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

In the Matter of	)	
	)	
Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems	)	ET Docket No. 00-258
	)	
The Establishment of Policies and Service Rules for the Mobile-Satellite Service in the 2 GHz Band	)	IB Docket No. 99-81
	)	
Amendment of the U.S. Table of Frequency Allocations to Designate the 2500-2520/2670-2690 MHz Frequency Bands for the Mobile-Satellite Service	)	RM-9911
	)	
Petition for Rule Making of the Wireless Information Networks Forum Concerning the Unlicensed Personal Communications Service	)	RM-9498
	)	
Petition for Rule Making of UTStarcom, Inc., Concerning the Unlicensed Personal Communications Service	)	RM-10024

COMMENTS OF NEXTEL COMMUNICATIONS, INC.

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April 14, 2003

SUMMARY

Nextel Communications, Inc. ("Nextel") hereby submits these comments in response to the Third Notice of Proposed Rulemaking in the above-captioned proceeding. Nextel applauds the Commission's reallocation of 30 MHz of Mobile Satellite Service ("MSS") spectrum to terrestrial fixed and mobile services, and urges the Commission to re-designate unused Unlicensed Personal Communications Service ("UPCS") frequencies at 1910-1920 MHz to licensed services. The Commission should assign a portion of this spectrum, the 1910-1915/1990-1995 MHz band, to Nextel as replacement spectrum in conjunction with the Consensus Plan for 800 MHz realignment (the "Consensus Plan") to resolve interference to public safety systems and allocate additional spectrum to public safety communications.

Re-designation of the 1910-1920 MHz UPCS band to terrestrial licensed services will further the Commission's goal of effective and efficient use of the spectrum. While this band is currently designated for asynchronous UPCS systems and devices, no such applications appear to have been deployed in the band even though the FCC authorized UPCS operations in that spectrum almost ten years ago. Nextel agrees with the Commission that, upon the re-designation of the 1910-1920 MHz band, UTAM should receive a *pro rata* percentage of the total costs it has incurred for clearing the 1910-1930 MHz band from the new licensee(s).

The reallocation of MSS spectrum and re-designation of the 1910-1920 UPCS band for terrestrial licensed services will facilitate resolution of the critical problem of Commercial Mobile Radio Service ("CMRS") – public safety interference in the 800 MHz band. In that proceeding, Nextel, along with the leading national public safety

organizations and a wide range of private wireless parties (the "Consensus Parties"), have proposed a comprehensive Consensus Plan to realign the 800 MHz band in an effective, minimally disruptive manner. The Consensus Plan will greatly advance the public interest by remedying CMRS – public safety interference and allocating additional spectrum to public safety needs. An essential element of this proposal is the pairing of re-designated UPCS frequencies at 1910-1915 MHz with former MSS spectrum at 1990-1995 MHz and the assignment of that paired band to Nextel in exchange for Nextel's contribution of spectrum in the 700, 800, and 900 MHz bands to make the Consensus Plan possible.

Adoption of the Consensus Plan and the assignment of the 1910-1915/1990-1995 MHz band to Nextel will substantially promote the public interest by enabling the 800 MHz realignment that is essential to preventing future CMRS – public safety interference and improving the quality of public safety communications. Providing Nextel replacement spectrum at 1.9 GHz allows it to swap spectrum with public safety and private wireless licensees so that incompatible technologies are isolated into separate, exclusive spectrum blocks, instead of interleaved among each other, thereby remedying interference. Given the increased threats to this nation's Homeland Security, the Commission has no greater public interest responsibility than providing critical support to public safety and emergency personnel and helping first responders to protect the public they serve.

