Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington DC, 20554

In the Matter of	)	
	)	
Review of the Spectrum Sharing Plan Among Non-Geostationary Satellite Orbit Mobile Satellite Service Systems in the 1.6/2.4 GHz Bands	)	IB Docket No. 02-364
	)	
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

To: the Commission

PETITION FOR RECONSIDERATION OF
NEXTEL COMMUNICATIONS, INC.

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SUMMARY

Nextel Communications, Inc. (Nextel) supports the Commission's decision to allocate the 2495-2500 MHz band for terrestrial mobile and fixed services. This decision creates a single band of contiguous spectrum for new and innovative broadband services and finally ends the isolation of an important Broadband Radio Service (BRS) channel. The new allocation at 2495-2500 MHz expands the opportunity for competitive providers to offer wireless broadband service to the public.

To permit BRS to operate successfully in the 2495-2500 MHz band, however, Nextel recommends the Commission reconsider its decision not to relocate or restrict incumbent operations in this band. The *MSS Sharing Order* does not provide reasoned analysis supported by record evidence that terrestrial mobile and fixed operations, such as BRS, can share with incumbent operations in the 2495-2500 MHz band, such as the Mobile-Satellite Service (MSS), Industrial, Scientific and Medical (ISM) devices, and the Broadcast Auxiliary Service (BAS). The *MSS Sharing Order* also appears to overlook Commission decisions and ample record evidence that sharing between these dissimilar services is difficult, if not impossible.

Failing to adopt protections for terrestrial fixed and mobile operations works a serious injustice on the BRS licensees that will occupy the 2495-2500 MHz band by greatly reducing their ability to use this spectrum. Therefore, while Nextel endorses the Commission's decision to add an allocation for terrestrial mobile and fixed operations to the 2495-2500 MHz band, the Commission should limit or relocate incumbent operations to ensure relocated BRS licensees can operate without undue constraint.

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PETITION FOR RECONSIDERATION OF
NEXTEL COMMUNICATIONS

I. INTRODUCTION

Consistent with Section 1.106 of the Commission's Rules, Nextel Communications, Inc. (Nextel) submits this Petition for Reconsideration of the Commission's *MSS Sharing Order*.[1] In the *MSS Sharing Order*, the Commission amended the U.S. Table of Allocations to add a fixed and mobile allocation to the 2495-2500 MHz band.[2] Nextel supports this decision because it creates contiguous spectrum

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[1] *Review of the Spectrum Sharing Plan Among Non-Geostationary Satellite Orbit Mobile Satellite Service Systems in the 1.6/2.4 GHz Bands, Amendment of Part 2 of the Commission's Rules*, 19 FCC Rcd 13356 (2004) (*MSS Sharing Order*), *available at* <http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-04-135A1.doc>. Nextel, one of the largest licensees of BRS1 spectrum, has standing to challenge the *MSS Sharing Order* both as a participant in the above-captioned proceeding and as a party adversely affected by the Commission's decision. *See* 47 C.F.R. § 1.106(b)(1).

[2] *MSS Sharing Order*, 19 FCC Rcd at ¶66. The terrestrial mobile and fixed allocation that the Commission adopted in the 2495-2500 MHz band excludes aeronautical mobile. *Id.* Nextel does not challenge the Commission's decision to exclude aeronautical mobile operations from the 2495-2500 MHz band.

for broadband services and finally ends the isolation of Channel 1 of the Broadband Radio Service (BRS),[3] which the Commission moved from 2150-2162 MHz to the 2496-2502 MHz band in a related decision.[4] The new allocation for terrestrial fixed and mobile services at 2495-2500 MHz greatly expands the opportunity for competitive providers to offer wireless broadband services to the public.

