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

In the Matter of	)	
	)	
Amendment of Part 90 of the Commission's Rules to Permit Terrestrial Trunked Radio (TETRA) Technology	)	WT Docket No. 11-69
	)	
Request by the TETRA Association for Waiver of Sections 90.209, 90.210 and 2.1043 of the Commission's Rules	)	ET Docket No. 09-234

To: The Commission

COMMENTS OF 4765 OAK HILL PARTNERSHIP

I. INTRODUCTION

4765 Oak Hill Partnership hereby submits comments to the Federal Communications Commission (Commission) in the above-captioned proceeding.[1] The Partnership appreciates the opportunity to provide unbiased comments on the issues raised by the Commission in the TETRA NPRM.

For more than 10 years the Partnership has observed the decision making process of the current and former Commissions as they tried to determine what was in the "public interest" during rulemaking proceedings conducted pursuant to the Administrative Procedure Act. As a

[1] In the Matter of Amendment of Part 90 of the Commission's Rules to Permit Terrestrial Trunked Radio (TETRA) Technology, Request by the TETRA Association for Waiver of Sections 90.209, 90.210 and 2.1043 of the Commission's Rules, *Notice of Proposed Rulemaking and Order*, ET Docket No. 09-234, WT Docket No. 11-69, FCC 11-63 (rel. Apr. 26, 2011) (TETRA NPRM).

result of these observations, the Partnership believes Commission proceedings may be more concerned with "political correctness" than what is truly in the "public interest."

The Partnership hopes the comments herein help the Commission reverse this "political correctness" trend and return to a path of making decisions and crafting rules that are truly in the "public interest" regardless of what the political ramifications might be.

II. TECHNOLOGY NEUTRALITY

The FCC long established policy of technology neutrality will guide the Commission to adopt appropriate, legally defensible, rules accommodating the introduction of TETRA technology into the land mobile radio bands under Commission jurisdiction. The concept of technology neutrality is particularly useful when adopting rules that will be appropriate for application across the broad array of land mobile radio technologies, including TETRA, while also assuring that such rules do not inadvertently erect any barriers impeding the introduction of any given technology.

III. MECHANICS OF INTERFERENCE

Interference experienced by land mobile radio is not simply the result of equipment failing to meet "out of band emission" (OOBE) limits. As the Commission painfully learned in the "800 MHz Reconfiguration" proceeding[2], unacceptable interference is experienced even in the absence of equipment failing to meet OOBE limits, when high power, high elevation, LMR-like

[2] Improving Public Safety Communications in the 800 MHz Band, WT Docket No. 02-55 (Hereinafter "800 MHz Reconfiguration" *or* "Reconfiguration")

and low power, low elevation, cellular-like architectures are intermingled in the same spectrum bands.

The initial TETRA Association request for waiver did not identify the problem associated with interference resulting when high power, high elevation, LMR-like and low power, low elevation, cellular-like architectures are intermingled in the same spectrum bands, and failed to remind the Commission of the difficulties encountered with "800 MHz Reconfiguration." As a result the Commission did not adequately address the problem of the potential interference created when it granted the limited waiver allowing the implementation of TETRA technologies in the 450-470 MHz B/I spectrum, where the intermingling of high power, high elevation, LMR architectures and TETRA architectures presents a high probability of recreating the interference situation "800 MHz Reconfiguration" is designed to correct. One can argue the fact that neither the TETRA Association nor the Commission properly discussing the full gamut of the interference problem is sufficient grounds for cancellation of the limited waiver granted allowing TETRA technologies in the 450-470MHz and 809-817MHz/854-862MHz segments of the land mobile radio bands.

IV. AUTHORIZED BANDWIDTH & EMISSION MASKS

There are multiple authorized bandwidths allowed in the various land mobile radio bands where TETRA technologies could be deployed.[3] In some bands, e.g. VHF (150-174 MHz) and UHF (450-512 MHz), multiple bandwidths are authorized on interleaved channels with varying channel spacing.

[3] See 47 CFR §90.209 Bandwidth limitations.

