

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 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 |) | WT Docket No. 03-66 |
| and Mobile Broadband Access, Educational and Other |) | RM-10586 |
| Advanced Services in the 2150-2162 and 2500-2690 MHz |) | |
| Bands |) | |
| |) | |
| Review of the Spectrum Sharing Plan Among Non- |) | |
| Geostationary Satellite Orbit Mobile Satellite Service |) | IB Docket No. 02-364 |
| Systems in the 1.6/2.4 GHz Bands |) | |
| |) | |
| Amendment of Parts 21 and 74 of the Commission's Rules |) | WT Docket No. 02-68 |
| With Regard to Licensing in the Multipoint Distribution |) | RM-9718 |
| Service and in the Instructional Television Fixed Service for |) | |
| the Gulf of Mexico |) | |

CONSOLIDATED REPLY

THE WIRELESS COMMUNICATIONS
ASSOCIATION INTERNATIONAL, INC.

Paul J. Sinderbrand
Robert D. Primosch

Wilkinson Barker Knauer, LLP
2300 N Street, NW
Suite 700
Washington, DC 20037-1128
202.783.4141

Its Attorneys

August 31, 2006

TABLE OF CONTENTS

| | | |
|------|--|----|
| I. | The Commission Should Adopt The Proposals Advanced In WCA’s Petition For Reconsideration..... | 1 |
| II. | The Proposals By The Society Of Broadcast Engineers And BellSouth Corp. For Mitigating Interference To Relocating BRS Channel 1 Operations At 2496-2500 MHz Should Be Adopted..... | 7 |
| A. | There Is No Opposition To Migrating BAS Out Of 2496-2500 MHz To Avoid Interference Between BRS And BAS..... | 8 |
| B. | Globalstar’s Opposition To BellSouth’s Proposal For Increasing The Power Flux Density Limits On MSS Operations In The 2496-2500 MHz Band Is Without Merit..... | 10 |
| III. | The Commission Should Not Await The Conclusion Of The Transition Process Before Re-Auctioning Forfeited BRS Authorizations And EBS White Space..... | 13 |
| IV. | The Commission Should Reject Ad Hoc MDS Alliance’s Latest Proposal For Addressing Protected Service Area Overlaps Involving BRS Channel 2..... | 17 |

EXECUTIVE SUMMARY

The record before the Commission demonstrates beyond peradventure that the proposals advanced in the petition for reconsideration filed by the Wireless Communications Association International, Inc. (“WCA”) should be adopted. Not only did WCA’s proposals draw substantial support from both the commercial and educational interests participating in this proceeding, there was no opposition whatsoever to any of WCA’s proposed rule changes, save for minor suggested changes to the specific language WCA has proposed for modifying the Middle Band Segment (“MBS”) signal level restriction.

No party opposed WCA’s proposal to allow a proponent to provide Educational Broadband Service (“EBS”) licensees with facilities substantially similar to their pre-transitions facilities, even if it means that the limit set forth in Section 27.55(a)(4)(iii) on signal strength at the Geographic Service Area (“GSA”) border will be exceeded. However, the Catholic Television Network (“CTN”), National ITFS Association (“NIA”), and Hispanic Information & Telecommunications Network, Inc. (“HITN”) suggested minor changes to WCA’s proposal to make clear that an EBS licensee who secures facilities that exceed the $-73 + 10\log(X/6)$ dBW/m² limit as part of a transition should not be permitted to enjoy that higher power level if it discontinues or substantially alters the type of operations it was conducting immediately prior to the transition. WCA agrees, and believes that the specific language proposed by CTN and NIA, with one minor edit, will suffice. The proposals advanced by HITN, however, should be rejected, as they unnecessarily increase the regulatory burden on licensees and the Commission.

The record also shows substantial support for the proposal by the Society of Broadcast Engineers (“SBE”) to eliminate the risk of interference between the Broadcast Auxiliary Service (“BAS”) and BRS at 2496-2500 MHz by requiring BAS licensees to repack their operations into the 2450-2486 MHz band through digitization. The arguments advanced by Globalstar, Inc. (“Globalstar”) against SBE’s proposal are totally inapposite, as the regulatory relationship between BAS and the Mobile Satellite Service (“MSS”) Ancillary Terrestrial Component in the 2487.5-2493.0 MHz band is quite different from the relationship between BAS and BRS in the 2496-2500 MHz band.

The record also evidences substantial support for the proposal by BellSouth Corp. (“BellSouth”) to amend Section 25.208(v) of the Commission’s Rules to reduce the strength of MSS signals within the 2496-2500 MHz band, as the power flux density (“PFD”) limits imposed on MSS transmissions in the 2496-2500 MHz band by the current version of the rule are not fully protective of cochannel BRS operations. The only opposition to BellSouth’s proposal comes from Globalstar, and is based on mischaracterizations of the record before the Commission and ignores the United States’ stated position on the potential for interference from MSS to mobile terrestrial services.

