



National Public Safety Telecommunications Council

The Collective Voice of Public Safety Telecommunications

IWCE Exposition

Las Vegas, Nevada

May 18, 2006



How did NPSTC begin?

- Originally organized to encourage and facilitate implementation of the findings and recommendations of the Public Safety Wireless Advisory Committee (PSWAC)
- Grew to include implementing the recommendations of the FCC Public Safety National Coordination Committee (NCC).



NPSTC Member Organizations

Member Organizations:

- 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 Officials
- National Association of State Foresters
- National Association of State Telecommunications Directors

Liaison Organizations:

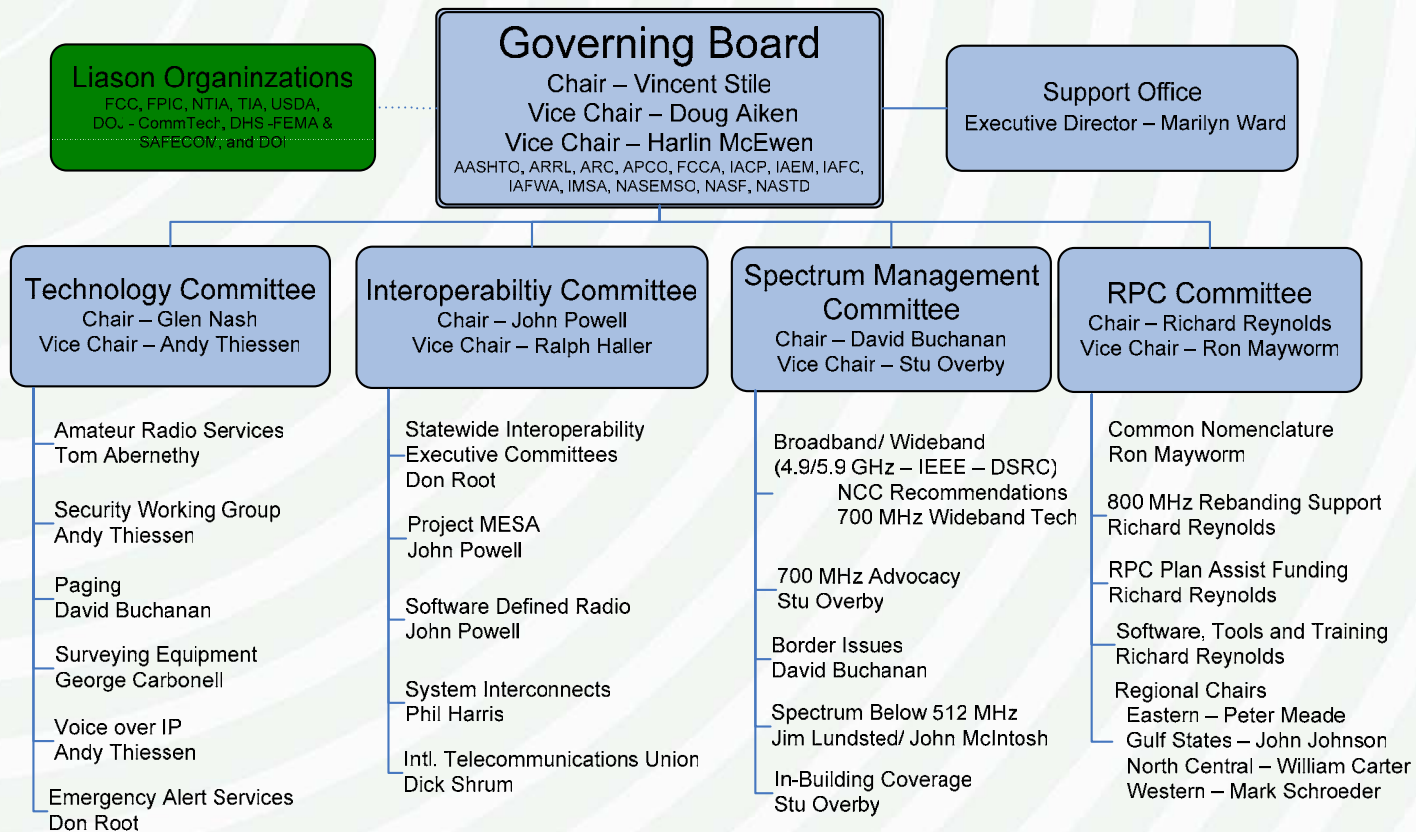
- Federal Communications Commission
- Federal Partnership for Interoperable Communications
- National Telecommunications and Information Administration
- Telecommunications Industry Association
- U.S. Department of Agriculture
- U.S. Department of Homeland Security,
 - Federal Emergency Management Administration
 - SAFECOM Program
- U.S. Department of Interior
- U.S. Department of Justice
 - CommTech Program



