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

In the Matter of	)	
	)	
The Development of Operational,	)	
Technical and Spectrum	)	WT Docket No. 96-86
Requirements For Meeting Federal,	)	
State and Local Public Safety	)	
Communication Requirements	)	
Through the Year 2010	)	
	)	
Establishment of Rules and	)	
Requirements for Priority Access	)	
Service	)	

To the Commission:

Petition for Reconsideration of The North American TETRA Forum

The North American TETRA Forum, pursuant to Section 1.429 of the Rules of the Federal Communications Commission ("Commission"),[1] respectfully submits this Petition for Reconsideration of certain issues decided in the *Fourth Report and Order* in the above referenced proceeding.[2]

I. Introduction and Overview

The North American TETRA Forum ("NATF") is an association created to enhance, discuss and promote the use of TETRA technology in North America. The NATF believes that informed consumers should be the driving force in the

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1 *See* 47 C.F.R. § 1.429.

2 WT Docket No. 96-86, *Fourth Report and Order and Fifth Notice of Proposed Rulemaking* (FCC 01-10) (rel. Jan. 17, 2001), 66 Fed. Reg. 10632 (rel. Feb. 16, 2001) ("*Order*").

development and deployment of digital land mobile radio technologies. The founding members of the NATF include Marconi Communications, Nokia, Rohde & Schwarz, and Simoco. Additional manufacturing members include Com-Net Ericsson and Kenwood.[3]

The NATF has consistently supported the Commission's three express goals for this proceeding: nationwide interoperability, increased spectrum efficiency, and the development of competitive markets for public safety radio equipment.[4] Unfortunately, the *Order* unjustifiably sacrifices spectrum efficiency and competition in favor of mandating interoperability now, at least five years before it will become a practical necessity. Specifically, by failing to grant a reasonable transition period before interoperability capability becomes mandatory for all 700 MHz equipment, the Commission has effectively barred the introduction of spectrally efficient equipment and left the Public Safety community at the mercy of the sole source provider of APCO Project 25 Phase I infrastructure equipment: Motorola. Indeed, by failing to even address the issue of a transition period, the Commission failed to meet its obligation, under the Administrative Procedure Act, to address all significant issues raised in the record.

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[3] Additional information on the NATF is available online at www.tetraforum.org.

[4] *See* WT Docket 96-86, *Second Notice of Proposed Rule Making*, 12 FCC Rcd. 17,706, at ¶ 5; *First Report and Order*, 14 FCC Rcd. 152, at ¶¶ 5-6.

The NATF urges the Commission to reconsider its decision in the *Order*, and grant all manufacturers of competitive equipment a reasonable transition period before interoperability capability becomes mandatory.

II. The *Order* is Internally Inconsistent and Defeats the Goals of Spectrum Efficiency and Competition.

In the *Order*, the Commission adopted APCO Project 25 Phase I ("Phase I") as the mandatory interoperability standard for the Interoperability Channels,[5] but declined to establish minimum spectrum efficiency standards for the General Use Channels,[6] or to provide a transition period before interoperability capability becomes mandatory. Rather, the Commission affirmed the standard channel bandwidth of 6.25 kHz for all narrowband segments of the 700 MHz band, and indicated that these 6.25 kHz channels could be combined to create 12.5 kHz and 25 kHz channels, provided that a minimum data efficiency rate of 4.8 kbps was achieved.[7] The Commission determined that "this approach would allow the use of various technologies in the General Use portion of the 700 MHz band, thus fostering competition in the public safety equipment marketplace . . . [and that this approach] is not intended to preclude or hinder the development and deployment of 6.25 kHz-based systems prior to December 31, 2005."[8]

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5 *See Order* at ¶ 75.

6 *Id* at ¶ 79.

7 *Id* at ¶¶ 78-79.

8 *Id* at ¶¶ 80-82.

