NPSTC
National Public Safety Telecommunications Council

The Collective Voice of Public Safety Communications

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 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

68 Inverness Lane East, Suite 204
Englewood, CO 80112-5108
PH: 303-649-1843
FAX: 303-649-1844
Toll free: 1-866-807-4755
www.NPSTC.org
NPSTC@highlands-group.com

NPSTC FACT SHEET

On the FCC's Third Memorandum Opinion and Order (3rd MO&O), Third Further Notice of Proposed Rule Making and Order (3rd FNPRM) issued December 23, 2004

The long road to achieve spectrum efficiency

The Commission began to address the more efficient use of spectrum in 1992 in what was termed "refarming". In 1995 rules were adopted to promote more advanced technologies aimed at improving spectrum efficient operation[1]. Since 1997 equipment operating on 25 kHz channels could only be authorized if the capability to operate on 12.5 kHz channels was available in the same device. To go a step further, the Commission desired that equipment made after January 1, 2005 would be subject to the same requirements but be capable of 6.25 kHz operation.

On February 23, 2003 a Second Report and Order and Second Further Notice of Proposed Rule Making was issued. The Commission deemed that the rules stemming from the February proceeding lacked incentives to induce spectrum efficient use of bands below 800 MHz. The 2nd R&O prohibited applications for use of 25 kHz channels, prohibited modifications to applications to expand the authorized contour of an existing station if the bandwidth for transmissions was greater than 12.5 kHz, prohibited certification of any equipment capable of operating at one voice path per 25 kHz channel, prohibited manufacture and importation of 150-174 MHz and 421-512 MHz band equipment that can be operated on 25 kHz bandwidths, and imposed deadlines of January 1, 2013 for licensees in the Industrial/Business Radio Pool and January 1, 2018 for Public Safety Radio Pool licensees for migration to 12.5 kHz operation.

In 2003, the Commission received an avalanche of petitions for reconsideration on the migration to spectrum efficient technologies. Twenty one petitions for reconsideration were filed on WT 99-87 (In the matter of Implementation of Sections 309(j) and 337 of the Communications Act of 1934, as Amended (AND) Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequencies.) On December 3, 2003 the Commission issued a "stay" which delays the implementation WT 99-87 pending the resolution of the numerous petitions for reconsideration.