While Nextel supports the Commission's decision to allocate the 2495-2500 MHz band for terrestrial fixed and mobile services, the Commission's decision not to relocate or restrict incumbent licensees in the 2495-2500 MHz band creates considerable regulatory uncertainty that threatens to undo the very public-interest benefits of allocating the spectrum for terrestrial mobile and fixed services. The Commission erred in concluding – without justification or record support – that sharing is possible among the numerous services that the Commission has allowed to remain in the 2495-2500 MHz band. In the *MSS Sharing Order*, the Commission erred in requiring terrestrial mobile and fixed operations, such as BRS1, to share spectrum with: (i) Globalstar, LP, a Big LEO Mobile-Satellite Service (MSS) provider; (ii) millions of Industrial, Scientific and

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[3] The former name of the BRS service was the Multipoint Distribution Service (MDS), and the former name of the Educational Broadcast Service (EBS) was the Instructional Television Fixed Service (ITFS). For convenience, the terms BRS and EBS are used in this document.

[4] *See Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands*, FCC 04-135, WT 03-66, 19 FCC Rcd 14165, ¶ 37 (2004) (*BRS/EBS Realignment Order*). While the related *BRS/EBS Realignment Order* was adopted on the same day as the *MSS Sharing Order*, the *BRS/EBS Realignment Order* has not yet appeared in the Federal Register; therefore, petitions for reconsideration against that decision are not yet due.

Medical (ISM) devices that emit radio-frequency radiation into the band;[5] and (iii) 108 assorted terrestrial licenses, many of them with multiple mobile transmitters, that hold grandfathered rights in the band.[6] The *MSS Sharing Order* then fails to adopt any of the sharing rules necessary to ensure that BRS1 licensees can operate in the newly assigned band without undue constraint. The order also departs from the well-established principle that Commission licensees – in this case, BRS1 licensees – are entitled to receive comparable replacement spectrum when the Commission relocates them.[7] Because the current ambiguous situation threatens to delay the delivery of broadband services to the public, the Commission should immediately reconsider these portions of

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[5] *See MSS Sharing Order*, 19 FCC Rcd at ¶¶ 25-26 (*citing* 47 C.F.R. § 2.106, nn.5.150 and US41). ISM devices include a wide variety of ultrasonic devices from jewelry cleaners to ultrasonic humidifiers to microwave ovens to magnetic resonance imaging machines.

[6] Although many of these licenses are broadcast auxiliary service (BAS) stations, the precise service authorizations include: 1 local television transmission license, 12 point-to-point microwave, private-industrial business licenses, 4 conventional public safety pool licenses, 12 TV intercity relay licenses, 78 TV pickup licenses, and 1 TV translator relay license. For ease of reference, these licenses are collectively referred to as the grandfathered licenses.

[7] First, revoking rights previously granted to licensees is fundamentally unfair to the dislocated BRS auction winners and subsequent purchasers for value of those rights because it ignores the licensees' reliance interest in the Commission's representations about the spectrum sold. *See U.S. Airwaves v. FCC*, 232 F.3d 227, 235 (D.C. Cir. 2000) (holding that a reviewing court "start[s] from the intuitive premise that an agency cannot, in fairness, radically change the terms of an auction after the fact."). Second, BRS licensees rightfully anticipated that the Commission would adhere to its past decisions that hold incumbents – even those who have not acquired their spectrum rights at auction or through the secondary market – should be left "no worse off than if relocation were not required." *See Amendments to the Commission's Rules Regarding a Plan for Sharing Costs of Microwave Relocation*, 11 FCC Rcd 8825, 8843 (1996). Third, denying the dislocated licensees comparable replacement spectrum violates the licensee's constitutional protections against uncompensated government takings as either a permanent physical occupation of their property, or a regulatory taking, or both. *See* US Const. Amend V; *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419 (1982); *Penn Central Trans. Co. v. City of New York*, 438 U.S. 104 (1978).

the *MSS Sharing Order*. The Commission should limit or relocate incumbent operations to ensure BRS1 may operate without undue constraint in the 2495-2500 MHz band.

II. THE COMMISSION DEPARTS WITHOUT EXPLANATION FROM REPEATED COMMISSION DECISIONS HOLDING THAT MOBILE-SATELLITE AND TERRESTRIAL MOBILE SYSTEMS ARE FUNDAMENTALLY INCOMPATIBLE.