The proposal by Nextwave Broadband, Inc. (“Nextwave”) for auctioning of the forfeited BRS Basic Trading Area (“BTA”) authorizations and EBS white space also received significant support prior to the completion of the 2.5 GHz band transition. The lone opposition from the ITFS/2.5GHz Mobile Wireless Engineering & Development Alliance, Inc. (“IMWED”) ignores

that there are areas of the country where the EBS white space auction will provide educators with access to spectrum that is absolutely essential to meet their educational needs and to provide their commercial partners with the spectrum needed to bring wireless broadband service to communities that today they are underserved. Although Nextwave's proposal for auctioning EBS white space BTA-by-BTA was unanimously supported, the Commission should reject its proposal for auctioning a single EBS white space authorization in each BTA. Rather, the record overwhelmingly supports a group-by-group approach, with the MBS channel being auctioned separately from the Lower Band Segment or Upper band Segment. WCA also agrees with Nextwave that the Commission must quickly address pending administrative matters to afford auction participants with greater certainty as to what is EBS white space and what is already spoken for.

Finally, the Commission should reject the second proposal by the Ad Hoc MDS Alliance ("Ad Hoc") to revise the rules for "splitting the football" in situations where a BRS channel 2 protected service area ("PSA") overlaps the PSA of a BRS channel 2A license. Ad Hoc's original proposal drew no support from any filer, and was roundly criticized for being late filed, for exacerbating an already fractionalized licensing system, and for creating narrow slivers of bandwidth that are unlikely to be productively utilized in broadband offerings. The second proposal should fare no better. Any material departure from the standard "splitting the football" rules at this late date will frustrate ongoing efforts to make productive use of the 2.5 GHz band. Moreover, it will result in a windfall to BRS channel 2 licensees, as it would entitle them to serve the entire overlap area instead of splitting the football.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 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 |) | WT Docket No. 03-66 |
| and Mobile Broadband Access, Educational and Other |) | RM-10586 |
| Advanced Services in the 2150-2162 and 2500-2690 MHz |) | |
| Bands |) | |
| |) | |
| Review of the Spectrum Sharing Plan Among Non- |) | |
| Geostationary Satellite Orbit Mobile Satellite Service |) | IB Docket No. 02-364 |
| Systems in the 1.6/2.4 GHz Bands |) | |
| |) | |
| Amendment of Parts 21 and 74 of the Commission's Rules |) | WT Docket No. 02-68 |
| With Regard to Licensing in the Multipoint Distribution |) | RM-9718 |
| Service and in the Instructional Television Fixed Service for |) | |
| the Gulf of Mexico |) | |

CONSOLIDATED REPLY

The Wireless Communications Association International, Inc. ("WCA"), by its attorneys and pursuant to Section 1.429(g) of the Commission's Rules, hereby submits its consolidated reply in connection with the petitions for reconsideration of the *Order on Reconsideration, Third Memorandum Opinion and Order and Second Report and Order* (the "2006 Order") in these proceedings.¹

I. THE COMMISSION SHOULD ADOPT THE PROPOSALS ADVANCED IN WCA'S PETITION FOR RECONSIDERATION.

At the outset, the record before the Commission demonstrates beyond peradventure that the proposals advanced in WCA's petition for reconsideration of the *2006 Order* should be

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"].

adopted on reconsideration. Significantly, WCA's proposals drew substantial support from both the commercial and educational interests participating in this proceeding,² and, although minor changes to WCA's proposal for modifying the Middle Band Segment ("MBS") signal level restriction set forth in Section 27.55(a)(4)(iii) were suggested, *there is no opposition whatsoever to any of WCA's proposed rule changes!* Thus, the Commission should:

- Establish within Section 27.1221 appropriate deadlines for compliance with the height-benchmarking requirements;³
- Reduce from 60 days to 24 hours the time afforded by Section 27.53(1)(2) for the licensee of a new or modified base station interfering with an existing base station to comply with the more restrictive spectral mask;⁴
- Revise Section 27.53(1)(4) to require a cure within 24 hours where an existing base station suffers interference from an outdoor user station and within 14 days where a new or newly-modified base station suffers such interference;⁵
- Modify Section 27.53(1)(4) to provide that in other cases of documented interference from a user station to a base station, both licensees have an obligation to cooperate in good faith to reasonably mitigate the interference;⁶

