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

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of )  
)  
The Development of Operational, Technical, and )  
Spectrum Requirements for Meeting Federal, State ) WT Docket No. 96-86  
and Local Public Safety Agency Communications )  
Requirements Through the Year 2010 )

To: The Commission

**REPLY OF APCO  
TO COMMENTS SUBMITTED IN RESPONSE TO  
FIFTH NOTICE OF PROPOSED RULEMAKING**

The Association of Public-Safety Communications Officials-International, Inc. ("APCO") hereby submits the following reply to comments filed in response to the Commission's Fifth Notice of Proposed Rulemaking ("*Fifth NPRM*") in the above-captioned proceeding, 66 Fed. Reg. 10660 (February 16, 2001).<sup>1</sup>

Most of the comments support the general approach, and in many cases the details, of APCO's proposed migration path for the 700 MHz General Use channels.<sup>2</sup> A brief reply is necessary, however, with regard to the Comments of Nokia, Inc., which largely repeats arguments contained in the Petition for Reconsideration of the North American TETRA Forum ("*TETRA Forum*"), of which Nokia is a member.<sup>3</sup> Nokia and the TETRA Forum advocate permitting immediate deployment of 6.25 kHz equipment, *without* the Project 25 Phase I (12.5

<sup>1</sup> The *Fifth NPRM* was adopted in conjunction with the Commission's *Fourth Report and Order*, FCC 01-10, released January 17, 2001 (hereinafter, "*Fourth R&O*").

<sup>2</sup> See, e.g., Comments of the Public Safety Wireless Network Program (filed March 19, 2001).

<sup>3</sup> The TETRA Forum Petition was filed on March 19, 2000, but a notice of the filing has not yet appeared in the *Federal Register*. APCO will be submitting an opposition to the Petition for Reconsideration within the time frame permitted by the Commission's rules.

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kHz) interoperability mode. Such a radical approach, however, is at odds with the core underlying principle of the 700 MHz Public Safety Band to promote interoperability.

The Commission adopted a rule in 1998 that “all narrowband mobile and portable 700 MHz band public safety radios be capable of operating on all of the narrowband nationwide interoperability channels.”<sup>4</sup> Thus, as a preliminary matter, Nokia’s suggestions, as well as the TETRA Forum’s Petition, are grossly untimely and should be rejected on that basis alone.

Procedural issues aside, the Nokia/TETRA Forum proposal sacrifices interoperability simply to mitigate a perceived imbalance in the marketplace. Nokia and TETRA Forum argue that they will be unable to produce Project 25 Phase I compatible equipment until 2006, and therefore should be allowed to market 6.25 kHz equipment prior to that date without Phase I capability, so as to prevent others from obtaining a “head start.”<sup>5</sup> They further urge that the current rule will create an imbedded base of 12.5 kHz systems that will take ten years to replace. Yet, Nokia and TETRA Forum overlook the far worse consequence of their own proposal, which is the creation of an *imbedded base of non-interoperable TETRA equipment*. Any 6.25 kHz TETRA equipment installed without Project 25 Phase I will forever be isolated from other radio systems operating in the band.<sup>6</sup>

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<sup>4</sup> *First Report and Order and Third Notice of Proposed Rulemaking in WT Docket 96-86*, FCC 98-191, 14 FCC Rcd 152, 213 (1998); See 47 C.F.R. §90.547.

<sup>5</sup> See TETRA Forum Petition at 6.

<sup>6</sup> The only exception may be if TETRA is someday selected as a new interoperability standard. However, for Nokia and TETRA Forum to assume that today’s version of TETRA will be selected as the interoperability standard when the Commission revisits that matter in 2006 is at best presumptuous, not only because it is too soon to predict which technology will be the dominate technology five years from now, but also because current discussions regarding use of TETRA in the public safety market include use of the IMBE vocoder and not the incompatible Thomson vocoder currently included in standard TETRA products. Thus, there is no assurance that even future TETRA standard products will be interoperable with “imbedded” TETRA systems installed in the near term under the Nokia/TETRA Forum proposal.

