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

CONSOLIDATED OPPOSITION TO PETITION FOR RECONSIDERATION

THE WIRELESS COMMUNICATIONS ASSOCIATION INTERNATIONAL, INC.

Paul J. Sinderbrand
Wilkinson Barker Knauer, LLP
2300 N Street, NW
Suite 701
Washington, DC 20037-1128
202.783.4141

Its attorneys

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EXECUTIVE SUMMARY

The petitions for reconsideration filed by the Wireless Communications Association International, Inc. ("WCA"), Sprint Corporation, Nextel Communications, Inc., Globalstar LLC ("Globalstar") and the Society of Broadcast Engineers, Inc. ("SBE") are in agreement that the involuntary relocation of Broadband Radio Service ("BRS") channel 1 licensees from the 2150-2162 MHz band to the 2496-2502 MHz band will, absent further action by the Commission, create mutually harmful interference by and among BRS, Big LEO Mobile Satellite Service ("MSS") and Broadcast Auxiliary Service ("BAS") licensees in the 2496-2500 MHz. Each has recommended a solution to the problem and, at least insofar and WCA and SBE are concerned, an equitable resolution to the problem of BRS/BAS interference appears possible *provided that BRS channel 1 licensees are not required to bear any of the costs of their own involuntary relocation.*

Unfortunately, no such thing can be said about Globalstar's proposal. In its petition for reconsideration, WCA demonstrated that the most equitable solution the problem of interference from MSS to BRS is to simply suppress the MSS co-primary status at 2496-2500, thereby avoiding decimation of BRS in that band while still affording Globalstar access to far more spectrum in the 2483.5-2500 MHz band (the MSS "S-band") than it has any legitimate right to expect. Globalstar's proposal goes in exactly the opposite direction by insisting that the Commission give Globalstar access to the *entire* S-band, precludes use of the 2496-2500 MHz by BRS licensees outside the 35 largest Metropolitan Statistical Areas ("MSAs") and forces BRS licensees in the top 35 MSAs to operate with severe technical restrictions that, as WCA demonstrates herein, would render the 2496-2500 MHz band unusable for BRS service. Indeed, it is telling that although Globalstar concedes that BRS channel 1 is licensed nationwide, Globalstar never address the fate of the numerous BRS channel 1 licensees who are located *outside* the top 35 MSAs, and never even purports to demonstrate that BRS channel 1 licensees within the top 35 MSAs could operate under Globalstar's draconian proposed technical restrictions. These fatal flaws in Globalstar's proposal expose it for what it is – a cynical attempt to undermine the viability of the 2496-2500 MHz band as relocation spectrum for BRS channel 1 – and the Commission should dismiss it as such.

SBE's proposal, on the other hand, reflects a good faith effort to eliminate interference by and among BAS incumbents, Big LEO MSS, and BRS. SBE's petition proposes that the Commission convert the 2.4 GHz BAS band to three 12 MHz-wide digital channels located at 2450-2486 MHz, thus freeing the 2486-2500 MHz band for MSS Ancillary Terrestrial Component ("ATC") and BRS operations. WCA believes this proposal makes eminent sense, since it addresses the incompatibility of BAS and BRS as well as SBE's well-documented showing that MSS/ATC and BAS facilities cannot co-exist in the same spectrum

Where WCA parts company with SBE, however, is over how the restructuring of the 2.4 GHz BAS spectrum should be funded. SBE's suggestion that the refarming could be accomplished by Nextel at no cost as part of the 2 GHz BAS refarming adopted by the Commission in the 800 MHz proceeding ignores that there are additional costs associated with refarming 2.4 GHz and that there are 2.4 GHz incumbents that will not necessarily receive new or upgraded equipment as part of the 2 GHz BAS refarmng. Moreover, WCA opposes SBE's contention that any part of the clearing of the band should be funded in part by BRS channel 1

licensees who are being involuntarily relocated to the 2496-2500 MHz band. Rather obviously, that idea flies in the face of the Commission's well-settled principle that those who directly benefit from the relocation of incumbent licensees should fund that relocation. Here, those beneficiaries are Globalstar and the appropriate winning bidders in the 1.7/2.1 GHz auction, not the BRS licensees who are being displaced for their benefit. In fact, SBE's argument is surprising given that SBE has consistently (and WCA believes, correctly) contended that broadcasters should bear none of the costs associated with the refarming of BAS at 2 GHz or at 2.4 GHz. The Commission has agreed, and thus has fully insulated BAS licensees from any of the costs of their own relocation. For the Commission to reverse field and treat involuntarily relocated BRS channel 1 licensees any differently would be an unprincipled, and unlawful, departure from its well-settled relocation policies.

