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

In the Matter of	)	
	)	
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	)	WT Docket No. 03-66 RM-10586
	)	
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

OPPOSITION OF GLOBALSTAR, INC. TO PETITIONS FOR RECONSIDERATION

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TABLE OF CONTENTS

SUMMARY ii

I. THE COMMISSION HAS PROVIDED MORE THAN ADEQUATE ASSURANCE TO BAS LICENSEES THAT THEIR OPERATIONS ON CHANNEL A10 WILL BE PROTECTED BY MSS/ATC OPERATIONS. 2

II. THE LIMITED NUMBER OF GRANDFATHERED BAS LICENSEES THAT MAY CONTINUE TO USE CHANNEL A10 DOES NOT WARRANT REVERSAL OF THE COMMISSION'S DECISION TO REQUIRE SHARING IN THE 2483.5-2500 MHZ BAND. 6

III. MSS/ATC LICENSEES MUST NOT BE REQUIRED TO GIVE BAS CHANNEL A10 LICENSEES GREATER PROTECTION THAN NECESSARY TO PROTECT THEIR GEOGRAPHICALLY LIMITED OPERATIONS. 8

IV. THE COMMISSION SHOULD NOT ALTER THE LONG-ESTABLISHED POWER FLUX DENSITY RULES APPLICABLE TO MSS/ATC OPERATIONS IN THE 2496-2500 MHZ BAND. 10

SUMMARY

Globalstar, Inc. hereby opposes the petitions for reconsideration of the Commission's *April 27, 2006 Order* filed by the Society of Broadcast Engineers, Incorporated ("SBE") and BellSouth Corporation, *et al* ("BellSouth"). Neither of the petitions presents any new facts that the Commission did not already carefully consider in reaching the conclusions set forth in the *2006 Order*, and both should be denied.

The Commission has provided more than adequate assurance to broadcast auxiliary service ("BAS") licensees that their operations on grandfathered channel A10 will be protected by Globalstar's Ancillary Terrestrial Component ("ATC") operations. The Commission's decision in the *2006 Order* that relocation of grandfathered BAS licensees to replacement spectrum is not necessary in order to protect against potential interference from Broadband Radio Service ("BRS") and MSS/ATC operations was based on the Commission's sound reasoning, which the Commission now has affirmed *three times*, that MSS/ATC and BAS operators will be able to share this spectrum and that any possible interference between MSS/ATC services and BAS operations can be minimized through reasonable coordination practices. Because the Commission has now addressed this issue several times, and each time granted more than adequate assurance that MSS licensees deploying ATC services in this spectrum may not cause harmful interference to grandfathered BAS licensees' operations, no further action by the Commission is necessary or justified.

Moreover, the limited number of grandfathered BAS licensees that may continue to use channel A10 does not warrant reversal of the Commission's decision to require sharing in the 2483.5-2500 MHz band. SBE has failed to provide any new evidence concerning usage of that channel that would warrant a reversal of the Commission's finding that channel A10 is relatively

"lightly used" and, more importantly, has failed to demonstrate that MSS/ATC operators will be unable to coordinate their operations with whatever number of BAS operators may continue to use channel A10 despite the availability of many other channels for BAS use. Nor is there any merit to SBE's suggestion that MSS ATC and BAS licensees will be unable successfully to coordinate their operations to avoid interference. To the contrary, BAS operators typically must coordinate their own operations with one another, and SBE has failed to provide any compelling basis to conclude that MSS/ATC and BAS operators will be unable successfully to undertake similar coordination efforts.