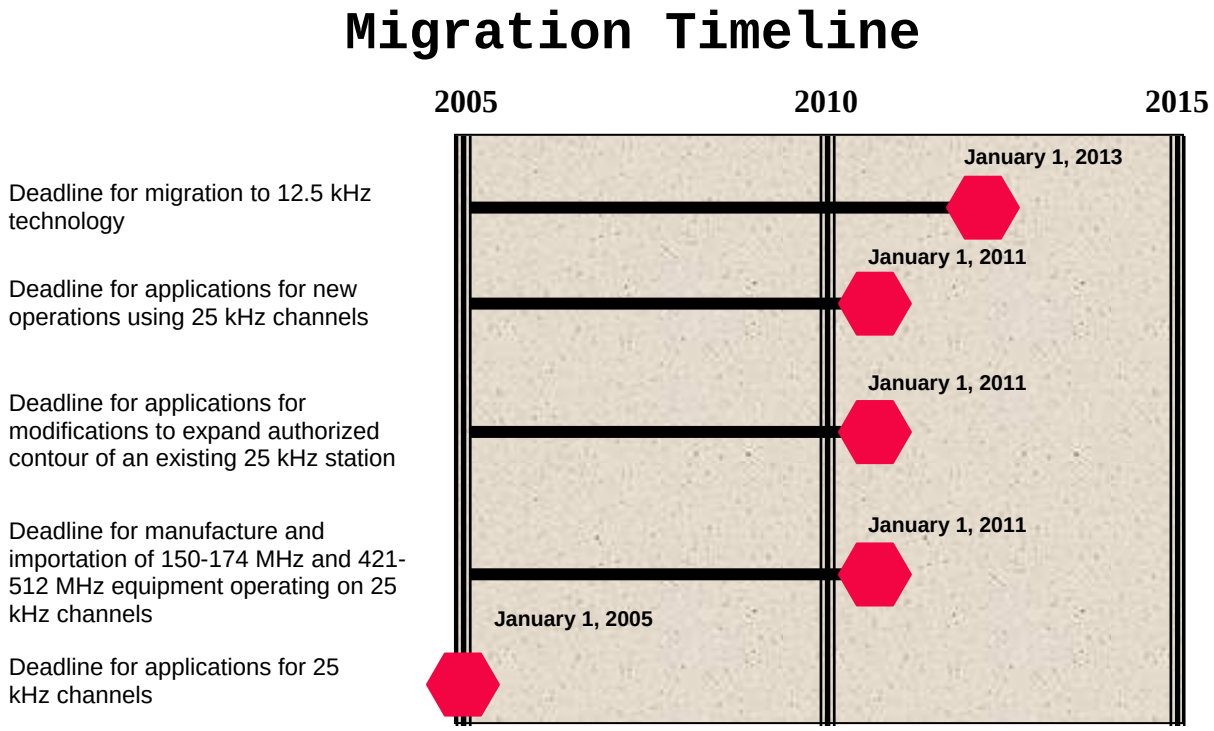
The December 2004 Rule Making

On December 23rd 2004 the Federal Communications Commission issued an order which takes steps to codify a date certain migration to 12.5 kHz "narrowband" technology. The Third Memorandum Opinion and Order (3rd MO&O), Third Further Notice of Proposed Rule Making and Order (3rd FNPRM) marks the next chapter in the ongoing process aimed at addressing an ever increasing spectrum shortage. The order covers both the Industrial/Business Radio and Public Safety Pools. Paging systems were ruled to be exempt from the migration to 12.5 kHz channels.

In the 3rd FNPRM, the Commission seeks comment on the assumption that the current rule would place onerous burdens on manufacturers and jeopardize the promotion of interoperability between users in the absence of a 6.25 kHz equivalent efficiency standard. The Commission also seeks comment on whether the question hinges on a distinction between equipment-based technologies that are specifically manufactured to utilize 6.25 kHz channel bandwidth as opposed to reconfigured 12.5 kHz equipment or software-defined 12.5 kHz equipment made capable of operating on channel bandwidths with an equivalent efficiency of 6.25 kHz. In the

[1] *Report and Order and Further Notice of Proposed Rulemaking*, PR Docket No. 92-235, 10 FCC Rcd 10076, 10077 ¶ 1 (1995) ("*Refarming Report and Order*").

absence of a single, equipment-based 6.25 kHz technology standard, the Commission asks if the deployment of non-standardized equipment capable of utilizing 6.25 kHz equivalent efficiency channel bandwidths would significantly hamper interoperability, as the Petition to Defer contends. The Commission seeks comment on these issues and any other related issues[2].



Details of the Plan

Deadlines for migration

For licensees in the Industrial/Business Radio Pool operating in the 150-174 MHz and 421-512 MHz bands

- January 1, 2013 deadline for migration to 12.5 kHz technology, or
- A technology that achieves the narrowband equivalent of one channel per 12.5 kHz of channel bandwidth (voice) or 4800 bits per second per 6.25 kHz (data) if the bandwidth for transmissions specified in the modification application is greater than 12.5 kHz.

For Public Safety Radio Pool licensees operating PLMR services in the same bands,

- January 1, 2013 deadline for migration to 12.5 kHz technology, or
- A technology that achieves the narrowband equivalent of one channel per 12.5 kHz of channel bandwidth (voice) or 4800 bits per second per 6.25 kHz (data) if the bandwidth for transmissions specified in the modification application is greater than 12.5 kHz.

Interim Dates

[2] FCC's Third Memorandum Opinion and Order (3rd MO&O), Third Further Notice of Proposed Rule Making and Order (3rd FNPRM) issued December 23, 2004, Paragraph 40.