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CONSOLIDATED OPPOSITION TO
PETITIONS FOR PARTIAL RECONSIDERATION

The Wireless Communications Association International, Inc. ("WCA"), by its attorneys and pursuant to Section 1.429(f) of the Commission's Rules, hereby opposes in part the petitions filed by Globalstar LLC ("Globalstar")[1] and the Society of Broadcast Engineers, Inc. ("SBE")[2] seeking reconsideration of the Commission's *Fourth Report and Order* in ET Docket No. 00-258 and the *Report and Order* in IB Docket No. 02-364 (collectively, the "*Reallocation Order*").[3]

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[1] Petition for Reconsideration of Globalstar, IB Docket No. 02-364 (filed Sept. 8, 2004)["Globalstar Petition"].

[2] Petition of Society of Broadcast Engineers for Reconsideration, IB Docket No. 02-364 (filed Sept. 8, 2004)["SBE Petition"].

[3] *Review of the Spectrum Sharing Plan Among Non-Geostationary Satellite Orbit Mobile Satellite Service Systems in the 1.6/2.4 GHz Bands and Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Service to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems*, 19 FCC Rcd 13356 (2004).

I. INTRODUCTION AND STATEMENT OF INTEREST.

As WCA explained in detail in its own Petition for Partial Reconsideration of the *Reallocation Order*,[4] WCA's interest in this proceeding is in assuring that the Commission treats fairly the licensees of Broadband Radio Service ("BRS") channel 1, all of whom are slated to be involuntarily relocated to 2496-2502 MHz pursuant to the *Report and Order* adopted by the Commission in WT Docket No. 03-66 simultaneously with the adoption of the *Reallocation Order*.[5] In that Petition, WCA established that the Commission's plan to relocate BRS channel 1 licensees to 2496-2502 MHz, without first clearing the 2496-2500 MHz band of incumbent licensees that would cause interference to BRS, violated the Commission's well-established policy of assuring that relocated licensees are left no worse off after relocation than before.[6] WCA proposed a plan by which the licensed incumbents at 2496-2500 MHz would vacate that band, with the associated costs borne in an equitable manner by Globalstar and the appropriate winners of the upcoming 1.7/2.1 GHz Advanced Wireless Service ("AWS") auction.[7]

For the reasons set forth in more detail below, the Commission should reject Globalstar's proposal for the imposition of severe geographic and technical limitations on the

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[4] Petition of Wireless Communications Ass'n Int'l, IB Docket No. 02-364, at 2-3 (filed Sept. 8, 2004)["WCA Petition"].

[5] *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*, 19 FCC Rcd 14165 ["*2.5 GHz Band Restructuring Order*"]. In that decision, the Commission has, *inter alia*, changed the name of the Multipoint Distribution Service to the BRS, effective upon the effective date of the new rules. While WCA recognizes that the name change will not become effective for several weeks, for ease of reference WCA will utilize "BRS" throughout this pleading.

[6] *See* WCA Petition at 5-15.

[7] *See id.*

use of the 2496-2500 MHz band by the licensees of BRS channel 1 that are being involuntarily relocated from the 2150-2156 MHz band. While WCA certainly agrees with Globalstar that the Big LEO Mobile Satellite Service ("MSS") and relocated BRS licensees "cannot operate co-frequency, co-coverage" in the 2496-2500 MHz band,[8] the appropriate solution is to suppress the MSS allocation at 2496-2500 MHz and limit MSS operations to the 12.5 MHz at 2483.5-2496 MHz. Imposition of the restrictions proposed by Globalstar would leave the affected BRS licensees far worse off than they are today – indeed, many would receive no relocation spectrum whatsoever – and cannot be squared with either the Commission's well-established principles for addressing involuntary relocations or it legal obligations.

With regard to the incumbents licensed to operate on Broadcast Auxiliary Service ("BAS") channel A10 (2483.5-2500 MHz), WCA believes that SBE's proposal for clearing the 2486-2500 MHz band by refarming BAS operations into just the 2450-2486 MHz has substantial merit. However, for the reasons set forth below, the costs associated with implementing that proposal, as well as the costs of relocating non-BAS incumbents in the band, should be borne by the applicable 1.7/2.1 GHz AWS auction winners and by Globalstar, and certainly not by the BRS channel 1 licensees who are being involuntarily relocated to the band. SBE's suggestion that BRS channel 1 licensees should be required to pay costs associated with clearing the 2496-2500 MHz band to which they are being involuntarily relocated makes a mockery of the fundamental principles that have guided involuntary Commission-mandated relocations and must be rejected.

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[8] Globalstar Petition at 15. *See also id.* at 11-12.