The Commission also should reject SBE's request that BAS channel A10 licensees be provided greater protection than necessary to protect their geographically limited operations in the form of a requirement that MSS/ATC operators shut down service throughout a grandfathered BAS licensee's entire mobile operational area whenever the BAS licensee seeks to operate on channel A10. SBE's proposal, which is in tended to provide further assurance that MSS/ATC licensees will protect BAS channel 10 licensees from harmful interference, is completely unjustified in light of the Commission's decision to require that MSS licensees deploying ATC services in this spectrum may not cause harmful interference to grandfathered BAS licensees' operations. More importantly, SBE's proposal effectively would render the entire 2483.5-2500 MHz band *unusable* by MSS/ATC operators in any part of the country in which grandfathered BAS licensees choose to operate — a result clearly contrary to the public interest.

The Commission should reject the request by BellSouth, *et al* that it change the power flux density ("PFD") limits for MSS/ATC operations in the 2496-2500 MHz band. First, the existing PFD rules apply to the 2496-2500 MHz on a global basis and the changes that BellSouth

and certain other terrestrial licensees recently have proposed in connection with planning for WRC-2007 are unjustified and are subject to vigorous objections by Globalstar and others. Second, such a change in the PFD rules applicable to Globalstar's space station emissions would render three of Globalstar's already intensively utilized channels largely unusable, and thus impose an inequitable hardship on Globalstar that simply cannot be justified given the extensive spectrum available to BRS licensees. Globalstar's system from its inception has been required to accommodate a number of inter-service sharing requirements, and there is no other MSS spectrum in which Globalstar is authorized to operate. In contrast, BRS licensees collectively now have access to *more than 11 times the spectrum available to Globalstar* in the S-band in which to operate. In light of these factors, it would be highly inequitable for the Commission even to consider requiring Globalstar, an existing provider that has been operating in the spectrum for close to ten years, drastically to curtail its operations in order to accommodate newly relocated BRS licensees.

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OPPOSITION OF GLOBALSTAR, INC.
TO PETITIONS FOR RECONSIDERATION

Pursuant to Section 1.429 of the Commission's rules, 47 C.F.R. § 1.429, Globalstar, Inc. ("Globalstar") hereby opposes the petitions for reconsideration of the Commission's April 27, 2006 Order in the above-referenced dockets[1/] filed by the Society of Broadcast Engineers, Incorporated ("SBE") and BellSouth Corporation, *et al* ("BellSouth").[2/] As discussed below,

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[1/] *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, *Order on Reconsideration and Fifth Memorandum Opinion and Order and Third Memorandum Opinion and Order and Second Report and Order*, 21 FCC Rcd 5606 (2006) ("*2006 Order*").

[2/] *See* Petition for Reconsideration of the Society of Broadcast Engineers, Inc., filed in IB Docket Nos. 03-66 *et al.*, May 22, 2006 ("SBE Petition"); Petition for Partial Reconsideration of BellSouth Corp., BellSouth Wireless Cable, Inc., and South Florida Television, Inc., filed in IB Docket Nos. 03-66 *et al.*, July 19, 2006 ("BellSouth Petition").

neither of the petitions presents any new facts that the Commission did not already carefully consider in reaching the conclusions set forth in the *2006 Order*, and both should be denied.

DISCUSSION

I. THE COMMISSION HAS PROVIDED MORE THAN ADEQUATE ASSURANCE TO BAS LICENSEES THAT THEIR OPERATIONS ON CHANNEL A10 WILL BE PROTECTED BY MSS/ATC OPERATIONS.

In the *2006 Order*, the Commission affirmed its prior decision that relocation of grandfathered broadcast auxiliary service ("BAS") licensees operating on BAS channel A10 in the 2496-2500 MHz band to replacement spectrum is not necessary in order to protect against potential interference from Broadband Radio Service ("BRS") and MSS ancillary terrestrial component ("ATC") operations.[3/] This decision was based on sound technical reasoning, which the Commission now has affirmed *three times*, that MSS/ATC and BAS operators will be able to share this spectrum and that any possible interference between MSS/ATC services and BAS operations can be minimized through reasonable coordination practices.[4/] Despite the settled nature of this decision, and without providing any new evidence for the record, SBE contends in its petition that, in the event the Commission once again rejects its proposals that BAS operations in the 2487.7-2500 MHz band be refarmed to alternate spectrum, the Commission should "confirm that newcomer MSS ATC operations are effectively secondary to earlier-in-time TV BAS channel A10 operations."[5/] Because the Commission has now addressed this issue several times, and each time granted more than adequate assurance that MSS licensees deploying ATC

3/ *See 2006 Order* at 5628-30 ¶¶ 38-42.