² See, e.g., Opposition of Catholic Television Network and National ITFS Ass'n to Petitions for Reconsideration, WT Docket No. 03-66, at 4-5 (filed Aug. 18, 2006) (supporting, *inter alia*, WCA's proposals for modifying the self-transition deadline set forth in Section 27.1236(b)(6), amending Section 27.1214 to clarify right of lessee to provide comparable equipment to EBS lessor upon termination of spectrum lease agreement; providing special substantial service safe harbors to address highly-truncated Geographic Service Areas ("GSAs")) ["CTN/NIA Opposition"]; Comments and Consolidated Opposition of Sprint Nextel Corp. to Petitions for Reconsideration, WT Docket No. 03-66, at 2 n.2 (filed Aug. 18, 2006) ("While not expressly discussed below, Sprint Nextel generally supports the arguments raised in the [WCA] petition for reconsideration.") ["Sprint Nextel Opposition"]; Comments of WiMAX Forum on Petitions for Reconsideration, WT Docket No. 03-66, at 2-5, 10-12, 14-15 (filed Aug. 18, 2006) ["WiMAX Comments"].

³ See Petition of the Wireless Communications Ass'n Int'l, Inc. for Partial Consideration, WT Docket No. 03-66, at 1-3 (filed July 19, 2006) ["WCA Petition"]; Sprint Nextel Opposition at 2 n.2; WiMAX Comments at 2-3.

⁴ See WCA Petition at 2-4; Sprint Nextel Opposition at 2 n.2; WiMAX Comments at 3-4.

⁵ See WCA Petition at 4-5; Sprint Nextel Opposition at 2 n.2; WiMAX Comments at 4.

⁶ See WCA Petition at 4-5; Sprint Nextel Opposition at 2 n.2; WiMAX Comments at 4.

- Amend Section 27.53(l)(4) to conform the limitations on non-mobile user station emissions with those for mobile user stations;⁷
- Revise Section 27.53(l) to clarify that where two or more contiguous channels are utilized as part of the same system, all out-of-band emission limitations are to be measured at the outermost edges of those contiguous channels;⁸
- Revisit Section 27.53(l) to provide that all licensees, not just first adjacent channel licensees, should have standing to submit documented interference complaints;⁹
- Amend Section 27.1236(b)(6) to conform the deadline for self-transitions to that established for proponent-driven transitions as contemplated in paragraph 143 of the *2006 Order*;¹⁰
- Clarify that great ellipses are to be utilized in drawing GSA boundaries;¹¹

⁷ See WCA Petition at 4; Sprint Nextel Opposition at 2 n.2; WiMAX Comments at 4.

⁸ See WCA Petition at 6-7; Sprint Nextel Opposition at 2 n.2; WiMAX Comments at 4.

⁹ See WCA Petition at 7-8; Sprint Nextel Opposition at 2 n.2; WiMAX Comments at 3.

¹⁰ See WCA Petition at 9-10; Sprint Nextel Opposition at 2 n.2; WiMAX Comments at 11-12; CTN/NIA Opposition at 4. In addition, those addressing the proposal by the School Board of Broward County (“Broward”) are uniform in their opposition to Broward’s proposal that Educational Broadband Service (“EBS”) licensees be permitted to engage in self-transition activities prior to the January 19, 2009 deadline for submitting initiation plans. See Consolidated Opposition and Comments of Wireless Communications Ass’n Int’l, Inc., WT Docket No. 03-66, at 41-43 (filed Aug. 18, 2006) [“WCA Opposition”]; Sprint Nextel Opposition at 16-17; WiMAX Comments at 12-13. As Sprint Nextel Corp. (“Sprint Nextel”) succinctly put it, granting Broward’s request “will deter the smooth transition of a given BTA because proponents will be forced to deal with an unpredictable BTA environment, where licensees will have take a range of varied ‘transition-related’ actions to promote their individual self interests” and “would create a ripe environment for licensees to unfairly extract payments from proponents for unnecessary equipment and other upgrades under the guise of ‘transition-related’ expenses.” Sprint Nextel Opposition at 17-18.

¹¹ See WCA Petition at 10-12; Sprint Nextel Opposition at 2 n.2; WiMAX Comments at 10-11; CTN/NIA Opposition at 5. The record also reflects substantial opposition to the proposal by the Hispanic Information and Telecommunications Network, Inc. (“HITN”) for a change in the Commission’s procedures for drawing GSA boundaries where an application for a new license that was pending on January 10, 2005 is subsequently dismissed. In addition to WCA, the WiMAX Forum and Sprint Nextel took issue with HITN’s assertion that the Commission’s policy is unlawful. See WCA Opposition at 22; Sprint Nextel Opposition at 11-13; WiMAX Comments at 10-11. Not only do Sprint Nextel and the WiMAX Forum join WCA in establishing that there is a rational basis for the Commission’s handling of this scenario, but Sprint Nextel also correctly notes that the decision to cede the forfeited territory to the Broadband Radio Service (“BRS”) Basic Trading Area (“BTA”) licensee is consistent with the Commission’s decision in 1995 establishing the rights such a licensee would be acquiring at auction. See Sprint Nextel Opposition at 11-12, citing *Amendment of Parts 21 and 74 of the Commission’s Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service*, Report and Order, 10 FCC Rcd 9589, 9612 (1995) (“[h]olders of the BTA authorizations obtain contingent rights to this

