



**The Collective Voice of  
Public Safety  
Communications**

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American Association of State Highway and Transportation Officials  
American Radio Relay League  
American Red Cross  
Association of Public Safety Communications Officials - International  
Forestry Conservation Communications Association  
International Association of Chiefs of Police  
International Association of Emergency Managers  
International Association of Fire Chiefs  
International Association of Fish and Wildlife Agencies  
International Municipal Signal Association  
National Association of State Emergency Medical Services Directors  
National Association of State Foresters  
National Association of State Telecommunications Directors

#### LIAISON ORGANIZATIONS

Federal Communications Commission  
Federal Partnership for Interoperable Communications  
Telecommunications Industry Association  
US Department of Agriculture  
US Department of Justice  
    NIJ CommTech Program  
US Department of Homeland Security  
    FEMA  
    SAFECOM Program  
US Department of Interior

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## National Public Safety Telecommunications Council First Quarter Report, 2005

This Quarterly Report documents the activities of the National Public Safety Telecommunications Council (NPSTC), its Governing Board, the three Committees including their respective Working Groups, and the National Support Office (NSO) for the First Quarter, 2005.

### Governing Board

In March 2005, Marilyn Ward, Chair, NPSTC, retired from her position as Communications Director for Orange County, Florida, and resigned as Chair of NPSTC. Ms. Ward will assume a new role in NPSTC, serving as Executive Director of NPSTC, through NPSTC's National Support Office (NSO).

In searching for a new Chair for NPSTC, the Governing Board followed the procedures for nomination and election of officers detailed in the NPSTC Charter, with Douglas Aiken, Vice Chair, NPSTC, serving as Nomination Chair. Vincent R. Stile, police radio communications director for the Suffolk County (New York) Police Department and former president of the Association of Public Safety Communications Officials—International (APCO), was nominated and unanimously elected by the Governing Board to serve as NPSTC's Chair.

The Governing Board met in Orlando, Florida, on January 24, 25, and 26, 2005. Attendance for each of the days was 48, 61, and 58 persons respectively, and in Alexandria, Virginia on March 29 and 30, 2005, with 57 attendees on Committee Day and 62 at the official Governing Board meeting. Complete meeting minutes can be found on the NPSTC website at [www.NPSTC.org](http://www.NPSTC.org). The next quarterly Governing Board meeting will be held in San Antonio, Texas on June 13, 14, and 15, 2005, prior to the SAFECOM Executive meetings.

At the March meeting, the Governing Board presented a position paper prepared to convey NPSTC's concerns that the unified voice of public safety could be seriously diluted by the formation of a separate organization, the National Association of Regional Planning Committees (NARPC) to represent the Regional Planning Committees (RPCs). The position paper was to be presented to Steve Devine, who had submitted a letter to the Governing Board resigning from NPSTC in addition to retiring as Chair of the Spectrum Committee. The position paper affirmed NPSTC's historic support and advocacy of the RPCs and encouraged healthy RPC representation on NPSTC.

NPSTC was approached by a representative from the Statewide Interoperability Executive Committees (SIECs) who requested assistance in organizing the SIECs nationwide. The Governing Board approved this SIEC support and will work to help support SIEC work across all the public safety bands.

### Executive Committee

The NPSTC Executive Committee conducted the first of newly developed quarterly meetings with the Federal Communication Commission (FCC) staff to discuss public safety issues in Washington, D.C. prior to the Governing Board meetings, and also conducted meetings with NPSTC sponsors and CAPRAD sponsors to develop an agreement on joint activities and future endeavors.

During this quarter, the Executive Committee reviewed and edited the NPSTC *Annual Report* and the quarterly newsletter, *spectrum*; received and responded to questions from member associations regarding Memorandums of Agreement (MOAs) between the associations and NPSTC; and sent out the Statement of Requirements (SoR) for review.

Comments will be provided to the Department of Homeland Security (DHS) SAFECOM Program by the end of April 2005. NPSTC's Vice Chair, Douglas Aiken, provided an article on NPSTC's organization, history, and Committee efforts for the magazine of the International Municipal Signal Association (IMSA). During this quarter, NPSTC provided a letter to the Telecommunications Industry Association (TIA) reaffirming the request for standards in the 4.9 GHz. Band, wrote a response to the FCC requesting a declaratory ruling stating that the interference calculation procedures contained in OET-69 are acceptable to demonstrate compliance with TV/DTV interference protection criteria, and voted to write a draft letter to ensure DTV clearing is included in the response to the Presidential directive on national spectrum policy.

