



MOTOROLA

January 4, 2001
Ms. Magalie Roman Salas, Secretary
Federal Communications Commission
The Portals, TW-A325
445 12th Street, S.W.
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Re: WT Docket No. 96-86)

Dear Ms. Salas:

Motorola would like to take this opportunity to clarify certain issues with respect to public safety use of the 700 MHz allocation now under consideration in the above-referenced proceeding. Fundamentally, Motorola urges the FCC to quickly settle the remaining questions about technical standards in a manner that allows public safety agencies to commence using this needed spectrum immediately. It is Motorola's view, which is shared by nearly all public safety user groups, that allowing users to immediately deploy Project 25 Phase I (ANSI 102) technology on both the interoperability and general use channels best meets this objective.

Other parties have argued that the Commission should instead mandate the use of technologies that are not yet ready for deployment in the 700 MHz band on the general use channels. For example, NOKIA asks the FCC to mandate the use of 6.25 kHz voice channel efficiency equipment on the general use channels from the outset of licensing.¹ The proposal is apparently without regard to the analysis of the Public Safety National Coordination Committee (NCC), which clearly articulated the specific deficiencies of any available 6.25 kHz technology's ability to meet U.S. public safety requirements immediately. Those points need not be reprised here.² However, several aspects of NOKIA's recommendations need further examination, as detailed below.

¹ See e.g., Letter from David R. Siddall, Verner Liipfert Bernhard McPherson and Hand, Counsel for NOKIA, to Magalie Roman Salas, Secretary, FCC (dated December 12, 2000) (*Hereafter NOKIA Letter*).

² The user needs were detailed in a matrix of questions developed by the public safety users through the NCC in Technology Work Group #2, Technology Subcommittee. See, e.g., 700 Technology Matrix for Narrowband Interoperability Channels and Electronic Mail Transmission from Robert F. Schlieman, Chair, Technology Work Group #2 to Glenn Nash, Chair, Technology Subcommittee (dated November 10, 1999). Documents related to the NCC deliberations are kept at the FCC in file WTB-2.

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I. All Radios in the 700 MHz Public Safety Band Must Incorporate the Interoperability Standard:

The first issue concerns the timeline presented by NOKIA as their plan for transition to 6.25 kHz equipment in the 700 MHz band.³ This timeline shows NOKIA's preferred alternative to the APCO transition plan.⁴ NOKIA asks the Commission to allow delivery of non-interoperable equipment in the 700 MHz band in late 2003. This equipment does not integrate the interoperability standard of 12.5 kHz until production of its next generation of radios, which NOKIA does not propose to deliver until 2006.⁵ This proposal runs counter to the Commission's rules which state that mobile and portable transmitters operating in the 700 MHz public safety band *must* be capable of operating on all of the designated nationwide interoperability channels pursuant to the standards adopted by the NCC and approved by the FCC.⁶

The reason that the Commission established this rule is clear, as it furthers the paramount goal of this proceeding – to establish a nationwide, seamless interoperable network for public safety entities.⁷ All mobile and portable units in the 700 MHz band must be able to communicate using the interoperable mode to allow coordination among various public safety agencies during a disaster. Agencies which will interoperate include local, state and federal agencies, and they, through the NCC, have chosen Project 25 Phase I as the interoperability standard.⁸

³ *Id.* at Attachment, page 4.

⁴ Comments of APCO, WT Docket No. 96-86 (filed September 25, 2000) at 7.

⁵ *See NOKIA Letter* at Attachment, page 4.

⁶ *See* 47 C.F.R. §90.547.

⁷ *See, e.g.,* In the Matter of DATARADIO CORPORATION Emergency Petition for Waiver of Section 90.547 of the Commission's Rules, DA 00-2577 (released November 14, 2000) at ¶5 [“The Commission enacted Section 90.547 to promote nationwide interoperability in the 700 MHz band.”] *See also, id.* at ¶7 [“we believe that a decision that creates a lack of interoperability would in fact undermine the efficiency of the use of the entire spectrum and the Commission's express goals in establishing rules for the public safety 700 MHz band.”]

⁸ *See* Recommendations to the Federal Communications Commission for Technical and Operational Standards for Use of the 764-776 MHz and 794-806 MHz Public Safety Band Pending Development of Final Rules, submitted by the Public Safety National Coordination Committee (dated February 25, 2000) at 16. *See also,* Fourth Notice of Proposed Rule Making, WT Docket No. 96-86, FCC 00-271, (released August 2,

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The drive for interoperability between public safety agencies was made a priority with the release of the Final Report of the Public Safety Wireless Advisory Committee.⁹ One of the key findings of that committee was that “the ability of officials from different Public Safety agencies to communicate with each other is limited” due to “the use of multiple frequency bands, incompatible radio equipment, and a lack of standardization in repeater spacing and transmission formats.”¹⁰ Believing that the PSWAC report “sounded an alarm” regarding the extent to which public safety shortages are hampering the mission of safety and rescue personnel, the FCC viewed the newly allocated 700 MHz band as an opportunity to “achieve a seamless nationwide communications interoperability among federal, state, and local public safety agencies.”¹¹ NOKIA’s assumption that equipment that does not incorporate the interoperability standard can be placed anywhere in the 700 MHz public safety band defeats the overriding goal of ensuring that all agencies using all of its radios can speak to each other using the interoperability channels.