4/ *Id.* at 5630 ¶ 41.

5/ SBE Petition at 4.

services in this spectrum may not cause harmful interference to grandfathered BAS licensees' operations, no further action by the Commission is necessary or justified.

The Commission first considered the prospect of MSS/ATC interference into BAS channel A10 when it adopted the rules governing MSS licensees' deployment of ATC services in the S-band. The Commission found after reviewing the technical showings in the record that "ATC base stations could be operated on selected frequencies so that interference to these fixed and mobile stations could be avoided" and concluded that "ATC operators will be required to protect against adjacent-channel and brute-force overload interference to previously licensed users."[6] The Commission reaffirmed that conclusion in 2004, when it once again found after additional technical analysis that coordinated sharing of the 2483.5-2500 MHz band by ATC and BAS operators was fully achievable.[7] The Commission again concluded in 2005 that sharing between MSS/ATC licensees and BAS operations on channel A10 was possible, when it affirmed its ATC rules. The Commission squarely confirmed that "Big LEO MSS licensees desiring ATC authorization will be able to coordinate with BAS licensees to avoid causing harmful interference to BAS Channel A10" and that "BAS licensees using BAS Channel A10 are 'grandfathered,' and are entitled to operate without interference from MSS/ATC operations."[8]

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[6] *See* 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, 2060-63 ¶¶ 201-206 (2003) ("*ATC Report and Order*").

[7] *See* Review of the Spectrum Sharing Plan Among Non-Geostationary Satellite Orbit Mobile Satellite Service Systems in the 1.6/2.4 GHz Bands, *Report and Order, Fourth Report and Order and Further Notice of Proposed Rulemaking*, 19 FCC Rcd 13356, 13389-90 ¶ 75 (2004).

[8] *See* 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, *Memorandum Opinion and Order and Second Order on Reconsideration*, 20 FCC Rcd 4616, 4650-51 ¶¶ 93-94 (2005) ("*ATC Memorandum Opinion and Order*"). At the same time, the Commission denied SBE's request

In the *2006 Order*, the Commission reaffirmed these conclusions yet again. It explained that, in adopting rules to govern MSS operators' deployment of ATC services, it specifically had considered "the potential for mutual interference between ATC operations and the grandfathered [BAS] operations in the band, but...ultimately determined that these services *would be able to share spectrum and that any potential interference concerns could be mitigated through coordination*."[9/] The relief that SBE requests – assurance that MSS/ATC operators must protect grandfathered BAS licensees that choose to continue to operate on BAS channel A10 from interference – thus effectively has been addressed *four times*.[10/]

SBE implies, naively or condescendingly in Globalstar's view, that Globalstar remains unaware of its obligation to protect grandfathered BAS licenses from interference when it deploys ATC services. Globalstar is fully aware of and intends to fully comply with all of the rules associated with its ATC authorization. Specifically, section 25.254(a)(3) of the Commission's rules, 47 C.F.R. § 25.254(a)(3), requires that ATC operators, including Globalstar, '"take [any] steps necessary...through frequency coordination" to avoid causing interference to other services operating on assigned frequencies in the 2450-2500 MHz band."'[11/] As a result, BAS licensees operating on grandfathered channel 10 "are entitled to operate free

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that Globalstar be required to pay for BAS licensees operating on channel A10 to relocate to alternate spectrum. *Id.*

9/ *2006 Order* at 5630 ¶ 41 (citing *ATC Report and Order,* 18 FCC Rcd at 2060-2063 ¶¶ 201-206) (emphasis added).

