

NPSTC Annual Public Safety Communications Update

Sunday, August 13, 2017

**APCO International Conference and Exposition
Colorado Convention Center**

The member organizations of the National Public Safety Telecommunications Council are grateful to the Department of Homeland Security's Science and Technology Directorate, Office for Interoperability and Compatibility (OIC) and the National Protection and Programs Directorate, Office of Emergency Communications (OEC) Points of view or opinions expressed are those of the originators and do not necessarily represent the official position or policies of the U.S. Department of Homeland Security.



Welcome

Ralph Haller, *NPSTC Governing Board Chair*



NPSTC Mission Statement and Objective

The National Public Safety Telecommunications Council is a federation of public safety organizations whose **mission is to improve public safety communications and interoperability through collaborative leadership.**

NPSTC pursues the role of **resource and advocate for public safety organizations in the United States on matters relating to public safety telecommunications.**





NPSTC Governing Board (Voting Member Organizations)

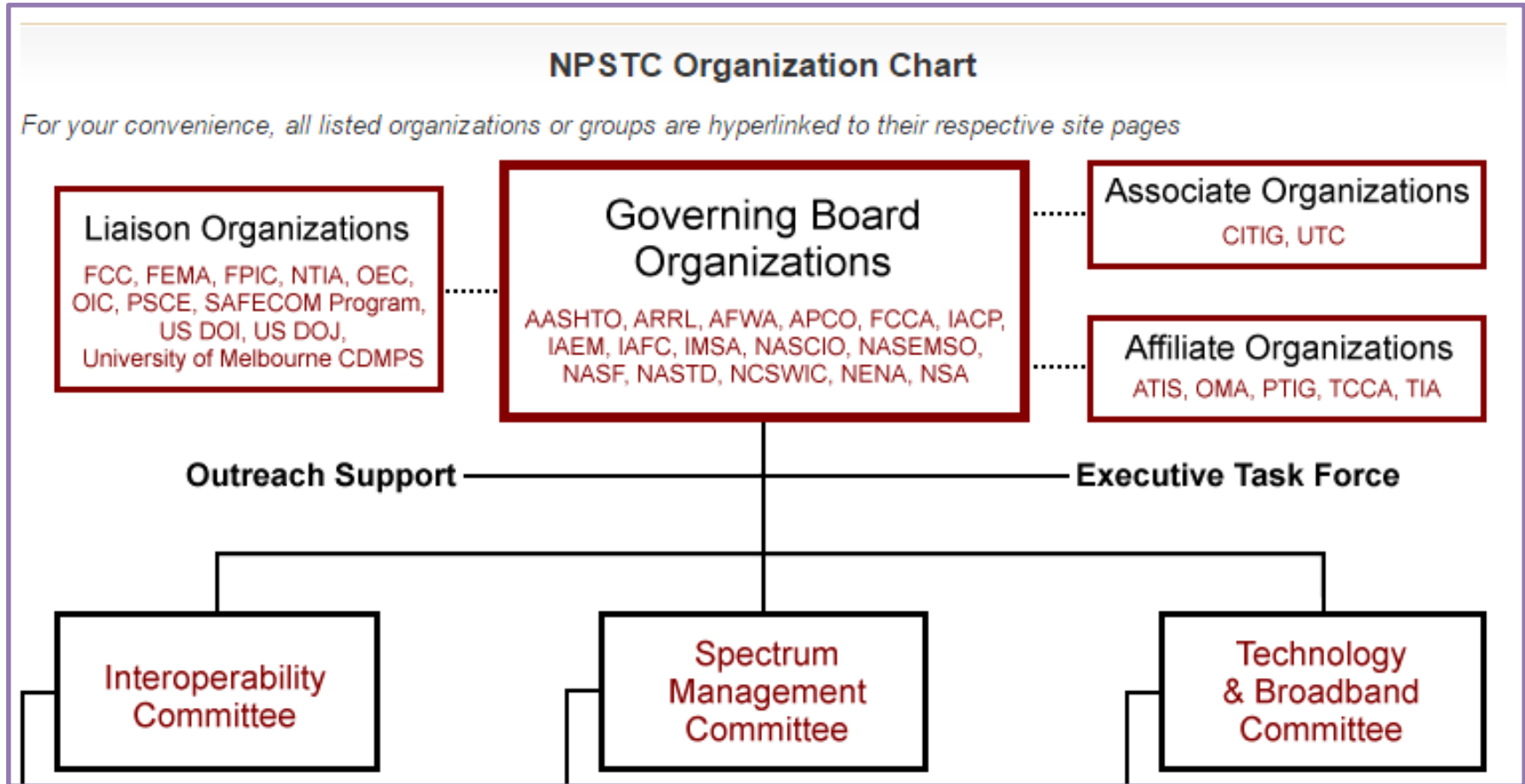


NATIONAL SHERIFFS' ASSOCIATION





NPSTC Committee Structure





Today's Panel

- Ralph Haller, NPSTC Chair and Panel Moderator
- Kim Coleman Madsen, Technology and Broadband Committee Chair
- John Lenihan, Interoperability Committee Chair
- Don Root, Spectrum Management Committee Chair
- Barry Luke, Deputy Executive Director