NOKIA further asserts that “a reasonable transition period before Phase I becomes mandatory is essential and will not delay interoperability.”¹² In fact, accepting NOKIA’s proposal would not only delay interoperability, it will defeat it entirely for any equipment that is deployed in the band that does not include the interoperability standard. Such radios cannot communicate with other systems and allowing such non-interoperable radio systems into this band nullifies Congressional intent, FCC action and the work of the NCC, all of which was aimed at facilitating interoperability.

NOKIA further asserts that interoperability “will only be necessary after incumbent TV operators vacate the band and two systems with different technologies are deployed in the same geographic region.”¹³ Again, NOKIA is mistaken in its understanding of interoperability. Interoperability in the 700 MHz band is not a concept that is geographically limited. Interoperability in 700 MHz is meant to include not only multiple agencies – federal, state and local – but also allow for public safety agencies from different regions to converge on the site of an emergency to interoperate.

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2000) at ¶47 [“we tentatively conclude that we should adopt the NCC’s recommendation of the project 25 Phase I standard at this time.”]

⁹ Final Report of the Public Safety Wireless Advisory Committee, September 11, 1996.

¹⁰ *Id.* at 2.

¹¹ See Second Notice of Proposed Rule Making, WT Docket No. 96-86, FCC 97-373 (released October 24, 1997) at ¶12-14.

¹² See *NOKIA Letter* at Attachment, page 2.

¹³ *Id.*

In short, NOKIA's proposed solution does not envision the introduction of equipment interoperable with the user's preferred technology (Project 25 Phase I) until at least 2006. If the Commission intends to abide by its decision to require *all* radios to be capable of operating on the interoperability channels, public safety agencies will be deprived of using this allocation for another five years. This would indeed be contrary to the directives of Congress that the FCC commence the 700 MHz licensing process by September 30, 1998.¹⁴

II. A Mandate for 6.25 kHz Technology on the General Use Channels Would Delay Use of the 700 MHz Spectrum

NOKIA asserts that mandating 6.25 kHz technology in the general use channels will not delay the introduction of equipment in the 700 MHz band.¹⁵ They further state "6.25 kHz equipment can be introduced to the U.S. public safety market in the same amount of time that 12.50 kHz equipment is developed to operate in the new 700 MHz band."¹⁶ However, if one accepts the FCC ruling that all radios in the 700 MHz public safety band must be capable of interoperating, and also accepts NOKIA's timelines for delivery of 6.25 kHz and 12.5 kHz equipment, it is evident that delivery of 6.25 kHz equipment would involve substantial delay, with delivery of 12.5 kHz equipment in 2003 versus delivery of 6.25 kHz terminals that can interoperate not until 2006.

Indeed, the timeline proposed by NOKIA assumes a rather conservative timeline for delivery of 12.5 kHz equipment in the 700 MHz band. Motorola is committed to developing systems capable of spanning the 700 MHz, 806-821 MHz and 821-824 MHz public safety allocations. Once the pending regulatory and technical issues are finalized, Motorola will be able to ship equipment capable of multiband performance within one year – even perhaps by the end of 2001.

Motorola urges the FCC to issue final rules in this proceeding that allow 12.5 kHz technology on the interoperable, general use and state licensed channels as quickly as possible in order to give sufficient stability to manufacturers and the public safety users. In this regard, we agree with NOKIA when it states that "(m)anufacturers need to know both the general use efficiency requirements and the interoperability standard when defining product development plans" and that by "deciding these issues together, the Commission will define the critical technical parameters that manufacturers require to rapidly introduce equipment for the 700 MHz band."¹⁷ There are many areas of the

¹⁴ 47 U.S.C §337(b)(1).

¹⁵ See *NOKIA Letter* at Attachment, page 2.

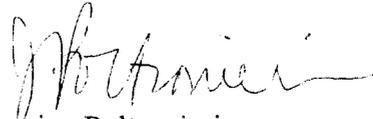
¹⁶ *Id.*

¹⁷ *Id.* at Attachment, page 1.

country where there are no current incumbent TV broadcasters. Based on our discussions with these potential customers, Motorola believes that many agencies in such regions are anxious to install new systems as soon as possible.

Please contact Jeanine Poltronieri at (202) 371-6896 regarding any questions concerning this matter.

Respectfully Submitted,



Jeanine Poltronieri
Director
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