10/ SBE also requested related relief when it sought to delay Commission action on Globalstar's application for ATC authority, but the International Bureau correctly denied that request as well. *See* Globalstar LLC – Request for Authority To Implement an Ancillary Terrestrial Component for the Globalstar Big LEO Mobile Satellite Services ("MSS") System (Call Sign S2115), *Order and Authorization*, 21 FCC Rcd 398, 408-409 ¶¶ 27-31 (2006) ("*Globalstar ATC Authorization*").

11/ *See Globalstar ATC Authorization* at 408 ¶ 27 (quoting 47 C.F.R. § 25.254(b)(3)).

from harmful interference from ATC operation[s]" and "it is the ATC operator, not BAS licensees, that bears the risk of any difficulty of coordinating base-station operation" in this spectrum.[12/] Finally, as Globalstar's ATC authorization expressly states: "Should it prove infeasible for [Globalstar] to protect grandfathered BAS operation in a given locality through coordination, then [Globalstar] will have to refrain from operating any base station in a way that would harmfully interfere with such BAS operation, unless the resultant interference is permissible under the terms of an agreement with the affected BAS licensee(s)."[13/] In light of the unambiguous language in the Commission's ATC rules and decisions, as well as the certifications that Globalstar has provided as a condition of obtaining ATC authority,[14/] Globalstar submits that the Commission has already granted the relief SBE requests.[15/]

12/ *Id.* at 408-409 ¶¶ 27, 31.

13/ *See Id.* at 409 ¶ 31 (citing *ATC Memorandum Opinion and Order* ¶ 94 (2005) ("ATC licensees may either coordinate with BAS licensees or negotiate with them for some other solution to potential interference problems")).

14/ *Id.* at 408 ¶ 27 ("As required by Section 25.254(a)(3), [Globalstar] declares...that it will take any steps necessary to ensure through frequency coordination that its ATC base stations do not harmfully interfere with BAS operation.").

15/ Globalstar notes that it recently filed a Petition for Rulemaking to expand its ATC authority to encompass its entire spectrum assignment. *See* Globalstar Petition for Expedited Rulemaking for Authorization to provide Ancillary Terrestrial Component Services in its Entire Spectrum Allocation, filed in RM-11339, June 20, 2006 ("*Globalstar Petition for Expanded ATC Authority*"). *See also* "Consumer and Governmental Affairs Bureau Reference Information Center Petition for Rulemakings Filed," Public Notice, Report No. 2784 (Jul. 27, 2006). In its petition, Globalstar made clear that, as required by the Commission's ATC rules (*see* 47 C.F.R. § 25.254(a)(3)), "Globalstar will exercise its ATC authority...in full compliance with any and all noninterference obligations that the Commission may impose on it" and that, "[s]hould the Commission authorize Globalstar to provide ATC services on its remaining spectrum, Globalstar acknowledges that it must protect other licensed users in that spectrum to the same extent as it is required to with respect to its MSS services." *See Globalstar Petition for Expanded ATC Authority* at 17, 22.

II. THE LIMITED NUMBER OF GRANDFATHERED BAS LICENSEES THAT MAY CONTINUE TO USE CHANNEL A10 DOES NOT WARRANT REVERSAL OF THE COMMISSION'S DECISION TO REQUIRE SHARING IN THE 2483.5-2500 MHZ BAND.

SBE once again argues that the Commission's decision that MSS/ATC and BAS operators can share the spectrum that encompasses BAS channel A10 through reasonable coordination measures should be reversed because the Commission's finding that channel A10 is "lightly used" is mistaken.[16/] However, SBE has failed to provide any new evidence concerning usage of that channel that would warrant a reversal of the Commission's finding and, more importantly, has failed to demonstrate that MSS/ATC operators will be unable to coordinate their operations with whatever number of BAS operators may continue to use channel A10 despite the availability of many other channels for BAS use.

