The NPSTC Support Office provides reports to the Department of Homeland Security's Office for Interoperability and Compatibility (OIC) and the Office of Emergency Communications (OEC) highlighting the recent achievements of NPSTC's Committees and Working Groups. This brief is intended to keep the NPSTC Governing Board members up to date on NPSTC's ongoing efforts to improve public safety communications and interoperability.

Interoperability Committee

Radio Interoperability Best Practices Working Group: Radio programming at the scene of a large scale incident is a challenge. NPSTC is developing a set of best practices for radio programming, to include programming guidelines, verification, testing, and training. **UPDATE**: An internal conference call with the Working Group co-chairs occurred on January 7 to review the status of the consolidated workbook and the draft report. The Working Group met on January 8 and January 22 and continued to finalize Best Practice #1 and Best Practice #2. The Working Group has requested the submission of additional agency SOPs which will help substantiate the language in the proposal, covering channel naming and channel placement in radios.

Border Issues Working Group: This group meets on a recurring basis to review cross border public safety communications issues, and monitor and recommend positions on frequency coordination and interoperability with Mexico and Canada. **UPDATE**: The Working Group met on January 6 and NPSTC presented the final draft of the Cross Border Emergency Communications white paper to DHS OEC and S&T for review. Comments received from S&T are being incorporated into the final edition. NPSTC is coordinating with OEC to determine the date and location of the next Canada/US (CANUS) meeting. NPSTC and the Canadian Interoperability Technology Interest Group (CITIG) are working to develop a formal outreach plan to ensure the final report is distributed to appropriate officials at the local, regional, state/provincial, and federal level.

Channel Naming Working Group: The Channel Naming Working Group is modifying the existing standard to include new 700 MHz air-to-ground channels. Three projects are underway: Identification of standardized channel names for 700 MHz interoperable air to ground frequencies; identification of channel names for additional 700 MHz interoperability frequencies; and creation of a best practices guide for naming state designated interoperability channels. **UPDATE:** The Common Channel Naming Working Group met on January 15 and outlined a series of steps moving forward, including coordination with the Association of Public Safety Communications Officials International (APCO) on the American National Standards Institute (ANSI) standard update. APCO announced in December that it would be working on a refresh of this standard.

Emergency Medical Services (EMS) Working Group: The EMS Working Group meets monthly to review issues impacting public safety communications in the Emergency Medical Services arena. Narrowband voice and broadband data issues are discussed and the group recently completed an EMS Broadband Applications list for the FirstNet Public Safety Advisory Committee (PSAC). **UPDATE**: The EMS Working Group met on January 8 and received an overview on the status of public safety video technology as a part of their EMS video project. The Working Group is also coordinating with the NPSTC Video Technology Advisory Group (VTAG) and with the DHS S&T's Video Quality in Public Safety (VQiPS).

Spectrum Management Committee
: The Spectrum Management Committee met on January 9 to review a list of issues as well as items pending before the FCC. The Committee heard updates regarding the status of the 700 MHz

Channel Naming working group, reviewed a letter that had been received from TIA regarding channel recommendations, and discussed an FCC notice on Power Spectrum Density.

700 MHz Deployable Channel Selection Working Group: The FCC encouraged the National Regional Planning Committees (NRPC) and NPSTC to identify specific Reserve Channels to support deployable trunked systems on a nationwide basis that can be incorporated into regional plans within 3 months from the publication of the 700 MHz Report and Order in the Federal Register. NPSTC has established a joint Work Group with NRPC to identify eight deployable channels. Other challenges will be to standardize a system ID for deployables and guidance to minimize interference for close spaced incidents. **UPDATE**: This Working Group met on January 22 and reviewed a letter from TIA recommending consideration of a different set of eight recommended frequencies for use as deployable trunked channels. It recommended a separate set of eight channels for the U.S./Canadian border area. After discussion, the Working Group voted to move forward with the original channel list. A draft letter has been prepared for the FCC which reviews the channel assignments and notes problems occurring in the Canadian border region.

RF Interference from Energy-Efficient Lighting: NPSTC was approached by several individuals who had experienced interference with energy efficient lighting. NPSTC issued the question to the public safety community through the NPSTC Participant's Listserv which resulted in a flurry of responses and also indicated issues with other sources of interference. The FCC has issued some citations. **UPDATE**: NPSTC released a public safety questionnaire in mid-January which will be open for comment until mid-February. This Internet-based questionnaire will collect information from public safety agencies on their experience with LED interference.

Technology and Broadband Committee: The Technology and Broadband Committee met on January 21 and reported on the progress of their Working Groups while also discussing current topics and trends with public safety communications. DHS S&T's Christine Lee made a presentation on research and development into an IP radio bridging device that will allow interconnection between base stations and consoles that are not yet P25 compliant.

