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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Promotion of Spectrum Efficient	)	**RM- 9332**
Technologies on Certain Part 90	)	
Frequencies	)	

TO: The Commission

Joint Comments of the
Industrial Telecommunications Association, Inc.
and the
Taxicab and Livery Communications Council

The Industrial Telecommunications Association, Inc. ("ITA") and the Taxicab and Livery Communications Council ("TLCC"), pursuant to section 1.405 of the Commission's rules[1] and in response to the *Public Notice* released July 31, 1998,[2] hereby respectfully submit these comments to the above captioned petition for rule making.[3]

I. Introduction

1. ITA is a Commission-certified frequency advisory committee, and an advocate of sound telecommunications policy for its membership of over 5,000 industrial, business, and land transportation private wireless licensees. ITA has commented extensively on the Commission's refarming proceeding,[4] and is in constant contact with both wireless equipment manufacturers

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[1] *See* 47 C.F.R. § 1.405.

[2] *Public Notice*, Office of Public Affairs Reference Operations Division Petitions for Rule Making Filed, Report No. 2288, released July 31, 1998.

[3] *Petition for Rule Making Submitted by the American Mobile Telecommunications Association*, In the Matter of Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequencies, RM-9332, filed June 19, 1998 ("Petition").

[4] PR Docket No. 92-235.

and communication service providers to ensure that the transition to spectrally efficient equipment is managed in compliance with applicable regulations and in a manner that benefits private wireless licensee communication requirements. Accordingly, ITA is particularly well qualified to comment on the AMTA petition.

2. While ITA is generally sympathetic to the AMTA petition, because of the extreme congestion on nearly all Part 90 frequency allocations, it is critical that all private wireless licensees and private carrier system operators put their spectrum assignments to the most efficient use possible. That being said, ITA is concerned with both the details of the AMTA petition and the forum in which it was presented.

3. TLCC is a jointly managed market council of the International Taxicab and Livery Association and ITA. TLCC was formed to provide a distinct voice to the unique telecommunications interests of the nations for-hire passenger and land transportation services. Because certain aspects of the AMTA petition may pose a particular threat to incumbent taxicab and livery dispatch systems, TLCC joins ITA in its comments, and offers its own analysis of the potential real world impact of the AMTA proposal on taxicab and livery dispatch systems.

II. The AMTA petition should be limited to, and incorporated within the refarming proceeding.

4. The AMTA petition is ostensibly directed at Part 90 frequency bands between 220 and 896 MHz. However, the petition is expressly limited to the VHF and UHF frequencies subject to the refarming proceeding and to the industrial/land transportation and business frequencies in the 800 MHz band.[5] Because it is inappropriate to consider a forced migration of 800 MHz

[5]Petition at 6-7.

systems at this time, the petition should be addressed within the context of the refarming proceeding rather than as an independent petition for rule making.

5. The transition to narrowband or spectrally efficient equipment in the refarming bands is being managed through type-acceptance requirements placed on manufacturers of radio equipment.[6] To date, no such type acceptance requirements have been similarly established for 800 MHz equipment, and, in fact, an abundance of narrowband 800 MHz equipment for use by private wireless entities is not known to exist. Consequently, we do not believe that it is wise to manage a narrowband transition in the 800 MHz band in the same fashion as the VHF and UHF bands.

6. Because there is not an existing regulatory framework upon which to base a transition at 800 MHz, and because the only other bands included in the petition are subject to the ongoing refarming proceeding, the petition should be addressed within the context of that proceeding. The instigation of an entirely new rule making process to address issues already under consideration would be an inefficient allocation of scarce Commission resources, and would require interested parties to file comments in two essentially identical proceedings.

III. Existing incentives currently foster the transition to spectrum efficiency without the need for regulatory mandates.

7. As stated above, ITA is sympathetic to the ultimate aim of the petition. Increased spectrum efficiency has been the primary subject of the Commission's refarming proceeding, and included within this proceeding has been the debate over whether or not to require a transition

[6]*See* 47 C.F.R. § 90.203(j)(2). Equipment manufactured after February 14, 1997, will only be type accepted if it is capable of operating on 12.5 kHz channels, or with the spectral efficiency equivalent of 12.5 kHz bandwidth if operating on a multi-bandwidth mode.

to narrowband equipment on a date certain.[7] In the refarming *Report and Order*, the Commission declined to mandate a transition to narrowband equipment, reasoning that market based incentives are almost always preferable to regulatory mandates.[8] ITA wholeheartedly agrees with the Commission's viewpoint and reasoning.

8. In its petition AMTA argues that there are insufficient incentives for existing licensees -- particularly in a shared spectrum environment -- to commence a migration to increased spectrum efficiency. "There is **no economic rationale** for an operator to deploy more spectrally efficient equipment when the additional capacity that would be made available by doing so will be available to co-channel licensees who have not made a comparable investment."[9] ITA disagrees.

9. Under the Commission's rules, as modified in the refarming proceeding, co-channel licensees have an **incentive to cooperate** on the deployment of spectrally-efficient systems. Historically, VHF and UHF systems have been available only on a shared basis.[10] Over time, as more and more licensees have been placed on existing spectrum allocations, each available frequency has supported increasing numbers of users. The result has been extreme congestion and decreasing system quality. Prior to refarming, an existing licensee had no recourse if an additional system was licensed co-channel to its system. Now, however, existing co-channel operators can collaborate on the deployment of spectrally-efficient equipment and modify their

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[7]*See Report and Order and Further Notice of Proposed Rule Making*, (FCC 95-255) PR Docket No. 92-235, released June 23, 1995.