In the *2006 Order*, the Commission once again affirmed its prior findings that "there are relatively few BAS facilities operating in the band and this number will not increase," and that the Commission's licensing records make clear that that channel is "lightly used" by BAS operators.[17/] In addition, as the Commission correctly recognized, the roughly 100 BAS operators still licensed to operate on BAS channel 10 are authorized also to operate on *up to nine* additional channels and thus face little, if any, hardship under the Commission's decision.[18/] SBE's assertions that a single TV pickup license may authorize "an unlimited number" of transmitters, or that grandfathered BAS licensees are reluctant to allow their licenses to expire, simply provides no factual basis for reversing the Commission's oft-reaffirmed decision.

16/ *See* SBE Petition at 2.

17/ *See 2006 Order* at 6528-29, 5627 ¶¶ 38, 35.

18/ *Id.* at 5628-29 ¶ 38 ("[B]ecause the majority of BAS stations are authorized to use channels outside the 2496-2500 MHz band, these licensees may be able to use other BAS channels in the 2 GHz band").

Nor is there any merit to SBE's suggestion that MSS ATC and BAS licensees will be unable successfully to coordinate their operations to avoid interference because "at the present time the Universal Licensing System (ULS) does not hold data for, nor allow TV Pickup licensees to enter the location(s) and height(s) of their ENG receive only (ENG-RO) sites."[19/] To the contrary, BAS operators typically are licensed to operate on up to ten BAS channels, and routinely operate in close proximity to each other during major news events. As a result, by necessity, BAS operators have established mechanisms in place – including roughly 100 local coordination committees whose primary function is to determine what BAS channels are available in a given location – to ensure that BAS operators do not interfere with each other. SBE has failed to provide any compelling basis to conclude that these highly successful coordination techniques will be less successful in ensuring that MSS/ATC operators will avoid interference to BAS operations. And as a practical matter, Globalstar believes that SBE's concerns are largely theoretical in nature and of less concern to actual BAS operators, who routinely coordinate their use of common BAS channels with other BAS licensees and can easily use one of the nine additional channels available to them in the (relatively unlikely) event that MSS/ATC and BAS operations occur at the same time in exactly that same location.[20/]

[19/] *See SBE Petition* at 3. And, as SBE notes, it has filed a Petition for Rulemaking proposing that the Commission modify the ULS system to allow TV Pickup licensees to enter the locations and heights of their ENG-RO sites to provide a further mechanism to avoid interference among competing users. *See* Society of Broadcast Engineers' Petition for Rulemaking requesting modification of the Universal Licensing System to allow TV Pickup and Remote Pickup Stations to document the locations and heights of their receive-only sites, filed in RM No. RM-11308, Sept. 6, 2005).

[20/] It should be noted that not one of the approximately 100 grandfathered BAS licensees has opposed the Commission's decisions in the *2006 Order* (or, for that matter, the Commission's prior decisions impacting BAS operations on channel A10).

III. MSS/ATC LICENSEES MUST NOT BE REQUIRED TO GIVE BAS CHANNEL A10 LICENSEES GREATER PROTECTION THAN NECESSARY TO PROTECT THEIR GEOGRAPHICALLY LIMITED OPERATIONS.