Technology and Broadband Committee

Kim Coleman Madsen, Chair

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3rd Generation Partnership Project (3GPP) Standards



- NPSTC monitors the activities of the 3GPP International Standards organization.
- These standards have a direct impact on services and features that may be available on FirstNet.
- Release 15
 - Main focus is 5G standardization.
 - LMR LTE Interoperability Work Item approved.
 - Technical Standard 23.283.
 - Examining how LMR and LTE systems can interoperate.

Public Safety Internet of Things (IoT) Working Group Update



- Reviewing sensors, devices and analytic systems that will impact public safety.
 - Example: Voice and gesture commands that are customized to the first responder.
- Scheduling presentations from public safety experts, government entities and industry.
- January 2018 will begin an analysis of impacts to public safety and the development of reports.

UAS and Robotics Working Group Update



- Completed Report on “Guidelines for Creating a UAS Program”
 - Approved by the Governing Board on March 31, 2017.
- UAS Aerial Communications Platform
 - This report is in development.
 - Examining current public safety use of aerial platforms as well as commercial operator deployments.
 - Discussing use of these platforms by DHS, public safety and commercial operators.

Broadband Emerging Technologies Working Group Update



- Recently published a report detailing needed capabilities of the FirstNet status page for interagency data sharing.
- Presentations on broadband technologies of interest to public safety:
 - March: Broadband Deployable Systems.
 - April: LTE Broadband Use at the Super Bowl.
 - May: NG911 Program Update.
 - June: Canadian PSBN Program Update.
 - July: Presentation on FirstNet.com public access portal.
 - August: FirstNet Applications ecosystem.
 - September: Low Earth Orbiting Satellites (tentative).

LMR LTE Integration and Interoperability Working Group



- Currently finalizing a report on public safety requirements for LMR LTE interoperability.
- A matrix has been completed listing all public safety technical requirements.
 - These include requirements for Devices, Consoles and general network features.
 - Consensus was achieved on which requirements are mandatory “SHALL” vs. optional “SHOULD”.
- A draft report has been circulated to the working group for feedback and edits.
 - Present to the Governing Board in September.

Radio PCR Working Group Update



- PAM Tool normalizes the disparate data fields used by manufacturers in their programming software.
- Conducting final review of PAM Tool Version 6.
 - Fully compliant with current version of NIFOG.
 - Some edits to table names for better clarity.
 - Additional information in the Instructions Tab.
- TIA is currently working on a data interchange standard to allow vendor software to export and import basic radio programming information.
- DHS S&T will be posting the PAM Tool on their website for greater visibility.

Video Technology Advisor Group (VTAG) Working Group



- Meeting quarterly to assess video technology and analytics.
- Presentation received on emerging video and video analytics technology.
- Presentation received on NIST Video Analytics Task Group.
- Planning is ongoing for the annual VQIPS Workshop.
 - Tentatively set for November in the greater NYC area.



Spectrum Management Committee

Don Root, Chair

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Spectrum Committee Update

- FCC is promoting sharing and flexibility to provide for more broadband licensed and unlicensed spectrum.
- Examples:
 - Use of dynamic spectrum sharing through a Spectrum Access System (SAS) in 3.5 GHz band.
 - Grant of Higher Ground satellite license/waiver in 6 GHz microwave band.
 - Potential Wi-Fi sharing under study in 5.9 GHz DSRC band.
 - 4.9 GHz NPRM is rumored to contain questions on sharing.
 - New draft Notice of Inquiry (NOI) on August FCC agenda re flexibility in spectrum between 3.7 GHz and 24 GHz.