Interim dates have been revised from the *Second Report and Order* as follows:

New operations

- Applications for new operations using 25 kHz channels will be accepted until January 1, 2011.
- After January 1, 2011, applications for new operations using a bandwidth greater than 12.5 kHz will be accepted only to the extent that the equipment meets the spectrum efficiency standard of one channel per 12.5 kHz of channel bandwidth (voice) or 4800 bits per second per 6.25 kHz (data).

Modifications of operations

- Applications for modification of operations that expand the authorized contour of an existing station using 25 kHz channels will be accepted until January 1, 2011.
- After January 1, 2011, applications for modification of operations that expand the authorized contour of an existing station will be accepted only to the extent that the equipment meets the spectrum efficiency standard of one channel per 12.5 kHz of channel bandwidth (voice) or 4800 bits per second per 6.25 kHz (data) if the bandwidth for transmissions specified in the modification application is greater than 12.5 kHz.

Manufacture and importation

- Manufacture and importation of any 150-174 MHz and 421-512 MHz band equipment operating on a channel bandwidth up to 25 kHz will be permitted until January 1, 2011.
- After January 1, 2011, manufacture and importation of any 150-174 MHz and 421-512 MHz band equipment operating on a channel bandwidth greater than 12.5 kHz will be accepted only to the extent that the equipment meets the spectrum efficiency standard of one channel per 12.5 kHz of channel bandwidth (voice) or 4800 bits per second per 6.25 kHz (data).

Rules revised to permit applications for certification of equipment

- Rules revised to permit applications for certification of equipment received on or after January 1, 2005 operating with a 25 kHz bandwidth, to the extent that the equipment meets the spectrum efficiency standard of one channel per 6.25 kHz of channel bandwidth (voice) or 4800 bits per second per 6.25 kHz (data).
- However, FCC issues a stay on the January 1, 2005 deadline with respect to certification of equipment in the *Order*, pending resolution of the issues raised in the *Third Further Notice.*

Paging-only frequencies exempt from migration

- We revise our Rules to exempt Part 90 paging-only frequencies from the narrowbanding requirements.

Operations in federal government bands

- ET Docket No. 04-243 – is addressing whether different narrowbanding requirements for licensees operating in are needed to account for the Federal Government's own narrowbanding plans in the 150.05-150.8 MHz, 162.0125-173.2 MHz, and 173.4-174 MHz bands.
- Decisions adopt within this Order are subject to further modification with respect to those bands and defer decisions with respect to those bands where appropriate.

Source: FCC 04-292, Third Memorandum Opinion and Order (3rd MO&O), Third Further Notice of Proposed Rule Making and Order (3rd FNPRM) issued December 23, 2004

About NPSTC

Formed on May 1, 1997, NPSTC is a federation of associations representing public safety telecommunications. NPSTC was originally formed to encourage and facilitate implementation of the findings and recommendations of the Public Safety Wireless Advisory Committee (PSWAC), established in 1994 by the Federal Communications Commission (FCC) and National Telecommunications and Information Administration (NTIA) to evaluate the wireless communications needs of local, tribal, State, and Federal public safety agencies through the year 2010, identify problems, and recommend possible solutions.

NPSTC has since taken on additional responsibilities including implementing the recommendations of the National Coordination Committee (NCC) and the support and development of the Computer Assisted Pre-coordination and Resource Database System (CAPRAD) for 700 MHz spectrum to assist the Regional Planning Committees (RPCs). NPSTC develops and makes recommendations to appropriate governmental bodies regarding public safety communications issues and policies that promote greater interoperability and cooperation between Federal, State and local agencies. Issues include: 4.9 GHz rebanding, Software Defined Radio (SDR), US/Canadian/DTV Transition, Project MESA, Spectrum Resources, Amateur Radio (ARRL), 800 MHz, State Interoperability Executive Committees (SIECs) Broadband, and the International Telecommunications Union.