



NATIONAL PUBLIC SAFETY TELECOMMUNICATIONS COUNCIL



National Public Safety Telecommunications Council Second Quarter Report 2008

This Quarterly Report documents the activities of the National Public Safety Telecommunications Council (NPSTC), its Governing Board, Committees, and Working Groups for the Second Quarter, 2008. NPSTC is a federation of organizations whose mission is to improve public safety communications and interoperability through collaborative leadership.

Governing Board

During the Second Quarter, 2008, NPSTC held its quarterly Governing Board and Committee meetings on June 16-18, in Arlington, Virginia. Ralph Haller, Chair, NPSTC, welcomed NPSTC's Governing Board and Participants and special guests that included Jennifer Wharram, Industry Canada; Tom Black, Public Safety Canada; Jeff Cohen, Federal Communications Commission (FCC); Chris Essid, Office of Emergency Communications (OEC), Department of Homeland Security (DHS); Tom Chirhart, Office of Interoperability and Compatibility (OIC), DHS; Leslie Taylor, National Telecommunications Information Administration (NTIA); Lance Craver, Federal Emergency Management Agency (FEMA); and Victoria Velez, FCC.

Mr. Haller recognized Vincent Stile, past NPSTC Chair and current Chair Emeritus, for his valuable guidance and leadership during the 3 years he chaired NPSTC, and also acknowledged Wayne Leland, Telecommunication Industry Association (TIA), and Paul Hoppes, National Association of State Technology Directors (NASTD), who have recently retired, thanking them for their strong participation in NPSTC. Chief Harlin McEwen, representing the International Association of Chiefs of Police (IACP), issued a special welcome to the new IACP alternate, Captain Eddie Reyes, Alexandria (VA) Police Department.

The NPSTC Governing Board was pleased to welcome representatives of the Land Mobile Communications Council (LMCC) attending the June meeting, and 30 first-time attendees to a Governing Board meeting, with 115 attending in person, and 21 attendees participating on the conference bridge. NPSTC's Governing Board hosted an orientation dinner and presentation to explain NPSTC policies and processes for the representatives of new member associations and new Committee Chairs. First-time attendees also received special meeting nametags to enhance the opportunities for current NPSTC Participants to welcome and provide information to new attendees.

Second Quarter Highlights

Notable highlights during the quarter include the following activities:

[NPSTC Filed Comments in Response to the Second Further Notice of Proposed Rulemaking \(FNPRM\) 700 MHz Band, on June 20, 2008.](#) Preparations and development of the comments were

American Association of State Highway and Transportation Officials | American Radio Relay League | Association of Fish and Wildlife Agencies | Association of Public Safety Communications Officials | Forestry Conservation Communications Association | International Association of Chiefs of Police | International Association of Emergency Managers | International Association of Fire Chiefs | International Municipal Signal Association | National Association of State Chief Information Officers | National Association of State Emergency Medical Services Officials | National Association of State Foresters | National Association of State Technology Directors | National Emergency Number Association | National Sheriffs' Association

extensive and involved a task force that included two NPSTC Committees, Technology and Spectrum Management, the Executive Director, and the Support Office.

NPSTC Hosted an Important Discussion on Spectrum Management on the Border, including Canada - U.S. Considerations, Industry Canada's role in public safety radio communication, spectrum used by public safety in Canada, radio interoperability, and public safety and radio frequency spectrum in Canada.

NPSTC Provided Technical Support to the RPCs on the 700 MHz Narrowband Relocation. NPSTC has commenced an initiative to create a national plan for relocating incumbent licenses for those members of the public safety community affected.

NPSTC Developed an Information Brochure on Possible Low Power TV (LPTV) Interference. NPSTC developed a brochure to increase awareness of the potential interference from LPTV and a package of materials, including a template letter that agencies intending to implement in 700 MHz can use to notify LPTV stations. NPSTC has provided informational brochures and engaged in discussions with the National Regional Planning Council (NRPC) to reach out to the Regional Planning Committees (RPCs).

Presentations

The following presentations were made during the June Governing Board and Committee meetings:

