

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

In the Matter of)	
)	
Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended)	WT Docket No. 99-87
)	
Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequencies)	RM-9332
)	

**PETITION FOR RECONSIDERATION
OF THE SECOND REPORT AND ORDER**

Tait North America, Inc. (TAIT), a manufacturer of high-quality telecommunications products, including mobile and portable radio communication systems for the VHF and UHF land mobile services, hereby respectfully submits its Petition for Reconsideration in this proceeding. TAIT requests that the Commission reconsider and modify several portions of the *Second Report and Order*¹ in this proceeding. That Second R&O was published in the Federal Register on July 17, 2003, and therefore this Petition is timely filed pursuant to Section 1.429(d) of the Commission’s Rules. As good cause for its Petition, TAIT states as follows:

1. The Commission’s Second R&O in this proceeding diverges in certain important respects from its June 23, 1995 *Report and Order and Further Notice of Proposed Rule Making* in Docket 92-235 (the “Refarming” Proceeding), in which the Commission relied solely on equipment authorization procedures in order to encourage narrowband conversion in the

¹ Second Report and Order (Second R&O) and Second Further Notice of Proposed Rulemaking (Second FNPM), *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*, FCC 03-34, 68 Fed. Reg. 18054, released February 25, 2003.

crowded VHF and UHF land mobile bands. In that proceeding, among other things, the Commission held that, by January 1, 2005, “new type accepted equipment must be designed to operate on channels of 6.25 kHz or less or on channels up to 25 kHz if the narrowband efficiency standard is met (multi-mode equipment that operates on 25 kHz and/or 12.5 kHz channels will be allowed if it is also capable of operating on 6.25 kHz or narrower channels.” This was implemented in the rules at Section 90.203(j)(4)-(5). Equipment manufactured and sold by TAIT will meet these standards.

2. The Commission adopted a specific rationale for this position in 1995. It stated, at paragraph 37 of the 1995 Report and Order in the Refarming proceeding that:

The discussion regarding channelization has been dominated by concerns regarding time frames for introducing narrowband technology. The comments generally discuss extended schedules, e.g. 26 years in the User Coalition plan. Most of these time frames conservatively favor full amortization of equipment, and assume unnecessarily long lead times for development and marketing of new narrowband technologies. We have decided to adopt a plan that provides a flexible framework within a much shorter period of time by which market based incentives can be introduced into these private wireless bands. In contrast to many comments and the User Coalition plan, we have decided not to implement a comprehensive set of dates mandating strict manufacturing and licensing requirements. Rather, we conclude that the best approach is to specify type acceptance dates to guide the transition process. Recognizing that there is over \$25 billion in equipment investment in these PLMR bands, we will provide users immediate flexibility in equipment decisions and provide a period for the development of new technologies. This transition plan provides users the option of continuing to use existing equipment, transitioning immediately to more efficient narrowband equipment, or waiting until a full line of affordable narrowband equipment is available and costs become competitive, before changing out their systems. This, this plan allows each licensee the freedom to choose equipment and a transition schedule that best fulfills their needs while balancing technical capabilities and financial considerations...

This rationale was reasonable at the time it was adopted, and, TAIT would argue, is reasonable now. There has not been sufficient time to permit this market-based, flexible approach to narrowband implementation to take full effect, and it is suggested that the Second R&O in the

instant proceeding, which essentially abandons the flexible approach in favor of a “command and control” approach is unreasonable, and premature.

3. The Second R&O in this proceeding does the following:

- It prohibits any applications for new facilities using 25 kHz channels, beginning January 17, 2004;
- It prohibits any modification applications that expand the authorized contour of an existing station if the bandwidth specified in the modification application is greater than 12.5 kHz, again beginning January 17, 2004;
- It prohibits the certification of equipment capable of operating at one voice path per 25 kHz of spectrum, i.e., equipment that includes a 25 kHz mode, beginning January 1, 2005;
- It prohibits the manufacture and importation of any 150-174 MHz and 421-512 MHz band equipment that can operate on a 25 kHz bandwidth beginning January 1, 2008;
- It imposes deadlines for migration to 12.5 kHz technology for PLMRS systems operating in the 150-174 MHz and 421-512 MHz bands. The deadlines are January 1, 2013 for non-public safety systems and January 1, 2018 for public safety systems.