## **Spectrum Management Committee Chair, Steve Devine [resigned], incoming Chair, Dave Buchanan, Vice-Chair, Stu Overby**

The NPSTC Spectrum Management Committee currently oversees the activities of the following Working Groups. During the end of the first quarter, Mr. Devine resigned as Chair and was replaced by Dave Buchanan, San Bernardino County, California.

- Regional Planning Committees (RPC)
- Broadband (BRB)
- TIA TR-8 (TIA)
- 700 MHz Outreach (700)
- VHF Rebanding (VHF)

### **Regional Planning Committees (RPC)**

The RPC Working Group was asked to review the SAFECOM SoR to ensure appropriate user input. The document was provided to the RPCs for a 30-day review. The RPCs held a well-attended meeting in St Louis in March and are anticipating holding at least one and possibly two additional meetings this year, focused on the following issues:

- Managing the 4.9 GHz band.
- Reaching out to the RPCs to identify how best standards activities can provide technologies that support their operations and/or goals.
- Handling issues that arise in conjunction with the 800 Rebanding Order, including the pros and cons of “repacking” regional assignments prior to 800 MHz rebanding; the need for RPC input in the distribution of/ prioritization of post re-banding available spectrum within an area that might be a border area between multiple regions being rebanded at different times; and the support of a Region 8 sponsored Petition for Rulemaking (PFR) on RPC dissemination of post-rebanding public safety spectrum that is cleared as part of the process.

The RPC community continues to solicit comment on the issue of the 57 wideband 50 KHz data channels the FCC has set in reserve for future use. The FCC allocated 48 50 KHz channels for state and local general use and 18 50 KHz wideband data channels were specifically designated for interoperability. The 700 MHz wideband data channels in reserve were intended for future technologies, but the ongoing discussion concerns whether it is possible that some RPCs would be better served if the reserve spectrum were consolidated and used for a 700 MHz broadband technology, such as IEEE 802.20. Other Working Groups, including 700 MHz Advocacy, Broadband, and 700 MHz Wideband Technologies are also involved in these discussions.

This is related to a larger issue—the possible desire of some RPCs to request a waiver of the wideband interoperability requirement in order to aggregate spectrum into 802.20 blocks, or to utilize equipment better suited to local requirements (e.g., equipment that is less expensive, longer range, etc). This issue was discussed at the March NPSTC meetings and NPSTC will hear a presentation from DataRadio on the issue at the next meetings in San Antonio.

There are and will continue to be discussions on the benefits of RPC “repacking” during the 800 MHz rebanding process. There are concerns about complexity, risk, and schedule; however there are also clear benefits. The Transition Administrator (TA) and Nextel appear to be hesitant about allowing repacking through rebanding. Regions 5 and 6 have asked NPSTC to support a repacking testbed that will demonstrate the benefits of repacking in a loosely-packed region (Region 5) and in a tightly-packed region (Region 5). Other RPCs have expressed support of repacking initiatives to NPSTC in the past. At the March NPSTC meetings, the Governing Board voted to approve the Region 5 and 6 repacking testbeds. The Computer Assisted Pre-coordination and Resource Database System (CAPRAD) is looking at developing support tools to help RPCs and 800 MHz licensees during the rebanding process.

The 800 MHz Region 8 RPC has voted to file a PFR, possibly jointly with NARPC, that would allow active RPCs to disseminate any public safety 800 MHz spectrum freed by the rebanding process under their defined and equitable matrix process. It was suggested at the March NPSTC meetings that NPSTC be a part to this filing as well. Region 8 RPC representatives will bring this back to the RPC for Chair approval.

### **Broadband (BRB)**

There are now three 4.9 and/or 5.9 GHz testbeds underway. One, sponsored by Pinellas County, Florida, will examine the joint use of 4.9 GHz and 5.9 GHz to support public safety requirements and operations. A Colorado 4.9 GHz testbed is expected to provide information on 4.9 mobile coverage, propagation modeling versus measurements, appropriate channel plans, mesh net performance, net security vulnerabilities, and deployment of 4.9 in diverse geographies. The testbed will deploy in April, starting with 20 access points and moving them from area to area. The California testbed will be held in Los Angeles, California, on May 18, 2005, with a greater focus on interference testing with only a few access points.