- Jennifer Wharram, Spectrum Engineering Branch, Industry Canada, briefed on a number of subjects covering spectrum management in Canada, Canada - U.S. Considerations, IC's role in public safety radio communication, spectrum used by public safety in Canada, radio interoperability, and public safety and radio frequency spectrum in Canada. Ms. Wharram also responded to a Q and A session following her briefing.
- Jeff Cohen, Senior Legal Counsel to the Bureau Chief, Public Safety and Homeland Security Bureau, FCC, provided an update on current activities at the Public Safety and Homeland Security Bureau (PSHSB) and the FCC.
- Chris Essid, Director, OEC, provided an update on the National Emergency Communications Plan, Interoperable Emergency Communications Grant Plan (IECGP), and the National Interoperability Field Operations Guide (NIFOG).
- Tom Chirhart, Spectrum Manager, OIC, provided an update on activities including discussion of one of OIC's major projects, the development of the multi-band radio, Radio Over Wireless Broadband (ROW-B).
- Lance Craver, Program Manager, FEMA, briefed on the Integrated Public Alert and Warning System (IPAWS), an updated emergency alerting system (EAS).
- Leslie Taylor, Project Manager, Strategic Spectrum Division, NTIA, spoke on NTIA initiatives to improve federal spectrum management.
- John Logan, NPSTC Regulatory Advisor, provided a regulatory update on FCC activities and on NPSTC's 700 MHz Band Plan Amendments Petition.
- Chief Harlin McEwen, IACP and Chair of the Public Safety Spectrum Trust (PSST), provided an update on recent developments.
- John Powell, Interoperability Committee Chair, reported on the development of Communications Leader (COML) training curriculum.

- Peter Tenhula, Shared Spectrum Company (SSC), reported by teleconference from the SDR Forum meeting in Portland, Oregon, on the Defense Advanced Research Projects Agency (DARPA) XG and follow-on programs on Cognitive Radio for tactical and public safety communications.
- Bette Rinehart, Motorola, provided an update on FCC activities related to the 700 and 800 MHz bands.
- Luke Klein-Berndt, OIC; Bill Jenkins, Clarity Communications; and Emil Olbrich, Institute for Telecommunications Sciences (ITS), provided a demonstration of ROW-B technology that will integrate new broadband technologies with existing public safety two-way radio systems.
- Rodney Grim, Icom America, reported on Next Generation Digital Band (NXDN™), Icom and Kenwood Joint Digital 6.25 kHz Technology.
- Warren Havens, President, Telesaurus LLC and Spectrum Skybridge Foundation, and Roger Dowling reported on Terrestrial Trunked Radio (TETRA) in the U.S.

Also featured at the June Governing Board meeting:

Ham Radio Testing Certification: NPSTC hosted a Governing Board member agency, the American Radio Relay League (ARRL), in coordinating Ham radio testing and certification. Amateur radio examinations were administered by teams of certified volunteer examiners.

National Interoperability Information eXchange (NIIX) Training: NPSTC provided training for 20 NIIX users and 2 NIIX Coordinators.

Action Items

At the June Governing Board meeting, NPSTC's member organizations approved the following items recommended by the Chairs of the NPSTC Committees. The Governing Board also reviewed and voted on a Consent Agenda previously sent to the Governing Board for their review.

Consent Agenda

The Governing Board approved NPSTC policies for the following—the process of adopting a Consent Agenda, voting via ballot, recognition of service, conference booth volunteer staffing, and an endorsement of this statement from the SAFECOM Practitioner Action Team (PAT), *“We support radio practices that minimize or eliminate coded substitutions for English.”*

Committee Action Items

- At the request of the Interoperability Committee, approved the ESF2 Working Group's mission statement, charter, and membership.
- At the request of the PSST Liaison Committee, approved changing the Committee name to the Regional and Broadband (R&B) Liaison Committee to more accurately reflect the scope of activities.
- At the request of the R&B Liaison Committee, approved directing the Executive Director to discuss the potential membership of the National Regional Planning Council (NRPC) on the NPSTC Governing Board.
- At the request of the Spectrum Management Committee, affirmed the direction of NPSTC's response to the 700 MHz NPRM.

- At the request of the Spectrum Management Committee, approved the creation of a new Airborne Video Working Group.

FCC Filings and Regulatory Issues

On behalf of its member organizations, NPSTC filed the following documents during the Second Quarter.

Second Further Notice of Proposed Rulemaking (FNPRM) 700 MHz Band, June 20, 2008: NPSTC filed comments in response to the FCC's Second Further Notice of Proposed Rulemaking – 700 MHz Band, WT Docket 06-150, PS Docket No. 06-229. Preparations and development of the comments were extensive and involved a task force which included two NPSTC Committees, Technology and Spectrum Management, the Executive Director, and the Support Office.

Commercial Paging Channels: NPSTC researched public safety's potential access to commercial paging channels and reviewed the city of Richmond's (VA) 337(c) waiver documents; conducted a review of the defaulting paging licensees to demonstrate how spectrum is available, and compiled a chart of defaulted paging licenses.

Proposed Revisions to the Frequency Plans: NPSTC submitted comments to Industry Canada on April 4, 2008, addressing *Proposed Revisions to the Frequency Plan for Public Safety in the 700 MHz Band*, Notice No. SMSE-004-08, Canada Gazette, January 19, 2008, extended March 15, 2009.

Wireless Microphones and Audio Devices in the 700 MHz Band: NPSTC submitted a letter on June 30, 2008, urging the Commission to take action to ensure that wireless microphones and other similar audio devices would no longer be certified or marketed in the 700 MHz public safety spectrum.