Of these requirements, which TAIT urges are in the main premature restrictions on licensees and manufacturers of land mobile equipment, TAIT is most concerned about the latter three. TAIT, like many manufacturers, has undertaken the investment of substantial amounts of time and research and development resources in new technologies. This investment was premised on the Refarming proceeding objective of encouraging narrowband efficiency and in accordance with the regulations established in that proceeding. TAIT would argue that the elimination of certification of equipment that includes a 25 kHz channel bandwidth mode by January 1, 2005, and the prohibition on manufacture and importation of any equipment capable of operation with a 25 kHz channel bandwidth diverges substantially from the entire philosophy of the Refarming proceeding and can actually delay, rather than encourage, narrowband

conversion. For manufacturers facing a currently depressed technology market, the FCC-imposed timeline requires next-generation technology to be available within a short period of time. The abbreviated time frame will not allow such manufacturers to recover investment costs for developing current generation equipment and could impact negatively an already-struggling market.

4. Prohibiting applications for new, 25 kHz channel bandwidth systems, and precluding any modification of legacy 25 kHz channel bandwidth systems almost immediately creates unnecessary burdens on incumbent licensees who simply are not ready for migration to 12.5 kHz bandwidth. They are not ready for budgetary reasons or because of a reasonable desire to amortize the value of existing equipment. The new rules, therefore, will impose burdens on incumbent licensees without achieving the desired commensurate benefit. The current market for competitive telecommunication service for CMRS providers is not a favorable one. Neither can small businesses who are PMRS licensees be reasonably asked in the current economic climate to choose between freezing their communications service areas or convert their entire communications system to a 12.5 kHz system immediately. As to public safety licensees, the budgetary timetables for municipalities and public agencies are far longer than what the Commission has allowed. Their systems, at a time when (1) increased homeland security obligations are being imposed on them, and (2) state and municipal budgets are cut to the bone, cannot be frozen by the Commission. At the very least, incumbent licensees should be permitted to add new facilities and modify existing facilities until a time certain at least ten years hence. The Commission should permit UHF and VHF systems to extend current coverage areas until the transition to narrowband technology is complete. However, the Second R&O provides that by January 17, 2004, the Rules will limit to 12.5 kHz any modification application that expands the

authorized contour of an existing station. Unable to expand coverage area, many systems' quality will succumb to further degradation by interference, impact of buildings, topography, and the distance a signal must travel from a base station to remote mobile receivers. Until narrowband technology is implemented, the result will be steadily diminishing communication quality for many years.

5. There should be no timetable for prohibiting certification of equipment that includes a 25 kHz channel bandwidth mode (provided that the efficiency standards adopted in the Refarming proceeding are met). Incumbent licensee need for replacement equipment for existing wideband systems should not be starved. Interoperability for public safety systems, already a critical issue in homeland security planning, should not be frustrated by the inability of public safety licensees to obtain replacement equipment and systems compatible with existing systems. The Commission's rule effectively freezes all future growth and improvement of systems that depend on interoperability of replacement equipment. If the Commission has specific evidence that the flexible approach to encouraging narrowband conversion is not working in the Public Safety services at VHF and UHF (and TAIT would urge that there is no such specific evidence), then it should specify a date at least ten years hence, whereby narrowband conversion is mandated for all such licensees.

6. The worst part of the Second R&O in this proceeding is the prohibition of importation or manufacture of any 25 kHz channel bandwidth equipment after January 1, 2008. Though the rule would apparently permit the sale of inventory on hand after that date, it would certainly starve current licensees of replacement equipment. It fails to allow a reasonable return on investment for manufacturers, and would saddle struggling CMRS, PMRS and the financially strapped state and local public safety community, with the tremendous burden of either

immediate conversion or suffering deterioration in their communications systems due to the absence of compatible replacement equipment. This adversely impacts both economic health and homeland security. TAIT recommends that the Commission permit backward compatibility by moving the manufacture and importation deadline from January 1, 2008, to at least January 1, 2018.