The Commission's assignment of replacement spectrum at 1910-1915/1990-1995 MHz to Nextel will raise no interference issues. First, Nextel's operations at 1910-1915 MHz will not result in harmful interference to Broadband PCS handsets operating above

1930 MHz. While the existing Broadband PCS "duplexer gap" at 1910-1930 MHz will be narrowed by 5 MHz, any increase in the probability of interference from such reduction will be offset by modifying the duplexer design for those handsets. Nor will interference arise among prospective Nextel operations at 1990-1995 MHz and adjacent operations by MSS and Ancillary Terrestrial Components ("ATC") at 2000-2020 MHz. Interference to Nextel's operations in that band would require the simultaneous occurrence of several unlikely conditions, including the close physical proximity of Nextel and MSS/ATC mobile handsets during simultaneous use. This low risk of interference is reduced further by the stringent OOBE limits the Commission has imposed on MSS/ATC mobile handset emissions. Similarly, Nextel's base station operations at 1990-1995 MHz will present no threat of interference to MSS/ATC systems operating at 2000-2020 MHz, assuming the Commission applies the same OOBE limits to Nextel's base stations at 1990-1995 MHz as it currently applies to adjacent Broadband PCS base station facilities.

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COMMENTS OF NEXTEL COMMUNICATIONS, INC.

Nextel Communications, Inc. ("Nextel") hereby submits these comments in response to the Third Notice of Proposed Rulemaking in the above-captioned proceeding ("*NPRM*").[1] The *NPRM* seeks comment on how best to use a number of spectrum bands

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[1] *Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems; The Establishment of Policies and Service Rules for the Mobile-Satellite Service in the 2 GHz Band; Amendment of the U.S. Table of Frequency Allocations to Designate the 2500-2520/2670-2690 MHz Frequency Bands for the Mobile-Satellite Service; Petitions for Rule Making of the Wireless Information Networks Forum and UTStarcom, Inc.,*

reallocated from the Mobile Satellite Service ("MSS"), as well as other bands reallocated or re-designated from other services. Nextel applauds the Commission's reallocation of 30 MHz of Mobile Satellite Service ("MSS") spectrum to terrestrial fixed and mobile services, and urges the Commission to re-designate unused Unlicensed Personal Communications Service ("UPCS") frequencies at 1910-1920 MHz to licensed services.

In these comments, Nextel focuses on the need for the Commission to pair two portions of reallocated spectrum, 1910-1915 MHz and 1990-1995 MHz, and assign that 10 MHz block to Nextel as replacement spectrum to carry out the Consensus Plan for 800 MHz Realignment (the "Consensus Plan"). The Consensus Plan will eliminate interference increasingly experienced by 800 MHz public safety communications systems with life-threatening consequences. The Consensus Plan will greatly advance the public interest by providing critical support to public safety and emergency personnel and helping first responders protect the public. Assigning the 1910-1915/1990-1995 MHz band to Nextel as replacement spectrum is an essential element of the Consensus Plan as it spectrally separates the cellular licensees and Nextel from incompatible public safety (and private wireless) system designs. Accordingly, assigning the 1910-1915/1990-1995 MHz block to Nextel is the future use for this spectrum that best serves the public interest.

I. INTRODUCTION

As part of its decision issuing the *NPRM,* the Commission issued an order that, among other things, reallocated 30 MHz of MSS spectrum (the 1990-2000/2020-2025

Concerning the Unlicensed Personal Communications Service, Third Report and Order, Third Notice of Proposed Rulemaking and Second Memorandum Opinion and Order, 18 FCC Rcd 2223 (2003) (FCC 03-16) ("*NPRM*").

MHz and 2165-2180 MHz bands) to terrestrial fixed and mobile services.[2] The *NPRM* seeks comment on how best to use this reallocated MSS spectrum as well as spectrum that has been reallocated from the Multipoint Distribution Service ("MDS") at 2155-2160/62 and Emerging Technology spectrum at 2160-2165 MHz.[3] The *NPRM* also seeks comment on re-designating the UPCS spectrum at 1910-1920 MHz for licensed fixed and mobile terrestrial services, and pairing this spectrum with 1990-2000 MHz in either 5 + 5 MHz or 10 + 10 MHz pairings.[4] It asks parties to address whether this spectrum should be designated for Advanced Wireless Services ("AWS"), used to expand the Broadband PCS band, or used to provide replacement spectrum for licensees, such as Nextel, that may be required to relocate from existing frequency assignments.[5] The *NPRM* seeks comment on potential interference issues raised by these various options, and on reimbursing UTAM for the costs of clearing the 1910-1920 MHz UPCS band.[6] Noting that the record in this proceeding is already well developed, the Commission urges parties responding to the *NPRM* to "narrow their discussion to specific proposals that will allow for the most efficient and effective use of this remaining spectrum."[7]

Nextel strongly supports the Commission's decision to reallocate 30 MHz of MSS spectrum, and to seek comment on re-designating the 1910-1915 MHz UPCS band and

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2 *NPRM* ¶ 28.