NPSTC also researched the following issues:

700 MHz Southwest Border Issues: NPSTC informally submitted a recommendation to the FCC on NPSTC's position regarding 700 MHz issues on the southwest border.

Non-Initialized Phones: NPSTC reviewed a FCC Petition for Rulemaking regarding rules on non-initialized phones. Comments are due by August 2, 2008. In April, the FCC required that disposable phones, which do not provide a callback number, be programmed with a code so Public Safety Answering Points (PSAPs) taking 911 calls can recognize the devices as non-initialized phones.

FCC Further Notice of Proposed Rulemaking 800 MHz Rebanding: The FCC issued an order on May 9, 2008, seeking comments on the extent of interleaving and what technical rules might be needed to mitigate potential interference. This docket concerns interleaved spectrum in the 800 MHz band and is part of an FCC NPRM asking for comment on 800 MHz border issues. Generally, NPSTC has deferred to the border agencies and other interests on 800 MHz reconfiguration issues. Research was completed with no comment submitted by the Governing Board.

FCC-08-127A1 Order on Petition for Reconsideration, May 13, 2008: The FCC granted an Order addressing the transition to 6.25 kHz narrowband technology and will issue a Notice of Proposed Rulemaking seeking comment on the challenges of the transition to 6.25 kHz technology. The FCC's decision recognized many elements of the positions that NPSTC and other public safety agencies presented, notably that a too rapid transition to 6.25 kHz technology would strand

investment and dilute tangible improvements to public safety communications, including much expanded interoperability.

Executive Committee

SAFECOM Support: NPSTC provided support to the SAFECOM Communication Unit Leader (COML) Working Group regarding the development of Communications Leader materials. NPSTC created NIIX communities and provided training to the SAFECOM COML Working Group and the SAFECOM Executive Committee in the use of NIIX as a collaborative tool for sharing documents and facilitating communications.

2008 Outreach Plan: NPSTC formalized its outreach goals and objectives in an Outreach Plan that defines goals and metrics for outreach, enabling the Governing Board to measure the NPSTC outreach efforts.

Working Group Volunteer Tracking: NPSTC developed a Working Group Volunteer packet to assist the flow of communication and work products from the Working Groups through each Committee.

Meetings

During the Second Quarter, the Executive Committee and the Executive Director met in person and via teleconference to discuss program planning and future meetings.

Border Issues: A meeting was held between a representative from the Vermont Lieutenant Governors Association and a NPSTC representative to discuss the work of NPSTC's Border Issues Working Group and to offer support on border issues.

Interoperability Interview: NPSTC's Executive Director and other NPSTC leaders were interviewed by the General Accounting Office (GAO) on improvements made by DHS and other agencies to facilitate interoperability. GAO initiated a teleconference to review how well federal agencies are responding in this regard and to identify potential gaps in the system.

Regional Planning: The Executive Director met with the NRPC on common issues, including the narrowband relocation in 700 MHz and LPTV.

Spectrum 20/20 Panel, Ottawa, Canada, May 6, 2008: NPSTC participated on a panel at a meeting focused on public safety broadband challenges.

International Association of Chiefs of Police, Nashville, Tennessee, May 6-10, 2008: NPSTC participated on a panel and distributed outreach material to conference attendees.

27th Annual National Emergency Number Association 9-1-1 Conference and Trade Show, Tampa, Florida, June 7-12, 2008: NPSTC provided outreach handouts and displayed NPSTC and NIIX websites at a booth provided by NENA and staffed by NPSTC Support and other local practitioners.

Publications

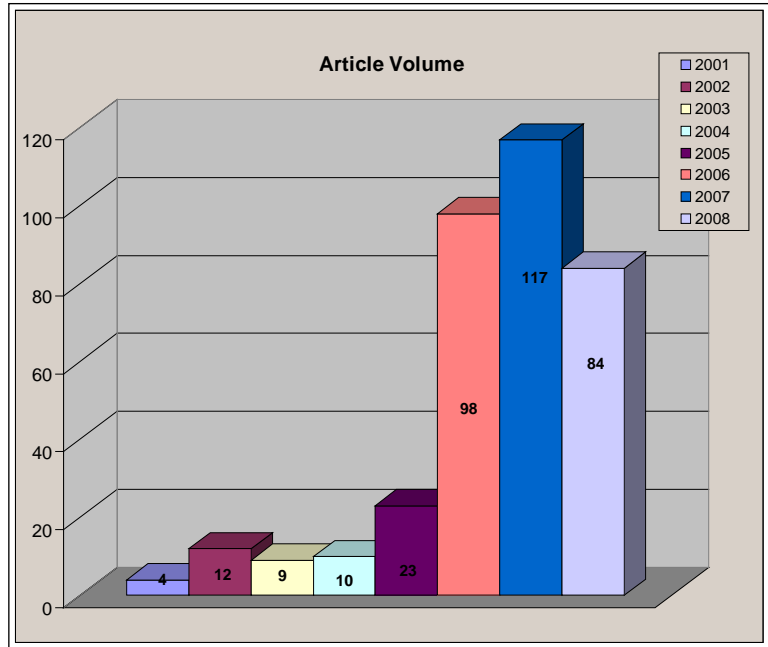
Technical Resource CD: NPSTC is completing a new Technical Resource CD that will include the NPSTC Channel Naming Report, NPSTC Channel Naming Report Short Name Supplemental Addendum, NPSTC 700 MHz Statement of Requirements (SoR), LPTV brochure and supporting materials, In-Building White Paper, NPSTC's 2007 Annual Report, 2007/2008 *npstc spectrum*

