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Chairman
Communications & Technology Committee
International Association of Chiefs of Police



**Public Safety
Spectrum Trust**

Chairman
Public Safety Spectrum Trust

Building a Nationwide Public Safety Wireless Broadband Network

Presentation
For

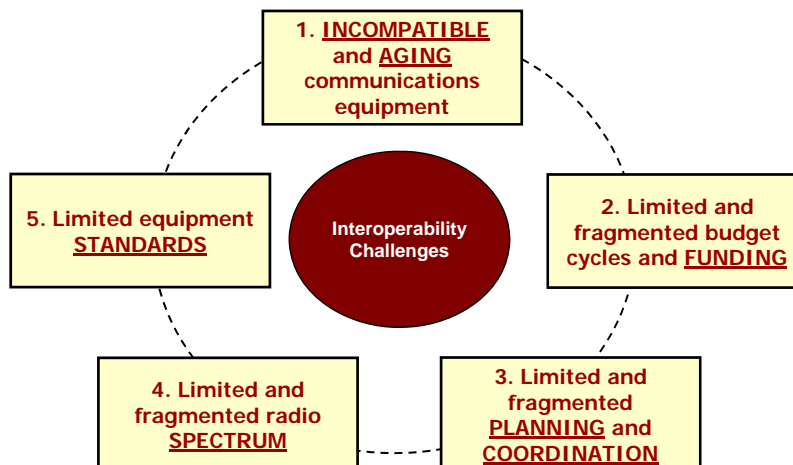
Telecommunications Industry Association
Public Safety Communications Working Group

Washington, DC – October 21, 2008

Public Safety Communications Background

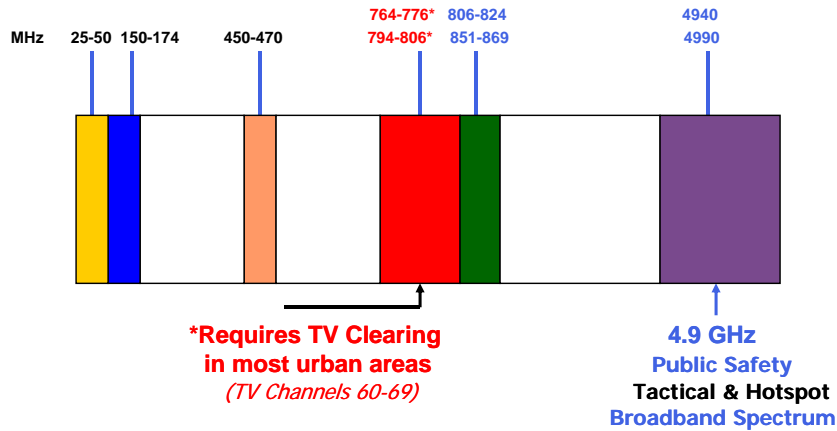
- Traditional land mobile voice communications are essential to public safety. This is what is referred to as mission critical communications.
- Public Safety operates in numerous spectrum bands that make it difficult for public safety agencies on different bands to talk to each other. However, Priority #1 for police, fire and emergency medical personnel is not interoperability – it is reliable every day mission critical voice communications.
- Local, state, and federal public safety communications systems have traditionally not been adequately funded and seldom are able to take advantage of the latest and best technologies.

The complexity of public safety communications is reflected in five key challenges



Identified by the National Task Force on Interoperability in its April 2003 final report

Public Safety Land Mobile Radio Spectrum Bands



Knowledgeable public safety communications experts predict that traditional land mobile mission critical voice communications systems will need to be refreshed and maintained for at least the next 15-20 years (2023-2028). This means that those agencies operating in spectrum below 512 MHz must plan to narrowband their voice systems by the FCC deadline of 2013. The FCC has made it clear they do not plan to grant any waivers of this deadline.

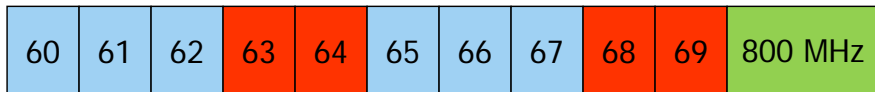
Public Safety has not had any spectrum assigned for robust data communications until the allocation of spectrum at 700 MHz. With the FCC requirement to further narrow current voice channels the wireless exchange of robust data in those channels becomes even more impractical.

Building a new nationwide Public Safety Wireless Broadband Network promises to bring commercial technologies to the public safety community, to bring them much needed wireless data services, and to provide Voice over Internet Protocol (VoIP) voice services that can backup traditional public safety mission critical voice services. Those who are visionary believe that in 15-20 years technology will advance to a point where such a network may begin to provide public safety grade communications that will replace traditional land mobile systems.