The TETRA manufacturers' claims that they will be at a competitive disadvantage under the current rule (assuming that is at all relevant to the Commission) is also suspect. Even if Nokia and other TETRA manufacturers are unable to produce Project 25 Phase I compatible TETRA equipment prior to 2006, why should that matter in the post-2006 marketplace? It is unclear, at best, how the "imbedded base" of previously installed 12.5 kHz systems would inhibit the successful marketing of 6.25 kHz systems. To the contrary, the existence of a common interoperability standard opens the marketplace to new competitors such as Nokia, as public safety agencies will no longer find it necessary to buy the same equipment as their neighbors to maintain interoperability.

Furthermore, statements from Nokia and the TETRA Forum regarding the difficulty of integrating the Project 25 Phase I interoperability mode into their equipment appear to be at odds with the positions that they and others presented during the NCC's deliberations. There, manufacturers were unanimous in stating that including Project 25 Phase I as a second mode of operation in the radios they would be producing, including TETRA-based radios, was not a technical challenge and would not prohibitively increase the cost of non-Project 25 type radios. While some manufacturers may take longer than others to provide Project 25 Phase I compliant products to customers, the FCC should not intervene in the marketplace to change that reality, especially at the expense of interoperability.

Finally, Nokia's "timeline" attached to its comments overlooks several key issues. First, the timeline ignores the fact that many of the early 700 MHz operations will be expansions of existing 800 MHz public safety networks, using new dual band 700/800 MHz equipment (which APCO understands will be available in 2002, if not sooner). Such network expansions can be implemented far quicker than entirely new systems. Second, while some public safety projects

do take many years from start to finish, the process can move much quicker where there is pent up demand for frequencies and strong local support for rapid implementation. Third, implementation is often incremental, with initial deployment occurring long before project completion. Thus, as the Commission recognized in the *Fourth R&O*, there is a need to allow immediate 700 MHz band implementation with 12.5 kHz technology.

Nokia also suggests “at the very minimum” that December 31, 2005 be a “firm deadline for cessation of deployment of new 12.5 kHz systems in the General Use channels.” Com-Net Ericsson makes a similar proposal in its comments. In contrast, APCO’s proposal calls for the use of equipment type-acceptance rules to promote 6.25 kHz availability and use, at least in the early stages of the migration plan.<sup>7</sup> APCO does not support Nokia’s alternative as it places a huge bet on the ability of vendors to deliver 6.25 kHz type-accepted equipment with Project 25 Phase I capability by the end of 2005.<sup>8</sup> Hopefully, Nokia, Com-Net Ericsson and others will win that bet and 6.25 kHz equipment will be readily available by 2006. However, if for some reason vendors do not meet that deadline, where does that leave the public safety community? If there is no type-accepted 6.25 kHz/Project 25 Phase I compliant equipment by 2006, then public safety agencies will need the continued ability to acquire previously type-accepted 12.5 kHz equipment for General Use operation. Public safety agencies must not be restricted from implementing systems in the 700 MHz band because manufacturers have not succeeded in developing products capable of 6.25 kHz operation along with the Project 25 Phase I Interoperability mode.

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<sup>7</sup> APCO’s plan would also link that type-acceptance requirement to the clearing of incumbent broadcast stations, not necessarily to a specific date.

<sup>8</sup> Com-Net Ericsson references the “refarming” rules which set a January 1, 2005, deadline for requiring 6.25 kHz capability for type-acceptance of equipment for use on bands below 512 MHz. However, there is no assurance that vendors will meet that deadline, especially since the rules permit them to continue manufacturing previously type-accepted equipment.

Thus, APCO continues to support a type-acceptance based requirement for 6.25 kHz in the 700 MHz band, rather than restrictions on new system deployment. As explained in APCO's initial comments, however, a restriction on new 12.5 kHz deployments may be appropriate at some future point, once the 6.25 kHz technology picture becomes clearer. In addition, there must be a firm date in the more distant future (*e.g.*, 2016) for the conversion of all 12.5 kHz operations to 6.25 kHz.

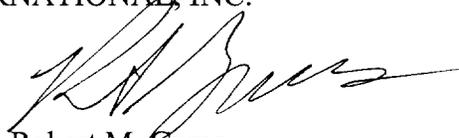
### CONCLUSION

For the reasons set forth above, in APCO's initial comments, and elsewhere in the record, the Commission should adopt a General Use channel migration plan similar to that which APCO has presented for Commission consideration.

Respectfully submitted,

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