- Modify Section 27.1214(c) to reflect the Commission’s long-standing policy of permitting lessees to make comparable equipment available upon termination of an EBS lease;¹²
- Establish a new safe harbor to address those situations where GSAs are highly truncated;¹³
- Permit relocating 2.1 GHz BRS licensees to operate on 2.1 GHz and 2.5 GHz band spectrum pending completion of their involuntary migration;¹⁴ and
- Amend Section 27.1201(d) to clarify that Sections 27.1203 and 27.1214 do not apply to grandfathered commercial EBS stations.¹⁵

As noted above, WCA’s petition also proposed that the Commission clarify that the $-73 + 10\log(X/6)$ dBW/m² limit on signal strength at the GSA border set forth in Section 27.55(a)(4)(iii) is not applicable to MBS facilities provided by a proponent if those facilities comport with the Commission’s mandate that an EBS licensee be provided with facilities in the MBS that are substantially similar to the licensee’s pre-transition facilities.¹⁶ Significantly, no party has opposed allowing a proponent to provide EBS licensees with facilities substantially

spectrum when they receive their authorizations, so that the forfeited channels will revert and become part of the BTA authorization up to the boundary of the BTA.”).

¹² See WCA Petition at 13-15; Sprint Nextel Opposition at 2 n.2; WiMAX Comments at 14; CTN/NIA Opposition at 4.

¹³ See WCA Petition at 15-18; Sprint Nextel Opposition at 2 n.2; WiMAX Comments at 14; CTN/NIA Opposition at 4-5; Comments and Consolidated Opposition of Clearwire Corporation on Petitions for Reconsideration, WT Docket No. 03-66 at 8 n.21 (filed Aug. 18, 2006) [“Clearwire Opposition”].

¹⁴ See WCA Petition at 21-22; Sprint Nextel Opposition at 2 n.2; WiMAX Comments at 14; Comments of Ad Hoc MDS Alliance on Petitions for Reconsideration, WT Docket No. 03-66, at 6 (filed Aug. 18, 2006) (“Ad Hoc strongly supports WCAI’s request that the Commission state unequivocally that incumbent MDS Channel 1 (BRS 1) and MDS Channel 2/2A (BRS 2) licensees may commence operations in the 2.5/2.6 GHz replacement spectrum at any time, prior to the commencement of the transition/relocation, and that they may also continue operations in the 2.1 GHz band until the conclusion of the relocation process.”) [“Ad Hoc Comments”].

¹⁵ See WCA Petition at 22-23; Sprint Nextel Opposition at 2 n.2; WiMAX Comments at 14.

¹⁶ See WCA Petition at 19-20, citing *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, 14206 (2004) [“2004 Report and Order”] (“[t]he proponent’s Transition Plan must provide for the MBS channels to be authorized to operate with transmission parameters that are substantially similar to those of the licensee’s current operation.”).

similar to their pre-transitions facilities, even if it means that the $-73 + 10\log(X/6)$ dBW/m² limit on signal strength at the GSA border is exceeded.¹⁷ Catholic Television Network (“CTN”), National ITFS Association (“NIA”) and HITN, however, have expressed concern that an EBS licensee who secures facilities that exceed the $-73 + 10\log(X/6)$ dBW/m² limit as part of a transition should not be permitted to enjoy that higher power level if it discontinues or substantially alters the type of operations it was conducting immediately prior to the transition.¹⁸ WCA agrees.

It was never WCA’s intent to allow a licensee, that receives in the transition facilities that exceed the $-73 + 10\log(X/6)$ dBW/m² limit, the right to exceed that limit in perpetuity. Thus, WCA has no objection to modification of its proposal to clearly establish boundaries. CTN and NIA have proposed specific language that, with one minor change, should prove satisfactory. Specifically, Section 27.55(a)(4)(iii) should read as follows:

Following transition, for stations in the MBS, the signal strength at any point along the licensee’s GSA boundary must not exceed the greater of (a) $-73.0 + 10\log(X/6)$ dBW/m², where X is the bandwidth in MHz of the channel, or (b) for facilities that are substantially similar to the licensee’s pre-transition facilities (including modifications that do not alter the fundamental nature or use of the transmissions), the signal strength at such point that resulted from the station’s operations immediately prior to the transition, provided that such operations comported with § 27.55(a)(4)(i). (underscoring reflecting change from NIA/CTN proposal).

