PUBLIC SAFETY PSWN PROGRAM WIRELESS NETWORK

Public Safety Wireless Network

Saving Lives and Property Through Improved Interoperability

August 1, 2003

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, SW
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Washington, DC 20554

Re: Petition for Reconsideration, *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*, **WT Docket No. 99-87, RM-9332.**

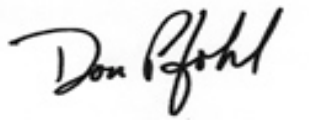
Dear Ms. Dortch:

On behalf of the Public Safety Wireless Network (PSWN) Program and pursuant to Sections 1.429 of the Commission's Rules, 47 C.F.R. § 1.429 (2002), enclosed herewith for filing are an original and eleven (11) copies of the PSWN Program's Petition for Reconsideration in the above-referenced proceeding(s).

Kindly date-stamp and return the additional marked copy of this cover letter and filing to the person delivering it.

Should you require any additional information, please contact the undersigned.

Respectfully submitted**,**



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Before the
Federal Communications Commission
Washington, DC 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	)	
	)	
Promotion of Spectrum Efficient	)	RM-9332
Technologies on Certain Part 90 Frequencies	)	

To: The Commission

PUBLIC SAFETY WIRELESS NETWORK (PSWN) PROGRAM PETITION FOR RECONSIDERATION OF THE SECOND REPORT AND ORDER

Filed by: The Public Safety Wireless Network Program

Date: August 1, 2003

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PUBLIC SAFETY WIRELESS NETWORK (PSWN) PROGRAM PETITION FOR RECONSIDERATION OF THE SECOND REPORT AND ORDER

1. The Public Safety Wireless Network (PSWN) Program[1] Executive Committee (EC) respectfully submits this Petition for Reconsideration of the Second Report and Order (Second R&O), WT Docket No. 99-87,[2] pursuant to § 1.429 (e) of the Federal Communications Commission's (Commission) Rules.[3] The PSWN Program would first like to applaud the Commission for its efforts, through this Rulemaking, to improve the spectral efficiency and communications abilities of public safety agencies. The Commission's Second R&O describes an ambitious schedule for the transition of very high frequency (VHF) and ultra-high frequency (UHF) wideband (i.e., 25 kilohertz [kHz] channel) communications in frequencies below 512 megahertz (MHz) to 12.5 kHz channels. Although public safety users, like all other wireless

[1] The PSWN Program is a federally funded initiative operating on behalf of all local, state, federal, and tribal public safety agencies. The Department of Homeland Security and the Department of Justice are jointly leading the PSWN Program's efforts to plan and foster interoperability among public safety wireless networks. The PSWN Program is a 10–year initiative that is an effort to ensure that no man, woman, or child loses his or her life because public safety officials cannot talk to one another.
[2] *See* Second Report and Order and Second Further Notice of Proposed Rulemaking, 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 WT Docket No. 99-87, RM-9332, rel. February 25, 2003 (*Second R&O and Second FNPRM*).
[3] 47 C.F.R. 1.429 (e).

users that require spectrum to support their operations, will ultimately benefit from more efficient use of spectrum, the immediate result of the Commission's policies will create havoc among many jurisdictions presently using wideband technology.

I. INTRODUCTION

2. The PSWN Program notes its agreement, in principle, with the Commission's promotion of efficient spectral use to take advantage of technological advances. The goal of migrating all communications systems operating under 512 MHz to use a narrowband (12.5 kHz) path by the year 2018[4] is an admirable objective. However, in the pursuit of advancing technical efficiency, the Commission must consider the implications for all user communities, especially those that serve as the last line of protection for both life and property. Certain aspects of the proposed amendments could detrimentally affect public safety communications, especially with regard to interagency interoperability. Furthermore, the PSWN Program also agrees with those parties recommending "that a single transition date should be used for the entire country"[5] to advance the completion of the public safety narrowband migration to 2013.

II. BACKGROUND

3. The Commission's First R&O and Further Notice of Proposed Rulemaking (FNPRM)[6] addressed a petition for rulemaking offered by the American Mobile Telecommunications Association that proposed placing a requirement on non-public safety licensees "to either deploy

[4] *Id.* at paras. 2, 19.
[5] *Id.* at para. 15.
[6] *See* In the Matter of Implementation of Sections 309 (j) and 337 of the Communications Act of 1934 as Amended, Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequencies; Establishment of Public Service Radio Pool in the Private Mobile Frequencies Below 800 MHz; Petition for Rule Making of the American Mobile Telecommunications Association (*AMTA*), R&O and FNPRM, WT Docket No. 99-87, RM-9332, RM-9405, RM-9705, 15 FCC Rcd 22709 (1999).