In the *MSS Sharing Order*, the Commission asserts that international satellite power flux density (PFD) limits will protect terrestrial mobile operations from MSS interference.[8] In a related order adopted the same day, however, the Commission concedes that the international PFD limits are designed to protect analog, fixed operations, not digital, mobile operations such as BRS, which are much more susceptible to interference.[9] Having acknowledged that the PFD limits do not actually protect terrestrial mobile operations, the Commission nevertheless claims that mobile operations might be feasible in the band because the PFD limits adopted by the International Telecommunications Union for terrestrial fixed services were designed with unspecified, "conservative assumptions" for "multiple MSS systems overlapping in the same spectrum."[10] In a statement noteworthy for its lack of evidentiary support, the Commission adds that terrestrial signals will somehow drown out satellite signals without themselves suffering unacceptable interference.[11]

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[8] *See MSS Sharing Order*, 19 FCC Rcd at ¶73 & n.198 (*citing* ITU Radio Regulations, Resolution 46, Annex 2.1.2.3.1).

[9] *BRS/EBS Realignment Order*, 19 FCC Rcd at ¶29.

[10] *Id.*

[11] *Id.*

BRS cannot overcome MSS interference. This conclusion should come as no surprise because the Commission itself has repeatedly held that satellite mobile and terrestrial mobile operations are incompatible.[12] Time and again the Commission has refused to place even terrestrial *fixed* services and satellite mobile services in the same band in more than *de minimis* numbers because unacceptable interference would result.[13]

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[12] *See, e.g., 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 (2003) (*MSS ATC Order*), *available at* <http://hraunfoss.fcc.gov/edocs_ public/attachmatch/FCC-03-15A1.doc> ("Same-band satellite and terrestrial operations have created technical problems in other bands . . . . [and] the problems grow more complex where, as here, both the proposed satellite service and the proposed terrestrial service are planned as mobile services with widespread deployments."); *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, First Report and Order and Memorandum Opinion and Order, 16 FCC Rcd 17222, ¶3 (2001), *available at* <http://hraunfoss.fcc.gov/edocs_ public/attachmatch/FCC-01-256A1.doc> (*AWS First Report and Order*) ("we affirm our prior determination that reallocation of the 2.5 GHz band to the MSS is unwarranted because sharing between terrestrial and satellite systems would present substantial technical challenges in that band"); *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*, Notice of Proposed Rulemaking and Order, 16 FCC Rcd 561, ¶73 (2000), *available at* http://hraunfoss.fcc.gov/edocs_ public/attachmatch/FCC-00-455A1.doc (*AWS Notice and Order*) ("Sharing between terrestrial and satellite systems would present substantial technical challenges in that band and MSS already has access to a significant amount of spectrum below 3 GHz to meet its needs in the foreseeable future.").

[13] *See, e.g., Allocation and Designation of Spectrum for Fixed-Satellite Services in the 37.5-38.5 GHz,40.5-41.5 GHz and 48.2-50.2 GHz Frequency Bands; Allocation of Spectrum to Upgrade Fixed and Mobile Allocations in the 40.5-42.5 GHz Frequency Band; Allocation of Spectrum in the 46.9-47.0 GHz Frequency Band for Wireless Services; and Allocation of Spectrum in the 37.0-38.0 GHz and 40.0-40.5 GHz for Government Operations*, Second Report and Order, 18 FCC Rcd 25428 (2003) , *available at* <http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-03-296A1.doc> (*V-Band Second Report and Order*) (designating separate bands in which fixed terrestrial services and satellite service would predominate and concluding that "ubiquitously deployed MSS stations *cannot share* with ubiquitous terrestrial uses") (emphasis added); *Redesignation of the 17.7-19.7 GHz Frequency Band, Blanket Licensing of Satellite Earth Stations in the 17.7-20.2 GHz and 27.5-30.0 GHz Frequency Bands, and the*

Indeed, many of the decisions in which the Commission rejected sharing between satellite mobile and terrestrial mobile services involve the *same frequencies* and the *same services* and the *same licensees* that are at issue in the instant proceeding.[14]

As early as 2000, for example, the Commission concluded that BRS could not share with MSS because it "would present substantial technical challenges in that band."[15] In 2001, the Commission affirmed its rejection of BRS-MSS sharing in the 2500-2690 MHz band because "no specific criteria for sharing" existed that could explain