3 *Id.* ¶ 38.

4 *Id.* ¶ 48.

5 *Id.* ¶¶ 47, 49.

6 *Id.* ¶¶ 50-51, 56-61.

7 *Id.* ¶ 38.

pairing it with the 1990-1995 MHz band as replacement spectrum for Nextel. In these comments, Nextel will specifically focus on the public interest benefits of the Commission pairing 1910-1915 MHz with 1990-1995 MHz and assigning this 10 MHz to Nextel in exchange for spectrum it would be required to vacate under the only realistic and effective plan now before the Commission for resolving public safety and Commercial Mobile Radio Service ("CMRS") interference in the 800 MHz band.[8] As explained below, Nextel and a wide range of public safety and private wireless parties (the "Consensus Parties")[9] have proposed a comprehensive plan to achieve the Commission's objectives in a pending proceeding that seeks to address the pressing problem of CMRS – public safety interference in the 800 MHz band.[10] A critical element of the Consensus Plan calls for the Commission to assign the 1910-1915/1990-1995 MHz band to Nextel to replace spectrum Nextel would surrender at 700 MHz, 800 MHz, and 900 MHz to solve this interference problem. The assignment of the 1910-1915/1990-1995 MHz band to Nextel will substantially promote the public interest by making it

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[8] *Id.* ¶¶ 46-49. *See* WT Docket No. 02-55. The Consensus Plan also would eliminate interference from low-power cellular-type systems to 800 MHz high-site private wireless communications systems.

[9] The Consensus Parties include Nextel and the following entities: the Association of Public-Safety Communications Officials-International, Inc.; the International Association of Chiefs of Police; the International Association of Fire Chiefs, Inc. and International Municipal Signal Association; the Major Cities Chiefs Association; the Major County Sheriffs' Association; the National Sheriffs' Association; Aeronautical Radio, Inc.; the American Mobile Telecommunications Association; the American Petroleum Institute; the Association of American Railroads; the Forest Industries Telecommunications; the Industrial Telecommunications Association, Inc.; the National Stone, Sand and Gravel Association; PCIA – The Wireless Infrastructure Association; and the Taxicab, Limousine and Paratransit Association.

[10] *See Improving Public Safety Communications in the 800 MHz Band, Consolidating the 900 MHz Industrial/Land Transportation and Business Pool Channels*, Notice of Proposed Rulemaking, 17 FCC Rcd 4873 (2002) ("*Public Safety NPRM*").

possible for Nextel to engage in the channel swaps needed to realign the 800 MHz band to avoid future CMRS – public safety interference. The assignment will also enable the Commission to allocate, in the near-term, additional spectrum to meet critical public safety needs.

II. ASSIGNING THE 1910-1915/1990-1995 MHz BAND TO NEXTEL IS A CRITICAL STEP TOWARD IMPROVING PUBLIC SAFETY COMMUNICATIONS IN THE 800 MHz BAND

A. The Commission Should Re-Designate the Unused UPCS Spectrum at 1910-1920 MHz

As noted, the Commission has reallocated 30 MHz of MSS spectrum, including the 1990-1995 MHz band, to terrestrial fixed and mobile services. The Commission found that this reallocation will "support continuing growth of fixed and mobile services" and that it "should not impair the growth of MSS."[11] Three of the eight MSS licensees in the 2 GHz band had failed to satisfy the Commission's MSS implementation milestones, and the Commission consequently cancelled their licenses.[12] The cancellation of these licenses, along with the decision to reallocate MSS spectrum to terrestrial use, is fully consistent with the Commission's goal of "ensur[ing] that the spectrum is used efficiently and effectively."[13]

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11 *NPRM* ¶ 31.