A Critical Step Forward

On February 8, 2006, the President signed the Deficit Reduction Act of 2005. That act requires TV Broadcasters to vacate these channels no later than **February 17, 2009**.

700 MHz (TV Channels 60-69)



Public Safety-TV Channels 63,64,68,69

- The law required 700 MHz Spectrum be auctioned by January 2008. The proceeds from the estimated \$10 billion raised from the auction was allocated by Congress for various purposes

Purpose	Amount
Treasury general fund (deficit reduction)	\$ 7,363,000,000
PS Interoperability Communications	\$ 1,000,000,000
Digital to Analog Converter Box program	\$ 1,500,000,000
NYC 9/11 Digital Transition	\$ 30,000,000
Low Power TV & Translator Digital-to-Analog Conversion	\$ 10,000,000
Low Power TV & Translator Upgrade Program	\$ 65,000,000
National Alert and Tsunami Warning Program	\$ 156,000,000
Enhance 911 Program	\$ 43,500,000
Essential Air Service Program	\$ 30,000,000
Grand Total	\$ 10,197,500,000

- During 2006 the public safety community rallied behind a proposal to allocate to public safety 30 MHz of spectrum (in the upper 700 MHz Band) that was scheduled to be auctioned. It proposed that a public/private partnership be formed to build a new nationwide shared public safety commercial broadband network
- The proposal proved to be unpopular with the existing commercial companies. The cellular industry lobbied hard against it and the proposal failed to get Congressional or FCC support.

- On December 20, 2006, the FCC issued a Notice of Proposed Rulemaking (NPRM) and said
“We believe that the time may have come for a significant departure from the typical public safety allocation model the Commission has used in the past.”
- On April 25, 2007, after receiving comments, the FCC issued a Further Notice of Proposed Rulemaking
 - ✓ It was a complex proceeding involving both the lower and the upper 700 MHz band to be auctioned as well as several proposed band plans
 - ✓ It included a proposal to create a single National Public Safety License, an idea that was carried forward from the Ninth NPRM



Public Safety Spectrum Trust

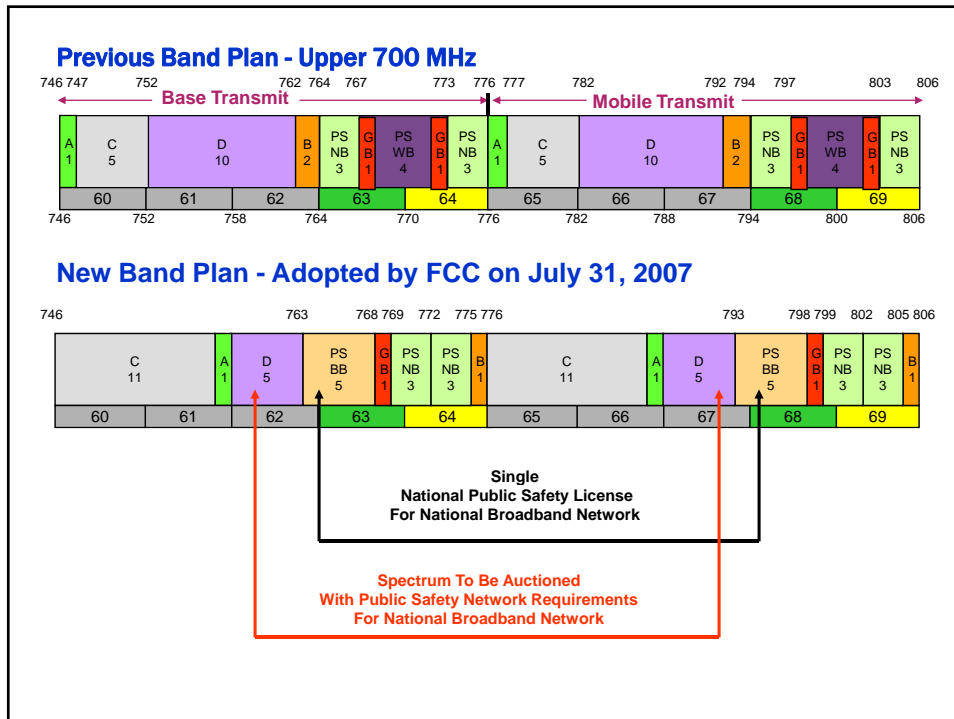
- On June 6, 2007, the Public Safety Spectrum Trust (PSST) was created in the District of Columbia as a not-for-profit Corporation
 - ✓ Formed by the Association of Public-Safety Communications Officials-International (APCO), International Association of Chiefs of Police (IACP), International Association of Fire Chiefs (IAFC) and International Municipal Signal Association (IMSA)
- On June 19, 2007, the PSST held its first meeting
 - ✓ Established bylaws and elected initial officers