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Allocation of Additional Spectrum in the 17.3-17.8 GHz and 24.75-25.25 GHz Frequency Bands for Broadcast Satellite-Service Use, Second Order on Reconsideration, 17 FCC Rcd 24248, ¶12 & n.31 (2002), *available at* <http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-02-317A1.doc> (*18 GHz Second Reconsideration Order*) (relocating fixed point-to-point licensees from spectrum allocated to satellite use after conducting a detailed analysis to identify replacement spectrum for the dislocated licensees because the Commission found that fixed-satellite services would otherwise "place in jeopardy the viability of the extremely large number of fixed stations" in the band)(citation and internal quotation omitted); *Allocation and Designation of Spectrum for Fixed-Satellite Services in the 37.5-38.5 GHz,40.5-41.5 GHz and 48.2-50.2 GHz Frequency Bands; Allocation of Spectrum to Upgrade Fixed and Mobile Allocations in the 40.5-42.5 GHz Frequency Band; Allocation of Spectrum in the 46.9-47.0 GHz Frequency Band for Wireless Services; and Allocation of Spectrum in the 37.0-38.0 GHz and 40.0-40.5 GHz for Government Operations*, Further Notice of Proposed Rulemaking, IB Docket No. 97-95, 16 FCC Rcd 12244 (2001) (*V-Band Further Notice*), *available at* <http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-01-182A1.doc> (describing the difficulties of sharing between ubiquitous fixed terrestrial wireless systems and satellite systems, discussing agreements to dedicate separate spectrum to the two services and seeking comment on possible solutions where separation was not possible).

[14] *See, e.g.*, *MSS ATC Order*, 18 FCC Rcd at ¶49 (finding that sharing between separately operated terrestrial mobile services and MSS, including Globalstar, was impossible); *AWS First Report and Order*, 16 FCC Rcd at ¶3 (affirming a prior determination that the BRS and EBS licensees at issue in this decision could not share with satellite services); *AWS Notice and Order*, 16 FCC Rcd at ¶73 (holding that the BRS and EBS licensees at issue in this decision could not share with mobile-satellite services).

[15] *AWS Notice and Order*, 16 FCC Rcd at ¶73.

how to deploy both MSS and terrestrial mobile operations in the same band.[16] The Commission's *AWS First Order* added that "authorizing MSS use of the 2500-2520 MHz and 2670-2690 MHz band segments would result in little, if any, actual MSS use of those segments while greatly complicating their use for [BRS/EBS]."[17] Moreover, just last year, the Commission evaluated a record of thousands of pages and found that MSS – including the service provided by Globalstar in the 2495-2500 MHz band – was fundamentally incompatible with a terrestrial mobile system run by a *separate* operator.[18] While the Commission found that *a single, integrated operator* could make the innumerable, real-time system tradeoffs necessary to effect a workable sharing arrangement between terrestrial and satellite network components operating in the same band, the Commission concluded that "*same-band, separate operator* sharing is impractical and ill-advised."[19] Backed by an exhaustive interference analysis, the Commission added that "*no two operators are likely to succeed* in organizing themselves to manage the highly complex coordination process required between both the MSS and the terrestrial component at the same time in the same band in the same region."[20] Therefore, the Commission concluded that, "[b]ased on the record and our analysis, we find that establishing shared usage between MSS and [separately operated] terrestrial

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[16] *AWS First Report and Order*, 16 FCC Rcd at ¶34. The Commission also found that the BRS/EBS licensees in the 2500-2690 MHz intended to deploy mobile services across the United States, which greatly limited the potential for geographic isolation. *Id.* at ¶35

[17] *Id.*

[18] *MSS ATC Order*, 18 FCC Rcd at ¶¶47-55.

[19] *Id.* at ¶49 (emphasis added).