newsletters, the National Emergency Response Plan, and the COML documents. The final work product will be available for distribution at the APCO Annual Conference in August 2008.

NPSTC's newsletter: *npstc spectrum*, June 2008, was released at the June Governing Board meeting.

E bulletin: NPSTC published the monthly *What You Need To Know Today*, an online news brief with clickable links to upcoming events, important filings, and timely news in public safety telecommunications in April and May.

Press Releases: NPSTC issued press releases on the Ham radio testing certification offered at the June Governing Board meeting, on the numerous technical and policy presentations planned for the June Governing Board meeting, and one urging NPSTC Participants to volunteer their time and expertise on public safety telecommunications issues by spending time in the NPSTC booth at conferences they plan to attend.



Article Repository: NPSTC maintains an article repository that includes a searchable database by topic on NPSTC newsletter articles, and articles in other publications that refer to NPSTC or are written by NPSTC Participants.

Second Quarter Articles

Article Title	Publication	NPSTC Connection	Date
NENA Joins NPSTC	<i>APCO's PS Communications</i>	News Briefs on NPSTC	Apr-08
NPSTC website listed as good source of assistance	<i>APCO's PS Communications</i>	Sidebar to Article referencing NPSTC	Apr-08
Important Message to the Fire Service	<i>E-bulletin</i>		Apr-08
Attention Ham and Would Be Ham Operators	<i>E-bulletin</i>		Apr-08
Three More Reasons To Attend NPSTC's Meeting	<i>E-bulletin</i>		Apr-08
Help Wanted [NTIA on Federal Spectrum]	<i>E-bulletin</i>		Apr-08
Congratulations on New Leadership Roles	<i>E-bulletin</i>		Apr-08
NPSTC's Ex Dir Speaks at CITIG IO Workshop	<i>E-bulletin</i>		Apr-08
State Dept Progress in Long-Term Solution for Cross Border Security Communications	<i>E-bulletin</i>		Apr-08
FCC Reports Modifications to 800 MHz Mexican Agreement	<i>E-bulletin</i>		Apr-08
Warning Alerts Via Cell Phones by 2010	<i>E-bulletin</i>		Apr-08
NPSTC EMS WG Chair and IAFC Gov Bd Alt Elected to Lead SAFECOM EC	<i>Interoperability E-bulletin</i>	News Brief on NPSTC	Apr-08
NPSTC Forms Committee for 700 MHz Narrowband	<i>Mission Critical</i>	News Briefs on NPSTC	Apr-08
NPSTC To Host Ham Radio Testing	<i>Mission Critical</i>	News Brief on NPSTC	Apr-08