technology that achieves the equivalent of two times the capacity of current operations, *i.e.,* one voice path per 12.5 kilohertz of spectrum using a 25 kilohertz frequency, or accept secondary status."[7] The Commission now seeks to extend the efficiency requirement to *all* services, including public safety licensees, operating in the "refarming" bands (*i.e.*, 150–174 MHz and 421–512 MHz).[8]

4. The PSWN Program notes that since establishing this docket, the Commission has already received 26 Petitions for Reconsideration, with submissions from a diverse group of interests including the Association of Public-Safety Communications Officials–International, Inc. (APCO), the State of Florida State Technology Office, and the American Automobile Association (AAA).[9] Many of these petitions turned on questions of the Commission's authority to delegate certain functions to private band managers, its auction policies, and interpretations of congressional intent. The current rulemaking has far broader and perhaps less obvious repercussions that could substantially limit the ability of public safety, homeland security, and supporting agencies to effectively perform their duties.

III. STATEMENT OF INTEREST

5. The PSWN Program has observed, with approval, the Commission's ongoing efforts to promote greater efficiency for several years. As an organization dedicated to the mission of saving lives and property through improved interoperability, the PSWN Program has contributed

[7] *See* Second R&O at para. 5, citing the *AMTA Petition for Rulemaking*, July 30, 1999, at para. 16. *Id.*
[8] *Id.* at para. 13.
[9] *See APCO Petition for Partial Reconsideration*, In the Matter of Implementation of Sections 309 (j) and 337 of the Communications Act of 1934 as Amended, Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequencies, Establishment of Public Service Radio Pool in the Private Mobile Frequencies Below 800 MHz WT Docket No. 99-87, February 2, 2001; Petition for Reconsideration by the State of Florida, In the Matter of Implementation of Sections 309 (j) and 337 of the Communications Act of 1934 as Amended, Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequencies, WT Docket No. 97-87, March 27, 2003; Petition for Reconsideration or Clarification by the American Automobile Association, In the Matter of Implementation of Sections 309 (j) and 337 of the Communications Act of 1934 as Amended, WT Docket No. 99-87, February 1, 2001.

to many rulemaking dockets and closely followed regulatory developments that could affect the public safety community. The PSWN Program has previously endorsed plans advocating narrowband migration in other dockets[10] and concurs with the Commission that the establishment of a date certain for completion of the migration to 12.5 kHz channels will be necessary to provide uniform compliance with spectral efficiency requirements. However, the PSWN Program cautions that the interim period before that evolution is complete must be approached cautiously and with ample foresight to ensure that critical public safety and homeland security communications are not compromised.

IV. DISCUSSION

A. The Proposed Implementation Schedule Would Render Many Existing Licensees Incapable of Communicating With Other Local, State, and Federal Agencies

6. In the Second R&O, the Commission freely acknowledges that "consideration should be given to the budgetary constraints of state and local government and the associated budgetary planning cycles."[11] The Commission further notes that it has previously "implemented special provisions to account therefor,"[12] citing accommodations made to permit a longer negotiation period for public safety licensees in other proceedings.[13] However, even the 5-year delay in implementing the deadline for public safety licensees to complete the transition in this instance, though well-intended, does not alleviate the problems caused by the lack of backward compatibility and certification for 25 kHz compatible equipment.

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[10] *See*, *e.g.*, Comments to the Fifth Notice of Proposed Rulemaking, In the Matter of the Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Agency Communications Requirements Through the Year 2010, WT Docket No. 96-86, at paras. 4–6, reaffirming the PSWN Program's support of the APCO 21-year migration plan; Response to the Commission's Request for Comments on Spectrum Policy, In the Matter of Spectrum Policy Task Force Seeks Public Comment On Issues Related to the Commission's Spectrum Policies, ET Docket No. 02-135, July 8, 2002, at para. 23.

[11] *See* Second R&O, at para. 17.

[12] *Id.* at para. 19.

[13] *Id.*, citing the Second R&O, In the Matter of Amendment of the Commission's Rules Regarding a Plan for Sharing Costs of Microwave Relocation, WT Docket No. 95-157 12 FCC Rcd 2705, 2712, para. 14 (1997). *Id*. at FN 66.

7. The revised rules would nullify the progress made by Project 25, a standard that was chosen for interoperability among local, state, and tribal public safety communications users in the 700 MHz band,[14] as well as for federal public safety operations and the Department of Defense. More than 10 years of careful planning for a uniform migration strategy that would provide for a gradual transition from the current one voice path per 25 kHz channel to an eventual adoption of a one voice path per 6.25 kHz channel technology would be negated by adoption of these rules changes. Since 1990, the advanced technological development achieved through the cooperative efforts of APCO, the Telecommunications Industry Association (TIA), and the Electronic Industries Alliance (EIA), subsequently approved by the American National Standards Institute (ANSI) and supported by leading land mobile radio manufacturers, including Motorola, M/A-COM, EF Johnson Co., and General Dynamics, and implemented in 49 countries worldwide,[15] would be lost to the American public safety community.