12 *Applications of Mobile Communications Holdings, Inc. and ICO Global Communications (Holdings) Limited for Transfer of Control, Constellation Communications Holdings, Inc. and ICO Global Communications (Holdings) Limited for Transfer of Control, Mobile Communications Holdings, Inc. for Modification of 2 GHz MSS License, and Constellation Communications Holdings, Inc. for Modification of 2 GHz MSS License*, Memorandum Opinion and Order, 18 FCC Rcd 1094 (Int'l Bur. 2003) (DA 03-285); *Application of Globalstar, L.P. For Modification of License for a Mobile-Satellite Service System in the 2 GHz Band*, Memorandum Opinion and Order, 18 FCC Rcd 1249 (Int'l Bur. 2003) (DA 03-328).

13 *NPRM* ¶ 29.

Consistent with this same goal, the Commission should re-designate the 1910-1920 MHz UPCS band. This band is currently designated for asynchronous UPCS applications. As the Commission has pointed out, however, no such applications appear to have been deployed in the band even though the FCC authorized UPCS operations in that spectrum almost ten years ago.[14] Indeed, the *NPRM* states that a "search of [the FCC's] equipment authorization database reveals that there is not any UPCS equipment authorized for this band."[15] As the Commission recognized in the *NPRM*, it is contrary to the public interest to "allow this 10 megahertz of spectrum to remain fallow when there are many applications that can put it to good use."[16] The Commission should consequently re-designate this unused spectrum for terrestrial licensed services.

B. The Commission Should Assign the 1910-1915/1990-1995 MHz Band to Nextel as Replacement Spectrum

"The Commission has long recognized that the nation's public safety community requires effective radio communications systems free of harmful interference if public safety agencies are to adequately protect the safety of lives and property."[17] Interference can disrupt, and has disrupted, critical life safety communications with police officers, firefighters, rescue teams and other emergency personnel, potentially putting first responders at risk as well as the public they serve. Mitigating these risks is essential and

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14 *See Amendment of the Commission's Rules to Establish New Personal Communications Services*, Memorandum Opinion and Order, 9 FCC Rcd 4957, ¶ 94 (1994).

15 *Id.* ¶ 46.

16 *Id.*

17 *Public Safety NPRM* ¶ 1.

has become even more urgent with the increased threats to our Homeland Security in the past two years.

In recent years, public safety systems operating in the 800 MHz band have been subject to increasing levels of harmful interference from CMRS operations in that band, including those of Nextel and cellular licensees such as Verizon Wireless, Cingular, AT&T Wireless, and Alltel. Interference is occurring even though all involved are operating in full compliance with FCC rules and the limits set forth in their licenses. The fundamental cause of this interference is the 800 MHz band plan, initially adopted in 1974, which permits two incompatible system architectures – high-site, high-power public safety (and private wireless) systems and low-site, low-power cellular systems – to operate on mixed, interleaved, and adjacent 800 MHz channels. If the Commission fails to act quickly, the incidence of interference caused by this band plan will only increase as public safety and CMRS licensees expand their networks.

On March 15, 2002, the Commission issued the *Public Safety NPRM* seeking comment "on how best to remedy interference to 800 MHz public safety systems consistent with minimum disruption to our existing licensing structure and assurance of sufficient spectrum for critical public safety communications."[18] After the initial round of comments were filed in this proceeding, the Consensus Parties – representing a broad cross-section of public safety and private wireless organizations, along with Nextel – met on numerous occasions to develop a consensus solution to CMRS – public safety interference in the 800 MHz band. The result of these efforts was the Consensus Plan – a

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[18] *Id.* ¶ 2.

comprehensive solution that is supported by seventeen organizations *representing over 90 percent of affected 800 MHz Land Mobile Radio licensees.*[19]

Under the Consensus Plan, high-site and low-site system architectures will be divided into separate blocks of contiguous spectrum in the 800 MHz Land Mobile Radio Band: a 20 MHz block for non-cellularized (high-site, high-power) operations, and an adjacent 16 MHz block for cellularized (low-site, low-power) system architectures. Public safety systems, as well as Business and Industrial/Land Transportation ("B/ILT") and high-site SMR licensees, will operate in the non-cellularized block, and Nextel's low-site, low-power systems will operate in the cellularized block; *i.e.,* Nextel will move completely out of the non-cellular channel block, 806-816/851-861 MHz.[20] In addition, the Commission will re-designate for public safety use the 4 MHz of spectrum on which Nextel is licensed virtually nationwide in the 700 MHz Guard Bands.[21] Nextel will also be required to contribute 4 MHz of 900 MHz SMR spectrum for use by B/ILT and high-site SMR licensees. Incumbent B/ILT and high-site SMR licensees operating in the 800 MHz band will be given an incentive to *voluntarily* relocate to this 900 MHz spectrum;[22]