Adoption of this proposal should obviate the need for adopting the alternatives that HITN has proposed to address the same problem. HITN has suggested that when a station provided as

¹⁷ Indeed, the WiMAX Forum specifically endorsed the WCA proposal. *See* WiMAX Comments at 14.

¹⁸ *See* CTN/NIA Opposition at 5; Consolidated Opposition of the Hispanic Information and Telecommunications Network to Petitions for Further Reconsideration, WT Docket No. 03-66, at 4-5 (filed Aug. 18, 2006) [“HITN Opposition”].

part of a transition is predicted to exceed the MBS signal strength limit, the transitioning party be required to inform the FCC of that specific fact and provide the Commission with a copy of the last site based authorization on which such MBS facilities were based.¹⁹ WCA certainly appreciates HITN's desire to allow cochannel licenses to identify those situations in which they may be subject to greater than normal signal strengths from a neighboring market. However, no additional rules are necessary given that Section 27.1235(b) of the Rules already requires the proponent to provide a post-transition notification that includes all of the technical parameters necessary to determine the predicted signal strength of a given MBS station at and beyond its GSA boundary.²⁰ Thus, the Commission's records will reflect those situations in which a licensee has benefited from the proposed rules, without the additional rule HITN proposes.

Similarly, WCA does not believe that it is necessary to adopt HITN's proposal to automatically sunset authorizations to exceed the $-73 + 10\log(X/6)$ dBW/m² limit after 10 years, subject to extension on a case-by-case basis where the licensee is still utilizing the spectrum in permissible fashion.²¹ This approach merely will increase the paperwork burden on EBS licensees, and will almost invariably result in disputes when EBS licensees inadvertently neglect to file for extensions but continue to need high-powered facilities. WCA's proposed rule would not permit a licensee to exceed the $-73 + 10\log(X/6)$ dBW/m² limit once it ceases utilizing the spectrum for purposes similar to those used before transition. Thus, for example, an EBS licensee would be required to comply with the limit at its GSA border as soon as it converts from

¹⁹ See HITN Opposition at 6.

²⁰ See 47 C.F.R. § 27.1235(b) (2005).

²¹ See HITN Opposition at 6.

a traditional video service to a data operation, or when it moves from a “big stick” data supercell to a cellularized network. Absent any indication that EBS licensees will ignore the rule and operate illegally in excess of the limit, HITN’s proposal that licensees be required to file for an extension would appear to be regulatory overkill. However, WCA would not object to a requirement that where a licensee exceeds the $-73 + 10\log(X/6)$ dBW/m² limit at its GSA boundary at the time of transition, it be required to notify the Commission when it discontinues service or modifies its operations such that it is no longer entitled to exceed that limit.

II. THE PROPOSALS BY THE SOCIETY OF BROADCAST ENGINEERS AND BELL SOUTH CORP. FOR MITIGATING INTERFERENCE TO RELOCATING BRS CHANNEL 1 OPERATIONS AT 2496-2500 MHZ SHOULD BE ADOPTED.

In their petitions for reconsideration of the *2006 Order*, both the Society of Broadcast Engineers (“SBE”) and BellSouth Corp. (“BellSouth”) urge the Commission to take measures designed to mitigate the interference that BRS channel 1 operations will otherwise suffer when migrated to the 2496-2500 MHz band. As discussed below, those proposals drew substantial support, which should come as no surprise given the material risk that Mobile Satellite Service (“MSS”) and Broadcast Auxiliary Service (“BAS”) use of 2496-2500 MHz under the current rules will result in interference to BRS. And, as the WiMAX Forum correctly noted:

If competitive wireless broadband systems are to thrive in the 2.5 GHz band, it is imperative that the Commission craft a regulatory environment in which the potential for interference to operating systems is minimized. Consumers will not tolerate service that becomes sporadic due to interference and will migrate to alternative service providers if they perceive that service offerings depend on the 2.5 GHz band are less reliable than those offered on other spectrum.²²

²² WiMAX Comments at 7-8.

A. *THERE IS NO OPPOSITION TO MIGRATING BAS OUT OF 2496-2500 MHz TO AVOID INTERFERENCE BETWEEN BRS AND BAS.*

In its petition for reconsideration of the *2006 Order*, SBE urged the Commission to eliminate the risk of interference between the BAS and the BRS at 2496-2500 MHz by requiring BAS licensees to repack their operations into the 2450-2486 MHz band through digitization.²³ That proposal was supported by the WiMAX Forum and by WCA, which supplemented SBE's filing by illustrating that the *2006 Order* both underestimated the extent of the potential for interference and overestimated the ability of BRS licensees to take prophylactic measures to protect themselves.²⁴ Indeed, not one argument has been advanced against relocation of BAS out of the 2496-2500 MHz band.