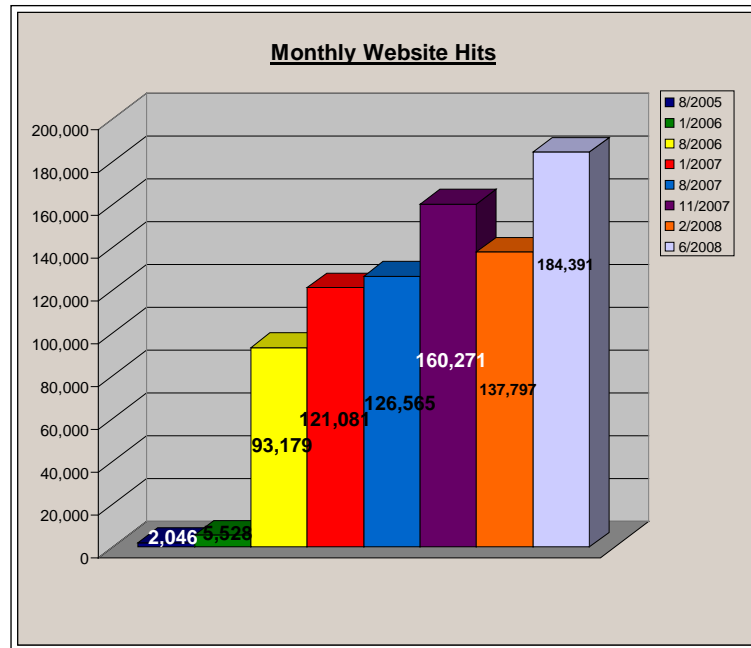
Article on Cost of Public Safety Radios	<i>MRT</i>	Chair Interoperability Committee Interviewed	Apr-08
NPSTC EMS WG Chair and NASEMSO representative interviewed	<i>MRT</i>	NPSTC EMS WG Chair and NASEMSO reps interviewed for News Briefs	Apr-08
Fire Noise	<i>MRT</i>	NPSTC IAFC Gov Bd Alt Interviewed on Fire Noise	Apr-08
NPSTC Names New Chair	<i>MRT</i>	News Brief on NPSTC	Apr-08
NENA Joins NPSTC	<i>MRT</i>	News Brief on NPSTC	Apr-08
Power Sources	<i>MRT</i>	IACP Gov Bd Rep interviewed on power sources	Apr-08
FCC Seeks Comment on 700 MHz Re-auction	<i>E-bulletin</i>		May-08
What Is IC, IPAWS, TETRA, DARPA, NXDN, ANSI, and COML?	<i>E-bulletin</i>		May-08
All-Hazards Type III COML Course	<i>E-bulletin</i>		May-08
Uncertainties Cited as Reason for Lack of Bidders for D Block	<i>E-bulletin</i>		May-08
Statement from PSST Chairman	<i>E-bulletin</i>		May-08
Are You Excited About What NPSTC Is Doing for Public Safety?	<i>E-bulletin</i>		May-08
Watch for NPSTC Channel Naming Updates Soon	<i>E-bulletin</i>		May-08
All 56 SCIPs Approved	<i>E-bulletin</i>		May-08
NIIX Goes International	<i>E-bulletin</i>	NPSTC Ex Dir Interview	May-08
Inside Washington	<i>Mission Critical</i>	Article by NPSTC Chair	May-08
Haller Named Chair of NPSTC	<i>Mission Critical</i>	News Briefs/NPSTC	May-08
No D Block Winner in 700 MHz Auction	<i>Mission Critical</i>	IACP GB Rep Interviewed	May-08
Extend Interoperability with Co-ops	<i>Mission Critical</i>	NPSTC Ex Dir quoted	May-08
A Corner Turned [multiband radios]	<i>MRT</i>	Technology and Interoperability Chairs quoted	May-08
What's wrong with 6.25 kHz migration?	<i>MRT</i>	Article by Tech Education WG Chair	May-08
APCO, NENA Seek Changes in PSST	<i>MRT</i>	NPSTC Chair and IACP rep interviewed	Jun-08
IAFC Working Group Releases Digital Best Practices	<i>MRT</i>	IAFC Alt to GB Interviewed	Jun-08
Making Communications Interoperability a Priority	<i>Public Safety IT</i>	Article by NPSTC's CITIG rep	Jun-08
Communications Unit Leader (COML) Training	<i>Spectrum</i>		Jun-08
Director's Column	<i>Spectrum</i>		Jun-08
Will Narrowbanding Cost Me Radio Coverage?	<i>Spectrum</i>		Jun-08
Regulatory Update	<i>Spectrum</i>		Jun-08
Report on Fireground Noise and Digital Radio	<i>Spectrum</i>		Jun-08
NENA: Their Success is Measured in Saved Lives	<i>Spectrum</i>		Jun-08
NPSTC Technology Education WG Identifies First Educational Products	<i>Spectrum</i>		Jun-08
CAPRAD Re-Sort Online Now	<i>Spectrum</i>		Jun-08
Staying on Top of Reconfiguration Activities	<i>Spectrum</i>		Jun-08

Website

In the Second Quarter, the website and listserv continued to experience steady growth.

New meeting registration and information web page: NPSTC has developed a new meeting information page to provide one location for all NPSTC meeting information.

Technical Hot Topics: NPSTC has added hot buttons, hyperlinks to specific pages for quick reference, on often searched topics on its home page. Three web pages and links that were designed, created, and implemented include information on Channel Naming, LPTV, and on the role of the COML.



Interoperability Committee

Statewide Interoperability Executive Committee (SIEC) Working Group

The National Interoperability Information eXchange (NIIX) has been in operation for 1 year, providing the states virtual secure communities for sharing documents and for supporting their statewide planning documents. NIIX use has expanded with almost 1,000 registered users and 59 communities, including communities from DHS, who are currently meeting and sharing documents in this repository. NPSTC has had inquiries from other federal agencies seeking to use it to work with their state constituents. NPSTC offers the NIIX functionality to any organizations within NPSTC that would like to set up their own communities to share and store documents. These communities are completely secure and only open to members the community coordinator allows to join.