Several RPCs will be filing their 4.9 GHz guidelines by the May 14 due date to the FCC; however, many will not due to the FCC Order that continues to deny RPCs authority to manage 4.9 GHz spectrum within their regions. It is expected that this decision by the FCC will be at the core of any interference issues that arise in the 4.9 GHz band.

### **TIA TR-8 (TIA)**

The Telecommunications Industry Association (TIA) TR8.8 continues to ask for clarification of what action NPSTC would like to occur regarding the standards—whether to adopt Commercial off the Shelf (COTS)/802 to meet *some* of the public safety Statement of Requirements (SoR) or to adapt/change COTS/802 to meet *all* of public safety's requirements. This is an important distinction and there is dissension among the vendors and public safety communities as to which path is the best to follow. Much depends on whether the standards are to be mandatory or voluntary. It was noted that tying grants to these standards encourages a mandatory approach and ignores the force multiplier effects that broadband deployments bring to public safety.

Several members of TR-8.8 have wanted to re-examine the charter of TR-8.8 and refocus energies as necessary to align with the outcome of the 00-32 Petition for Reconsideration actions by NPSTC. It was decided at the January NPSTC meeting that NPSTC would reaffirm their request to TIA to develop standards via TR-8.8 and that NPSTC representatives would remain active in the TR-8.8 process. The P34 Group will become more active in these discussions.

### **700 MHz Advocacy (700)**

During this quarter, the 700 MHz Advocacy Working Group worked with the Border Issues (BIS) Working Group to draft NPSTC comments to the Industry Canada (IC) 700 MHz Consultation. These were submitted to Industry Canada by the January 14, 2005 due date. The NPSTC comments encourage the IC to take actions needed to ensure this spectrum is cleared and actually available for use as soon as possible and recommend that technical rules compatible with those adopted in the U.S. to promote interoperability. They further provide a recommended border plan that maximizes the availability of spectrum for both Canadian and U.S. public safety entities in the border area and recommend that the IC also continue to consider additional public safety allocations and TV clearing in TV channels 64 and 69 (770-776/800-806 MHz). U.S. and Canadian negotiations are going well, and it is expected that a new Letter of Understanding (LoU) will be in place before the end of 2005, which will allow operations on channels 63 and 698 in the border areas.

The Intelligence Bill and the Presidential Directive issued last year reaffirmed the need for spectrum, possibly more than the 24 MHz allocated for public safety. On May 30, 2005, a Department of Homeland Security (DHS) report regarding spectrum needs will be published, with input from Department of Commerce (DOC), FCC, and public safety representatives. By November 30, 2005, Federal agencies must provide strategic spectrum plans. By May 30, 2006, the DOC must integrate agency plans into Federal and national spectrum plans, which DOC and the FCC must update on biennial basis.

A multi-association letter addressing 700 MHz TV clearing was sent to Congress on March 9, 2005, and follow-up meetings are ongoing with members of Congress. It was also recommended that NPSTC file comments with the FCC by April 18 with regard to the required DTV tuner schedule in ET 05-24. Members of NPSTC and the Working Group will meet with the FCC's Media Bureau to emphasize the need to stop the flow of new Low Power TV (LPTV) stations into 60-69 with the incoming FCC Chair as part of their 700 MHz clearing efforts. A white paper was drafted to help educate RPCs and state licensees to address LPTV licensing in channels 60-69. 700's sub-working group will continue to work together to develop TV short-spacing guidelines, expected to be completed by May 2005.

## **Border Issues (BIS)**

BIS continue to work with the Radio Advisory Board of Canada (RABC) within the Joint Broadcast and Public Safety Working Group. This group is working with Industry Canada (IC) to develop the TV Band sharing and interference protection rules for Public Safety and Broadcast Services. As noted above, BIS worked with the 700 MHz Advocacy Working Group to draft NPSTC comments to the IC 700 MHz Consultation. NPSTC has extended an offer to Canada to further discuss and/or clarify their filing as well.

The FCC has made inquiries on to the opinions of northern and southern states regarding interoperability channel sharing arrangements with Canada and Mexico. These inquiries have been coordinated by NPSTC's Interoperability Committee. The FCC and IC are also examining the current utilization of National Public Safety Planning Advisory Committee (NPSPAC) mutual aid channels for international interoperability. To date no such utilization has been identified by either side. This has a significant impact on the U.S./Canadian negotiations with respect to the 800 MHz rebanding process. There will be follow-on meetings between these two countries on this issue in April 2005.