As SBE noted in its petition, repacking of BAS would not only remove the potential for interference to BRS, but it would also eliminate the risk of interference to BAS from the MSS Ancillary Terrestrial Component ("ATC") in the 2487.5-2493.0 MHz band.²⁵ Globalstar, Inc. ("Globalstar") opposes SBE's proposal. The gravamen of Globalstar's argument is that MSS/ATC has always been, in essence, a secondary service relative to BAS, that the Commission's existing rules and policies already require MSS/ATC operations to fully protect BAS from interference, and thus there is no reason for the Commission to take further action to

²³ See Petition of the Society of Broadcast Engineers, Inc. for Reconsideration, IB Docket No. 02-364 *et al.*, at 4-5 (filed May 22, 2006) ["SBE Petition"].

²⁴ See WCA Opposition at 2-7; WiMAX Comments at 9-10.

²⁵ See SBE Petition at 4-5.

protect BAS.²⁶ The relationship between BAS and BRS, however, is fundamentally different and requires a different analysis.

BRS channel 1 licensees at 2150-2156 MHz have never been secondary to any other service, have never been required to accept interference from any other service, and have never been required to protect any other service in the way that MSS/ATC must protect BAS. MSS was required to pay a heavy price to secure ATC authority in the spectrum shared with BAS – it had to provide absolute protection to BAS operations and accept interference from BAS, even as BAS itinerant operations move from place to place as licensees cover breaking news and sports events.²⁷ While BAS licensees have a measure of protection against interference from MSS/ATC operations by way of Section 25.254(a)(3) and Section 25.255,²⁸ there are no analogous rules providing BRS with similar protection against interference from BAS. To the contrary, as WCA and the WiMAX Forum have pointed out, although the *2006 Order* anticipates that BAS licensees will utilize mitigation techniques to avoid interference to BRS, the

²⁶ See Opposition of Globalstar, Inc. to Petitions for Reconsideration, WT Docket No. 03-66, at 2-5 (filed Aug. 18, 2006) [“Globalstar Opposition”]. Globalstar appears unconcerned about the potential for interference from BAS to its operations. This is perhaps explained by the fact that the “forward-band mode” mandate of Section 25.149 of the Rules requires Globalstar to use the 2.4 GHz band for its base-to-subscriber link, and thus interference from BAS will be limited to individual handsets that might receive a BAS signal. Given that MSS/ATC is not envisioned to be a mass market service, Globalstar might reasonably conclude that it is not at substantial risk. By contrast, BRS channel 1 is used heavily for subscriber-to-base station transmission, will continue to be used in that manner for the foreseeable future, and is part of a mass market service. Thus, BRS channel 1 licensees cannot accept a source of interference that Globalstar might perceive as acceptable.

²⁷ 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*, Memorandum Opinion and Order and Second order on Reconsideration, 20 FCC Rcd 4616, 4650-51 (2005) (“BAS licensees using BAS Channel A10 are ‘grandfathered,’ and are entitled to operate without interference from MSS/ATC operations.”).

²⁸ See 47 C.F.R. §§ 25.254(a)(3), 25.255 (2005). It is curious to note that Globalstar’s pleading fails to mention Section 25.255, which mandates that “[i]f harmful interference is caused to other services by ancillary MSS ATC operations, either from ATC base stations or mobile terminals, the MSS ATC operator must resolve any such interference.” It is this rule, even more so than Section 25.254(a)(3), that provides protection to BAS.

Commission has not required them to do so.²⁹ Thus, the arguments advanced by Globalstar against SBE's repacking proposal simply have no applicability to the sharing of 2496-2500 MHz band between BRS and BAS.

As such, the record is clear – the transient nature of BAS operations makes sharing between BAS and BRS impossible without substantial operational restrictions that would render the spectrum unusable by one service or the other. Thus, the better course is to adopt the SBE proposal and migrate BAS out of the 2496-2500 MHz band.

B. GLOBALSTAR'S OPPOSITION TO BELL SOUTH'S PROPOSAL FOR INCREASING THE POWER FLUX DENSITY LIMITS ON MSS OPERATIONS IN THE 2496-2500 MHz BAND IS WITHOUT MERIT.

BellSouth's petition for reconsideration urged the Commission to amend Section 25.208(v) of the Commission's Rules, as the power flux density ("PFD") limits imposed on MSS transmissions in the 2496-2500 MHz band by the current version of the rule are not fully protective of cochannel BRS operations.³⁰ WCA, Clearwire Corporation ("Clearwire") and the WiMAX Forum all have supported adoption of BellSouth's proposal.³¹ Indeed, it is only Globalstar that has opposed adoption of BellSouth's proposal.

²⁹ See WCA Opposition at 5; WiMAX Comments at 9 (the 2006 Order "imposes no obligation whatsoever on BAS licensees to utilize those interference mitigation techniques.").

