisconsin Department of Natural Resources; and Brandon Diemer, Electrical Engineer, Bureau of Land Management, Department of Interior (DOI), and DOI Representative to SAFECOM.

Despite discussing content through the lens of fire response, this session provided broad guidance and recommendations relevant across the emergency communications ecosystem. Best practices covered how to achieve a safe environment for responders called to a scene where social distancing or working in a virtual environment may not be an option. Other lessons learned specifically focused on strategies for coordinating resources across different agencies and state systems; determining need for additional wildland fire training and how to get it for those interested in broadening their COML qualifications; and innovative technologies and strategies stressing the need to stay on top of advancements and ensure a flexible approach to problem solving and decision making on the scene.

CYBERSECURITY FOR PUBLIC SAFETY COMMUNICATIONS
December 2, 2020

On the second day of the events, Edward "Ted" Lawson, CISA Federal Lead for the SAFECOM Cybersecurity Working Group, facilitated a session focused on highlighting relevant resources for a holistic approach to public safety cybersecurity, informing attendees of common cyberattacks against public safety organizations, and providing expert insights on frequently asked public safety cybersecurity questions.

Mr. Lawson discussed recent SAFECOM and NCSWIC publications with the potential to assist with a variety of public safety cybersecurity topics, including preparedness and planning, best practices and mitigation techniques, and research and development. He also encouraged attendees sign up for United States Computer Emergency Readiness Team (US-CERT) alerts and visit the CISA website for key cybersecurity resources, such as the CISA Cyber Resources Hub and Cyber Essentials.

Mr. Chuck Spalding, Next Generation 911 Director for Palm Beach County, FL, reported on common cyberattacks—Telephony Denial of Service (TDoS) and ransomware—against public safety communications. He explained how TDoS and ransomware attacks impact a 911 center and provided examples of recent attacks against public safety answering points across the country. He emphasized best practices to prevent and mitigate these attacks such as implementing commercially available products that filter calls into the center, developing cybersecurity response plans, and minimizing risks when working with vendors with remote access.

Captain George Perera, Miami-Dade Police Department, addressed the audience with his insights on frequently asked questions regarding public safety cybersecurity. He discussed some of the biggest challenges to securing an organization's network (e.g., insider threat, IT architecture, governance) and recommended referencing existing resources from CISA and the National Institute of Standards and Technology to improve overall cybersecurity posture. He also suggested immediate steps to take after a cyberattack and how to work with third party vendors to prevent cyber breaches. The session received positive feedback from attendees and many requested that a copy of the presentation be distributed. The recorded session in its entirety will be available at a future date.

Virtual Cafés: Open Discussions and Networking Socials

CISA hosted two interactive Virtual Cafés focused on 4.9 GHz Spectrum and Funding in the Age of Coronavirus. Intended to support less formal, interactive discussion, program members asked hard-hitting questions to determine a stance on future guidance.

Topic: 4.9 GHz

Led by Bill Bamattre and Brad Stoddard, members discussed implications from the Federal Communications Commission's (FCC) amendment, issued on September 30, 2020, which opened the use of the 4.9 GHz spectrum band beyond public safety users, noting use of the band is now at the discretion of each state and its designated State Lessor. Members discussed how this change is affecting their agencies; impacts include limited governance oversight from Statewide Interoperability Coordinators (SWICs), reduced spectrum access for public safety users, compromised spectrum standards by new and uninformed users, and the availability of new spectrum leasing opportunities. In addition to these impacts, members also discussed anticipated challenges of opening the 4.9 GHz band:

- Increased competition for the spectrum, especially by the private sector, which often has the means to lobby state governments more quickly and effectively than public safety personnel
- Impeded tribal access to spectrum due to limiting state access to one lessor
- Renegotiated rates with a new State Lessor may be difficult as many public safety users currently operate on the 4.9 GHz band at little to no cost
- Need to elevate the issues to CISA leadership and continue discussions within the SAFECOM and NCSWIC committees

Topic: Funding in the Age of Coronavirus

Members of SAFECOM and NCSWIC discussed current funding challenges as a result of the ongoing public health crisis. Through an interactive gaming session, participants reviewed key takeaways from the draft *Contingency Considerations When Facing Reductions in Emergency Communications Budgets* fact sheet and shared best practices and lessons learned from their agencies. Participants heard how their peers have approached budgetary challenges by reallocating personnel funding, advocating for the SWIC position, and conducting cost-benefit analyses. Findings from the open discussions will be used to develop the SAFECOM and NCSWIC Funding and Sustainment Committee's upcoming Contingency Planning Guide.