[20] *Id.* at ¶52 (emphasis added).

services would likely compromise effectiveness to such a degree that neither service would prove cost-effective, and therefore would probably not be deployed."[21]

Despite the long line of decisions declaring terrestrial-satellite sharing impossible and with the ink barely dry on last year's *MSS ATC Order*, the Commission appears to have inexplicably reversed course. The Commission has concluded – with insufficient justification and contrary to years of precedent – that both MSS and a third-party terrestrial mobile system can operate in the same spectrum. Neither the *MSS Sharing Order*, nor the related *BRS/EBS Realignment Order* provide reasoned analysis that terrestrial mobile and fixed services, such as BRS1, can share spectrum with MSS. As a result, the *MSS Sharing Order* works a serious injustice on the BRS terrestrial mobile and fixed licensees destined for the 2496-2502 MHz band by greatly reducing, if not eliminating, their ability to use spectrum purchased at auction or on the secondary market.

The Commission is, of course, entitled to change its mind.[22] But where – as here – the Commission departs from its former views, it is "obligated to supply a reasoned analysis for the change beyond that which may be required when an agency does not act in the first instance" to survive judicial scrutiny for compliance with the Administrative Procedure Act.[23] This it has failed to do. Therefore, the Commission should modify the *MSS Sharing Order* to ensure BRS1 may operate within its licensed parameters.

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[21] *Id.* at ¶52 (emphasis added).

[22] *Motor Vehicle Mfrs. Ass'n v. State Farm Mutual Ins. Co*, 463 U.S. 29, 57 (1983) ("An agency's view of what is in the public interest may change, either with or without a change in circumstances. But an agency changing its course must supply a reasoned analysis.") (citation and internal quotations omitted).

[23] *State Farm*, 463 U.S. at 41-42; *see U.S. Telecom Ass'n v. FCC*, 227 F.3d 450 (2003).

III. THE COMMISSION ERRS IN CONCLUDING CONTRARY TO RECORD EVIDENCE THAT TERRESTRIAL MOBILE AND FIXED OPERATIONS CAN SHARE THE SAME SPECTRUM WITH INDUSTRIAL, SCIENTIFIC, AND MEDICAL DEVICES.

The Commission also failed to resolve significant interference concerns from ISM devices, which have a primary international and domestic allocation across 100 MHz of spectrum including the 2496-2500 MHz band. The entirety of the Commission's rationale for the feasibility of sharing between BRS and millions of ISM devices in the *MSS Sharing Order* appears in just one sentence: "MSS, BAS, and private radio licenses have operated in this band for many years under the provisions of footnote 5.150 of the ITU radio regulations without significant interference problems."[24] The related, but separately adopted *BRS/EBS Realignment Order* provides an additional gloss on the supposed ability of BRS and ISM to coexist. In the *BRS/EBS Realignment Order*, the Commission notes that ISM operations use frequencies closer to the center of the 2400-2500 MHz band and asserts that these devices operate "in a controlled environment."[25]

The Commission's assertions about the feasibility of BRS-ISM coexistence fail the standard for reasoned decision making. A reviewing court asks that an agency examine the relevant data and articulate a satisfactory explanation for its action, including a "rational connection between the facts found and the choice made."[26] The Commission makes no such connection here. The Commission does not elaborate on the location,

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[24] *MSS Sharing Order*, 19 FCC Rcd at ¶67. Footnote 5.150 provides no guidance on how licensees might share with ISM operations, but rather simply provides that all radio-communication licensees "must accept harmful interference" from ISM devices. 47 C.F.R. § 2.106 n.S5.150; International Telecommunications Union, Radio Regulations n.5150.

[25] *BRS/EBS Realignment Order*, 19 FCC Rcd at ¶28.

[26] *Burlington Truck Lines, Inc. v. United States*, 371 U.S. 156, 168 (1962).

proximity, proliferation, shielding, and other factors that may render ISM emissions more or less incompatible with ubiquitous terrestrial mobile use. The Commission also fails to address record evidence that ISM devices are located and used primarily in urban settings – precisely the areas where BRS operations are most likely to operate.[27] Indeed, the Commission fails to meaningfully address record evidence of interference concerns in favor of claimed experience with the interference at issue in this case. For example, while the theoretical center point of the ISM bands rests at 2450 MHz,[28] ISM devices emit across the entire 2400-2500 MHz band and the effects of these emissions on widespread terrestrial operations are both uncertain and likely to change over time as more and more ISM devices enter the market.[29]