EMS Working Group

The EMS Working Group is reviewing a white paper on potential technologies with implications for bandwidth that might be used in the medical field in the future that is under review. The Working Group expects to submit a draft to the Governing Board by September 2008.

ESF2 Working Group

The ESF2 Working Group submitted their mission and vision for approval at the June Governing Board meeting. The vision—to support the restoration of communications infrastructure, facilitate the recovery of systems and applications from cyber attacks, and coordinate federal communications support to response efforts during incidents requiring a coordinated federal response. The mission—to serve as a forum for the discussion of communications restoration

needs at the local, tribal, state, and federal levels following a major event or incident as defined in the National Response Plan.

Interoperability Channel Naming Working Group

APCO's Standards Development Committee has initiated the American National Standards Institute (ANSI) process to move the Channel Naming Report into a voluntary standard. The Channel Naming Report can be found on the NPSTC website, with supplemental material that describes a shortened naming system for radios that do not support eight characters.

Software Defined Radio Working Group

At the June meeting, the Working Group hosted a presentation from Peter Tenhula, Shared Spectrum Company, reported by teleconference from the SDR Forum meeting in Portland, Oregon, on the Defense Advanced Research Projects Agency (DARPA) XG and follow-on programs on Cognitive Radio (CR) for tactical and public safety communications.

The National Institute of Justice (NIJ) is sponsoring a project entitled, Policy-Based Spectrum Access Control and Management for Multi-band Cognitive Radio Systems for Public Safety Communications, with Phase 1 to be completed in December 2008. The goals are numerous, including the need to establish trust in CR devices by addressing concerns about CR technologies such as interference, device integrity, security, and authentication. The program seeks to demonstrate in lab and field tests how an end-to-end, multi-band CR system can be tailored, safely managed, and effectively controlled, and to show the benefits of dynamic spectrum and bandwidth access.

A major presentation by SDR-based equipment providers is anticipated at the NPSTC Seattle meeting in September.

Outreach Committee

The mission of the new Outreach Committee is to engage new NPSTC Participants, educating them on the structure of NPSTC and on how their participation will make a difference. NPSTC Participants bring invaluable skill sets to the work NPSTC does on the national and local levels. The Outreach Committee comprises three Working Groups—Editorial Review, Volunteer Coordination, and Website Review.

Regional and Broadband (formerly PSST) Liaison Committee

700 MHz Narrowband Relocation Working Group

The Working Group has been quantifying the costs for agencies affected by the relocation required by the changes in the 700 MHz band plan, necessitated by the FCC's 700 MHz Report and Order of last August. There are strong concerns that it will not be possible to fund this relocation with the \$10 million originally allotted for this task. Approximately 50 700 MHz systems are up and running currently, including a large number of vehicular repeaters, a category that was not factored into the original cost estimate.

700 MHz Itinerant Channel Naming Working Group

The Working Group has developed a summary report on the 6.25 kHz and 12.5 kHz channels at either end of the 700 MHz band and their potential use. Since the last meeting, two issues have changed the climate somewhat. The International Association of Fire Chiefs (IAFC) Digital Project

Working Group has researched the intelligibility of the vocoder on the fireground, which raises questions on use of the channels, as there are no analog channels in the 700 MHz band outside of these. The FCC has also issued a notice on changes to these channels, proposing to raise the power level to 3 watts, which would help the fireground operations issues.

Additionally, there has been some concern expressed on the channel names because the proposed names are similar to the interoperability channels. It is important not to confuse the itinerant channels with the interoperability channels, for which the rules are entirely different. The Working Group is open to suggestions on appropriate naming to avoid that confusion. Alpha suffixes rather than numeric suffixes have been suggested as a way to immediately distinguish the two types of channels.

District Chair Reports

The Committee provided reports from the four regions on the status of RPC 700 MHz plans submitted to the FCC.

National Planning Assistance and Coordination (NPAC) Working Group

The Working Group has been tasked to develop a mission statement, develop and update the dispute resolution process, and update the National Coordination Committee (NCC) reports that apply to regional planning. The mission statement is a three-part statement that will be distributed through the RPC listserv to obtain input and approval by September 15, 2008. The Dispute Resolution Process based on earlier documents created in the National Planning Oversight Coordination (NPOC) has been edited and will be distributed via the listserv as well.

The NCC documents, the 700 MHz regional plan template, the guidelines, and six appendices, have been modified to reflect updated information. The Working Group proposes they be distributed to RPCs for their review and posting now, and updated as needed.