As the Commission noted in footnote 26 of the TETRA NPRM when it disagreed with the Motorola assertion ACP was not an effective method of evaluating potential interference, "...ACPR is a widely accepted test parameter for characterizing the interference potential of a device. An identical methodology (adjacent channel power or ACP) is currently utilized in the Commission's Rules in lieu of emission masks to determine interference potential in certain public safety bands."

Addressing the application of an ACP methodology only for utilization in the case of 25 kHz channel bandwidths would violate both the spirit and intent of the Commission's technology neutrality policy. Furthermore, addressing the emission mask considerations only in conjunction with the 20 kHz authorized bandwidth associated with 25 kHz technologies would also violate the spirit and intent of the Commission's technology neutrality policy. If the Commission wants to honor its technology neutrality policy the Commission should consider application of an ACP methodology for utilization/evaluation of the interference capabilities of all technologies for all authorized bandwidths in all land mobile radio bands rather than doing it piecemeal as proposed in the TETRA NPRM. Utilization of an ACP methodology obviates discussion of authorized bandwidths and emission masks, as applicable to one technology only, similar to the discussion and questions outlined in paragraphs 10 & 11 of the TETRA NPRM. In effect, such discussion becomes moot if the Commission honors its technology neutrality policy. The Commission has already adopted an ACP methodology for all authorized bandwidths in the 700 MHz public safety narrowband spectrum, and should seize this opportunity to consider application of an ACP methodology for all equipment with all operating bandwidths in all other land mobile radio bands.

Are the application of the ACP rules outlined in §90.543[4] most appropriate for all equipment operating on various channel sizes in all land mobile radio bands? Would application of the TETRA ACP limits be most appropriate? Would some combination (or differing combinations in different land mobile radio spectrum segments) of the §90.543 limits and the TETRA ACP limits be most appropriate? The commentator is not technically qualified to identify the most appropriate ACP numbers to apply for the differing bandwidths and spectrum bands that could be adopted by the Commission in a "technology neutral" way.

It should also be noted the Commission can adopt ACP limits for all technologies and all land mobile radio bands, and at the same time the Commission can retain the requirements of §§90.209 & 90.210[5] regarding authorized bandwidths and emission masks by providing the adopted ACP limits or the requirements of §§90.209 & 90.210 can be used by equipment certification applicants, license applicants and frequency coordinators as alternative evaluation methodologies.

In any case, it is strongly recommended the Commission issue a Further Notice of Proposed Rulemaking (FNPRM) proposing appropriate ACP limits for the various channel sizes authorized in the Commission land mobile radio bands of 150-174 MHz, 450-512 MHz, 768-776MHz/798-806 MHz, 806-817MHz/851-862MHz and 896-901MHz/935-940MHz. It is also recommended the Commission propose such ACP limits as alternatives to the requirements of §§90.209 & 90.210, allowing equipment certification applicants, license applicants and frequency coordinators to select the best methodology to use in a given situation.

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[4] See 47 CFR §90.543
[5] 47 CFR §§90.209 & 90.210

V. TRUE INTERFERENCE PROTECTION

Adoption of appropriate OOBE limits, be they a combination of the requirements dictated by §§90.209 & 90.210 or an ACP methodology as recommended above, by themselves, are insufficient to prevent the recurrence of the situation that necessitated the Commission adopt the "800 MHz Reconfiguration" program. To adequately prevent the recurrence of the situation that could necessitate the Commission adopt an "800 MHz Reconfiguration-like" program for the remainder of the land mobile radio bands (i.e. 150-174 MHz, 450-512 MHz, 768-776MHz/798-806 MHz, and 896-901MHz/935-940MHz), the Commission must do more than simply address the OOBE phenomena.

Throughout the remainder of the land mobile bands there does not exist at this time a responsible party who could be forced to cover the cost of reconfiguring the remainder of the land mobile radio bands should the rules adopted in this proceeding fail to adequately protect incumbent and future licensees of high power, high elevation, LMR architectures from the type of interference occasioned by the intermingling of high power, high elevation, LMR architectures and low power, low elevation, cellular-like architectures.