How is NPSTC organized?

- **NPSTC's Governing Board**
 - Representatives from each of its member organizations.
- **Executive Committee**
 - The Executive Committee comprises a Chair, two Vice Chairs, and the four Committee Chairs.
- **Four Committees:** Interoperability, Regional Planning Committees, Spectrum Management, and Technology.
- **Support Office (SO)**
 - Provides administrative and technical support to the Governing Board and Committees.

NPSTC Organization





What does NPSTC do for public safety?

- Develops and makes recommendations to appropriate governmental bodies on public safety communications issues and policies that promote greater interoperability and cooperation between local, state, tribal, and federal agencies.
- NPSTC provides a public stage for discussion of relevant public safety wireless telecommunications issues.
- Serves as a standing forum for the exchange of ideas and information, and works to identify and promote methods for funding development of public safety communications systems.
- Monitors new technology research, supports studies of public safety communications, and uses research to stay abreast of user needs.
- Communicates information on technology, research, and policy issues to the field through its website, www.NPSTC.org and through its quarterly newsletter, *spectrum*.



Important Issues NPSTC is working on

NPSTC's role has grown to include policies and issues surrounding the following important public safety wireless communications areas:

- Border issues with both Canada and Mexico
- Effective spectrum management and deployment
- Software Defined Radio (SDR) and Cognitive Radio (CR) technologies
- Narrowband technology transition
- VHF spectrum reconfiguration
- US/Canadian/Digital Television (DTV) Transition for the 700 MHz band
- Project MESA, Institute of Electrical and Electronic Engineers (IEEE) 802, DSRC, and TIA standards development or digital mobile broadband technologies
- Securing additional spectrum resources
- 800 MHz interference resolution and band reconfiguration
- Statewide Interoperability Executive Committees (SIECs)
- 700 and 800 MHz Regional Planning Committees (RPCs)
- Broadband over Power Lines (BPL) interference
- 4.9 GHz technologies



Current Activities of the Interoperability Committee

- Statewide Interoperability Executive Committees
- Project MESA
- Software Defined Radio
- System Interconnects
- International Telecommunications Union



Current Activities of the Regional Planning Committee

- Common Nomenclature
- 800 MHz Rebanding Support
- RPC Plan Funding Assistance
- Software, Tools, and Training
- Regional Committees
 - Eastern – Peter Meade
 - North Central – William Carter
 - Gulf States – John Johnson
 - Western – Mark Schroeder



Current Activities of the Spectrum Management Committee

- **Broadband/Wideband**
 - 4.9/5.9 GHz – IEEE – DSRC
 - NCC Recommendations
 - 700 MHz Wideband Technologies

- **Border Issues**

- **700 MHz Advocacy**

- **In-Building Communications**

- **Spectrum Below 512**

Current Activities of the Spectrum Management Committee

Spectrum Management Committee
Chair – David Buchanan
Vice Chair – Stu Overby

- 700 MHz Wideband / Broadband Technology
+ NCC Recommendations
- Border Issues
- 700 MHz Advocacy
- In-Building Coverage
- Spectrum Below 512 MHz