Finally, the Commission must reject SBE's overreaching request that MSS/ATC operators be required to shut down service throughout a grandfathered BAS licensee's "entire mobile operational area" whenever the BAS licensee seeks to operate on channel A10.[21/] As an initial matter, SBE proposes this drastic restriction as a means of assuring "that, between co-equal services, the newcomer must protect the preexisting, earlier-in-time service" — an assurance that, as discussed above, the Commission has already given and reaffirmed multiple times by confirming that BAS channel grandfathered channel 10 licensees "are entitled to operate free from harmful interference from ATC operation[s]" and ATC operators, not BAS licensees, "bear[] the risk of any difficulty of coordinating base-station operation" in this spectrum.[22/] More importantly, SBE's proposal that MSS/ATC providers be required entirely to cease operations *throughout* a grandfathered BAS channel A10 licensee's mobile operational area is wholly unnecessary to prevent interference to BAS operations, and would effectively render the entire 2483.5-2500 MHz band *unusable* by MSS/ATC operators in any portion of the country in which grandfathered BAS licensees choose to operate. This result is clearly contrary to the Commission's public interest finding that MSS/ATC and BAS operators should share this spectrum through coordination and other engineering solutions to ensure the most efficient use of the spectrum. It also would work an unjustified hardship on MSS/ATC providers such as Globalstar, who have made more than clear their willingness to protect the operations of grandfathered channel A10 BAS licensees, whose use of channel A10 is sporadic and limited to

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21/ *See* SBE Petition at 4.

22/ *See 2006 Order* at 408-409 ¶¶ 27, 31.

easily isolated geographic sites, and who typically have up to nine additional channels on which to operate.

There is no doubt that the blanket protection throughout a BAS licensee's "operational area" SBE proposes would be a convenience for BAS licensees, since it would eliminate any need for coordination with MSS/ATC licensees whatsoever. However, this approach is clearly contrary to sound spectrum management principles in that most, if not all, interference between MSS/ATC and BAS operations could be eliminated through the careful siting of ATC base stations in relation to BAS receive sites. During initial planning of the ATC system, coordination between the ATC base stations, which will not move once installed, and a BAS receive site, which is also fixed, can be achieved through standard techniques to reduce or eliminate interference, including, for example, antenna directivity and site shielding. Once such coordination efforts are complete, any potential interference between MSS/ATC and BAS operations would be greatly reduced, in not eliminated entirely.

As the Commission has found, the public interest requires that MSS/ATC be made available ubiquitously.[23/] The public interest benefits of MSS/ATC are not trumped by the public interest benefits of BAS, or any other wireless telecommunications service, regardless of which "came first." Few would argue today that the loss to the public from the Commission's 1980 reassignment of spectrum from long-established UHF television channels to newly developed cellular telecommunications did not serve the public interest. MSS/ATC and BAS are different services that both provide important public benefits. However, BAS, like other Commission licensees, including Globalstar, must accommodate to changing times and new services.

23/ *See ATC Report and Order,* 18 FCC Rcd at 1980 ¶ 32.

IV. THE COMMISSION SHOULD NOT ALTER THE LONG-ESTABLISHED POWER FLUX DENSITY RULES APPLICABLE TO MSS/ATC OPERATIONS IN THE 2496-2500 MHZ BAND.

The Commission also must reject the request by BellSouth[24/] to apply different power flux density ("PFD") limits to MSS licensees operating in the 2496-2500 MHz band. Since the initial allocations for MSS were made at WARC-92, MSS providers have been able to operate service downlinks in the world-wide allocated 2483.5-2500 MHz band. Between WARC-92 and WRC-95, extensive studies were conducted within the ITU-R to confirm the compatibility of, and devise appropriate sharing rules for, MSS and terrestrial services. It was found that MSS providers could operate service downlinks in the 2483.5-2500 MHz band and that sufficient protection was afforded to terrestrial services through the use of a power flux density coordination trigger level. This coordination trigger level, which was adopted by WRC-95 and is shown in Appendix 5 of the Radio Regulations, specifies that if the power flux density from an MSS system does not exceed the PFD coordination trigger level, no coordination with any terrestrial services operating in the 2483.5-2500 MHz band is required. The Globalstar system has always operated, and continues to operate, without exceeding the coordination trigger PFD level as shown in Appendix 5 of the Radio Regulations.