[8]*See Id* at ¶¶ 30-41.

[9]Petition at ¶ 5.

[10]*See* 47 C.F.R. § 90.173(a).

licenses to receive protected service areas (PSA) for their frequency assignments, thereby precluding the licensing of additional systems and the attendant system degradation.

10. Under Section 90.187 of the Commission's rules, a licensee may achieve a VHF or UHF channel PSA, if it is employing trunked technology, or spectrally-efficient technology that requires a PSA to operate properly.[11] However, a licensee seeking such an assignment must secure either the consent of all affected co-channel licensees in order to secure a PSA license, or conduct appropriate engineering analyses to ensure that incumbents do not receive harmful interference. ITA believes that the ability to increase spectrum capacity promised by new technologies has and will continue to encourage many private wireless licensees to develop spectrally efficient systems.

11. From ITA's perspective, this is precisely the kind of market-based transition that the Commission contemplated. There is a long history of collaboration among private wireless users, as well, and that trend also continues through the licensing of shared, dispatch-oriented communication systems.

IV. The AMTA proposal may encourage predatory licensing practices.

12. Under the AMTA proposal a licensee employing spectrally efficient equipment would receive primary status over a licensee employing 25 kHz single bandwidth equipment. In the case of a spectrally efficient system receiving primary status over a 25 kHz adjacent channel system, the AMTA proposal has merit. The slight increase in adjacent channel interference may be justified for general spectrum efficiency, and the licensee receiving the interference would be

[11] *See* 47 C.F.R. § 90.187.

further encouraged to migrate to more efficient technology.

13. However, in the case of **co-channel licensees**, the end result is that a licensee employing spectrally efficient technology may be able to force all co-channel licensees off of a shared frequency. In the case outlined above where a private carrier is licensed co-channel with a number of small business or industrial licensees, rather than negotiating for their consent to deploy trunked or advanced technologies or seeking appropriate engineering solutions, the private carrier could simply deploy spectrally efficient technology that is incompatible with shared spectrum protocols. Because the private carrier would be primary to any 25 kHz incumbent, the parties receiving the co-channel interference would have no recourse but to vacate their frequency assignment allowing the private carrier to gain an exclusive authorization on the vacated channel without receiving the consent of the co-channel licensees. And because of the extreme congestion on nearly all of these bands alternative frequencies may not be available for the displaced licensees. These displaced licensees may have no choice other than to buy service from the very entity that displaced them. ITA believes that this undesirable outcome is contrary to the Commission's stated policy objective of fostering fair competition.

V. TLCC is strongly opposed to a grant of primary status to co-channel licensees.

14. While ITA has expressed its general concern regarding the potential for predatory licensing if co-channel licensees can be forced off of their frequency assignments, TLCC believes that taxicab and livery licensees would be placed in particular jeopardy.

15. Prior to the adoption of the refarming *Second Report and Order*, certain taxicab radio service frequencies that were shared with Business radio eligibles were maintained for the

exclusive use of taxicab services in the top urban areas.[12] Because an intermixture of duplex and simplex systems greatly increases the potential for harmful interference, this geographic separation guaranteed that taxicab duplex systems would not be licensed co-channel with business radio simplex systems. Once a simplex system is licensed on a channel it becomes unusable for taxicab duplex applications. ITLA has petitioned the Commission for reconsideration of this decision, but to date no *Memorandum Opinion and Order on Reconsideration* of the *Second Report and Order* has been released.

16. Now, if the Commission were to adopt the AMTA proposal, potentially a licensee could request a channel assigned to a large taxicab operator, deploy a multi-band 25 kHz system and -- because of its primary status -- render the taxicab system inoperable. And while AMTA might argue that a taxicab operator could avoid this outcome by deploying its own spectrally-efficient system, this solution may not be a viable alternative.

17. For example, a large urban taxicab dispatch system typically represents over $500,000 in infrastructure investment and may have substantial recurring maintenance costs. Many systems may not be fully amortized for at least 10 years. Because the Commission declined to enforce a migration to narrowband systems in the *Report and Order* released in 1995, some of these systems may be less than 5 years old. If the Commission were to now revisit its decision not to mandate the migration to spectrum efficiency, these systems may become obsolete long before the expiration of their normal useful life span, consequently, and disrupt business development strategies. Further, the AMTA petition primarily targets major metropolitan areas, the exact

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[12]*See* former 47 C.F.R. §§ 90.75(c)(a), 90.93(c)(1),(2), deleted by *Second Report and Order*, PR Docket No. 92-235 (FCC 97-61), released March 12, 1997.

location of significant taxicab and livery communication system infrastructure investments.

VI. Conclusion

18. The refarming proceeding offers the most immediate prospect of spectrum relief in the heavily congested Part 90 bands, and the transition to spectrum efficiency will be based on individual licensee communication strategies. ITA and TLCC believe that abandoning such market-based incentives for regulatory solutions is premature and urge the Commission to address the AMTA petition within the larger context of the refarming proceeding and to maintain a policy of market-based solutions for spectrum management practices.

Respectfully Submitted,

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W.H. Smythe, IV, Chairman

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