Spectrum Management Committee

700 MHz WIDEBAND / BROADBAND ISSUE

1. NPSTC bases its recommendation on two premises:
 - Regional Planning Committees (RPCs) have been given authority to determine how best to meet the WB/BB needs of local agencies within their regions.
 - Work already completed for this 700 MHz band must not be disturbed, as too much effort, planning, and money has been expended by local and state agencies to be forfeited.
2. Wideband provides greater geographical area of coverage while broadband provides higher data rates.

Spectrum Management Committee



- 3. RPCs are in the best position to establish how the radio spectrum can best serve the local agencies.**
- 4. The 700 MHz band already reflects the work of the RPCs with assignments made in every state giving them each a statewide license. Many agencies and manufacturers are already designing and constructing systems.**
- 5. NPSTC believes that there can be no restructuring of this band that would disrupt the established narrowband voice channels because too many investments have already been made.**

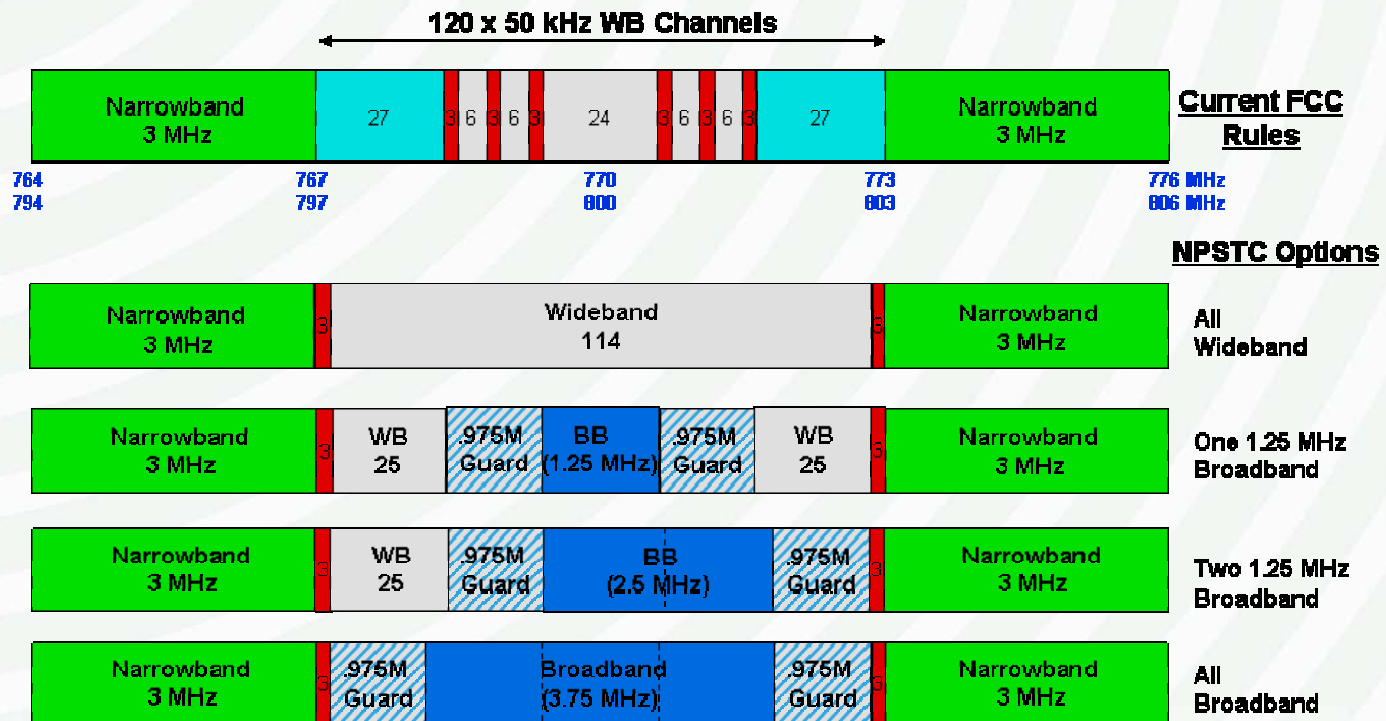


Spectrum Management Committee

- 6. NPSTC's position concerning the 700 MHz allocation is that regardless of how it will be used, there is not enough spectrum to meet the public safety needs.**
- 7. Any restructuring of the 700 MHz band will depend upon an additional allocation of spectrum to public safety with the understanding that the narrow band voice channels are not disturbed.**
- 8. NPSTC would urge the Commission to establish the parameters for wideband and broadband use while giving the RPCs the flexibility to choose the structure that will best serve their region.**

Spectrum Management Committee

9. NPSTC believes that there is a substantial need for both wideband and broadband technology to support the demand for both applications. The following are some probable channel distributions:





Spectrum Management Committee

- 10. NPSTC's analysis determines that a .975 MHz guard band is needed between the voice and broadband channels.**
- 11. Narrower guard bands are possible by requiring tighter filtering of the broadband OOB.**
- 12. NPSTC recommends that the Commission recognize the work already done with regard to narrowband and hold to the principle that WB/BB is a local and state responsibility that should be administered by public safety.**