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[19] *See* Reply Comments of the Consensus Parties, WT Docket No. 02-55 (Aug. 7, 2002) ("Consensus Plan"). The Consensus Parties have clarified and amended the Consensus Plan in subsequent filings with the Commission. *See* Consensus Comments of the Consensus Parties, WT Docket No. 02-55 (Sep. 23, 2002) ; Supplemental Comments of the Consensus Parties, WT Docket No. 02-55 (Dec. 24, 2002) ("Consensus Plan Supplemental Comments"); Reply Comments of the Consensus Parties, WT Docket No. 02-55 (Feb. 25, 2003) ("Consensus Plan Reply Comments").

[20] Consensus Plan at 8-11.

[21] *Id.* at 17-18.

[22] In particular, the Consensus Plan would offer an incentive for 800 MHz B/ILT and high-site SMR incumbents to relocate voluntarily to the 900 MHz band by offering them a 50 kHz channel assignment for each 25 kHz 800 MHz channel vacated. *Id.* at 18.

incumbents that choose to relocate to the 900 MHz band will make additional 800 MHz spectrum available for public safety entities. The relocation of these high-site licensees to 900 MHz and the move of Nextel's cellularized technology out of the 900 MHz band will also prevent the prolonged interleaving of high-site and low-site systems at 900 MHz, thereby preempting the development of the same interference problems now experienced at 800 MHz.

Under the Consensus Plan, Nextel will therefore surrender back to the Commission 10.5 MHz of spectrum (2.5 MHz in the 800 MHz band,[23] 4 MHz in the 700 MHz band, and 4 MHz in the 900 MHz band) for re-licensing to high-site system operations.[24] Nextel's contribution of spectrum is an essential element in achieving the Commission's key public interest goals in the *Public Safety NPRM*: resolving CMRS – public safety interference, avoiding undue disruption of incumbent licensee operations,

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[23] Nextel's current spectrum holdings will be sufficient to implement the channel swaps that will be required under the Consensus Plan. The Commission's July 2002 report to Congress on licensees' 800 MHz spectrum holdings supports this conclusion, despite the fact that the Commission's spectrum analysis failed to account for a substantial portion of Nextel's Economic Area ("EA") licenses. *See* "Response to Congressional Request for Licensing Information on Land Mobile Frequencies 806/821 MHz – 851/866 MHz," Wireless Telecommunications Bureau (Jul. 26, 2002), *available at:* <http://wireless.fcc.gov>; Letter from Michael K. Powell, Chairman, FCC, to the Honorable W.J. (Billy) Tauzin, Chairman, Committee on Energy and Commerce (Jul. 26, 2002). *See also* Reply Comments of Nextel Communications, Inc., WT Docket No. 02-55, at 10-11 (Aug. 7, 2002) ("Nextel August Reply").

[24] Nextel will contribute approximately $3 billion to make realignment possible. Nextel paid $2 billion in FCC auctions and the secondary markets to acquire the 700, 800, and 900 MHz spectrum it would exchange and Nextel would fund up to $850 million for relocating all of public safety and private wireless (B/ILT) licensees. Additionally, Nextel will cover its own relocation costs, which will be significantly greater than any other licensee's costs. Nextel will also contribute its proportionate share of funds, above and beyond the $850 million for 800 MHz incumbent relocation, to relocate Broadcast Auxiliary Service ("BAS") licensees and reimburse UTAM once Nextel has been assigned the 1910-1915/1990-1995 MHz band. *See infra* Section IV.