II. DISCUSSION.

A. Adoption Of Globalstar's Proposed Geographic And Technical Limitations On BRS Use Of The 2496-2500 MHz Band Would Undermine The Commission's Designation Of That Band As Relocation Spectrum For BRS Licensees Being Involuntarily Moved From 2150-2156 MHz.

In its Petition for Partial Reconsideration of the *Reallocation Order*, WCA demonstrated based on prior Commission findings and its own technical analysis that MSS and BRS simply cannot exist on a co-channel, co-coverage basis without causing mutually-destructive interference.[9] Thus, WCA established that if the 2496-2500 MHz band is to serve as suitable relocation spectrum for the BRS channel 1 licensees that are being involuntarily relocated, the Commission must suppress the co-primary Big LEO MSS satellite downlink allocation from the 2496-2500 MHz band.[10]

WCA was hardly alone – similar showings were put forth by both Sprint Corporation ("Sprint") and Nextel Communications, Inc. ("Nextel").[11] Perhaps more significantly, however, *even Globalstar agrees that co-channel, co-coverage sharing of the 2496-2500 MHz band between MSS and relocated BRS stations operating under the Commission's newly-adopted rules is not possible.*[12] Globalstar states, in no uncertain terms, that "Globalstar and

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[9] *See* WCA Petition at 5-15.

[10] *See* WCA Petition at 5-15.

[11] *See* Sprint Petition for Partial Reconsideration, IB Docket No. 02-364, at 3-6 (filed Sept. 8, 2004) ["Sprint Petition"]; Petition for Reconsideration of Nextel Communications, Inc., IB Docket No. 02-364 (filed Sept. 8, 2004)["Nextel Petition"].

[12] *See* Globalstar Petition at 11-12, 15, Technical Appendix at 1-2.

BRS stations cannot operate co-frequency, co-coverage."[13] Globalstar concludes that permissible BRS base station operations "will wipe out MSS downlink operations . . . for a radius of 30 kilometers."[14] And, Globalstar demonstrates that "a BRS user terminal would have to operate at 0.18 mw within 1 km of a Globalstar user not to cause interference," while conceding that "[n]o current technology can operate at this low power level (0.18 mw) needed for a user which is within 1 km of any Globalstar user."[15] Although WCA does not necessarily agree with all of the specifics of Globalstar's methodology, it certainly agrees that requiring BRS and MSS to share spectrum on a co-channel, co-coverage basis is a recipe for disaster.

WCA has previously established that by eliminating the MSS co-primary status in the 2496-2500 MHz band, the Commission can avoid decimating BRS use of the spectrum, while at the same time affording Globalstar access to far more spectrum than it has any legitimate right to expect.[16] While in the interest of brevity WCA will refrain from restating its entire argument, it is worth repeating that when the Commission first developed the Big LEO band plan, it anticipated that some of the systems might not be constructed, and prophetically warned that:

> In the unlikely event that only one CDMA system is implemented, we propose to reduce the bandwidth assigned to that system from 11.35 MHz to 8.25 MHz, even if some of the system's space stations are in-orbit and operating. An 8.25 MHz assignment should be sufficient to implement a viable system and should also

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[13] *Id.* at 15.

[14] *Id.* at 12.

[15] *See id.*, Technical Appendix at 1-2.

[16] *See* WCA Petition at 7-15.

> provide us with some flexibility when coordinating the system. It may also provide some room for expected growth.[17]

That is exactly what has happened – there is only one CDMA-based Big LEO MSS system remaining – and even WCA's proposal to restrict Globalstar to the 12.5 MHz at 2483.5-2496 MHz would leave Globalstar with 4.25 MHz more spectrum than Globalstar has any legitimate right to expect.

Indeed, it appears that Globalstar's unreasonable spectrum "expectations" are at the heart of the problem here. Despite all of the Commission's warnings about how much spectrum Globalstar could expect to access if it were the sole surviving CDMA MSS service provider, Globalstar continues to harp on the claim that "the Globalstar system was designed to operate in the 11.35 MHz of L-band and 16.5 MHz of S-band spectrum (a 1:1.4 ratio) . . . ." [18]