While these express statements indicate a desire on the part of the Commission to encourage the deployment of competing spectrally efficient technologies, the Commission's actions elsewhere in the *Order* effectively defeat this objective. Specifically, the published rules accompanying the *Order* mandate that "all mobile and portable transmitters operating in the [700 MHz band] must be capable of operating on all of the designated nationwide narrowband Interoperability Channels pursuant to the standards specified in this part."[9] The rules then specify the APCO Project 25 Phase I common air interface as the standard for operation on the Interoperability Channels.[10] In short, all radios deployed in the 700 MHz band must include Phase I functionality. As a practical matter these rules operate to effectively "preclude [and] hinder the development and deployment of 6.25 kHz-based systems" in the 700 MHz band.

As explained by NATF and others in the record of this proceeding, manufacturers of TETRA equipment are eager to introduce 6.25 kHz equipment for use in the 700 MHz band.[11] In addition, these commenters endorsed the adoption of Phase I as the interoperability standard.[12] However, manufacturers of 6.25 kHz equipment need a transition period before Phase I capability

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9 *Id* at Appendix C, § 90.547.

10 *Id* at Appendix C, § 90.548.

11 *See* Comments of NATF at 4, Comments of Com-Net Ericsson at 17, Comments of Nokia at 4.

12 *See* Comments of NATF at 6, Comments of Com-Net Ericsson at 13, Comments of Nokia at 6.

becomes mandatory in order to have the time required to develop dual mode handsets.

If the Commission is to foster a competitive market for public safety equipment, it is critical that TETRA manufacturers be granted the transition period necessary to develop dual-mode equipment. Without the introduction of TETRA into the public safety equipment market, Phase I will become the *de facto* standard for the 700 MHz band, and Motorola will retain its market-dominant position, because it is highly unlikely that any other equipment manufacturer will offer Phase I infrastructure equipment.

The Commercial Mobile Radio Service ("CMRS") market is large enough for multiple manufacturers to make the investment necessary to develop and deploy multiple product lines for multiple standards (*e.g.* CDMA, TDMA, GSM, etc.). The public safety market, however, is much smaller and only one company, Motorola, has a large enough market share to justify the investment necessary to design and develop infrastructure product lines that support both Phase I and TETRA.

No existing TETRA manufacturer has the economic presence in the U.S. public safety equipment market to justify expending the significant capital resources necessary to develop a second line of Phase I infrastructure. However, as noted above, many TETRA manufacturers are eager to enter the 700 MHz public safety equipment market by producing dual-mode handsets that provide 12.5 kHz direct-mode Phase I interoperability capability, but operate through TETRA infrastructure achieving 6.25 kHz efficiency when in use on the

General Use Channels. While eager to enter this market, the integration of dual-mode functionality into a competitive product (*i.e.* one with size, battery-life, and cost characteristics comparable to a single-mode 12.5 kHz product) will require additional product development and will not be practicable until 2006 when the next generation of TETRA products will be introduced.

Accordingly, if a transition period is not granted, Motorola, the existing monopoly provider of public safety equipment in the U.S., will be the sole source provider of 700 MHz public safety infrastructure equipment for at least the next five years. Granting the entrenched monopoly provider a five-year head start in pursuit of an already small and captive market will create such market barriers as to make the prospects for any meaningful future competition unrealistic. In addition, not only will the benefits of competition be sacrificed, but 12.5 kHz Phase I will become the *de facto* standard throughout the band, and the opportunity to achieve 6.25 kHz efficiency will be significantly delayed.

Because interoperability will not become a practical necessity until 2006 at the earliest, there is no sound public policy basis for denying such a transition period. In the early stages of the 700 MHz band rollout, interoperability will only become necessary when enough systems are working at 700 MHz to make implementation of interoperability operationally practical. The record in this proceeding highlights the fact that due to high levels of broadcast incumbency and the time required to evaluate, purchase and implement a public safety system, the timeline for widespread deployment of public safety systems in the 700 MHz band, and the attendant need for interoperability, will be at least 6-10

years.[13] Even by the most optimistic estimates, only 5-10% of the public safety users will be using the 700 MHz band by 2006. In addition, many of the metropolitan areas, which have the worst frequency congestion and are in need of the most spectrum relief, are also the areas in which the broadcast incumbency issues will require most time to resolve and most certainly beyond the year 2006. Indeed the Commission recognized these facts in the *Order*, when it determined that 2005 was an appropriate date for revisiting a migration plan for 6.25 kHz interoperability. The Commission found that "this time period would allow for the planning and ***possibly initial construction of some 700 MHz band public safety systems*** (emphasis added)."[14] Based on the Commission's own determination that by 2005, public safety systems in the 700 MHz are likely to be only at the "planning and initial construction stage," the Commission should grant a transition period until 2006 during which public safety users can deploy 6.25 kHz spectrally efficient technology without Phase I interoperability capability.