and allocating additional spectrum to public safety communications needs. At the same time, the "Consensus Plan calls for Nextel to be made whole on a spectral basis by the Commission assigning Nextel . . . a nationwide license for 10 MHz of paired spectrum at 1910-1915/1990-1995 MHz for CMRS services."[25] As the Consensus Parties have recently stated, assigning this 10 MHz of replacement spectrum to Nextel "is an integral part of the Consensus Plan,"[26] because it (i) requires Nextel to vacate the 800 MHz band below 861 MHz to make room for an exclusive non-cellular, high-site channel block; (ii) moves Nextel out of 900 MHz, thereby "de-interleaving" that spectrum and preempting otherwise unavoidable interference between high-site non-cellular and low-site cellular systems; and (iii) provides additional spectrum for public safety communications systems at 700 MHz directly adjacent to the existing 700 MHz public safety spectrum allocation.[27]

The Commission should consequently re-designate the UPCS spectrum at 1910-1915 MHz, pair it with the 1990-1995 MHz band that has been reallocated from MSS, and assign this spectrum to Nextel as replacement spectrum. Assigning this replacement spectrum is a critical step in a plan to remedy CMRS – public safety interference in the 800 MHz band in an effective, minimally disruptive manner, and allocate additional 800 MHz spectrum to public safety needs. There can be no greater public interest than taking

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25 Consensus Plan Supplemental Comments at 13.

26 Consensus Plan Reply Comments at 50.

27 Re-designating Nextel's 700 MHz spectrum from Guard Band Manager to public safety use provides additional interference protection for future 700 MHz public safety operations by eliminating adjacent commercial (*albeit* non-cellular) operations.

the necessary steps to achieve these goals, and no higher use for this reallocated spectrum.

III. NEXTEL'S OPERATIONS ARE WELL-SUITED FOR THE 1910-1915/1990-1995 MHz BAND AND WOULD NOT RAISE INTERFERENCE CONCERNS

In the *NPRM*, the Commission asks whether new licensees in reallocated spectrum at 1910-1920 MHz and 1990-2000 MHz would be subject to harmful interference from operators in adjacent spectrum, and whether those new licensees would themselves cause harmful interference to their spectrum neighbors.[28] As discussed below, the Commission's assignment of replacement spectrum at 1910-1915/1990-1995 MHz to Nextel will raise no interference issues.

A. Narrowing the Existing "Duplexer Gap" at 1910-1930 MHz Will Not Result in Harmful Interference to Broadband PCS Operations at 1930-1990 MHz

In the *NPRM*, the Commission requests comment on the potential for interference from new licensees at 1910-1920 MHz to Broadband PCS operations above 1930 MHz.[29] As the Commission notes, in order to prevent harmful interference to Broadband PCS handsets, there must be sufficient frequency separation between facilities operating in the 1910-1920 MHz band and the Broadband PCS mobile receive band (currently at 1930-1990 MHz).[30] In the Commission's view, there would still be separation sufficient to

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28 *NPRM* ¶¶ 50-51.

29 *Id.* ¶ 50.

30 *Id.*

prevent such interference if the existing "duplexer gap" at 1910-1930 MHz were narrowed by 5-10 MHz.[31]

Nextel agrees that assigning it the 1910-1915 MHz band will not increase the probability of harmful interference to Broadband PCS handsets operating above 1930 MHz. In that scenario, only Nextel handsets will transmit at 1910-1915 MHz, and those handsets will be manufactured with the duplexer adjusted for a 15 MHz gap.[32] Nextel will be very well suited to operate in the 1910-1915 MHz band, and it will be unnecessary to impose out-of-band emission ("OOBE") limits on Nextel that are more stringent than those currently applied to Broadband PCS handset transmissions below 1910 MHz.

B. The Proximity of Nextel's Operations at 1990-1995 MHz to MSS/ATC Operations Above 2 GHz Will Not Lead to Interference Problems

In the *NPRM*, the Commission notes that the reallocated frequencies at 1990-2000 MHz are adjacent to spectrum now allocated to MSS and Ancillary Terrestrial Components ("ATC"), at 2000-2020 MHz.[33] The Commission notes that new licensees at 1990-2000 MHz may need to take steps to ensure that their operations neither suffer