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[17] *Amendment of the Commission's Rules to Establish Rules and Policies Pertaining to a Mobile Satellite Service in the 1610-1626.5/2483.5-2500 MHz Frequency Bands*, 9 FCC Rcd 1094, 1112 (1994). In an effort to divert the Commission's attention from the chasm between Globalstar's legitimate expectation of only 8.25 MHz of MSS downlink spectrum and its current demand for access to 16.5 MHz, Globalstar argues that "[c]ontrary to the Commission's calculations in paragraph 66 [of the *Reallocation Order*], Globalstar still has access to 11.35 MHz of spectrum in L-band, and so, requires access up to 16.5 MHz (11.35 MHz times 4 (*sic* should be 1.4)) of spectrum in S-band." Globalstar Petition at 11 n. 10. What Globalstar's statement conveniently ignores, however, is that 3.1 MHz of this spectrum is shared with Iridium and is not available exclusively to Globalstar. And, as Globalstar itself concedes, "access by one system to the 'jointly used' spectrum requires the other to cede access." *Id.* at 6. The net result, as Globalstar well knows, is that Globalstar may never utilize any of this shared spectrum. Yet, that result is hardly unexpected. In the *Reallocation Order,* the Commission reiterated that "the original Big LEO band plan was based on up to four CDMA MSS operators sharing the spectrum, and the sole remaining CDMA MSS operator should not expect to have unfettered access to 11.35 megahertz in the L-band and 16.5 megahertz in the S-band." *Reallocation Order*, 19 FCC Rcd at 13386. As such, it would be extraordinarily wasteful from a spectral efficiency standpoint to set aside 3.1 MHz x 1.4 at S-band just in case Globalstar secures exclusive access to this additional shared spectrum. Moreover, Globalstar's argument begs the question of whether Globalstar has any actual need for this spectrum. Iridium has demonstrated throughout this proceeding the fundamental inefficiencies in Globalstar's system. *What is strangely missing from Globalstar's Petition is any demonstration that, in order to serve the most rural areas of the country where its service is likely to be in demand, it needs more than 12.5 MHz of spectrum*.

[18] Globalstar Petition at 16.

Even if it is true that Globalstar assumed the Commission would give it access to far more spectrum than the 8.25 MHz the Commission had indicated (and it is difficult to believe given that the spectrum at S-band was initially to be shared among four licensees), Globalstar clearly did so at its own risk. Globalstar should not here be rewarded for its own regulatory miscalculation at the cost of forcing the Commission back to the drawing board in its effort to identify relocation spectrum for BRS channel 1. Yet that is exactly what the Commission will have to do if it entertains Globalstar's radical approach to addressing the fundamental incompatibility between BRS and MSS – if adopted, Globalstar's approach would effectively preclude the use of the 2496-2500 MHz band as relocation spectrum for BRS channel 1 and force the Commission to identify alternative relocation spectrum.[19]

Globalstar's proposal would restrict BRS usage of 2496-2500 MHz to just the 35 largest Metropolitan Statistical Areas ("MSAs"), would restrict the maximum EIRP of base stations within those MSAs to just 600 watts (as compared to the 2000 watt limit that has historically applied to BRS operations and was just reaffirmed by the Commission in the *2.5 GHz Band Restructuring Order*),[20] and would limit BRS emissions outside of the 35 largest MSAs to an

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[19] This is not to suggest that WCA is entirely satisfied with the approach to relocation of BRS channels 1 and 2 adopted in the *2.5 GHz Band Restructuring Order*. Indeed, WCA believes that the Commission's decision to strip licenses in the 2500-2690 MHz band of spectrum (including BRS licensees who purchased their spectrum from the Commission at auction) without compensation in order to free 8 MHz of the 12 MHz needed to accommodate BRS channels 1 and 2 represents fundamentally flawed and legally suspect policy. The process of identifying relocation spectrum for BRS channels 1 and 2 has now dragged on for more than three years, and the industry needs to have regulatory certainty so it can develop equipment, solidify business plans, and accelerate deployments. Thus, WCA is prepared to accept the Commission's revised bandplan, so long as the relocation spectrum truly can be utilized for the provision of broadband services by BRS channel 1 and 2 licensees. Absent adoption of the proposals advanced in WCA's Petition for Partial Reconsideration, that will not be the case.

[20] *2.5 GHz Band Restructuring Order*, 19 FCC Rcd at 14338 (adopting new 47 C.F.R. § 27.50(h)(1)).

aggregate not to exceed -209 dBW/Hz 99% of the time.[21] The Commission should not be mistaken – *this is not a proposal that will lead to true sharing of the spectrum by both services, but rather is a cynical attempt by Globalstar to undermine the viability of the 2496-2500 MHz band as relocation spectrum for the BRS channel 1 licensees that are slated to be involuntarily relocated*.

