

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of:)	
)	
Implementation of Sections 309(j) and 337)	WT Docket No. 99-87
of the Communications Act of 1934 as)	
Amended)	
)	

**THE NATIONAL PUBLIC SAFETY TELECOMMUNICATIONS COUNCIL
PETITION FOR STAY OF INTERIM NARROWBAND IMPLEMENTATION DATES
OF SECTION 90.209(b)(6), 90.203(j)(4) and (5), and 90.203(j)(10)**

The National Public Safety Telecommunications Council (NPSTC) fully supports the Commission's established January 1, 2013 deadline by which existing Part 90 licensees operating in the VHF and UHF bands must convert to technologies that meet a spectrum efficiency standard of one voice channel per 12.5 kHz of channel bandwidth and does not petition for any delay of this overall deadline. However, NPSTC believes certain interim deadlines effective January 1, 2011 will hamper public safety interoperability during the final two years of the transition and will unnecessarily raise costs for public safety users. Therefore, NPSTC respectfully requests that the Commission expeditiously issue a Stay of certain interim deadlines as discussed herein.

The National Public Safety Telecommunications Council

The National Public Safety Telecommunications Council (NPSTC) is a federation of public safety organizations whose mission is to improve public safety communications and interoperability through collaborative leadership. NPSTC pursues the role of resource and advocate for public safety organizations in the United States on matters relating to public safety telecommunications. NPSTC has promoted implementation of the Public Safety Wireless Advisory Committee (PSWAC) and the 700 MHz Public Safety National Coordination Committee (NCC) recommendations. NPSTC explores technologies and public policy involving public safety telecommunications, analyzes the ramifications of particular issues and submits comments to governmental bodies with the objective of furthering public safety telecommunications worldwide. NPSTC serves as a standing forum for the exchange of ideas and information for effective public safety telecommunications.

The following 15 organizations participate in NPSTC:

American Association of State Highway and Transportation Officials
American Radio Relay League
Association of Fish and Wildlife Agencies
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 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

Several federal agencies are liaison members of NPSTC. These include the Department of Homeland Security (the Federal Emergency Management Agency, the Office of Emergency Communications, the Office of Interoperability and Compatibility, and the SAFECOM Program); Department of Commerce (National Telecommunications and Information Administration); Department of the Interior; and the Department of Justice (National Institute of Justice, CommTech Program). NPSTC has liaison relationships with associate members, the Telecommunications Industry Association and the Canadian Interoperability Technology Interest Group.

REQUESTS FOR STAY

NPSTC has represented public safety's collective interest throughout the Commission's narrowband proceedings for the 150.8-162.0125 MHz, 173.2-173.4 MHz and 421-512 MHz bands to help ensure a smooth and cost efficient migration to more spectrally efficient technologies for users of land mobile radio systems. However, based on increasing public safety licensee concerns as noted herein, NPSTC submits this Petition for Stay of the implementation of the January 1, 2011 interim deadlines by which:

- (1) Licensees can no longer apply for new or modification license applications that exceed 12.5 kHz or equivalent efficiency.
- (2) Single-mode and multi-mode transmitters that operate at an efficiency mode exceeding 12.5 kHz can no longer be manufactured in or imported into the United States;
- (3) Manufacturer applications for Part 90 certifications must include a spectrum efficiency standard of one voice path per 6.25 kHz of channel bandwidth.

A stay of the above items (1) and (2) is needed to address user operational requirements during the transition. A stay of item (3) is needed to minimize unnecessary costs as numerous State, County and City governments are dealing with current economic constraints.

With the increasing efforts of NPSTC and our member organizations to build awareness of the Jan. 1, 2011 interim deadlines and Jan. 1, 2013 required use deadline in the VHF and UHF bands, public safety users of land mobile radio systems are asking detailed implementation questions and raising a growing list of concerns. Most of these issues are directly related to the Jan. 1, 2011 deadline, and mainly express user concerns about either interoperability during the two year interim period or costs to purchase equipment with capabilities beyond what users actually must deploy. NPSTC emphasizes that the Commission's stay of these dates does not prevent or deter public safety (or any other LMR) licensee implementation of narrowbanded technology prior to the January 1, 2013 deadline, nor does it prevent manufacturers from voluntarily including 6.25 kHz efficiency in single mode or multi-mode equipment today or in the future.