³⁰ See Petition of BellSouth Corp. *et al.* for Partial Reconsideration, WT Docket No. 03-66, at 6-10 (filed July 19, 2006) ["BellSouth Petition"].

³¹ See WCA Opposition at 7-12; Clearwire Opposition at 7; WiMAX Comments at 8. It should be noted that Globalstar wrongly suggests that BellSouth is attempting "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." Globalstar Opposition at 12. To the contrary, the situation here is almost identical to that the Commission encountered just earlier this year when the Commission affirmed on reconsideration its earlier elimination of the unused Fixed Satellite Service ("FSS") and Broadcast Satellite (Sound) Service ("BSS") allocations in the 2500-2690 MHz band. In so doing, the Commission made the determination "that deleting the BSS/FSS allocation would serve the public interest by preventing the potential disruption of EBS and BRS across the country, as well as by avoiding imposing high costs on terrestrial licensees to mitigate harmful interference from

First, there is absolutely no basis in fact for Globalstar's assertion that the PFD coordination triggers that were established in 1995 will be protective of the cellularized, mobile broadband services that BRS channel 1 licensees are planning to deploy in their spectrum. In support of its claim, Globalstar wrongly relies on Note 7 to ITU-RR App. 5, Annex 1. That note concedes that although the PFD limits were designed only to provide full protection to analogue radio-relay systems and that "[t]he pfd values specified will *not* provide full protection for *existing digital fixed systems* in all cases," "these pfd values are considered adequate protection for digital *fixed* systems designed to operate in this band."³² Of course, the sorts of ubiquitous *mobile* broadband systems that will be deployed at 2496-2500 MHz were not even being contemplated in 1995, and certainly were not the subject of any analysis by the International Telecommunications Union at that time. Thus, the Commission should reject Globalstar arguments based on conclusions regarding the impact of MSS transmissions on fixed systems of more than a decade ago.

Indeed, the inadequacy of the current PFD limits to protect contemporary BRS/EBS operations in the 2.5 GHz band has been recognized by the United States, which is actively attempting to impose world-wide the very limits that BellSouth, WCA and the WiMAX Forum advocate here. As BellSouth notes in its petition, and WCA expanded upon in its August 18, 2006 filing,³³ the revisions BellSouth proposes are identical to those that the United States found

BSS and FSS services to terrestrial services." *Amendment of Parts 2, 25, and 87 of the Commission's Rules to Implement Decisions from the World Radiocommunication Conferences Concerning Frequency Bands Between 28 MHz and 36 GHz and to Otherwise Update the Rules in this Frequency Range*, Order On Reconsideration, 21 FCC Rcd 5492, 5497-98 (2006).

³² Globalstar Opposition at 11 (emphasis added).

³³ See BellSouth Petition at 2; WCA Opposition at 9-12.

necessary to protect modern terrestrial use of the 2.5 GHz band during domestic efforts to prepare for the 2007 World Radiocommunication Conference (“WRC-2007”). While Globalstar suggests that it is voicing objections to those limits through foreign administrations or otherwise,³⁴ it certainly did not do so domestically. Globalstar was an active participant in the Informal Working Group 3 (“IWG-3”) process that ultimately proposed these PFD limits and, although Globalstar was one of the satellite interests that submitted a minority view on another IWG-3 proposal, neither Globalstar nor any other satellite interest endorsed a minority view on the proposed hard PFD limits that the United States has adopted. More importantly, however, whether Globalstar agrees or not, the position of the United States is that the current PFD limits are not sufficient to protect terrestrial operations and more stringent restrictions are necessary.

As the WiMAX Forum correctly noted:

The Commission cannot expect the United States’ proposals to be taken seriously at WRC-2007 if the Commission is unwilling to impose on MSS operations in the United States the very restrictions the United States is advocating internationally. Thus, adoption of the BellSouth proposal on reconsideration will not only provide much needed protection to BRS channel 1 licensees, but will send an unmistakable message to the rest of the world that the United States is committed to its position on Agenda Item 1.9.³⁵

Finally, Globalstar appears to suggest that BRS channel 1 licensees should be required to accept interference from Globalstar because BRS licensees collectively have access to 90 MHz and can lease up to 104 MHz of EBS spectrum, which Globalstar contends is “more than 11

³⁴ See Globalstar Opposition at 10.