Spectrum Committee Issue Update

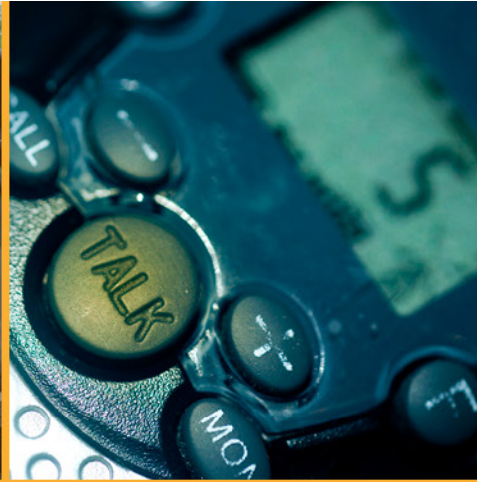


- The Committee held two educational sessions to learn how SAS is designed and being tested at 3.5 GHz.
- NPSTC also obtained a trial membership in the Wireless Innovation Forum.
 - The Forum is the industry focal point for the design of dynamic spectrum sharing at 3.5 GHz.
 - The potential benefit of regular membership in the Forum is still being evaluated.
 - We anticipate providing a follow-up report at the September Governing Board meeting.

NPSTC Regulatory Filings 2017



Date Filed	Topic	Type of Filing
7/31/17	Blue Alerts	Comments
7/31/17	Arizona Pub Svc Co (Utility)	Comments
6/03/17	WRC-19/LMCC 460-470 MHz	Letter, FCC
5/24/17	Broadband Healthcare	Comments, FCC
5/01/17	700 MHz A-G Border	Comments, FCC
4/12/17	V2V Mandate & Standardization	Comments, DOT/NHTSA
3/24/17	Wilson/Cellular Boosters	Comments, FCC
3/06/17	Higher Ground	Comments, FCC
1/27/17	North Dakota on-VLAW 31	Comments, FCC
1/22/17	P25 Encryption Capabilities	Letter, DHS/OIC



Interoperability Committee

John Lenihan, Chair

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Common Channel Naming



- Working Group Update
 - ANSI standard on Common Channel Naming was approved in January of this year.
 - Working with the National Guard to provide input on proposed name changes for all NG interop channels.
 - Examining use of “NG” prefix and assignment of a frequency band indicator.

Common Channel Naming



- New Work Item.
 - Governing Board approved work to develop a set of common talkgroup names for nationwide LTE interoperability talkgroups.
 - Mission Critical Push to Talk will include LTE talkgroups that will function in a similar fashion to LMR talkgroups.
 - FirstNet will enable nationwide interoperability allowing first responders to travel across the U.S. and still use their devices and applications.



Common Channel Naming

- New Work Item
 - There will need to be an equivalent to existing LMR nationwide I/O channels for mutual aid and hailing.
 - Example: LMR has 8CALL90, 8TAC91,92,93,94.
 - There will need to be an equivalent capability with MC-PTT
 - Issues to examine include:
 - How many LTE talkgroup names should be reserved for initial and ongoing operations as FirstNet expands?
 - How to coordinate flexible geographic coverage areas for these talkgroups?
 - Today, the LMR system footprint defines coverage of 8CALL90.
 - You don't want a nationwide LTE talkgroup to "light up" the entire U.S. You want it to provide a local/regional coverage footprint.



Common Channel Naming

- New Work Item
 - What naming sequence should be used for LTE talkgroups?
 - Is a band identifier necessary?
 - Should talkgroups be allocated only for Calling and Tactical assignments (allowing local flexibility) vs. more detailed assignments for LAW, FIRE, MED, GEN, Travel (found in 700 MHz narrowband channels).
 - It is recommended that a national framework be established quickly.
 - Local and state agencies will be using FirstNet Push to Talk services immediately (prior to availability of Mission Critical PTT).
 - Those agencies may start assigning LTE talkgroup names to support local, regional and statewide interoperability.
 - Need to establish a naming standard for nationwide talkgroups now to “reserve” those names.

EMS Working Group



-
- Joint Working Group of NPSTC and NASEMSO.
 - Completed Report on Broadband Data Implications for Rural EMS.
 - Received a presentation from the University of California Berkeley regarding research work on telemedicine and virtual display technology.
 - Received a presentation from the University of Virginia on their PSCR grant award to examine voice operated analytics for EMS.

EMS Working Group



- Currently developing an outreach report on Mobile Personal Emergency Response Systems.
 - These devices include GPS and automatic fall detection.
 - They are the first of many sensor alerting devices that will eventually use NG911 to send data to the PSAP.

Radio Interoperability Best Practices



- Studying after-action reports to identify best practices and opportunities for improvement that should be shared with all public safety agencies.
- Best Practice Master Report provides an overview of the process used to create each document.