In light of the above, BellSouth's request is wholly without merit, given that the existing PFD coordination trigger level applies to the 2496-2500 MHz on a global basis and the changes that BellSouth and certain other terrestrial licensees recently have proposed in connection with planning for WRC-2007 continue to be subject to vigorous objections by MSS interests and others. Additionally, the imposition of PFD limits applicable to Globalstar's space station

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24/ *See* BellSouth Petition at 6-10.

emissions would render three of Globalstar's already intensively utilized channels largely unusable, and thus would impose a inequitable hardship on Globalstar that simply could not be justified given the extensive spectrum available to BRS licensees.

As discussed above, the current PFD coordination trigger levels applicable to Globalstar's downlink signal in the 2496-2500 MHz band were established in 1995, well before the relocation of BRS channel 1 licensees into this spectrum. These PFD levels have been found by the international community to provide adequate protection to terrestrial operations, and no compelling case has been made to make them more stringent. Moreover, although BellSouth suggests otherwise, it should be emphasized that the current PFD values applicable to Globalstar's operations were established by the ITU at WRC-95 and apply on a global basis. Indeed, as the ITU found after exhaustive study:

> The pfd values specified for the band 2483.5-2500 MHz provide full protection for analogue radio-relay systems using the sharing criteria established by Recommendation ITU-R SF.357, for operation with multiple non-GSO MSS systems employing code division multiple access techniques. The pfd values specified will not provide full protection for existing digital fixed systems in all cases. However, these pfd values are considered to *provide adequate protection for digital fixed systems designed to operate in this band*, where high-power industrial, scientific and medical equipment and possible low-power applications are expected to produce a relatively high interference environment.[25]

BellSouth's statements that the stricter PFD limits it advocates have been "advanced by the U.S. government"[26] is an outright misrepresentation of the facts: The limits suggested in the USA draft proposal pertain to the band 2500-2520 MHz — a band that, although allocated on a global basis to the MSS, has been restricted from use by the MSS in the United States and domestically allocated to BRS. While certain interests within the WRC-2007 preparatory team proposed that

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[25] *See 2006 Order* at n. 71, quoting ITU-RR App. 5, Annex 1, NOTE 7 (emphasis added).

[26] *See* BellSouth Petition at 7.

the PFD limits be increased, others, both within the United States and internationally, vigorously opposed them, as has been demonstrated in the proceedings of the ITU-R Joint Task Group 6-8-9.

In setting the PFD limits applicable to Globalstar's downlink signals, the Commission made clear that its decision was intended to ensure that both MSS and BRS systems could share the spectrum at issue through engineering solutions without causing harmful interference to each other.[27/] In particular, the Commission made clear that it would require that *both* Globalstar and BRS licensees adopt engineering solutions to minimize interference to and from their respective systems, and specifically recognized that BRS operators could design their networks to accept interference-to-noise ratios higher than they might find in a non-shared environment, which should compensate for the effect of low-level, external noise sources, thereby yielding systems with the same throughput, availability, and operating parameters as currently exist in the 2150-2156 MHz band.[28/] Moreover, as the Commission specifically recognized, "manufacturers can design BRS equipment such that BRS can reliably operate under the known PFD levels."[29/] As a prospective newcomer to the spectrum in which Globalstar has operated since 1997, BellSouth is not justified in attempting on reconsideration to avoid its own obligations to utilize entirely reasonable engineering solutions in order to enable both MSS and BRS licensees effectively to operate in this shared spectrum environment.

The other side of the coin is that the revised PFD limits that BellSouth seeks to have the Commission impose on Globalstar would substantially impair Globalstar's ability to continue to

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27/ *See 2006 Order* at 5624-25 ¶ 31.

28/ *Id.*

29/ *Id.* at 5625 ¶ 32.

meet the needs of its current and future customers. The Commission itself has recognized that Globalstar has designed its system in a manner that enables it to make extremely efficient use of its assigned spectrum by sharing with and/or accommodating a number of competing users.[30/] However, it would be inequitable even to consider imposing further restrictions on Globalstar's spectrum under these circumstances. As Globalstar has made clear in this and other proceedings, Globalstar's system from its inception has been required to accommodate inter-service sharing requirements that present challenges for Globalstar's engineering team.[31/] Imposition of the PFD limits BellSouth advocates would render the affected channels largely unusable. Such an outcome, in which an existing provider that has been operating in the spectrum for close to ten years would be forced drastically to curtail its operations in order to provide a questionably necessary level of protection to newly relocated licensees cannot be justified.