## **VHF Rebanding**

During the first quarter, the VHF Working Group continued to monitor issues relating to an ICOM PFR requesting Additional Public Safety Spectrum at VHF (150 and 153-154 MHz). These additional channels—18 paired channels from CFR 47 Part 22.561, and 4 unpaired channels from CFR 47 part 22.531—may facilitate some of the band management and repacking operations that are necessary to free additional spectrum, assist in narrowbanding transitions, organize the VHF for trunking support, and lessen the effects of interference within the band.

NPSTC's National Support Office (NSO) has discussed this issue with the Working Group Chair and will provide significant assistance in generating a response to any FCC-issued docket and in performing analyses to reach conclusions about the impact and opportunities afforded by the clearing of addition VHF spectrum under ICOM's PFR. The Chair may direct the NSO to perform analyses on how these channels may be leveraged to re-band portions of the VHF spectrum in certain areas of the country. If this spectrum were to be made available to public safety, significant planning would be necessary to maximize its impact in cleaning up the VHF band.

At the January 2005 NPSTC meeting the "Ritter Plan" was again described in detail and NPSTC was asked to undertake planning for reconfiguration of the VHF band on a national basis. It was noted that without funding, such a national efforts could not get off the ground and that green space would also need to be identified, either through the ICOM PFR or through Federal Sharing.

## **Technology Committee, Chair, Glen Nash, Vice-Chair, Sean O'Hara**

The NPSTC Technology Committee currently oversees the activities of the following Working Groups:

- NCC Recommendations (NCC)
- Narrowbanding Below 512 MHz (NRB)
- ARS and Broadband Over Powerline Technology (BPL)
- Security (SCR)
- Wideband Technologies (WTC)
- Paging (PGT)
- Surveying Spectrum Needs (SSN).
- Voice over Internet Protocol (VoIP), addition of this Working Group was approved in January 2005.

## **NCC Recommendations (NCC)**

To date, the FCC has still not released its *Final Report* with NCC recommendations although FCC representatives indicate that this is an active item at the Commission. There is continuing concern that public safety still lacks standard applications for wideband data. Without applications and experience with wideband data, there is not a true basis for determining interoperability requirements; however, the rules do provide needed standards for the transport of information from point A to point B. After a year, the community still does not know what the interoperability requirements are for even narrowband data. The adoption of a standard may prevent use of 802.20 systems. NPSTC will strongly support the *NCC Final Report* and the adoption of those rules. NPSTC also will prepare to respond to waivers by RPCs and end users for aggregation and relief from the interoperability channel technology requirement.

## **Narrowbanding Below 512 MHz (NRB)**

The FCC released a Memorandum Opinion and Order (MO&O) establishing new “must” implement dates for narrowbanding below 512 MHz. The target dates are January 2013 for all systems, January 2011 for all changes to existing systems, and January 2011 for manufacture/import of radios. The implementation date for “new” systems appears to have been omitted from the order. In a meeting held with the NPSTC Executive Committee, the FCC made it very clear that after January 1, 2013, wideband licenses will be null and void. This Order has not yet been published in the Federal Register. The Further Notice for Proposed Rulemaking (FNPRM) also included issues on interoperability.

## **Voice over Internet Protocol (VoIP)**

This new Working Group developed a VoIP position paper that raised some important questions regarding VoIP, including whether or not the technology is adequate to support public safety. The Working Group is presently developing requirements and will write an article to address confusion about VoIP among practitioners. NPSTC needs to separate and define the discussion of VoIP related to telephony and VoIP related to the radio world. Both areas have significant concerns that need to be addressed. The National Law Enforcement and Corrections Technology Center (NLECTC)-Northeast will issue user requirements document in April and will provide an opportunity to define VoIP and the related issues. The Governing Board will further discuss the issue of delineating telephone and land mobile radio VoIP and ensure that additional work on this issue will not duplicate work already accomplished by APCO and the National Emergency Number Association (NENA).

## **Amateur Radio Services (ARS) and Broadband Over Powerline Technology (BPL)**

At the March NPSTC meeting, there was discussion of a need to address cross-patching amateur radio frequencies with public safety frequencies during emergencies. Cross patching would necessitate modifications to Part 97 to permit these activities. The Working Group will contact the American Radio Relay League to facilitate a dialogue to enable effective usage of amateur radio service with public safety.

## **Security (SCR)**

NPSTC Vice Chair, Harlin McEwen, and Security Working Group Chair, Andy Theissen, wrote an article for the April issue of *Police Chief Magazine* on 802.11 security in a public safety setting.