III. The Commission Failed to Meet Its Obligations Under the Administrative Procedure Act by Failing to Address Significant Issues Raised in the Record.

Under the Administrative Procedure Act ("APA"), as interpreted by the courts, the Commission is required to explain and justify its actions,[15] and

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13 *See e.g.* Comments of Nokia at 10.

14 *Order* at ¶ 77.

15 *See* Petroleum Communications, Inc. v. FCC, 22 F.3d 1164 (D.C. Cir. 1994) (The court reversed the Commission for failing to demonstrate a rational basis for its decision, noting that the Commission gave only a "vexingly terse" explanation for its rationale.)

address all significant issues raised in the record of a rule making proceeding.[16] Because the Commission did not address the significant number of comments in the record regarding the need for a transition period before Phase I capability becomes mandatory, the Commission failed to meet its obligations under the APA to engage in reasoned decision making.

The issue of an appropriate transition period before mandating interoperability was debated extensively in the record.[17] This debate included the submission of data over the speed of the DTV transition and the timing of the availability of 700 MHz spectrum,[18] as well as arguments supporting the immediate need for interoperability.[19] However, the *Order* contains no discussion regarding a transition period whatsoever. Rather than addressing and disposing of the arguments in the record regarding a transition period (both pro and con), the *Order* adopted rules mandating Phase I functionality for all 700 MHz equipment without any discussion. Because the Commission provided no insight

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[16] *See* Bechtel v. FCC, 957 F.2d 1566 (D.C. Cir. 1992), cert. Denied, 113 S. Ct. 57 (1992) (The court found that the Commission had inadequately addresed a challenge to the viability of its comparative hearing policies.); *see also* Flagstaff Broadcasting Foundation v. FCC, 979 F.2d 1566 (D.C. Cir. 1992) (The court held that the Commission must respond to any serious alternative proposal that purports to serve the public interest better than the Commission's own practice.)

[17] *See e.g.* Comments of NATF at 7; Comments of Nokia at 7; Reply Comments of Nokia at 9; Reply Comments of Com-Net Ericsson at 10; Motorola *ex parte* letter (Jan. 4, 2001); Nokia *ex parte* letter (Dec. 12, 2000); NATF *ex parte* letter (Nov. 30, 2000).

[18] *See* Comments of Nokia at 7.

[19] *See* Motorola *ex parte* letter (Jan. 4, 2001).

into its reasoning or decision making process with respect to a critical component of its rule making, the *Order* is arbitrary and capricious and cannot withstand judicial scrutiny.

Accordingly, the Commission must revisit the issue of a transition period in an *Order on Reconsideration*, even if only to provide a reasoned basis for its decision to deny the grant of a transition basis. However, the NATF is confident that once the Commission conducts the review of the issues that the APA requires, the Commission will find that sound public policy and the dictates of the Commission's express objectives in this proceeding support the grant of a transition period until 2006 before Phase I interoperability becomes mandatory.

IV. Conclusion

The policies and rules adopted in the *Order* unjustifiably sacrifice competition and spectrum efficiency, in favor of realizing interoperability six years before the earliest date implementation will become a practical necessity. The Commission should reconsider this determination and adopt policies that will achieve all of the goals of this proceeding. Specifically, the Commission should grant a transition period until 2006 before Phase I interoperability capability becomes mandatory. This transition period will allow competing equipment manufacturers to enter the 700 MHz market, ensure the rapid introduction of spectrally efficient 6.25 kHz equipment, and will in no way delay or defer the ultimate goal of realizing nationwide or even pragmatic interoperability on these channels.

Respectfully Submitted,

North American TETRA Forum

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