COMPUTER-AIDED DISPATCH SYSTEM INTEROPERABILITY
December 3, 2020

Public safety organizations utilize computer-aided dispatch (CAD) systems in day-to-day, emergency, and out-of-the-ordinary operations. CAD systems offer the critical ability to share standardized information between emergency support function disciplines and across independent governmental entities. During the CAD-to-CAD interoperability session, representatives from CISA, the Maryland State Police, National Law Enforcement Telecommunications System – The International Justice and Public Safety Network, and Washington County, Maryland, discussed a current pilot designed to demonstrate how Nlets-based transmission can enable CAD systems to bi-directionally share automated, centralized, and dynamic information. Panelists provided information regarding the timeline for launch of the pilot, the advantages of CAD-to-CAD interoperability, and the challenges of creating a scalable, bi-directional, standardized CAD-to-CAD interface. Additional discussions focused on the benefits of the pilot, including the development of a mission-based system design optimized for user experience and value, and the opportunity to document system requirements and capability limitations.
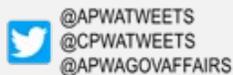
SAFECOM and NCSWIC participants indicated an ongoing need for interoperability and expressed interest in duplicating the pilot within their own jurisdictions. During the discussion, participants highlighted interoperability challenges in a for-profit vendor environment and inquired about security protocols and assessing third party vendor firewalls. In response to the requests for more detailed information, updates will be provided to SAFECOM and NCSWIC members as the pilot progresses, with the intent of sharing best practices and identifying a nationwide model for adoption of CAD-to-CAD interoperability.

SAFECOM BI-ANNUAL MEETING

During the Bi-Annual SAFECOM Meeting, members received results of the 2020 SAFECOM Elections, with Chief Gerald Reardon returning for another term as SAFECOM Chair, and welcoming Chief Jay Kopstein as Second Vice Chair. Members thanked former Second Vice Chair Michael Murphy for all his contributions to SAFECOM.

Phil Mann provided a spotlight on the American Public Works Association (APWA). Founded in 1894 as the Association of Municipal Engineers, it became APWA in 1937. As the representative to SAFECOM, Mr. Mann is charged with promoting the value of public works and enhancing its visibility and awareness, and to be the voice of public works to government leaders, the public, and the media. APWA supports "Lifeline Services," typically maintained by public works agencies, whose functions are critical to the operation of a functioning community and are vital to providing basic amenities to citizens. Examples of these services include the transportation network (roads, bridges, signals, signs); stormwater systems; solid waste; water; wastewater and wastewater treatment plants; gas; and, electricity.

It is critical that Public Works, Fire Rescue, Law Enforcement, and Emergency Managers work together to ensure the preservation of and timely repair of lifelines. These components are key to providing for a response for the citizens we serve. To this end, APWA recently introduced the national public works first responder symbol, shown below at right.

@APWATWEETS
@CPWATWEETS
@APWAGOVAFFAIRS
Facebook.com/American PublicWorksAssociation
@APWAGRAM
Youtube.com/APWATV

PUBLIC WORKS
FIRST RESPONDER

ENCRYPTION: A PRACTITIONER'S VIEW
December 3, 2020

"Encryption: A Practitioner's View" addressed encryption in an interoperable land mobile radio (LMR) environment. The purpose of this session was to inform the LMR user community about the benefits, challenges, opportunities, and complexities when deploying encryption, with attention given to using standard encryption keys and interoperability with mutual aid partners. Featuring speakers Cindy Cast (Miami-Dade County, Florida), Melissa Nazzaro (Massachusetts SWIC, Kenneth Link (U.S. Bureau of Alcohol, Tobacco, Firearms and Explosives), Keith LaPlant (U.S. Coast Guard), and moderator Joshua Black (CISA), the pre-recorded portion of the discussion covered topics such as encryption keys and encryption key management best practices; benefits of using standard versus proprietary encryption; when to use encryption; interoperating with mutual aid partners using encryption; and outstanding security and interoperability challenges for encryption.

The panelists then addressed live questions from meeting participants, touching on issues such as updating static encryption keys, transitioning away from outdated or proprietary encryption, helping ensure mutual aid partners include the optimal encryption requirements in procurement documents, and addressing outstanding issues with Common Key Reference Storage Location Number 14 in the National Capital Region (NCR).

NCSWIC BI-ANNUAL MEETING

During the virtual bi-annual meeting, NCSWIC members held open discussions on managing and maintaining continuity in the SWIC role during adverse times, such as the on-going health crisis, and highlighted strategies for being an effective SWIC. To begin the meeting, John Miller, NCSWIC Chair and New Jersey SWIC, welcomed the new members of the SWIC community, thanked his fellow SWICs and CISA for their continued support and perseverance during the last year, and congratulated Brad Stoddard, Michigan SWIC, on his reelection as NCSWIC Vice Chair. Mr. Miller and Mr. Stoddard, along with Greg Hauser, North Carolina SWIC, and Chris Maiers, Iowa SWIC, discussed the benefits of seeking assistance from, and collaborating with, neighboring SWICs and CISA during times of crisis. Additionally, the panel highlighted the need to think outside the box when it comes to deployments and emergency operations center (EOC) activations when physical and financial constraints limit the ability to operate in-person. Mr. Hauser highlighted the virtual EOC established in North Carolina during hurricane responses, previously discussed during the October 1, 2020 webinar. He also emphasized the importance of disconnecting from work, which he noted is difficult to accomplish when there is no physical office to leave at the end of the day. Lastly, Mr. Maiers showcased his state's virtual dashboard and reminded members to continually document best practices and lessons learned as they occur, as this can assist with future funding discussions.