Therefore, at this time and as part of this proceeding, the Commission must adopt rules similar to the rules adopted in the "800 MHz Reconfiguration" proceeding, which such rules were intended to prevent a recurrence of the interference problem that could only be resolved by imposing the gargantuan, tremendously expensive, effort known as "800 MHz Reconfiguration." In addition to the significant cost associated with "800 MHz Reconfiguration" it should be noted that despite the intention of the Commission for "800 MHz Reconfiguration" to be completed no

later than June 26, 2008, "800 MHz Reconfiguration" efforts continue to this date and are likely to continue well into 2013/2014.

In the "800 MHz Reconfiguration" proceeding the Commission adopted definitions for Enhanced Specialized Mobile Radio System (ESMR), 800 MHz Cellular System, and 800 MHz High Density Cellular System.[6] In the "800 MHz Reconfiguration" proceeding, the Commission went on to adopt rules segregating the newly defined systems to a specific part of the 800 MHz land mobile radio spectrum and banning such systems from operating in the portion of the 800 MHz land mobile radio spectrum dedicated for use by high power, high elevation, LMR architectures.

To all but eliminate the possibility the rules adopted in this proceeding do not possess the probability of recreating the interference situation that necessitated the implementation of "800 MHz Reconfiguration" the Commission must adopt definitions similar to the definitions adopted for Enhanced Specialized Mobile Radio System (ESMR), 800 MHz Cellular System and 800 MHz High Density Cellular System that will be applicable in all other land mobile radio bands. Furthermore, since the current nature of these other land mobile radio bands does not easily accommodate segregating the appropriately redefined Enhanced Specialized Mobile Radio Systems, Cellular Systems and High Density Cellular Systems, without conducting a similarly gargantuan and expensive reconfiguration of most if not all of these other land mobile radio bands, the Commission must ban the implementation of the redefined Enhanced Specialized Mobile Radio Systems, Cellular Systems and High Density Cellular Systems from all land mobile radio bands except 817-824MHz/862-869MHz.

[6] See 47 CFR § 90.7

VI. INTEROPERABILITY

Introduction of TETRA technology, by itself, into the land mobile radio bands does nothing to improve interoperability or to detract from interoperability, any more or less than the introduction of any technology solution into any of the land mobile radio bands.

The Commission's technology neutrality policy demands that no additional interoperability requirement (and for that matter any requirement) be imposed on a technology that is not equally applicable to all other technologies. Any mandate applicable to one technology, but not applicable across the broad array of suitable land mobile radio technologies would be subject to judicial attack and likely annulment.

During the pendency of this proceeding the Commission must emphasize that all relevant technical requirements of the existing rules, including but not limited to the centralized trunking rules in the spectrum below 512 MHz[7], remain applicable to all existing and future technology solutions that are deployed in the land mobile radio bands except to the extent such existing rules are either deleted, modified or supplemented by this proceeding; and except to the extent any new rules may be adopted during this proceeding or other proceedings; and finally except to the extent such existing, modified or new rules are waived by future Commission action.

VII. CONCLUSION

If the Commission honors the dictates of its own policy for technology neutrality when formulating rules during the pendency of this proceeding, and if the Commission formulates and adopts rules designed to prevent the recurrence of the interference disaster that necessitated the

[7] See 47 CFR §90.187

Commission adopt an "800 MHz Reconfiguration" program, there is no reason the Commission should erect artificial barriers against the implementation of any technology in the land mobile radio bands of land mobile radio bands of 150-174 MHz, 450-512 MHz, 768-776MHz/798-806 MHz, 806-817MHz/851-862MHz and 896-901MHz/935-940MHz.

WHEREFORE, The 4765 Oak Hill Partnership respectfully requests the Commission consider adoption of rules, and further rulemaking proceedings, as recommended herein.

Respectfully Submitted,

The Partners

4765 Oak Hill Partnership

June 27, 2011