The Public Safety Spectrum Trust (PSST) is currently governed by a voting board of fifteen members - one representative from each of the following organizations:

1. AASHTO - American Association of State Highway Transportation Officials
2. AHA - American Hospital Association
3. APCO - Association of Public-Safety Communications Officials-International
4. FCCA - Forestry Conservation Communications Association
5. IACP - International Association of Chiefs of Police
6. IAFC - International Association of Fire Chiefs
7. ICMA - International City/County Managers Association
8. IMSA - International Municipal Signal Association
9. NASEMSO - National Assn of State Emergency Medical Services Officials
10. NASNA - National Assn of State 9-1-1 Administrators
11. NEMA - National Emergency Management Association
12. NENA - National Emergency Number Association
13. NFOP - National Fraternal Order of Police
14. NGA - National Governors Association
15. NSA - National Sheriffs' Association

FCC Second Report & Order Adopted July 31, 2007

- Authorized a Public/Private Partnership to build a nationwide shared wireless broadband network (SWBN)
- Authorized the Issuance of a single nationwide license to a Public Safety Broadband Licensee (PSBL)
- Authorized public safety access to 10 MHz of contiguous commercial spectrum (D Block)
- Provided for a Network Sharing Agreement
- Authorized combined the public safety and D Block spectrum assets to form a shared network
- Required the D Block licensee to build the network to public safety specifications



Public Safety Expectations

- A Public/Private Partnership that will facilitate building a nationwide shared wireless broadband network (SWBN)
- Commercial investment to build out and maintain the infrastructure
- Network reliability & security greater than currently provided by commercial carriers
- Public Safety access to latest commercial technologies
- Priority access for public safety
- Coverage greater than currently provided by commercial carriers
- A satellite component that will provide coverage when terrestrial service is disrupted or not available



Public Safety Spectrum Trust

- On October 10, 2007, the PSST submitted its application to the FCC requesting it be named the Public Safety Broadband Licensee (PSBL)
- On November 2, 2007, the newly constituted Board of Directors of the Public Safety Spectrum Trust met in Washington, DC.
The Board elected officers for a two year term:
Harlin McEwen, IACP, Chairman
Kevin McGinnis, NASEMSO, Vice-Chairman
Alan Caldwell, IAFC, Secretary-Treasurer
- On November 19, 2007, the FCC named the PSST as the nationwide Public Safety Broadband Licensee (PSBL)

January 24 – March 18, 2008

700 MHz Auction #73

Auction raised almost \$20 Billion

Only one bid for the D Block spectrum

Did not meet the minimum bid requirement of \$1.33 Billion

September 25, 2008

FCC Voted Unanimously to approve Third Further Notice of Proposed Rulemaking (3rd FNPRM)

October 3, 2008

3rd FNPRM Published in Federal Register

November 3, 2008 [30 days after publication]

Comments Due

November 12, 2008 [10 days after comments]

Reply Comments Due

December 2008 (?)

FCC Third Report and Order

April-June 2009 (?)

D Block Auction

[FCC Third Further Notice of Proposed Rulemaking](#)

Auction Issues

1. Simultaneous D Block Auction (only one option will win)
 - a. Single Nationwide License
(Technology to be determined by winner)
 - b. 58 Regional Licenses – LTE Technology
 - c. 58 Regional Licenses – WiMax Technology
2. 58 Regions based on 700 MHz Regional Planning Areas plus Gulf of Mexico, Guam & Northern Mariana Islands, and American Samoa
3. Winning scenario will be based on coverage first, revenue second
4. If there is no interest in nationwide license, 50% of the regional licenses must be sold for a successful auction

FCC Third Further Notice of Proposed Rulemaking

Auction Issues (Continued)

5. Roaming would be mandated under a regional structure to ensure interoperability
6. Proposed \$750 M nationwide minimum would supposedly be broken down by regions to equal the nationwide minimum. Once 50% of the nationwide minimum (\$375 M) or 50% of population threshold is reached, the pricing of the unsold licenses will continue to drop until sold

Proposed D Block License Regions

(700 MHz Regional Planning Areas)