The hypocrisy of Globalstar's position is illustrated by Globalstar's own acknowledgement that "the current MDS-1 licensees that will move into [the 2496-2500 MHz] band are already licensed nationwide."[22] Globalstar is certainly correct – save for a handful of areas where the BRS Basic Trading Area authorization holder defaulted on its installment payments, BRS channel 1 is licensed in every market across the nation. Indeed, not only is the 2150-2156 MHz band licensed nationwide, but BRS channel 1 is being actively utilized to provide much needed wireless broadband services to residential and business subscribers in markets across America that do not fall within the 35 largest MSAs. Globalstar's proposal begs the question – if BRS channel 1 is currently licensed nationwide and used in markets large and small, how can BRS channel 1 licensees be made whole upon their involuntary relocation if the 2496-2500 MHz band is not available outside the 35 largest MSAs? What does Globalstar suggest be done about those BRS channel 1 licensees that are today licensed in the other 900 MSAs and Micropolitan Statistical Areas, not to mention the even more rural areas of the country that do not fall within either definition?[23] Despite its acknowledgement that BRS

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[21] Globalstar Petition at 12.

[22] *Id.* at 11.

[23] There are a total of 935 MSAs and Micropolitan Statistical Areas in the United States. *See Revised Definitions of Metropolitan Statistical Areas, New Definitions of Micropolitan Statistical Areas and*
(continued on next page)

channel 1 is licensed nationwide, Globalstar never even attempts to address how these licensees, many of whom (unlike Globalstar) purchased their spectrum at auction through competitive bidding, are to be relocated once the 2150-2156 MHz band they presently occupy is auctioned for AWS.

Moreover, Globalstar does not even assert, much less demonstrate, that BRS channel 1 licensees within the 35 largest MSAs will be able to utilize the 2496-2500 MHz band if subjected to the draconian technical limitations Globalstar proposes. For example, nowhere does Globalstar provide the Commission with any analysis of the practical implications of requiring BRS channel 1 to limit emissions to -209 dBW/Hz at the boundary of the MSA. Significantly, Globalstar fails to acknowledge that its proposed limit is 13.5 dB below the 47 dBμV/m limit on signal strength at a BRS licensee's geographic service area boundary that the Commission imposed in the *2.5 GHz Band Restructuring Order*, or that it is 5 dB below the thermal noise floor.[24] Indeed, while the *2.5 GHz Band Restructuring Order* generally limited the signal level a BRS licensee can produce at the boundary of its service area to 47 dBμV/m, the Commission was concerned that this limit might be too strict in some cases, and thereby adversely impact the ability of a BRS licensee to serve near its boundary. Thus, the Commission specifically authorized licensees to exceed 47 dBμV/m under certain circumstances.[25] Suffice it to say that if the Commission is concerned that 47 dBμV/m may be

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Combined Statistical Areas, and Guidance on Uses of the Statistical Definitions of These Areas, OMB Bulletin No. 03-04*,* (rel June 6, 2003*).* As of the 2000 United States census, more than 53% of the United States population (152,042,008 people out of a total population of 285,620,445) reside outside the 35 largest MSAs.

[24] *See 2.5 GHz Band Restructuring Order*, 19 FCC Rcd at 14208.

[25] *See id.* at 14209.

too low to permit service near the geographic service area boundary, it cannot blithely reduce the maximum signal strength by another 13.5 dB as proposed by Globalstar.

To illustrate the adverse consequences that would befall BRS licensees were Globalstar's proposals adopted, consider that a single base station operating with an EIRP of 600 watts (the limit proposed by Globalstar) produces a -207.9 dBW/Hz receive signal level at a distance of 20 kilometers.[26] And, since Globalstar is proposing to apply its -209 dBW/Hz standard to the accumulated signal levels from multiple base stations, the minimum required separation between the MSA border and the nearest base station will be even greater. In other words, under the Globalstar proposal, not only would BRS channel 1 operations be restricted to just the largest 35 MSAs, but even within those MSAs service would not be available within many, many miles of the MSA border. As a practical matter, even those BRS channel 1 licensees located within the 35 largest MSAs would suffer a debilitating loss of serviceable area.

The bottom line is simple – adoption of Globalstar's proposed limitations on BRS channel 1 would render the 2496-2500 MHz band totally unsuitable for the relocation of licensees from 2150-2156 MHz. Similarly, as WCA demonstrated in its Petition for Partial Reconsideration of the *Reallocation Order*, continued Big LEO MSS downlink transmissions in the 2496-2500 MHz band will cause debilitating interference to BRS operations in the band and are totally unnecessary to meet the legitimate needs of Globalstar. Thus, eliminating the

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[26] For purposes of this analysis, WCA has utilized the Erceg propagation model relied on by Globalstar. *See* Globalstar Petition, Technical Appendix at 2. However, WCA does not necessarily agree that this is an appropriate model for use in a service, like BRS, where subscriber units will often be portable or mobile. However, for present purposes the differences between propagation models do not yield material differences and thus, for the sake of consistency, WCA has proceeded with the Erceg model.

co-primary Big LEO MSS allocation from the 2496-2500 MHz band is an essential first step towards clearing that band for relocated BRS channel 1 operations.