7. As to the Commission's planned mandatory 12.5 kHz transition deadline, TAIT would urge no deadline be imposed at all, for the reasons above stated. There is simply not sufficient evidence of the failure of the flexible plan adopted in 1995 to encourage narrowband conversion based on marketplace incentives. In any case, the migration to 12.5 kHz technology should be at least ten years hence, as proposed. If any timetable is necessary, TAIT would agree with the position of APCO that all dates should be moved outward to at least 2013. This offers users the flexibility to purchase equipment that best suits their requirements, knowing that they have to be at 12.5 kHz operation by 2013. In the interim, equipment is available and can be purchased which provides dual mode 25/12.5 kHz capability, which can be used to migrate to 12.5 according to a reasonable schedule. TAIT would urge that any conversion date to 12.5 kHz should be the same for private, commercial and public safety licensees in these bands, however. Administering and enforcing two different dates for public safety and non-public safety entities complicates certification and manufacturing and selling into a market. Even with extended deadlines, however, public safety licensees attest to inevitable problems resulting from lack of backward compatibility and certification for 25 kHz-compatible equipment.

8. TAIT would urge that the Commission consider the practical problems inherent in the artificial and essentially arbitrary cutoff dates established in the Second R&O. At all times during any transition, wideband equipment must be able to communicate with systems that are

compatible only with a 12.5 kHz or narrower channel bandwidth. There cannot, during the transition, be a lack of multimode equipment. If there is, communications systems will suffer, but there will not be a hastening of the narrowband conversion process due to the inelastic effects of budgets for such conversion. In order to maintain working systems, multi-mode equipment using a 25 kHz channel bandwidth must be available still during the migration period. In other transition periods, the understanding has been (the Commission has assumed) that backward compatibility is necessary to allow new systems to interact with existing operations. However, the Commission now takes the position that by continuing to approve equipment operating on a 25 kHz bandwidth it encourages the continued use of 25 kHz equipment with which the new equipment is backward-compatible and prevents efficient use of spectrum. If the FCC limits manufacturers to building only narrowband equipment, then it is undercutting opportunities for system sharing and interoperability until *all* users complete the transition to a 12.5 kHz path. A regulatory scheme which is premised on a gradual transition cannot work if the equipment used during the transition is made unavailable. The situation is akin to providing lifeboats for passengers on a sinking ship, and then telling them that the lifeboats can only be used halfway to shore, after which they must swim the rest of the way. The better solution is to either allow the gradual transition to occur based on the flexible mechanism adopted in 1995, or create a fixed conversion deadline for all licensees at a time sufficiently far in the future to permit fair and equitable amortization of investment for both licensees and manufacturers.

9. TAIT is certainly not adverse to the Commission's goal of achieving spectrum efficiency in the overcrowded VHF and UHF land mobile bands. It applauds the Commission's interest in achieving a rapid means of encouraging and implementing narrowband conversion. TAIT is not necessarily opposed to establishing a specific date for completing migration to 12.5

kHz channels. It is useful, however, to establish uniformly acceptable means of achieving this goal. TAIT suggests that the interim period should not be overregulated. Caution and foresight must be used in light of increased demands on commercial, private and public safety licensees due to homeland security and economic considerations. The various “command and control” regulations in the Second R&O to preclude certification of any equipment capable of operating at one voice path per 25 kHz of spectrum, including 12.5 kHz capable equipment that provides for a 25 kHz mode, beginning January 1, 2005, and the prohibition on importation and marketing of such equipment after January 1, 2008 impedes interoperability, threatens homeland security efforts and economic recovery, and will not hasten narrowband conversion.

10. In order to implement a successful transition without imposing security and economic risks, the Commission should provide in its Rules an incentive for manufacturers to continue producing and servicing deployed systems until all narrowband users have migrated to 12.5 kHz channels. The way to offer such an incentive is for the Commission to permit the sale of backward-compatible equipment to the greatest possible number of users. This takes into account the life span of equipment and avoids imposing excessive burdens on licensees.

Therefore, the foregoing considered, TAIT North America, Inc. respectfully requests that the Commission reconsider and revise the rules adopted in this proceeding to date, in accordance with the recommendations contained herein.

Respectfully submitted,

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