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

In the Matter of)

Amendment of Parts 22, 90, and 94)
of the Commission's Rules to Permit)
Routine Use of Signal Boosters)

WT Docket No. 95-70
RM-8200

DOCKET FILE COPY ORIGINAL

REPLY COMMENTS OF NEXTEL COMMUNICATIONS, INC.

NEXTEL COMMUNICATIONS, INC.

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Dated: September 1, 1995

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I. INTRODUCTION

Pursuant to Rule 1.415 of the Federal Communications Commission's ("Commission") Rules, Nextel Communications, Inc. ("Nextel") hereby files these Reply Comments in the above-captioned proceeding.^{1/} Nextel and 12 other parties filed Comments on August 14, 1995.

The Commission issued a Notice Of Proposed Rule Making ("NPRM") in this docket on June 22, 1995, proposing to permit the use of signal boosters in Part 22 common carrier paging operations, Part 90 land mobile radio service and paging operations, and Part 94 multiple address systems operations.^{2/} Nearly all of the commenters expressed general support for the Commission's proposal as it would provide licensees with additional capabilities to offer improved coverage to their customers and would further regulatory parity among providers of Commercial Mobile Radio Services

^{1/} Notice Of Proposed Rule Making, RM-8200, FCC 95-204, released June 22, 1995.

^{2/} NPRM at para. 1.

("CMRS"). Most of the commenters, however, expressed serious reservations about the potential for interference from signal boosters.^{3/} Given the different spectrum allocation and licensing environments of these various land mobile radio services, the Commission should not simply rubber stamp the Part 22 cellular signal booster rules onto these other radio services.

Accordingly, upon review of the Comments, while Nextel continues to support the authorization of signal boosters in the Part 90 800 MHz Specialized Mobile Radio ("SMR") service, the underlying -- and not yet reconciled -- differences in Part 90 and Part 22 licensing require that the Commission employ significant caution in crafting rules governing expanded signal booster use.^{4/}

^{3/} See, e.g., Comments of American Mobile Telecommunications Association at p. 6; Personal Communications Industry Association at p. 3; RAM Mobile Data Limited Partnership at p. 5; SpaceLabs Medical, Inc. ("SpaceLabs") at p. 8; and UTC, The Telecommunications Association at p. 4. An example of the potential damage to be done by the improper use of signal boosters was expressed by SpaceLabs, a designer and manufacturer of wireless electrocardiogram ("ECG") monitoring systems. These ECG systems are operated at very low powers on the offset channels of the 450-470 MHz band and could suffer significant interference from the deployment of signal boosters by others in the same band. Therefore, like many other commenters, SpaceLabs suggests specific precautionary measures to accompany the use of signal boosters.

^{4/} The Commission has initiated a proceeding in which it is proposing to license SMRs on a wide-area basis, similar to cellular. See Further Notice Of Proposed Rule Making, PR Docket No. 93-144, released November 4, 1994. Once the Commission adopts licensing processes for the SMR services that provide regulatory parity among CMRS services, as mandated by Congress, more flexible use of signal boosters may be possible.

II. DISCUSSION

A. A 500 milliwatt (mw) Output Power Limit Is Appropriate For Signal Boosters In the 800 MHz SMR Service

The Commission proposed in the NPRM to limit the total output power of signal boosters to 500 mw.^{5/} Although some commenters opposed this output power limit as too low, Nextel supports the Commission's proposal. A 500 mw output power is sufficient to fill in coverage area dead spots or to provide localized in-building coverage.^{6/} The higher the output power, the greater the likelihood for interference, particularly in the 800 MHz SMR service where the spectrum is already significantly licensed, often on a shared basis. Given the intensive short-spacing of 800 MHz SMR systems in many areas, permitting highly-efficient frequency reuse, the proposed 500 mw power limit is well-considered and would minimize the likelihood of interference from signal booster use while enabling improved localized coverage.

B. The Use Of Signal Boosters Must Be Accompanied By Significant Safeguards To Ensure Against Interference

The Commission should not permit the use of signal boosters in the 800 MHz SMR industry without appropriate interference safeguards. First and foremost, the Commission must require that licensees employing signal boosters file a notice with the Commission, thereby assuring surrounding licensees that they can

^{5/} NPRM at para. 8.

^{6/} As the Commission points out in the NPRM, 500 mw is the output power limit currently used for boosters authorized in the 450 MHz band. See NPRM at para. 8, f.n. 10.

determine the cause of interference if and when it should arise.^{7/} While prior notice to the Commission will not prevent interference with other operators' systems, it should ease the process of determining the source of the interference by permitting licensees to readily access the Commission's database and determine what other licensees in the immediate geographic area are employing signal boosters.

To ensure the effectiveness of the notice requirement, the Commission must also require that any operator using a signal booster immediately eliminate any interference it causes. Upon being notified of interference, the user of the signal booster should be required to immediately cease its operation. Thereafter, the user should only be permitted to reinstate the booster if it can be engineered in a manner that will permit its use without causing interference. The rule should explicitly mandate that the licensee using the signal booster is responsible for immediately correcting any interference caused to the authorized operation of other SMR licensees.

The Commission's signal booster rules must also authorize the use of signal boosters in a manner that does not extend the licensee's authorized service area. The Commission proposed this limitation in the NPRM, but it failed to define "service area." As

^{7/} The licensee's prior notice should include, at a minimum, the following information: the station's call sign, the frequencies affected by the booster, the location and coordinates of the signal booster, a contact party's name and telephone number, and an identification indicating whether the booster is broadband or narrowband.

Nextel proposed in its Comments, the Commission should prohibit licensees from increasing a station's 40 dBu contour reliable service area with signal boosters. This too should help ensure against interference while enabling improved localized coverage.

III. CONCLUSION

The use of signal boosters, while potentially beneficial, also creates significant potential for interference in the 800 MHz SMR services. Given the extent of licensing which has already occurred in the 800 MHz SMR services, and the fact that it occurs on a co-channel separation basis, signal boosters cannot be deployed in the same routine fashion that they are in the cellular service where each licensee has exclusive use of 25 MHz of spectrum within a defined area.

Each of the land mobile services has its own unique characteristics which require special safeguards. In the 800 MHz SMR service, significant caution must be taken in crafting signal booster rules to minimize the possibility of booster-derived interference and to ensure that, in the event interference does occur, it can be remedied immediately. Once the Commission

adopts and implements licensing rules providing 800 MHz SMRs regulatory parity with their cellular competitors, more liberal use of signal boosters may be possible in the 800 MHz SMR service.

Respectfully submitted,

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CERTIFICATE OF SERVICE

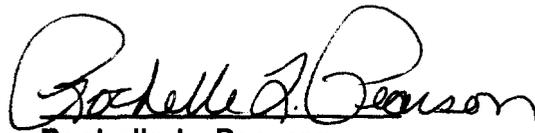
I, Rochelle L. Pearson, hereby certify that on this 1st day of September 1995, caused a copy of the attached Reply Comments of Nextel Communications, Inc. to be served by hand delivery to the following:

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