8. In addition, without the backward compatibility, there would be no market for this technology, and manufacturers will not continue to build it. Manufacturers must continue to make such equipment in order to service existing systems. Once the Commission's prohibitions take effect,[16] these same companies will not be permitted to continue manufacturing wideband equipment, and legacy systems using the 25 kHz bandwidth will fall into disrepair without ready access to replacement parts. Likewise, wideband systems will be unable to communicate with systems that are only compatible with a 12.5 kHz or narrower path, because multimode equipment is no longer available. The Commission's Rules must provide an incentive for equipment manufacturers to continue production and service of deployed systems until all narrowband users have migrated to 12.5 kHz channels. The only way that this will occur is if the Commission permits the sale of backward-compatible equipment to the greatest possible number

[14] *See* Fourth R&O, In the Matter of the Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Agency Communications Requirements Through the Year 2010, WT Docket No. 96-86, January 11, 2001, at paras. 69–72.
[15] *See* http://www.project25.org/pages/members.htm, for specific information regarding the nations that have adopted Project 25 as a standard for communications interoperability.
[16] *See* Second R&O at paras. 2, 26, making the ban on "manufacture and importation of any 25 kHz equipment (including multi-mode equipment that can operate on a 25 kHz bandwidth) beginning January 1, 2008." *Id.*

of users.

9. The PSWN Program supports the Commission's aggressive approach to the scheduling of this transition, but believes the goals of backward compatibility and the expedited nationwide narrowband migration could be easily accomplished through adjustments to the Commission's current migration schedule.[17] Specifically, the PSWN Program suggests that the Commission—

- Allow the certification of any new equipment capable of operating at one voice path per 25 kHz channel until January 1, 2008, instead of January 1, 2005, to permit more time to prepare for the migration while also motivating users toward the early completion of the transition
- Require the impacted public safety licensees to deploy technology that achieves one voice path per 12.5 kHz channel starting January 1, 2013, instead of January 1, 2018, to realistically accelerate the transition
- Prohibit the manufacture and importation of any equipment capable of one voice path per 25 kHz channel after January 1, 2013, instead of January 1, 2008, to allow backward compatibility and the facilitation of interoperability
- Allow use of 25 kHz equipment for modifications that expand the contour of existing wideband stations until January 1, 2013, instead of 6 months after publication of the Second R&O in the *Federal Register*.

B. Multi-Mode Equipment That Can Use a 25 kHz Signal Must Still Be Available to Maintain Working Systems

10. Wireless communications systems are gradually migrating to more efficient technology. While one voice path per 25 kHz of spectrum is typical for many VHF and UHF systems today, two and eventually four conversations will occur on smaller channels within that same amount of

[17] *See* Second R&O at para. 12.

spectrum. It was always accepted that backward compatibility must be available to allow new systems to interact with existing operations as that process occurs. The Commission now concludes that "continued approval of equipment that operates on a 25 kHz bandwidth impedes our goal of encouraging more efficient spectrum use, by encouraging the continued use of 25 kHz equipment with which the new equipment is backward-compatible."[18] The PSWN Program maintains that by limiting manufacturers to building only narrowband equipment, opportunities for system sharing and interoperability between public safety and domestic security agencies at the local, state, and federal government levels will be undercut until the transition to a 12.5 kHz path is completed by *all* users.

11. The Commission distinguishes between non-certification of equipment that is capable of using one voice path per 25 kHz channel, and an outright ban on 25 kHz compatible equipment. The difference in the impact that this will make upon the need to replace equipment to maintain interoperable communications, however, is immaterial. Once the Commission bans the manufacture of equipment capable of transmitting a 25 kHz signal, systems that are deployed will be required to repair or replace defective and worn out equipment with used, refurbished, and rescued spare parts that may or may not serve to adequately restore communications in working networks. The PSWN Program respectfully suggests that the Commission, in focusing on the important policy considerations of narrowbanding discussed above, may not have anticipated the practical effect of this outcome and would not have otherwise allowed the promotion of spectral efficiency to jeopardize the operations of first responders and other public safety agencies, or the lives of citizens that they protect.