A discussion was also held regarding changes to the Broadband Working Groups, including a 6-week focused effort by the Priority and Quality of Service (P&QoS) Working Group to create a presentation on revised requirements. The Local Control Working Group is pausing their work to free up their Wednesday conference call slot for use by the P&QoS). The Deployable Systems Working Group continues to develop use cases which will be tied to operational requirements. It also started work on a fifth use case involving aerial LTE services.

The following is a brief update on the status of the efforts of the NPSTC Broadband Working Groups. The plan for the three Working Groups has been modified following a series of internal meetings held on January 16, 20, and 21 to discuss synchronization of the group's timeline with a pending PSAC review.

Priority & Quality of Service (P&QoS) Working Group: The P&QoS is refreshing the 2012 NPSTC Report regarding Priority & QoS issues in public safety LTE and is also examining the impact of technological improvements that have occurred in the past 2 years. The P&QoS consists of nearly 50 volunteers from the first responder and industry community. **UPDATE:** The P&QoS Working Group met on January 14 and 28. This Working Group will now meet every Wednesday through the end of February to complete an interim presentation on public safety requirements. This work is being done in conjunction with PSCR, which is providing technical assistance to verify the information contained in the NPSTC report.

Local Control Working Group: This Local Control Working Group is refreshing the 2012 NPSTC Local Control Report on public safety issues with LTE deployments. The group consists of over 50 volunteers from the first responder and industry community. **UPDATE:** This group met on January 7 and January 21 to continue their review of the 2012 Local Control document. Several submissions are being reviewed which will modify the text of the 2012 report to acknowledge recent updates to LTE technology. A comparison chart has been created which shows how to standardize nomenclature used between the Statement of Requirements (SoR), the FirstNet legislation, and the FirstNet RFI.

LTE Deployable Assets Working Group: This LTE Deployable Asset is a joint effort of DHS and Canada's Centre for Security Science to study public safety LTE deployable assets that will operate along jurisdictional boundaries. **UPDATE:** The group met on January 13 and 27 to discuss revisions to Use Case #5 involving aerial LTE operations. Aerial use of LTE was recently tested in the CAUSE III experiment along the Montana/Canada border.

LTE Global Standards: The Open Mobile Alliance (OMA) hosted a meeting in Montreal in 2014 to discuss the standards process for voice operations. TETRA Critical Communications Association (TCCA), TCCE, and PSCR were present. The consensus was reached for all standards development to be done within 3GPP. OMA will finalize their work and submit it to 3GPP. There was a 3GPP meeting held in Scotland to organize the process. It was agreed the 3GPP process should not be modified, but 3GPP should share some portion of the work with groups like OMA to speed it up. At this meeting, the participants created a new working group, SA6, within 3GPP. SA6 will be the home for public safety applications. 3GPP Release 13 is still focused on mission critical voice PTT and Release 14 will focus on mission critical data, looking at specific services such as mission critical video. Any unfinished work from Release 13 will carry over into Release 14; both intended to be complete by 2016. **UPDATE**: The 3GPP SA6 group held its meeting in Sorrento, Italy, during the week of January 26 and discussed ways to speed up the 3GPP process involving public safety applications. The first priority of this group is to review Mission Critical Push-to-Talk requirements. This work is being led by Andrew Howell from the government of the United Kingdom. Discussion is still pending over whether requirements for IMS (IP Multimedia Subsystem) should be included. IMS is desired by the manufacturers, but may slow down voice over LTE work.

Radio Programming Compatible Requirements (Radio PCR) Working Group: The Radio PCR Working Group is focused on the impact to public safety agencies caused by the mandatory use of dissimilar radio programming software systems in the P25 environment. The group includes several public safety radio system vendors and public safety stakeholders. The Radio PCR Programming and Management (PAM) Tool has been created to normalize the disparate naming conventions used by each manufacturer. This tool provides information to help agencies program P25 radios from different vendors and will also help with the programming of multi-vendor P25 radios at the scene of a large-scale incident. **UPDATE:** The co-chairs of the Working Group met on January 15 to review their action item list and to discuss plans for the webinar.

- Complete the review of recommended updates and enhancements to the PAM Tool.
- Continue development of a webinar that will provide an overview of the PAM Tool.
- Continue development of a You Tube video to demonstrate proper use of the PAM Tool.
- Continue assessing technical solutions for user agency data migration to newer versions of the PAM Tool.

Current discussion involves unlocking the PAM Tool spreadsheet to test data migration. The Working Group also discussed the best software to use for the production of a webinar.

VTAG Working Group: The Video Technology Advisory Group met on January 28 and discussed current work initiatives with the John Hopkins Applied Physics Lab (JHAPL), DHS VQiPS, and PSCR. A policy group has been formed which is evaluating video procedures. This expands the focus of the group from a purely technical realm.