STAY OF SECTION 90.209(b)(6) and SECTION 90.203(j)(10)

Interoperability is critical for public safety communications, ranging from the ability of all radio users within an agency to communicate, to multiple agencies being able to communicate across jurisdictions and disciplines on both a day-to-day as well as a mutual aid basis. The Commission has long recognized the importance of interoperability, noting for example in the Third Memorandum Opinion and Order of the narrowbanding proceeding that "...it is in the public interest to avoid the difficulties that could be caused to licensees' current and future

operations, especially but not exclusively public safety operations, and in particular efforts to establish public safety interoperability.”¹

A primary concern of public safety users is that interoperability is hampered because of the interim Jan. 1, 2011 date imposed by the Commission in that MO&O. Section 90.203(j)(10) requires that single-mode and multi-mode transmitters designed to operate in the 150-174 MHz and 421-512 MHz bands that operate with a maximum channel bandwidth greater than 12.5 kHz, shall not be manufactured in, or imported into, the United States after January 1, 2011. This lack of availability of dual mode 12.5/25 kHz radios effectively prohibits licensees from replacing or adding any radios to their 25 kHz system between January 1, 2011 and January 1, 2013. As noted in a joint petition of APCO, IAFC/IMSA, IAFC, MCCA, NSA, MCSA and NPSTC, “while base equipment and radio systems have a very long life cycle, portable (and to some extent mobile) radio units do become damaged in the field and may need to be replaced with compatible equipment before the overall system conversion to narrowband operation.”²

Similarly, Section 90.209(b)(6)(ii), which prohibits filing of modification applications for stations in the same bands that increase the station’s authorized interference contour if the station operates in greater than 12.5 kHz or equivalent efficiency channels, effectively prohibits licensees from modifying or expanding their system in that same 2 year period before January 1, 2013. Without the availability of dual mode 12.5/25 kHz radios, interoperability between parts of the same system at different stages of the narrowbanding conversion process is seriously hampered.

¹ Third Memorandum Opinion and Order, ¶22. WT Docket No. 99-87, released December 23, 2004.

² Petition for Reconsideration by APCO, IAFC/IMSA, IAFC, MCCA, NSA, MCSA and NPSTC, page 7-8, WT Docket No. 99-87, dated August 13, 2003.

Depending on the age, manufacturer and dual mode capability of the existing radios and infrastructure system, narrowing their entire system to 12.5 kHz operation may require replacement, reprogramming or retuning of the existing 25 kHz equipment in both of the above scenarios. Just as critical, licensees that decide to change their entire system to operate in 12.5 kHz efficiency lose the ability to interoperate with other entities or agencies with whom they need to communicate, until those other entities/agencies also fully convert their respective systems to 12.5 kHz efficiency. With the current economic conditions, it is economically challenging for agencies to migrate their systems, but public safety is viewing the move to 12.5 kHz as a priority that must be completed by January 1, 2013. Unfortunately, given the need for interoperability within a jurisdiction and mutual aid with neighboring jurisdictions throughout the transition, the Commission's interim requirements have the effect of forcing public safety users to convert systems two years before the already aggressive deadline of January 1, 2013.

The following examples illustrate the practical effect of the interim January 1, 2011 cutoff of availability of dual mode 25/12.5 kHz efficiency equipment and why the Commission needs to issue a Stay of that date to allow continued availability of such dual mode equipment until the end of the transition on January 1, 2013:

1. California has more than 600 law enforcement agencies serving the State, its 58 counties and approximately 480 incorporated cities. Under California's Interoperability scheme, the State holds the licenses for the State and national interoperability frequencies.

California's "original" LE Mutual Aid channel is CLEMARS (154.920 MHz). The State holds 368 different licenses for this channel covering equipment owned and operated by these 600+ state and local agencies. Five of these licenses are MO, currently covering 81,415 mobiles and portables. Coordination of the conversion of these channels to 12.5

kHz efficiency is hand-in-glove with the local entity's efforts to narrowband their operations. With California's daily use of mutual aid between these agencies, the 25 kHz efficiency equipment must remain in place until the last end user is capable of narrowbanding. As a result, equipment purchased after 1/1/2011 must be capable of operating in the 25 kHz efficiency mode as well as the 12.5 kHz efficiency mode.

2. San Diego County operates a total of 12 adult and juvenile detention facilities, ranging from high security operations to low security "honor" camps. Ten of these facilities use UHF (453/458 MHz) frequencies for their internal communications, with the other two facilities operating on a VHF (155 MHz) frequency. These facilities are currently 25 kHz efficiency (20K0F3E) operations on fixed infrastructure that is not capable of 12.5 kHz efficiency (11K2F3E) operation. Because of interference from operations in Mexico, combined with the uncertainty of Mexico's future plans for this spectrum, the County will be moving these facilities to public safety narrowband spectrum in the 700 MHz band, where there is an international agreement protecting a portion of the US public safety allocation in the Border Zone with Mexico. Due to the current economic climate, this conversion will not be complete until mid 2012. As with operations on CLEMARS, any portable equipment purchased after 1/1/2011 must be capable of operating in both the 25 kHz efficiency and the 12.5 kHz efficiency modes.