B. The Commission Should Reject SBE's Suggestion That The Costs Associated With Clearing The 2496-2500 MHz Band Of Terrestrial Facilities Be Borne By The BRS Licensees Being Involuntarily Relocated From 2.1 GHz.

In its Petition for Partial Reconsideration of the *Reallocation Order*, WCA also demonstrated at great length the pressing need for the 2496-2500 MHz band to be cleared of the more than one hundred terrestrial licensees in the BAS and other services to avoid interference to BRS.[27] Thus, WCA put forth a plan under which licensed terrestrial operations would be relocated from 2496-2500 MHz prior to the migration of BRS Channel 1 licensees from the 2150-2162 MHz band. As WCA discussed, its plan would not only permit BRS channel 1 licensees to make productive use of the 2496-2500 MHz band, but would also solve the incompatibility between BAS and the MSS Ancillary Terrestrial Component ("ATC") that is a matter of record in IB Docket No. 01-185. Consistent with the Commission's relocation policies, WCA proposed that the costs of relocation be borne by Globalstar and the appropriate winners of the 1.7/2.1 GHz auction as the beneficiaries of the relocation.[28]

Significantly, SBE – which represents the vast majority of incumbent BAS licensees in the 2496-2500 MHz band -- fully agrees with WCA that BAS cannot co-exist on a co-channel, co-coverage basis with the portable and mobile BRS operations that will be implemented on

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[27] *See* WCA Petition at 15-26.

[28] *See id.* at 19, 21.

BRS Channel 1 after relocation to the 2496-2502 MHz band is complete.[29] To address the incompatibility of BAS and BRS, as well as SBE's well-documented demonstration that MSS/ATC and BAS cannot coexist,[30] SBE has proposed that the Commission convert the 2.4 GHz BAS band to three 12 MHz-wide digital channels located at 2450-2486 MHz, thus freeing the 2486-2500 MHz band for ATC and BRS operations.[31] WCA wholeheartedly endorses this part of SBE's plan – it is, as SBE puts it, "an elegant solution to the problem."[32]

Where WCA parts company with SBE, however, is over how the digitization of BAS channels A8-A10 should be funded. SBE suggests that Nextel bear the cost of this project, essentially asserting that because the Commission's August 6, 2004 decision in WT Docket No. 02-55 and related dockets imposes on Nextel an obligation to refarm BAS operations from 1990-2025 MHz to 2025-2110 MHz,[33] Nextel can at the same time accomplish the digitization and refarming of 2.4 GHz BAS without additional expense.[34] However, WCA has been advised by Nextel that the factual predicate for SBE's proposal is simply not true – the digital

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[29] *See* SBE Petition at 4-5 ("Like the situation with MSS ATC, any attempt to share operations in the same area [as BRS Channel 1] would results in disastrous co-channel interference.")

[30] *See* Petition for Reconsideration of Society of Broadcast Engineers, IB Docket No. 01-185, at 1-2 (filed Apr. 4, 2003).

[31] *See* SBE Petition at 5.

[32] *Id.*

[33] *See Improving Public Safety Communications in the 800 MHz Band, Consolidating the 800 and 900 MHz Industrial/Land Transportation and Business Pool Channels*, Report and Order, Fourth Report and Order, Fourth Memorandum Opinion and Order, and Order, WT Docket No. 02-55, FCC 04-168, at ¶¶ 251-263 (rel. Aug. 6, 2004)["*800 MHz R&O*"].

[34] *See* SBE Petition at 5-6. WCA does note that SBE provided that "Nextel may also be entitled to later reimbursement from MSS ATC operators, in recognition of the benefit created by clearing TV BAS operations from 2486-2500 MHz." *Id.* at 15. As discussed below, WCA's position is that the costs of the digitization should be borne by Globalstar, which benefits by clearing spectrum for ATC, and by the AWS auction winners, who benefit by the clearing of the 2496-2500 MHz band for use as BRS channel 1 relocation spectrum.

BAS equipment that Nextel would provide as part of the 2 GHz BAS refarming will cost more if Nextel must also provide for digital operations in the 2450-2486 MHz band. And, of course, not all of the equipment that operates on BAS channel A10 necessarily will be replaced or upgraded by Nextel as part of its 2 GHz project. To the extent that a piece of BAS equipment does not operate at least in part in the 1990-2025 MHz band, it is not covered by the Commission's August 6, 2004 decision and thus will not have to be addressed by Nextel.