At present, one satellite licensee has managed to overcome ISM emissions to serve an exceedingly small subscriber base located principally in remote and rural regions where ISM devices are unlikely to exist in any case. The least used of the ten available BAS channels also has managed to periodically establish directional, point-to-point links that can coexist with ISM for limited periods of time.[30] These limited experiences by niche services with periodic or remote uses and very small customer bases, however, say

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[27] *See Globalstar Comments* at 12 (citing *Report of the MSS Above 1 GHz Negotiated Rulemaking Committee*, Annex 2, §4.9 (Apr. 6, 1993)).

[28] Not all ISM devices are centered precisely at 2450 MHz – some are reportedly centered at frequencies somewhat closer to the 2495-2500 MHz band.

[29] *See, e.g., Joint Comments of L/Q Licensee, Inc., Globalstar L.P., and Globalstar USA, L.L.C.* at 21 ("the proliferation of [ISM] devices operating outdoors would cause interference").

[30] BAS Channels A1 through A7 operate in the 1990-2110 MHz band. BAS Channels A8-A10 operate in the 2450-2500 MHz band. Channel A10, which occupies the 2483.5-2500 MHz band, is the least used of any of the ten available BAS channels.

nothing about whether BRS licensees could operate sensitive, mass-market, always-on terrestrial mobile services in urban areas without falling victim to unacceptable interference from ISM devices now or in the future. At a minimum, the Commission must describe how ISM operations present and future are to coexist with BRS1. Assuming coexistence is impossible, the Commission should limit future ISM operations in the 2495-2500 MHz band by adopting emissions limits for future ISM devices sufficient to prevent harmful interference to BRS1 operations.[31]

IV. THE COMMISSION'S STATEMENTS CONCERNING THE BROADCAST AUXILIARY SERVICE AND OTHER GRANDFATHERED LICENSEES ARE UNSUPPORTED BY RECORD EVIDENCE.

The Commission departs from the record evidence concerning interference between BRS and the grandfathered licenses to reach a finely nuanced conclusion that appears to envision relocation of the grandfathered licenses at some point in the future, but declines to say when the transition would occur, where it would start, how it would proceed, or even who would pay for it.[32] Specifically, the Commission in its *MSS Sharing Order* announces that the grandfathered licensees "may need to be relocated eventually," but indicates that "[w]e will provide a relocation plan, if necessary, when we

[31] Limitations on ISM emissions could, for example, be made consistent with the Commission's Part 15 emission limitations that BRS and EBS licensees must accept. *See* 47 C.F.R. §§ 15.1-15.525. In fairness to ISM manufacturers, new ISM emissions limitations into the 2495-2500 MHz band should allow sufficient time for ISM developers to transition product lines; two years should provide ample time for manufacturers to transition product lines, if necessary.

[32] The concerns about BAS-BRS interference were well documented in the record. *See, e.g., WCA Jan. 30, 2004 Ex Parte,* Attach. 1 at 4 (BRS and "BAS agree that they would interfere with each other"); *WCA July 28, 2003 Ex Parte*, Attach 1 (including a twelve page technical assessment of, among other things, BAS-BRS interference").

address the remaining issues" in the advanced wireless services docket, ET No. 00-258.[33] The Commission's simultaneously adopted *BRS/EBS Realignment Order* asserts – again without record evidence – that grandfathered licenses and BRS "could share the spectrum through coordination efforts, which should be successful given the limited number of licensees."[34] In doing so, the Commission ignores detailed record evidence to the contrary, including at least one technical analysis that concludes that "coordination with BRS is *impossible as a practical matter* because BRS at 2490-2500 MHz would be utilized on a ubiquitous basis for subscriber-to-base station communications throughout the same service area."[35]

Many of the grandfathered licensees in this band provide an important service to the public, and, like the dislocated BRS1 licensees, they deserve comparable replacement spectrum if they are moved. Although various options for coexistence may exist, the Commission's *MSS Sharing Order* provides no means by which to conclude which, if any, options for relocation, repacking, or sharing the Commission intends to pursue and provides no confidence that any of these options would actually succeed in providing displaced BRS1 licensees with comparable replacement spectrum suitable for use by terrestrial fixed and mobile services. Without this specificity, regulatory uncertainty will not only frustrate BRS deployment, but also deny the public the benefits of broadband competition. At a minimum, therefore, the Commission should clearly affix financial

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[33] *MSS Sharing Order*, 19 FCC Rcd at ¶67.