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31 *Id.*

32 Indeed, such vendors as Motorola, Agilent, and Qualcomm have all indicated that a new duplexer design for Nextel handsets at 1910-1915 MHz will minimize the probability of interference to PCS handsets operating above 1930 MHz. *See* Comments of Nextel Communications, Inc. and Nextel Partners Inc., WT Docket No. 02-55, at 18-19 (Feb. 10, 2003); *Ex Parte Presentation*, "Nextel's Response to Allegations of Potential Interference Between Prospective MSS/ATC Operations and PCS Operations in the 1.9 GHz Band," at 3 (Jan. 22, 2003), attached to Letters from Regina M. Keeney to Marlene H. Dortch, Federal Communications Commission, WT Docket No. 02-55, IB Docket No. 01-185, ET Docket No. 00-258 (Jan. 23, 2003) ("*Interference Ex Parte*").

33 *NPRM* ¶ 51.

interference from, nor cause interference to, MSS/ATC systems above 2 GHz.[34] In particular, the Commission states that licensees at 1990-2000 MHz may be required to deploy extra base stations in order to avoid interference from MSS/ATC operations, and asks whether new licensees should be subject to the same out-of-band emissions limits that will apply to ATC systems, in order to protect MSS/ATC operators above 2 GHz.[35]

Nextel believes that MSS/ATC systems above 2 GHz will be unlikely to cause interference to Nextel's operations at 1990-1995 MHz.[36] In its February order permitting ATC operations, the Commission imposed stringent OOBE limits on MSS/ATC mobile handset emissions, a step that minimizes the likelihood of interference to adjacent Broadband PCS-type systems.[37] Moreover, in order for MSS/ATC mobile transmitters to cause interference to Nextel handsets, several conditions would have to occur simultaneously: (i) the Nextel and MSS/ATC mobile handsets would have to be within

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34 *Id.*

35 *Id.*

36 In its January *Interference Ex Parte*, Nextel addressed concerns from PCS carriers that MSS/ATC mobile operations at 1990-2025 MHz would cause interference to Broadband PCS mobile handset reception below 1990 MHz. In that filing, Nextel demonstrated that the probability of such interference would be very low. Nextel believes that this technical analysis is similarly applicable to the issue of interference from MSS/ATC systems to Nextel's own operations at 1990-1995 MHz. *See Interference Ex Parte Presentation* at 4-7.

37 *Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Bands*, Report and Order and Notice of Proposed Rulemaking, 18 FCC Rcd 1962, ¶ 119 (2003) (FCC 03-15). The Commission established scaled OOBE limits for ATC mobile terminals. Under those rules, ATC mobile terminal emissions below 1995 MHz and above 2025 MHz must be attenuated by at least 70 + 10 log P dB, measured in a one MHz or greater bandwidth. Emissions in the 1995-2000 MHz and 2020-2025 MHz bands must be attenuated by at least some value, as determined by linear interpolation, from 70 + log P dB to 43 + log P dB at the nearest MSS band edge at 2000 or 2020 MHz. All other ATC mobile emissions shall be attenuated by at least 43 + 10 log P dB.

close physical proximity of each other; (ii) both the Nextel and MSS/ATC handsets would have to be in use on a call; (iii) the desired signal for the Nextel handset would have to be very weak, and (iv) the MSS/ATC handset would have to be transmitting at its maximum power.[38] For the reasons explained in Nextel's January *Interference Ex Parte*, the simultaneous occurrence of these conditions is highly unlikely in urban, suburban, and rural areas alike. There is consequently a low risk of interference to Nextel's operations in the 1990-1995 MHz band, and this risk is reduced even further by the stringent OOBE limits the Commission has imposed on MSS/ATC systems.

The low likelihood of such interference is confirmed by the absence of interference in a virtually identical spectrum environment in the 800 MHz band. There, the cellular mobile transmit band at 824-849 MHz is practically adjacent to the Specialized Mobile Radio ("SMR") mobile receive band at 851-869 MHz. (The 2 MHz allocation to Air-to-Ground systems at 849-851 MHz serves as a small, *de facto* guard band.) Despite the fact that there are more than 50 million cellular customers operating in the cellular band and more than 10 million customers in Nextel's SMR spectrum, there have been few if any incidents of harmful interference to Nextel users.

In any case, Nextel is committed to taking whatever steps are necessary to ensure that its subscribers and users enjoy the highest possible quality of service. If, as the Commission posits, additional base station facilities are necessary to achieve this goal, Nextel will move forward with such deployment.