Section 90.209(b)(6)(i) prohibits filing of new applications if the applicant uses greater than 12.5 kHz or equivalent efficiency channels in these bands. Applicants for new systems do not have incompatibility or interoperability issues within their new 12.5 kHz efficiency system. However, without the capability to purchase dual mode 12.5/25 kHz equipment during the

interim period, new system users will likely encounter interoperability issues with any neighboring agencies with whom they need to communicate that are still operating their systems in whole or in part with 25 kHz efficiency.

As noted by the Commission, the above arguments for not having a 12.5 kHz efficiency interim date have similarly been made in previous filings in this docket in 2003 and 2004, by a joint petition of APCO, IAFC/IMSA, IAFC, MCCA, NSA, MCSA and NPSTC, by API/UTC, AAR, ITA (now EWA) and numerous other petitioners.³ While the Commission has reduced the length of the interim period in the Third Memorandum Opinion and Order to two years, NPSTC and its members are becoming acutely concerned that these interoperability issues are just as true today now that the Jan. 1, 2011 date is rapidly approaching for public safety LMR users in the 150-174 MHz and 421-512 MHz bands. We understand the Commission's concern that licensees need to begin planning and implementing migration to narrowband technology well before Jan. 1, 2013. By and large, that planning is underway, which has shed light on the problems with these interim dates. We urge the Commission to allow individual public safety licensees to develop the timetable that best fits their interoperability requirements both within their entity or agency and with other entities or agencies with whom they need to interoperate to ensure a workable migration plan for achieving 12.5 kHz efficiency by Jan. 1, 2013.

NPSTC notes that the Commission dedicated significant resources to ensure a smooth transition from analog to digital television. This included a general requirement for television broadcasters to operate a dual system of analog and digital broadcasts until the June 12th transition end date. We urge the Commission to enable the land mobile radio community to similarly have a smooth a transition as possible by granting a stay of the January 1, 2011 interim

³ Third Memorandum Opinion and Order, ¶16. WT Docket No. 99-87, released December 23, 2004.

date. A stay of the implementation of the January 1, 2011 interim deadlines to coincide with the January 1, 2013 end of the transition would allow equipment providers the capability to continue to manufacture or import dual mode 12.5/25 kHz transmitters, and allow public safety licensees to file applications for new systems or system modifications and expansions that can operate in dual 12.5/25 kHz efficiencies, thereby helping to enable interoperability with 25 kHz systems throughout the transition period prior to the January 1, 2013 transition end date.

STAY OF SECTION 90.203(j)(4) and (5)

Section 90.203(j)(4) requires applications for Part 90 certification of transmitters designed to operate on frequencies 150.8-162.0125 MHz, 173.2-173.4 MHz and 421-512 MHz bands received on or after January 1, 2011 (except for hand-held transmitters with an output power of two watts or less) to include capability to operate with a 6.25 kHz efficiency mode. Specifically, radios must include either a 6.25 kHz channel bandwidth mode or 12.5 kHz or 25 kHz bandwidths with an equivalent efficiency mode of one voice path per 6.25 kHz of channel bandwidth. In addition, if the equipment is capable of transmitting data, has a transmit output power greater than 500 mW, and has a channel bandwidth greater than 6.25 kHz, the equipment must be capable of supporting a minimum data rate of 4800 bits per second per 6.25 kHz of channel bandwidth.

Per Section 90.203(j)(3), all applications for Part 90 certifications submitted during the last more than 12 years, since February 14, 1997, in these bands required that the equipment must be capable of operating at one voice channel per 12.5 kHz of channel bandwidth. But unlike this 12.5 kHz efficiency certification requirement which can be achieved either by analog or digital radio technology, the 6.25 kHz efficiency certification requirement in Sections

90.203(j)(4) and (5) can only be technically achieved by digital radio technology. This means that equipment manufacturers will not be able to certify any analog only mode radios after Jan. 1, 2011. While analog equipment spans a large range of features and pricing, the current price points of lower tier analog radios will likely not be achievable with radios that must operate in a digital mode, whether all digital or dual mode analog and digital. In addition, mandating 6.25 kHz efficiency capability in any radio, whether low, mid or high tier radios, will mean that public safety licensees will be required to pay for a 6.25 kHz digital mode that they may not want nor are likely to use in the lifetime of that radio. Public safety agencies are increasingly concerned that such 6.25 kHz efficiency capability will likely result in higher prices without perceived additional benefit throughout the equipment life. This cost issue is especially important for current users of analog radios in VHF and UHF bands, including many volunteer fire departments and rural public safety agencies.