NRPC Update

The NRPC met in Arlington, Virginia, in April, with 27 of the 55 regions represented, and finalized the bylaws, charter, and mission statement, and set up a technical committee. NRPC is funded for all training and activities through the National Institute of Justice via the Texas Sheriffs Association. The main goal is to achieve full completion of all 700 plans and the NRPC will use funding to help regions write their plans. NRPC will be filing comments on the 700 MHz NPRM, but only on issues that affect the RPCs; several of the regions are also filing individually. The NRPC is trying to fund more RPC attendance at NPSTC meetings. The same four district representatives who serve NPSTC also serve that role on the NRPC.

Spectrum Management Committee

The Spectrum Management Committee will develop a new Airborne Video Working Group and will draft the charter to address strategies and spectrum for public safety airborne-to-ground video operations. The Working Group will draft action items for the proposed Working Group including tasks to define the issue, including any partial solutions in use and shortfall to public safety requirements; to determine solution options; and to develop recommendations to the FCC for Governing Board approval.

470-512 MHz Working Group

The current Part 90 Rules for TV/DTV were written for analog television. Approximately 30 years ago, there were 50 dB spacing tables for co-channels, adjacent, base, control and mobile stations, with basically a 50-mile radius around 11 cities while mobiles could operate about 30 miles away from the base station. In the 1980s, New York City was changed to 40 dB spacing, providing 10 dB less protection to the television stations. The tables were applied to 700 MHz. The issue considered is, if the 40 dB tables were applied at UHF; could the area that public safety, critical infrastructure, and business/industrial has in the 10 other metro areas be expanded.

Applying the 40 dB tables, for co-channels, the 50-mile radius could be increased by 20 to 30 miles, but this would also allow DTV to move closer to LMR metro centers. For adjacent channel spacing, nothing really changes. The Working Group recommends that NPSTC prepare Petitions for Rulemaking to the FCC proposing new technical standards for land mobile/DTV operation in the 470-512 MHz band. Preliminary analysis shows approximately a 20 percent benefit for 10 of 11 cities by modifying the spacing rules.

700 MHz Advocacy Working Group

The 700 MHz Advocacy Working Group followed the principles below in drafting a response to the FCC's FNRPM on 700 MHz, submitted on June 20, 2008. The response:

- Reaffirms NPSTC support for the public/private partnership, the nationwide interoperable broadband network, and the Public Safety Spectrum Trust (PSST).
- Addresses the need for public safety grade design, not another commercial network.
- Suggests using auction dollars to help fund the network, phasing in some public safety grade features, and clarifying defined vs. negotiable elements to help enable a viable business plan.
- Requests additional flexibility for regional participation coordinated with and authorized by PSST.
- Recommends additional funding and schedule extension for narrowband relocations.
- Provides detailed technical responses based on the NPSTC Broadband Statements of Requirements (SoR).

In other work focused on the 700 MHz band, the Working Group has addressed the issue of potential interference from secondary uses including LPTV and auxiliary uses. During the quarter, the Working Group analyzed these issues and found that in addition to the potential for interference through LPTV, there were an unknown number of microphones, licensed and unlicensed. The Working Group developed a brochure to increase awareness of the potential interference issue and a package of materials, including a template letter that agencies intending to implement in 700 MHz can use to notify LPTV stations. Working in coordination with NPSTC's Outreach Committee, the Working Group has already provided informational brochures and engaged in discussions with the NRPC to reach out to the RPCs.

The Working Group has also developed a draft letter to the FCC recommending a rulemaking proceeding on the marketing, sale, and coordination of wireless spectrum microphones in public safety spectrum. Users would be subject to the risk of forfeitures for unauthorized use of wireless mikes in the 700 MHz band.

800 MHz Reconfiguration Working Group

The Transition Administrator (TA) has initiated a pilot with Region 43 in Washington State to learn what information the TA will need to do frequency assignments. Implementation for National Public Safety Planning Advisory Committee (NPSPAC) moves are occurring. The TA is also working to assist regions in tracking implementation, through high-level project management assistance.

Border Issues Working Group

During the quarter, the Working Group has been gathering information on the U.S. Canada Above 30 MHz Coordination Agreement. The Working Group will be investigating issues with Mexico, Puerto Rico, and the Virgin Islands and will facilitate discussions with public safety for those areas.

Wireless Alerting Working Group

The Working Group submitted a draft letter requesting assistance to identify spectrum in the 900 MHz band for public safety paging to the Governing Board. Following approval, the Working Group will send the letter to the FCC, and arrange for an ex parte meeting to discuss the issue with the FCC. The Working Group is also working to educate DHS on paging as a valuable public safety resource.

Technology Committee

The Technology Committee hosted a presentation on TETRA technology at the June Governing Board meeting. Following discussion, it was determined that an objective, side-by-side comparison of P25 and TETRA technologies could be valuable. The Committee Chair will investigate the possibility of comparisons and facilitate in-depth discussions to increase the level of knowledge on this alternate technology.