Radio Interoperability Best Practices



- Six Best Practice documents have been approved by the Governing Board:
 - BP #1 – Nationwide Interoperability Channel Naming and Usage
 - BP #2 – Interoperability Systems Change Management
 - BP #3 – Training and Proficiency in the Management and Usage of Interoperability Equipment and Systems
 - BP #4 – Interoperability Relationships
 - BP #5 – Infrastructure Management
 - BP #6 – Channel Assignment Based on Infrastructure Coverage

Cross Border Working Group



- Cross Border 911 Data Sharing Report
 - Provides guidance to PSAPs along the U.S. Canadian border on how to access customer account and location data that resides with a commercial carrier in the other country.
 - Also provides guidance for the management of calls which did not trigger a 911 call.
 - Draft report has been completed with assistance from public safety agencies and carriers in both the U.S. and Canada.
 - Governing Board approved distribution of the draft report to commercial carriers in the U.S. and Canada to obtain feedback.
 - Expecting completion of the report by the end of the year.



How To Connect With NPSTC


Barry Luke, Deputy Executive Director

NPSTC is a federation of organizations whose mission is to improve public safety communications and interoperability through collaborative leadership.



Public Safety Calendar

National Public Safety Telecommunications Council



Home Search...

Home Current Topics Organization Committees Events-Meetings Participate-Volunteer

20 years of progress 1997 – 2017

Public Safety Calendar

Connect with NPSTC

Broadband Directory

Next Meeting

"NPSTC is a federation of organizations whose mission is to improve public safety communications and interoperability through collaborative leadership."

In the News...

- SAVE THIS DATE: March 31, 2017, Full NPSTC Meeting in Person and Virtual January 25, 2017
- IACP Introduces National Criminal Justice Commission Act 2017 March 08, 2017
- SAFECOM/NCSSWIC Maintaining and Upgrading Land Mobile Radio Presentation March 02, 2017
- Andy Seybold's Public Safety Advocate - Five-Plus Years of First National Public Safety Advocate February 23, 2017
- NIST PSCR Publishes Public Safety Enhanced User Interface R&D February 16, 2017
- Participate in NPSTC's New Internet of Things (IoT) Working Group February 09, 2017
- Public Safety Innovation Accelerator Program (PSIAP) Grant Announcement February 02, 2017

Public Safety IOT Working Group

When Thu, April 6, 12:00 – 13:00

Description First Thursday of the month
12:00 noon to 1:00 p.m. Eastern Time Zone
Conference Line: 510-227-1018
Conference ID: 869-9040#
Screen Share: <https://Join.Me/NPSTCsupport1>
Barry Fraser, Chair

[more details»](#) [copy to my calendar»](#)

Public Safety Calendar

[Click Here to Troubleshoot Public Safety Calendar](#) [Click Here to Download Calendar Instructions](#)

Today | Apr 2 – 8, 2017

Sun 4/2 Mon 4/3 Tue 4/4 Wed 4/5 Thu 4/6 Fri 4/7 Sat 4/8

Print Week Month Agenda

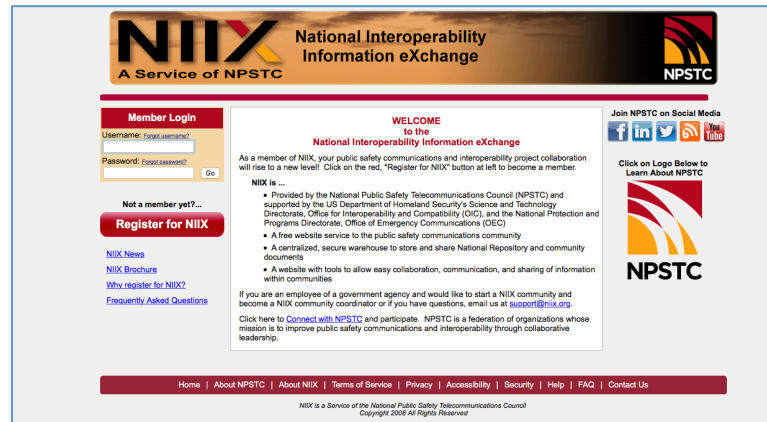
10:00					
11:00		11:00 – 12:00 Tentative ** NPSTC CSS			11:00 – 12:00 CANCELLED - EMS Working
12:00		12:00 – 13:00 NPSTC-CITIG Cross Border	12:00 – 13:00 LMR to LTE Migration		12:00 – 13:00 Public Safety IOT Working
13:00					13:00 – 14:00 Radio PCR
14:00			14:00 – 15:00 700 MHz Air to Ground -		
15:00					15:00 – 16:00 Radio I/O Best Practices
16:00					



National Interoperability Information eXchange

- NIIX

- A free centralized, secure warehouse to store and share National Repository and community documents.
- A website with tools to allow easy collaboration, communication, and sharing of information within communities.
- Locally controlled.