Nextel also believes that its base station operations at 1990-1995 MHz will not present any threat of interference to MSS/ATC operations at 2000-2020 MHz. The

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38 *See Interference Ex Parte* at 5.

Commission should apply the same OOBE limits to Nextel's base station operations at 1990-1995 MHz as those currently applied to Broadband PCS base station facilities under Section 24.238 of the Commission's rules: -43 + 10 log P, measured in a one MHz or greater bandwidth. Nextel's operations at 1990-1995 MHz will effectively constitute a 5 MHz extension of the Broadband PCS base station transmit band, and there is no reason to apply a more restrictive standard to Nextel's base station facilities. Protection of MSS/ATC operations above 2 GHz will not require that the Commission subject Nextel to the more stringent OOBE limit recently applied to ATC mobile terminals.

IV. NEXTEL WILL REIMBURSE UTAM FOR THE COSTS OF CLEARING THE 1910-1915 MHz BAND

In the *NPRM,* the Commission proposes that, if all or part of the 1910-1920 MHz band is re-designated to licensed services, UTAM should receive a *pro rata* percentage of the total costs incurred for clearing the 1910-1930 MHz band as of the effective date of any final rules adopted in the instant proceeding.[39] Under this proposal, were the Commission to re-designate 5 MHz at 1910-1915 MHz, UTAM would be entitled to 25 percent of its total expenses for relocating incumbent microwave systems from the 1910-1930 MHz band.[40] Similarly, for future band clearing, new licensees at 1910-1920 MHz and UTAM would reimburse each other on a *pro rata* basis, based on the amount of relative spectrum cleared for each service.[41]

Nextel agrees with the Commission's proposed approach to UTAM reimbursement. Nextel has previously made clear that, if it is assigned replacement

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39 *NPRM* ¶ 59.

40 *Id.*

41 *Id.*

spectrum at 1910-1915 MHz, it will reimburse UTAM for all reasonable expenditures related to the relocation of incumbent microwave facilities from that 5 MHz channel block.[42] Nextel has also indicated that it will fund its *pro rata* share of any additional band clearing following this assignment.[43] While the *NPRM* suggests that it may be inequitable to expect relocated licensees to reimburse UTAM,[44] Nextel remains committed to reimbursing UTAM for its *pro rata* share of the cost of clearing 1910-1915 MHz upon the assignment of these frequencies to Nextel as replacement spectrum.[45]

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[42] Reply Comments of Nextel Communications, Inc. and Nextel Partners Inc., WT Docket No. 02-55, at 18 n.43 (Feb. 25, 2003) ("Nextel February Reply"); Nextel August Reply at 38. As Nextel explained in its February 25 Reply, its funding commitment to UTAM is separate and apart from Nextel's $850 million commitment under the Consensus Plan to fund the relocation of incumbent licensees in the 800 MHz band. Nextel February Reply at 18-19 n.43.

[43] Nextel February Reply at 18 n.43

[44] *NPRM* ¶ 59.

[45] In the *NPRM*, the Commission notes that the reallocation of MSS spectrum complicates the relocation of BAS licensees from the 1990-2025 MHz band. While the *NPRM* defers full consideration of BAS relocation to a future proceeding, the Commission does indicate that, as a general principle, the cost of BAS relocation will now likely be shared by new MSS entrants and other new entrants in the band. *NPRM* ¶ 37. This approach is consistent with Nextel's previous statements on this issue, which make clear Nextel's willingness to cover its proportionate share of BAS relocation costs. Nextel February Reply at 4 n.6; Nextel August Reply at 36 n.77. The Commission should resolve BAS relocation issues expeditiously in order to provide regulatory certainty as this band is assigned to new licensees.

V. CONCLUSION

For the reasons stated, Nextel urges the Commission to re-designate the 1910-1915 MHz band from UPCS, pair that spectrum with the 1990-1995 MHz band, and assign these paired frequencies to Nextel as replacement spectrum. This assignment will permit the Commission to implement an effective solution to CMRS – public safety interference and significantly improve public safety communications in the 800 MHz band.

Respectfully submitted,

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April 14, 2003