Amateur Radio Working Group

The draft public safety amateur radio best practices white paper will be presented at the September NPSTC meeting. The white paper covers the beneficial interface between the amateur radio community and public safety, addressing technical and operational issues. The paper when complete will be placed on the NPSTC website for vetting and presented at the September Governing Board meeting for approval. The Working Group will again offer Ham radio testing in Seattle at the September meeting.

In-Building Coverage Working Group

Responding to a previous request, the In-Building Working Group is in the midst of developing an In-Tunnel supplement to the white paper on In-Building Best Practices. The Working Group has assembled a number of interested volunteers, who have held several teleconferences, drafted an outline, and initiated the writing of various sections of the supplement. Following approval by the Working Group, the supplement will be placed on the NPSTC website for vetting. It will be presented at the September meeting for Governing Board approval.

At the same time, work continues on model codes through the National Fire Protection Association (NFPA) and the International Code Council (ICC) to develop national level model codes that should be published in 2009 and 2010. The Report of Proposals on in-building issues has been issued by NFPA. Comments are due by August 29, 2008. The comments will be reviewed by the Committee, which will publish the comments, followed by NFPA approval the following September.

Technology Education

The Working Group is beginning to issue its first deliverables on technology education, which will be issued to the Governing Board for approval in the near future. The mission of the Working Group is to identify technology topics of interest to NPSTC Participants and the communications community at large. The Working Group will facilitate the development and delivery of appropriate training materials to address those topics up to and including creating publications, marketing plans, seminars, and/or other methods of ensuring educational benefits. The first deliverables cover the following topics:

- Timeline and history of 700 MHz proceeding.
- 4.9 GHz – 5.9 GHz potential/ Network Testbed and Intelligent Transportation System integration issues in Pinellas County, Florida.
- Next Generation 911 issues, impact to public safety and implementation concerns/opportunities.
- LMR 101.
- FCC Electronic Comment Filing System Tutorial.

In addition to developing educational materials, the Working Group is in the process of organizing a NPSTC Website Technical Repository, with the goal of creating a chronological history of issues; for example, a backbone on 700 MHz will highlight regulatory changes, industry impact, etc.

Review of work products will occur first in the Technology Committee, then through the Governing Board. As these products are living documents, they will be updated as needed on the NPSTC Technical Repository. The intent is for NPSTC's member organizations to distribute materials through their organizations, and the Working Group hopes to work with NPSTC's Outreach Committee to facilitate that effort.

IAFC Digital Problem Working Group Update

The Digital Project (formerly Digital Problem) Working Group, created by IAFC to investigate the intelligibility of digital communications on the fireground, has issued a best practices presentation on the IAFC website to alert the fire service that noise on the fireground can interfere with intelligible radio communications. The report provides background on the issue; the steps the Digital Project Working Group took to investigate the problem in an objective, laboratory setting; the results of the testing and corresponding analysis and recommendations; and best operational practices.

One of the most important messages of the research is that training on communications equipment is key. The NIST testing is a scientific study of nine background noise environments. It is not designed to be pass or fail because there is currently no standard against which to measure performance. This communications issue needs to be addressed on a systems basis, looking at all the equipment, including the radio, PASS system, etc. to ensure that a new technology introduced to a firefighter's equipment doesn't interfere with other devices. The Working Group immediately identified as a next step the need to do more testing on radio accessories, more testing with other agencies, and to expand to auxiliary public agencies.

Broadband Working Group

The APCO Project 25 Interface Committee (APIC) Broadband Task Force, which put its work to develop a standard for 4.9 GHz on hold pending decisions surrounding 700 MHz broadband, is planning next steps in 4.9. The technical analysis in 4.9 GHz is complete, but it was accomplished

before the broadband network in 700 MHz was proposed. Accordingly, the Broadband Working Group would like to revisit the requirements document in light of the changes in 700 MHz. The P34 Users Needs Committee will convene a meeting of users to review the requirements document and make any changes they deem necessary. A small cadre has been attending P34 meetings for some time, but the group needs to expand to include more public safety participants to vet discussions of these standards-setting efforts. The process of developing standards is a slow one and educated users are critical to the process. The Working Group had identified 30 users to begin the process as soon as funding is in place.

The Broadband Working Group participated in the NPSTC response to the 700 MHz NPRM. At the last NPSTC meeting, the Working Group reported they would begin to develop a 700 MHz Broadband Device Requirement Plan for the SoR. Depending on the response to the FCC's NRPM, the plan is to organize the process of gathering requirements differently from the development of the 700 MHz SoR to provide a more flexible feedback mechanism. The Working Group is seeking more public safety involvement and more time for public safety to provide input.

Future NPSTC Activities

The next Governing Board Meeting will be held at Renaissance Seattle Hotel, September 15-17, 2008, followed by a meeting at the BWI Airport Marriott on November 18-20, 2008.