Region 8 has completed their security document and is now cross referencing security and interoperability requirements into their applications matrix, which will be available upon approval of the contributors to the Region 8 document.

The SCR Working Group continues to monitor the activities and goals of GLOBAL, a Department of Justice effort to standardize information sharing among agencies. Long-term goals include how and where to appropriately address identification, authorization, authentication, privacy, integrity, attack detection and prevention, and monitoring.

## **700 Wideband Technology Working Group (WTC)**

During this quarter, the WTC Working Group continued working on data collection for the wideband spectrum management and deployment guidelines, and is now working with TIA TR-8.18 on the SAM [Scalable Adaptive Modulation] and IOTA parameters. PSD and Filter models have been completed and intermodulation issues are now under study. The draft guidelines and a draft pack are expected to be complete by the June NPSTC meeting.

## **Paging Technologies (PGT)**

The Working Group has reviewed an excellent paper from Monroe County, New York on two-way paging. It was noted that as 800 MHz has been deployed, tone and voice paging have become more difficult to support. Digital and two-way paging can be beneficial to public safety, especially since it can integrate Computer Aided Dispatch (CAD) and paging systems and provide a backup method for dispatching. It is recommended that NPSTC pursue spectrum for digital paging relatively soon because the FCC will be auctioning spectrum at 900 MHz shortly. PGT will also focus on the identification of needs for fire services

## **Surveying Spectrum Needs (SSN)**

The Chair is currently working on a formal charter and scope statement for this Working Group, which will likely encompass all geolocation spectrum allocations in support of public safety.

## **Interoperability Committee, Chair, John Powell; Vice-Chairs, David Buchanan and Ralph Haller**

The NPSTC Interoperability Committee currently oversees the activities of the following Working Groups:

- Statewide Interoperability Executive Committee (SIEC)
- Project MESA (MESA)
- ARS Software Defined Radio (SDR)
- System Interconnect (ICT)
- International Telecommunications Union (ITU)

### **Statewide Interoperability Executive Committee (SIEC)**

As noted earlier, Steve Devine resigned from NPSTC during this quarter, including his role as the SIEC Working Group Chair. Don Root, Secretary and General Manager of the California SIEC, was nominated and approved as new Chair.

As requested during the February Executive Committee Meeting, the NSO has made contact with several of the SIECs in the northeastern U.S. and plans to hold a conference call to ascertain how NPSTC can meet the needs of the SIECs.

### **Project MESA (MESA)**

Together, this Committee and MESA continue to work together to align the MESA Statement of Requirements (SoR) and the SAFECOM SoR, primarily by eliminating colloquial United States expressions and language that are not relevant to the international public safety community. During this quarter, there has been a leadership change within MESA, with the National Institute of Standards and Technology (NIST) stepping into a lead role.

### **Software Defined Radio (SDR)**

During the last quarter, the Software Defined Radio Forum (SDRF) Public Safety Interest Group (PSIG) issued a Public Safety Request for Information (RFI), *Request for Information on the Topic of How Software Defined Radio Technology Can Meet the Communications and Interoperability Requirements of Public Safety*, to address these matters with industry. The RFI was published, with replies due December 15, 2004. During this quarter, SDRF followed up with a response evaluation meeting in March. The PSIG will compile and analyze the information gathered from the responses with a report due out from SDR Forum in August 2005.

NPSTC members heard a presentation on the Joint Tactical Radio System (JTRS) Software Common Architecture (SCA) and pros/cons for its use by public safety at the March meeting.

### **International Telecommunications Union (ITU)**

During the first quarter, the main focus of the ITU Working Group is an upcoming SDR Report that will include some important annexes, including one with six sections on PPDR [Public Protection/Disaster Relief]. The next meeting of ITU's Working Party 8A, which addresses land mobile spectrum requirements and issues, will be held April 11-15, 2005, to seek agreement on a report outline and topics and to identify report drafters. In August, the Working Group will seek NPSTC and SDRF comment.

Whether NPSTC should become an associate member of ITU has been discussed in the past, but NPSTC representation through membership in the Software Defined Radio Forum may serve that purpose.

### **System Interconnect (ICT)**

The ICT Working Group is currently reviewing drafts of the white paper addressing appropriate methods for licensing transmitters connected with gateway interconnect devices as well as other ACU-1000 licensing issues. The document also discusses airborne and maritime activities and is being modified to include mobile as well as fixed gateways.

# Attachment A

## National Public Safety Telecommunications Council