Spectrum Management Committee

Border Issues

1. NPSTC, in a letter to the FCC Chairman Kevin Martin, warned that unless there are international agreements made soon, the 800 MHz rebanding will be in trouble.
2. The NPSTC Border Working Group has met and discussed via conference calls the issues of developing a working spectrum agreement between the US and Mexico and between the US and Canada.
3. Bringing together the concerned parties to adopt a needed treaty is on the NPSTC agenda for the next NPSTC meeting in June.

Spectrum Management Committee

4. **The Southern Border Sheriff's Association, a State Department representative, representatives from the FCC, and interested parties will gather to implement a strategy to formulate an agreement to fix the 800 MHz rebanding problem; the 700 MHz concerns; plus other frequency concerns.**
5. **The Canadian border area near New York and Pennsylvania have specific rebanding channel concerns. The lowest shifted group of channels (806/851.0125 to 808/853.1125 MHz) will require specific attention.**
6. **NPSTC has adopted the border issue on behalf of public safety to try to resolve the issue by defining what resources are needed to move toward resolution.**

Spectrum Management Committee

700 MHz Advocacy

- 1. Congress directed the FCC in 1997 to allocate 24 MHz of spectrum from TV Channels 60-69 for new expanded public safety radio communications operations.**
- 2. The 1997 law requires the TV broadcasters to vacate the channels by December 31, 2006, unless they had not achieved 85% market penetration for their DTV signal.**
- 3. Since the 1998 penetration stipulation was added to the law, NPSTC and the public safety organizations joined forces to gain the needed spectrum by seeking a date certain from Congress.**

Spectrum Management Committee

4. After a long, hard struggle, Congress finally passed the digital TV transition legislation in February of this year as part of the budget reconciliation bill.
5. This bill sets February 17, 2009, as the “date certain” for the completion of the DTV transition.
6. The bill also allocates \$990 million of the analog spectrum auction proceeds to go to a digital-to-analog converter box program.
7. There is also an allocation of \$1 billion to be used for a grant program to help public safety agencies obtain and deploy interoperability communications systems.