C. UHF and VHF Systems Should Be Permitted to Extend Current Coverage Areas Until the Transition to Narrowband Technology is Complete

12. The Second R&O also provides that 6 months after publication in the *Federal Register*, the Commission will amend its Rules so that "Any modification application that expands the

[18] *See* Second R&O at para. 22.

authorized contour will be granted only on the condition that the bandwidth not exceed 12.5 kHz."[19] This will prevent public safety organizations from expanding their systems' coverage area using equipment compatible with one voice path per 25 kHz channels. Many systems already suffer from decreased coverage due to interference, and the impact of buildings, topographical features, and the distance a signal must travel from a base station to remote mobile receivers in police cars and other public safety vehicles. The coverage gaps will only become more profound and service further inhibited if the Commission proceeds as it has described. The net result will be steadily diminishing communication quality for at least 15 years, until all agencies in these bands have completed implementation of narrowband technology. This outcome would be inconceivable even based on longstanding principles of supporting public safety communications as intended by the Congress,[20] let alone in light of emerging homeland security priorities. The PSWN Program further notes that "[t]he U.S. Department of Homeland Security has also stipulated that radios purchased under its grant program should be Project 25 compliant. Additionally, many large states like California have written the standard into legislation."[21]

D. Public Safety Agencies Will Have to Budget Replacement of Existing Technology to Comply With Narrowbanding Requirements

13. Finally, the PSWN Program reminds the Commission of its earlier recognition of financial limitations placed on public safety agencies in requiring them to upgrade currently deployed legacy systems to adopt narrowband technology. Much of the 25 kHz equipment that is operating in most jurisdictions today is adequate to provide coverage and interoperability with

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[19] *Id* at para. 24.

[20] *See*, *e.g.*, Third MO&O and Third R&O, In the Matter of the Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Agency Communications Requirements Through the Year 2010, WT Docket No. 96-86, rel. October 3, 2000, at para. 10, "In 1993, Congress directed the Commission to develop a framework to ensure that public safety communications needs are met through the year 2010." *Id*., at FN 23, citing the Omnibus Budget Reconciliation Act of 1993, Pub. L 103-66. *See also* Second R&O, In the Matter of Service Rules for the 746-764 and776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules, WT Docket No. 99-168, rel. March 9, 2000, at para. 2. "These restrictions will give the fullest effect to the Congressional mandate to ensure that public safety licensees in the 700 MHz band operate free of interference from any new commercial users in that band." *Id.*

[21] *See* Matthew Flanigan, "Closing the communication gap," *The Washington Times*, July 11, 2003.

neighboring jurisdictions and federal entities that use VHF and UHF channels. The Commission is forcing a change in technology before the lifecycle of operable equipment has been fully exhausted, representing a major investment on the part of state and local agencies to rebuild and replace systems that are fully functional, to keep pace with changes in technology.

14. Many jurisdictions with limited resources will have no recourse and will simply be unable to upgrade or even maintain their systems for years to come. These circumstances will leave them dangerously ill-equipped to deal with day-to-day and emergency services until they replace their systems, and until everyone that they are interoperating with now can do the same. These agencies will not be able to receive critical voice or data communications in cases requiring multijurisdictional response. Instead, as was the case before, nationwide efforts were begun by the PSWN Program and others to foster interoperability—they will have to resort to less efficient means of sending and receiving information, such as runners or radio swapping. The affected agencies will once again lose valuable response time to answer a call for assistance when it could mean the difference between preventing loss of life or only being able to participate in an after-action response.

V. CONCLUSION

15. The PSWN Program once again supports the Commission for listening to and reacting positively to the needs of the public safety user community through this rulemaking. However for the foregoing reasons, the PSWN Program asks the Commission to review its planned amendments to its Rules and adopt a compromise solution that will both promote narrowband technology and permit a smooth transition from its current regulatory approach. The PSWN Program will continue to support the Project 25 suite of standards, which will effectively provide

a solution for ensuring that hard-won public safety goals for seamless communications are balanced with spectral efficiency goals in a manner that will never reduce the public safety community's capabilities, only augment them.

Respectfully submitted on behalf of the PSWN Program Executive Committee,

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Before the
Federal Communications Commission
Washington, DC 20554

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	)	
Promotion of Spectrum Efficient	)	RM-9332
Technologies on Certain Part 90 Frequencies	)	

Certificate of Service

I, Richard N. Allen, Senior Associate, Booz Allen Hamilton, 8283 Greensboro Drive, McLean, Virginia, 22102–3838, hereby certify that on this date I caused to be served, by first-class mail, postage prepaid (or by hand where noted) copies of the Public Safety Wireless Network Program's Petition for Reconsideration, *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*, WT Docket No. 99-87, RM-9332, the original of which is filed herewith and upon the parties identified on the attached service list.

DATED at Fair Oaks, Virginia this 1st day of August, 2003.

Richard N. Allen

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