Mr. Stoddard, NCSWIC Governance Committee Chair, and Vice Chair Karla Jurrens, Texas Deputy SWIC, presented a condensed version of the "Best Practices for an Effective SWIC" session from the SWIC Academy. They highlighted the launch of the SWIC Academy, which helps new members understand the role of the SWIC and how participation in NCSWIC and collaboration with CISA can promote success. The next SWIC Academy will be held virtually on January 14, 2021. Brad also discussed the SWIC Yearbook and Mentorship Program, the committee's newest projects, which are aimed at increasing collaboration among new and veteran SWICs. The Yearbook and Mentorship Program will officially launch in early 2021.

INAUGURATION PREPARATION AND INTEROPERABILITY SUPPORT PANEL DISCUSSION

December 9, 2020

CISA, along with the District of Columbia (DC) SWIC and the United State Secret Service (USSS) Chair for the Spectrum Deconfliction Subcommittee, discussed inauguration preparation and communications interoperability support for the 2021 Presidential Inauguration activities. As a designated National Special Security Event, extensive planning and preparation takes place within 28 Presidential Inauguration Executive Committees. Charlie Guddemi, DC SWIC, serves on four of the committees and collaborates with Shanita Wilkins, USSS, who is also integrated into the District as a member of the DC Interoperable Communications Committee (ICC). COVID-19 had an enormous impact on pre-planning, resulting in the cancellation of several Communications Unit training classes, inability to schedule multiple in-person exercise and planning events, and cancellation or confusion surrounding inaugural events.
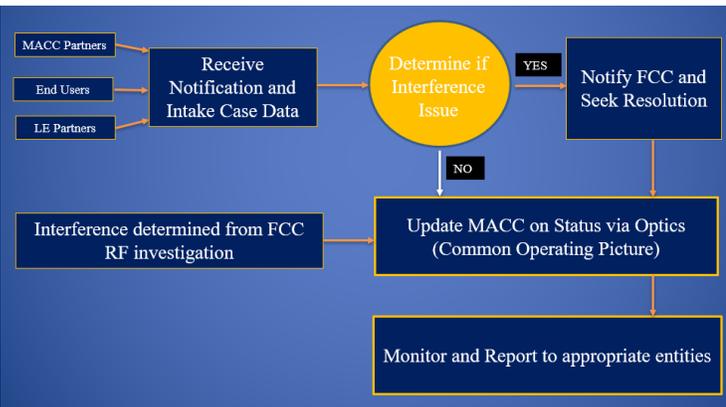
Figure 2: Spectrum Deconfliction Subcommittee Event Mitigation Process

Spectrum deconfliction is a major component of any presidential inauguration planning and incident preparation. Ms. Wilkins discussed the five-phase process to address situational awareness outages. Radio frequency weekly activity reports (WARs) are conducted to enable real world pre-event interference testing and mitigation to decrease the likelihood of interference during the 2021 Inauguration. A Multi-Agency Communications Center (MACC) serves as a clearinghouse for interagency communications coordination including those such as the FCC, the National Telecommunications and Information Administration, CISA, and local law enforcement (LE) partners. The Spectrum Deconfliction Subcommittee has been designated as a permanent component of the Presidential Inauguration Executive Committee. DC is part of the NCR where many federal, state, and local agencies operate. LMR and cellular communications can be disrupted when there is radio frequency (RF) interference or excessive traffic on local systems. Subscribers to the FirstNet system receive priority and preemption which ensure continuity of cellular communications when commercial carriers are overloaded. "PACE" plans are established to designate Primary, Alternate, Contingency, and Emergency communication channels. The NCR uses social media and the Everbridge public warning platform to notify the public. At present none of the NCR interoperable channels use encryption, although several local systems incorporate them, and one encrypted interoperable channel is being discussed for the inaugural activities. Panelists will provide a follow-up at the spring SAFECOM and NCSWIC meetings.

Week Two: Interactive Break-out Sessions

December 8, 2020

The NCSWIC Planning, Training, and Exercise Committee is developing the *Training and Exercises in the New Normal* guide to help SWICs and State Training Officers design and conduct trainings and exercises with anticipated budget cuts and a new virtual environment. SWICs and other training and exercise guests, participated in regional roundtables to share best practices and lessons learned from 2020 to inform the document. With the information gathered from the discussions, the committee will draft *Training and Exercises in the New Normal* with an anticipated publication in Spring 2021.

December 9, 2020

The NCSWIC Governance Committee is developing a product that outlines the various ways the Emergency Support Function #2 (ESF-2) is executed across the country. Members of SAFECOM and NCSWIC participated in a working session to gather examples, share best practices, and discuss the benefits of involving the SWIC in ESF-2 responsibilities at the state and local levels. With the information gathered from the discussions, the committee will draft a fact sheet on SWICs and ESF-2 with an anticipated publication in Spring 2021 and will host a follow-up webinar on the use of virtual dashboards during incident response.