30/ For example, as the Commission noted in the *2006 Order*, "Globalstar has the capability to control its PFD in the 2496-2500 MHz band by limiting the number of users on a particular channel in a given geographical region." *2006 Order* at 5624-25 ¶ 31 (citing Application of L/Q Licensee, Inc. for Modification to Order and Authorization for Globalstar, File Nos. 88-SAT-WAIV-96 and 90-SAT-ML-96 (March 7, 1996). Therefore, as Globalstar stated in the ATC proceeding, the PFD in selected regions of the country may be dynamically controlled by the Globalstar operations center. *See Ex Parte* Letter from William Wallace, Counsel for Globalstar L.P., to Marlene H. Dortch, Secretary, Federal Communications Commission, IB Docket No. 01-18, Attachment at 18, 22-23 (filed July 1, 2002).

31/ For example, Globalstar is required to afford protection to both the Radio Astronomy Service ("RAS") in-band and the Global Navigation Satellite System (GPS and GLONASS) in an adjacent band, and in 2004 the Commission required that Globalstar share a portion of its licensed spectrum with Iridium. *See* Review of the Spectrum Sharing Plan Among Non-Geostationary Satellite Orbit Mobile Satellite Service Systems in the 1.6/2.4 GHz Bands, *Report and Order, Fourth Report and Order and Further Notice of Proposed Rulemaking*, 19 FCC Rcd 13356 (2004). The Commission further has sought comment on whether to require Globalstar to share even more of its licensed spectrum with Iridium – a prospect which Globalstar vigorously opposes. *Id. See also* Petition for Reconsideration of Globalstar LLC in IB Docket No. 02-364, Sept. 8, 2004.

Finally, although BRS proponents such as BellSouth contend that it is unfair for the Commission to require that they share the 2496-2500 MHz band with Globalstar subject to reasonable restrictions, such as the current PFD coordination trigger levels imposed on Globalstar's operations, the fact remains that BRS licensees collectively now have access to 90 MHz of dedicated spectrum in the 2496 -2690 MHz band, plus access through leasing arrangements to an additional 104 MHz of Educational Broadband Service spectrum.[32/] This is *more than 11 times the spectrum available to Globalstar* in the S-band, and there is no other MSS spectrum in which Globalstar is authorized to operate. In light of these factors, the increase in the PFD limits that BellSouth requests is wholly unwarranted.

[32/] *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, *Report and Order and Further Notice of Proposed Rulemaking*, 19 FCC Rcd. 14165 (2004) at ¶¶ 37-38.

Conclusion

For all of these reasons, the Commission should deny the petitions for reconsideration filed by SBE and BellSouth and affirm its decisions in the *2006 Order* regarding sharing requirements applicable to MSS licensees and BRS and BAS operators in the 2496-2500 MHz band.

Respectfully Submitted,

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August 18, 2006

CERTIFICATE OF SERVICE

I, Josh L. Roland, do hereby certify that I have on this 18th Day of August, 2006, caused to be served true and correct copies of the foregoing Opposition of Globalstar, Inc. to Petitions for Reconsideration upon the following persons via hand delivery (indicated with an asterisk ("*")) or first-class, United States mail, postage prepaid:

Marlene H. Dortch, Secretary*
Federal Communications Commission
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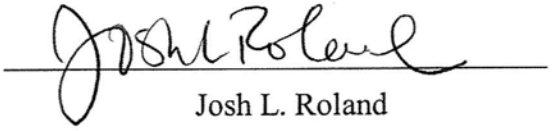

Josh L. Roland

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