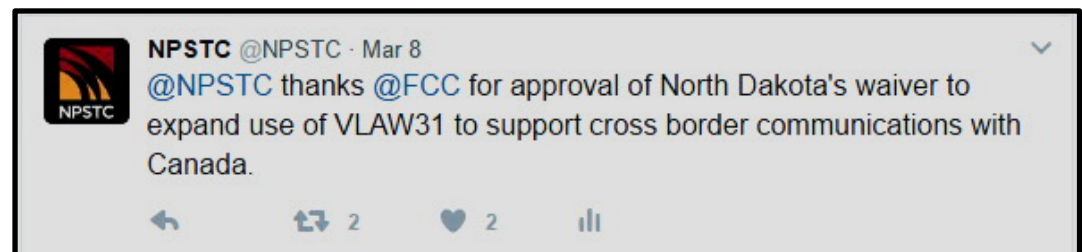
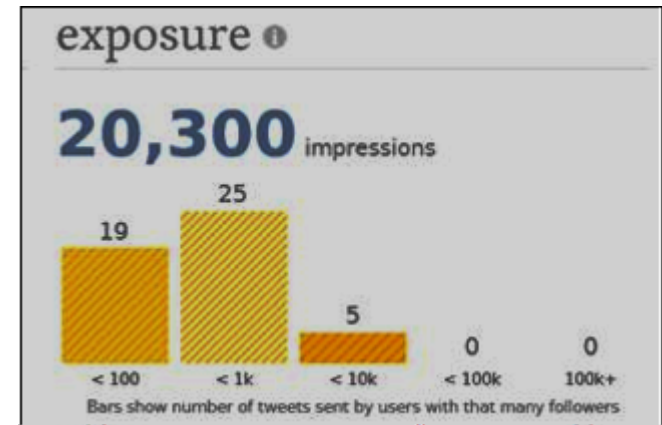




Social Media Outreach

- Outreach and Distribution

- Constant Contact
- NPSTC Web Site
- NPSTC Blog
- Linked-In
- Facebook
- Twitter
- Coordinate with industry and member publications
- Broadband Directory





NPSTC Reports

- Reports located on NPSTC website, www.npstc.org
 - Launch SOR Qualitative
 - Mission Critical Voice Over LTE
 - Local Control Definitions
 - Priority and Quality of Service
 - Push to Talk Requirements for Public Safety
 - FirstNet Web Status Page
 - EMS Telemedicine Report





NPSTC Participation Sign Up



NPSTC
National Public Safety
Telecommunications
Council

NPSTC Participant Registration

* Email Address

* First Name

* Last Name

* Company

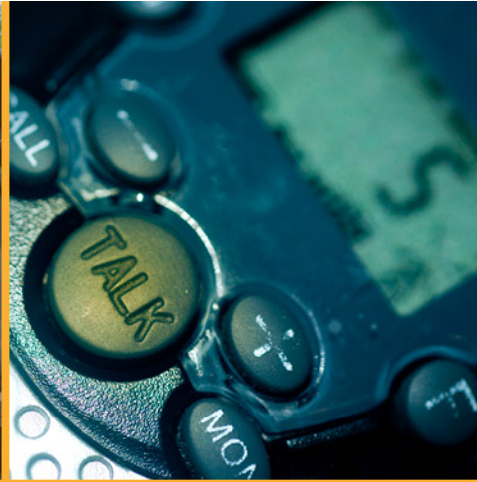
Email Lists

- 1.0 - Interoperability Committee
- 1.1 - Cross Border Working Group
- 1.2 - Emergency Medical Services (EMS) Working Group
- 1.3 - Radio IO Best Practices Working Group
- 2.0 - Spectrum Management Committee
- 2.1 - Interference Protection Working Group
- 3.0 - Technology & Broadband Committee
- 3.1 - Broadband Deployable Systems Working Group
- 3.2 - Broadband Emerging Technologies Working Group
- 3.3 - LMR LTE Integration & Interoperability Working Group
- 3.4 - Radio Programming & Compatibility Rqmts (Radio PCR) WG
- 3.5 - Unmanned Aircraft Systems and Robotics WG
- 3.6 - Video Technology Advisory Group
- 3.7 - Internet of Things (IoT) Working Group



Questions (.....and answers)

Ralph Haller - Moderator



Thank You!

Stop by our Booth # 540 on the Exhibit Floor

Next Governing Board Meeting:

September 6, 2017

Washington, D.C.

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