More importantly, however, SBE's proposal that BRS channel 1 licensees bear a portion of the costs of clearing the 2496-2500 MHz band flies in the face of the Commission's well-settled principle that those who directly benefit from the relocation of an incumbent licensee should fund that relocation.[35] Indeed, over a decade of Commission precedent establishes that the newcomer "must guarantee payment of all relocation costs" and "must

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[35] It should be noted, however, that WCA has consistently called for the Commission to adopt "self-help" rules, similar to those in place for microwave relocation, that will allow BRS channel 1 licensees to expedite their relocation. *See, e.g.* WCA Petition at 21 n. 42; Letter from Karen B. Possner, *et al* to Michael K. Powell, ET Docket No. 00-258, App. A (filed April 7, 2004); Letter from Karen B. Possner, *et al* to Michael K. Powell, ET Docket No. 00-258 IB Docket No. 01-185 and ET Docket No. 95-18, App. A (filed July 11, 2002). Under such a self-help system, any BRS channel 1 licensee should be permitted to fund the clearing of the 2496-2500 MHz band and otherwise incur costs associated with relocation, subject to reimbursement by Globalstar and by the appropriate AWS auction winners. As WCA noted in its Petition for Partial Reconsideration:

> BRS channel 1 licensees have had the dark cloud of relocation hanging over them for almost four years now, and the result has been that many have deferred deployment plans pending identification of replacement spectrum. Those licensees should not now be placed in a situation where they cannot deploy using their new spectrum until after the 1.7/2.1 GHz auction or some other event outside their control. While BRS licensees should not be required to fund their own relocation if they choose not to, they certainly should have the freedom to engage in self-help and later recover their expenses. This same right was afforded fixed microwave service licensees, and there is no rational basis for treating BRS channel 1 licensees differently. *See Amendment to the Commission's Rules Regarding a Plan for Sharing the Costs of Microwave Relocation*, 12 FCC Rcd 2705, 2717-18 (1997).

WCA Petition at 21 n. 42.

complete all activities necessary for implementing the new facility."[36] Not coincidentally, WCA's proposal is entirely consistent with that precedent: since BRS channel 1 licensees are being relocated to free spectrum for the 1.7/2.1 GHz AWS, the appropriate AWS auction winners must bear the costs associated with relocating BRS channel 1 licensees to the 2496-2502 MHz band, including any costs associated with clearing that spectrum to ensure that BRS channel 1 licensees can operate there. Because adoption of the SBE proposal also will result in a clearing of the spectrum in which MSS/ATC will operate, thus benefiting Globalstar as well as the AWS auction winners, recent Commission decisions regarding the sharing of relocation costs among multiple beneficiaries suggests that the costs of refarming BAS to 2450-2486 MHz should be split on an appropriate pro rata basis between the AWS auction winners and Globalstar.[37]

There is absolutely no basis for SBE's suggestion that BRS channel 1 licensees forcibly displaced from the 2150-2156 MHz band to the 2496-2502 MHz band should share responsibility for reimbursing incumbent BAS licensees for the cost of converting TV fixed link BAS radios in the 2483.5-2500 MHz band from analog to digital operation.[38] Citing no legal authority whatsoever, SBE contends that "it seems appropriate . . . that MSS ATC and

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[36] *See Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies*, 7 FCC Rcd 6886, 6890 (1992) (emphasis added).

[37] There is ample recent precedent for the proposition that where multiple newcomers benefit from the relocation of an incumbent, those newcomers should split the costs associated with that relocation. *See, e.g. 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 System,* Sixth Report and Order, Third Memorandum Opinion and Order, and Fifth Memorandum Opinion and Order, ET Docket 00-258 *et al.*, FCC 04-219, at ¶ 55 (rel. Sept. 22, 2004)(addressing cost sharing obligations among UTAM, Nextel and AWS auction winners in connection with the clearing of the 1910-1930 MHz band)["*AWS Sixth R&O*"]; *800 MHz R&O* at ¶ 261.

[38] *See* SBE Petition at 5.