Spectrum Management Committee

In-Building Coverage

- 1. The value of “all-encompassing” communications inside a building today appears to vary across the public safety community.**
- 2. This mainly depends upon the nature of the public safety entity and its specific mission.**
- 3. NPSTC’s In-Building WG has put a survey on NPSTC’s website from the In Building Wireless Alliance (IBWA) to collect public safety input on in-building communications.**

Spectrum Management Committee

- 4. The IBWA represents a cross-industry group of companies including equipment manufacturers and wireless carriers.**
- 5. This Alliance had come together to understand the value of pervasive in-building communications.**
- 6. The In-Building Working Group is expecting to propose a set of services and acceptable operating/funding models to put forward to the public safety community.**

Spectrum Management Committee

7. The IBWA link is:

<http://www.pmgbenchmarking.com/public/survey/surveyintro.asp?SID=218&bReg=0&bTool=0>

8. The summary of the poll results will be shared with NPSTC at a future date during our scheduled meetings.

STAY TUNED

Spectrum Management Committee

Spectrum Below 512 MHz

- 1. In the Commission's Order addressing the Promotion of Spectrum Efficient Technologies on Certain Frequencies, the Commission established a January 1, 2013, deadline for the narrowband migration to 12.5 kHz technology.**
- 2. Public safety and industrial/business licensees operating at frequencies in the 150-174 MHz and 421-512 MHz bands have been given a date certain to bring about a narrowband migration.**

Spectrum Management Committee

- 3. NPSTC agrees with the Commission's reasoning that a single, uniform date by which all Public Safety Radio Pool and Industrial/Business Radio Pool licensees must migrate to 12.5 kHz narrowband is necessary.**
- 4. This date provides a reasonable time to plan and obtain the necessary resources to otherwise meet the objective.**
- 5. However, NPSTC believes that the interim transition date of January 1, 2011, imposed by the Order will disrupt public safety operations and undermines the objective of migrating to 12.5 kHz technology.**

Spectrum Management Committee

- 6. The rules ignore the reality of public safety's operation after January 1, 2011, because the geographic area of public safety operations are not static, and local jurisdictions must frequently adjust to expanded responsibilities.**
- 7. The Commission interim transition rules barring new operations or expanding an agency's contour will have a severe effect in precluding an agency from having anything other than two separate systems.**
- 8. The result will hinder operations significantly, diluting fundamental interoperability objectives.**

Spectrum Management Committee

9. **NPSTC urges the Commission to embrace one migration date and to eliminate the interim transitional rules, at least with regard to public safety agencies.**
10. **The interim transition rules will not provide any incentives to move to 12.5 KHz technology.**

**PARTICIPATE
AT THE NPSTC MEETINGS FOR THE ANSWER**

Spectrum Management Committee

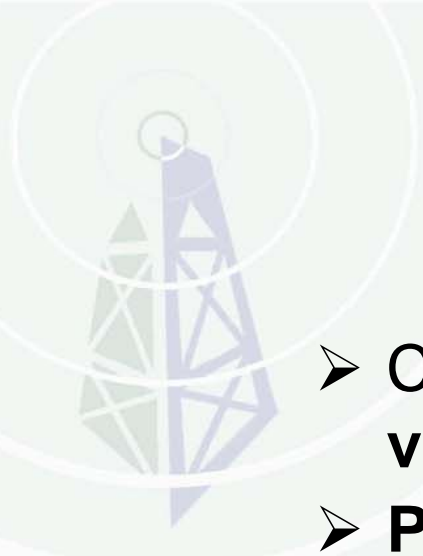
Presentation
by

**Vincent R. Stile
For
David Buchanan
Chairman of the Spectrum Management
Committee**



Current Activities of the Technology Committee

- Amateur Radio Services
- Security
- Paging
- Survey Equipment
- Voice over Internet Protocol
- Emergency Alert Services



How can you have voice in NPSTC?

- Come to NPSTC's quarterly meetings and **have a voice** in this important work.
- **Participate** in quarterly NPSTC meetings via conference call.
- **Join** a Committee or Working Group and participate in their working conference calls.
- Join NPSTC's listservs and **stay abreast** of issues and activities.
- **Remain current** with the postings, publications and other resources on the website at www.NPSTC.org