[34] *BRS/EBS Realignment Order,* 19 FCC Rcd at ¶28. "Nevertheless," the Commission adds, "we will explore in a future proceeding possible relocation steps for these operations." *Id.* at ¶28.

[35] *WCA July 28, 2003 Ex Parte,* Attach. 1 at 12 (emphasis added).

responsibility for any necessary relocation expenses on the parties that may force them to relocate: Globalstar, which has had a responsibility for BAS coordination in this band since 2003, and the AWS auction winners within the 2110-2180 MHz band that will soon occupy the spectrum that BRS1 licensees have been forced to vacate.[36]

VI. CONCLUSION

Nextel supports the Commission's decision to allocate the 2495-2500 MHz band for terrestrial mobile and fixed services; however, the *MSS Sharing Order* fails to provide a reasoned analysis supported by record evidence that terrestrial mobile and fixed operations, such as BRS1 can, in fact, share the 2495-2500 MHz band with incumbent operations.

Even when combined with the limited analysis found in the companion order to this item, the Commission's *MSS Sharing Order* offers only a cursory discussion of the complex interplay among hundreds of thousands of planned BRS1 devices, millions of ISM devices, more than one hundred grandfathered licenses (many with multiple, mobile transmitters), and one global mobile-satellite system. Accordingly, the Commission should reconsider its decision not to relocate or restrict the operations of incumbent licensees in the 2495-2500 MHz band. The Commission should eliminate the MSS allocation from the 2495-2500 MHz band and provide that ISM devices manufactured after 2006 limit emissions into the 2495-2500 MHz band. The Commission should also establish a detailed plan for relocating or otherwise limiting the in-band emissions of grandfathered licenses and clearly affix financial responsibility for any necessary

[36] *See MSS ATC Order*, 18 FCC Rcd at ¶203 (requiring ATC operators to take "such steps [as are] necessary to avoid causing brute force overload interference to previously licensed facilities," such as BAS, and providing for Commission action if mutually acceptable arrangements between Globalstar and the BAS licensees are not reached).

expenses principally on the eventual AWS auction winners within the 2110-2180 MHz band that will occupy the spectrum that BRS1 licensees used to hold.

The Commission's *MSS Sharing Order* establishes the proper overall framework for promoting the development of new and innovative advanced wireless services; however, portions of the *MSS Sharing Order* create regulatory uncertainty over which operators have priority access to the limited spectrum available. The Commission should ensure the timely deployment of broadband services to the public by conducting a more thorough analysis of incumbent operations in the 2495-2500 MHz band and, where necessary, restricting or removing interfering incumbent licensees from the band.

Respectfully submitted,

Nextel Communications

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APPENDIX A: DECLARATION OF MICHAEL HA REGARDING RADIOFREQUENY INTERFERENCE

I, Michael Y. Ha., under penalty of perjury, hereby declare that the following is true and correct to the best of my information, knowledge and belief:

1. I am employed by Nextel Communications, Inc. (Nextel) and have eleven years experience in wireless technologies. I also participate in the Engineering Committee of the Wireless Communications Association International, Inc. (WCA), which has extensively reviewed the potential for interference from incumbent operators in the 2495-2500 MHz band. I am qualified to provide the opinions and analyses presented in this Declaration.

2. Facts and statements concerning the likelihood of interference to terrestrial mobile and fixed operations, such as channel one of the broadband radio service, from the mobile-satellite service; industrial, scientific and medical devices; and broadcast auxiliary service and related grandfathered licensees as contained herein are consistent with sound engineering principles and practices.

Executed September 8, 2004,

/s/ Michael Youngil Ha

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Michael Youngil Ha