BRS1 entities pay this additional cost, since the clearing of TV BAS operations above 2486 MHz is to their benefit."[39] That is a shocking position for SBE to be taking here, given that it has consistently (and WCA believes, correctly) contended that broadcasters should bear none of the costs associated with the refarming of BAS at 2 GHz or at 2.4 GHz.[40]

Ironically, the Commission reaffirmed the basic relocation cost recovery principles WCA cited in its Petition in the very decision relied on by SBE – the decision approving Nextel's plan for clearing BAS licensees from the 1990-2025 MHz band as condition of the Commission's award to Nextel of a nationwide license for the 1910-1915 MHz/1990-1995 MHz band in its 800 MHz public safety proceeding. Nowhere in that decision did the Commission suggest that BAS licensees "benefit" from their displacement out of the 1990-2025 MHz band and thus should bear any of the costs of their own relocation. To the contrary, heeding arguments by SBE that were strikingly similar to those advanced by WCA here,[41] the Commission reaffirmed its long-standing policy of requiring new entrants who benefit from relocation of BAS incumbents to bear all of the costs of such relocation.[42] Likewise, in the recent *Sixth Report and Order* redesignating the 1915-1920 MHz and 1990-1995 MHz bands

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[39] *Id.* at 7; *see also id.* ("Some fixed link TV BAS stations now operating on TV BAS Channels A8, A9 and A10 may be in areas sufficiently remote that [they are] unlikely to attract either 2.5 GHz TV Pickup operations, or MSS ATC operations, or BRS1 operations. [I]f at some future date MSS ATC, or BRS1, should wish to deploy in the vicinity of a grandfathered TV BAS Channel A10 fixed link station, those entities would then be responsible for the cost of converting the grandfathered fixed link station to digital . . . .").

[40] *See, e.g.* Comments of Society of Broadcast Engineers, WT Docket No. 02-55, at 3 (filed May 6, 2002); Petition of Society of Broadcast Engineers for Reconsideration, IB Docket No. 01-185, at 3 (filed April 4, 2003); Reply of Society of Broadcast Engineers to Opposition to Petition for Reconsideration, IB Docket No. 01-185, at 3 (filed March 30, 2004); SBE Petition at 7.

[41] *See* Comments of Society of Broadcast Engineers, WT Docket No. 02-55, at 3 (filed May 6, 2002).

[42] *See 800 MHz R&O* at ¶ 261.

for AWS, the Commission ruled that "[a]n AWS licensee will be responsible, similar to other new entrants, to relocate all BAS operations from 1990-2025 MHz, even if it ultimately does not build its own facilities in some geographic areas."[43] Again, the Commission fully insulated BAS licensees from any of the costs of their own relocation. For the Commission to adopt SBE's suggestion that BRS channel 1 licensees be treated any differently here would be an unprincipled, and unlawful, departure from the very same well-settled relocation policies that have benefited SBE.

III. CONCLUSION

The *Reallocation Order*, coupled with the *2.5 GHz Band Restructuring Order*, represents a valuable step in the march towards identifying suitable spectrum to which BRS channel 1 licensees can relocate and thereby free the 2150-2156 MHz band for auction. However, the 2496-2500 MHz band can only serve as suitable relocation spectrum if every BRS channel 1 licensee can utilize 2496-2500 MHz regardless of market size, can do so

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[43] *AWS Sixth R&O* at ¶ 69 (rel. Sept. 22, 2004).

without harmful interference, and can operate without being subject to draconian technical limitations. Unless the Commission adopts the proposals advanced by WCA, and rejects those put forth by Globalstar, these fundamental criteria will not be satisfied and alternative relocation spectrum will have to be identified. Moreover, while SBE is to be applauded for putting forth a viable proposal for clearing the 2496-2500 MHz band of incumbent terrestrial licensees, the Commission must confirm, consistent with its general policies towards relocation, that BRS channel 1 licensees will not be forced to bear any of the costs associated with their involuntary relocation from 2150-2156 MHz.

Respectfully submitted,

THE WIRELESS COMMUNICATIONS ASSOCIATION INTERNATIONAL, INC.

By: *Paul J. Sinderbrand*
Paul J. Sinderbrand

Wilkinson Barker Knauer, LLP
2300 N Street, NW
Suite 701
Washington, DC 20037-1128
202.783.4141

Its attorneys

October 27, 2004

CERTIFICATE OF SERVICE

I, Michelle Bynum, hereby certify that on this 27th day of October, 2004 I served the foregoing Consolidated Opposition to Petitions for Reconsideration by depositing true copies thereof with the United States Postal Service, first class postage prepaid and addressed to the following:

William D. Wallace
Crowell & Moring LLP
1001 Pennsylvania Avenue, NW
Washington, DC 20004

Christopher D. Imlay
Booth, Freret, Imlay & Tepper
14356 Cape May Road
Silver Spring, MD 20904

Richard S. Roberts
William F. Adler
Globalstar LLC
461 S. Milpitas Blvd.
Milpitas, CA 95035

Lawrence R. Krevor
George (Trey) Hanbury
Nextel Communications
2001 Edmund Halley Drive
Reston, VA 20191

David Munson
Sprint Corporation
401 9th Street NW
Suite 400
Washington, DC 20004

: *Michelle Bynum*
Michelle Bynum