Several major manufacturers of LMR equipment, including Harris (previously Tyco), Icom, Kenwood and Motorola, are currently marketing 6.25 kHz channel width and 6.25 kHz equivalent efficiency technologies, mainly to the business and enterprise licensees, and some public safety. But interoperability across multiple public safety agencies using 6.25 kHz efficiency technology requires the completion of the Project 25 Phase 2 standard. Currently, the Phase 2 trunking standard (using 2 slots in 12.5 kHz) is targeted for publication in the second half of 2010. There currently is no Phase 2 standard under development for conventional systems, and the Project 25 User Needs Committee is just starting to actively discuss the options. The conventional standard issue is especially critical in the VHF and UHF bands because the predominant share of public safety systems in those bands is conventional. So the issue for equipment manufacturers is how to provide 6.25 kHz equivalent efficiency capability in their

equipment to be certified less than one and a half years from now before the completion of the Project 25 Phase 2 trunking and conventional standards. Generally, it takes manufacturers 12 to 18 months to develop equipment compliant to a standard once the standard is completed.

Without the Commission granting a stay of the implementation of Section 90.203(j)(4) and 90.203(j)(5), manufacturers will likely be forced to develop two sets of 6.25 kHz efficiency equipment, one set that includes today's 6.25 kHz efficiency technology just to comply with the Commission's January 1, 2011 certification deadline, and then a second set that meets the P25 Phase 2 standards once the trunking and conventional standards are completed.⁴ The economic implications will fall on the end users of the equipment, because they will be purchasing equipment that may be outdated once the Phase 2 standards are completed, and the cost of such re-development will likely be included in the equipment. Given that the status of the Project 25 Phase 2 trunking standard is further along, pre-standardized trunked equipment that can be upgraded by software once the standard is completed will be available from one or more manufacturers. However, since the Project 25 Phase 2 conventional standard is just getting started, such software upgrades for conventional equipment including a 6.25 kHz efficiency mode merely to meet the Commission's interim deadline are far from certain.

In our Comments to the Third Further Notice of Proposed Rulemaking, NPSTC argued that the mandatory date for 6.25 kHz efficiency product certification in the VHF and UHF bands should be five years after a 6.25 kHz interoperability standard has been defined and published by the Telecommunications Industry Association (TIA) and/or the American National Standards

⁴ Comments of the Land Mobile Communications Council, Page 4, WT Docket No. 99-87, dated September 13, 2004.

Institute (ANSI).⁵ Further, as noted in the Third Report and Order, in which the Commission changed the 6.25 kHz efficiency capability date for applications for Part 90 certifications from January 1, 2005 to January 1, 2011, the Land Mobile Communications Council (LMCC) also supported an implementation date of January 1, 2015.⁶ In its Comments four years ago, LMCC argued that a delay of this certification date until January 1, 2015 “would bring the rule into line with the 700 MHz narrowbanding (interim) deadlines and would maximize economies of scale for equipment manufacturers, which ultimately benefits users by keeping equipment costs steady”.⁷

The predicted schedule for the completion of the Phase 2 trunking standard has clearly slipped, and as noted above, is now targeted for publication in the second half of 2010. Additionally, current 700 MHz rules set a deadline of January 1, 2015 when manufacturers must certify, market, manufacture or import only 6.25 kHz or equivalent efficiency equipment or dual mode 6.25 kHz/12.5 kHz efficiency equipment. Therefore, NPSTC urges the Commission to stay the implementation of the January 1, 2011 certification deadline until January 1, 2015. This will bring not only bring the VHF/UHF certification date in line with the 700 MHz date, but is now also more in line with our original recommendation that 6.25 kHz efficiency product certification should be five years after a 6.25 kHz interoperability standard has been defined and published. This is still aggressive, given that the Project 25 Phase 2 conventional standard will be finalized subsequent to the trunking standard. However, NPSTC believes it will provide time

⁵ NPSTC Comments to the Third Further Notice of Proposed Rulemaking, Page 8, WT Docket No. 99-87, dated August 12, 2005.

⁶ Third Report and Order, ¶13 & 15. WT Docket No. 99-87, released March 26, 2007.

⁷ Comments of the Land Mobile Communications Council, Page 5, WT Docket No. 99-87, dated August 15, 2005.

to determine the direction of the conventional standard well before the 6.25 kHz efficiency requirement would apply.

CONCLUSION

NPSTC continues to support the Commission's established January 1, 2013 deadline by which existing Part 90 licensees operating in the 150.8-162.0125 MHz, 173.2-173.4 MHz and 421-512 MHz bands must convert to technologies that meet a spectrum efficiency standard of one voice channel per 12.5 kHz of channel bandwidth. However, because of the operational and economic impact on public safety agencies identified above, NPSTC urges the Commission to adopt this Petition for Stay of the implementation of the January 1, 2011 interim deadlines.

Respectfully submitted,



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