³⁵ WiMAX Comments at 8. Given the recognition by the United States that the current PFD limits are inadequate, it is absurd for Globalstar to suggest that Bellsouth’s proposal reflects an attempt to avoid use of “entirely reasonable engineering solutions in order to enable both MSS and BRS licensees effectively to operate in this shared spectrum environment.” Globalstar Opposition at 12. *There are no engineering solutions that will permit BRS to operate in the same manner it currently does when relocated to 2496-2500 MHz and subjected to MSS signals of the strength permitted under the current rules.*

times the spectrum available to Globalstar in the S-band.”³⁶ Of course, Globalstar’s math is wrong – even under the existing bandplan BRS has access to only 78 MHz of spectrum (thirteen 6 MHz channels) and the amount is reduced under the new bandplan. More importantly, Globalstar is disingenuously comparing apples (its specific allocation in S-band) with oranges (the total quantity of spectrum allocated for all BRS and EBS licensees combined). A more fair comparison would show that while BRS is allocated 78 MHz collectively, *MSS is allocated 129 MHz collectively*, including: 56 MHz at 1545-1559/1646.5-1660.5 MHz and 1525-1544/1626.5-1645.5 MHz; 40 MHz at 2000-2020 MHz/2180-2200 MHz; and 33 MHz at 1610-1626.5 MHz/2483.5-2500 MHz. Moreover, Globalstar can access leased EBS spectrum (or BRS spectrum, for that matter) as readily as anyone else – indeed, were Globalstar to lease or acquire BRS or EBS spectrum it could provide terrestrial services without running roughshod over BRS channel 1 licensees.

III. THE COMMISSION SHOULD NOT AWAIT THE CONCLUSION OF THE TRANSITION PROCESS BEFORE RE-AUCTIONING FORFEITED BRS AUTHORIZATIONS AND EBS WHITE SPACE.

The record before the Commission speaks with unmistakable clarity that both commercial and educational interests will best be served by reversing the decision of the *2006 Order* to await the completion of the 2.5 GHz band transition process before re-auctioning forfeited BRS BTA authorizations and auctioning the EBS white space. The proposal by Nextwave Broadband, Inc. (“Nextwave”) for an immediate re-auctioning of the forfeited BRS

³⁶ Globalstar Opposition at 14 [emphasis removed].

BTA licenses drew unanimous applause from those commenting.³⁷ And, CTN/NIA joined with WCA and a variety of others to urge the Commission to schedule the EBS white space auction long before the October 20, 2010 deadline for completing transitions.³⁸

In fact, only the ITFS/2.5GHz Mobile Wireless Engineering & Development Alliance, Inc. (“IMWED”) objected to conducting the EBS white space auction prior to the completion of the transition process, claiming that Nextwave is wrong in suggesting that an immediate auction of EBS white space will speed deployments of broadband.³⁹ There is no doubt that in some markets, IMWED is absolutely right – there is so little EBS white space available that an immediate auction will not have any impact whatsoever on the timing of broadband deployments. But what IMWED misses (perhaps because its members primarily hold EBS authorizations in large markets where EBS white space is limited) is that there are areas of the country where the EBS white space auction will provide educators with access to spectrum that is absolutely essential if their commercial partners are to bring wireless broadband service communities that today they are not authorized to serve. As CTN/NIA rightly note, “there likely will be substantial demand for vacant EBS spectrum in some areas . . .”⁴⁰

Not surprisingly, there is substantial support in the record for the Commission to adopt rules in connection with the EBS white space auction that would limit the rights of auction

³⁷ See WCA Opposition at 12-16; Clearwire Opposition at 4; WiMAX Comments at 5-6; Sprint Nextel Opposition at 13-15.

³⁸ See CTN/NIA Opposition at 3-4; Clearwire Opposition at 4; WiMAX Comments at 5-6; HITN Opposition at 3-4.

³⁹ See Consolidated Opposition of The ITFS/2.5GHz Mobile Wireless Engineering & Development Alliance, Inc. to Petitions for Reconsideration and Clarification, WT Docket No. 03-66, at 3-5 (filed Aug. 17, 2006) [“IMWED Opposition”].

⁴⁰ CTN/NIA Opposition at 3.

winners during the transition process as a means of assuring that new EBS licensees not deter or delay transitions.⁴¹ Those commenting on the Nextwave petition were unanimous in the view that EBS white space should be auctioned on a BTA-by-BTA basis, but that Nextwave's proposal for a single EBS white space license for each BTA should be rejected in favor of a group-by-group approach.⁴² Indeed, most suggested separating the MBS channel from the Lower Band Segment and Upper Band Segment channels for purposes of the auction to better allow auction participants to select the spectrum that most closely meets their needs. As CTN/NIA put it:

Separating channel groups within a BTA for auction will allow EBS license holders of particular channel groups in nearby areas to extend their services geographically, without having to bid on channel groups that they do not want or need. Likewise separating low-power LBS/UBS channels from high-power MBS channels allows EBS licensees whose focus is only on two-way data services, or only on video services, to acquire the spectrum they need, without having to bid on spectrum they do not need.⁴³

WCA agrees with Nextwave that the Commission must quickly address pending administrative matters to afford auction participants with greater certainty as to what is EBS

⁴¹ See WCA Opposition at 14-15; Clearwire Opposition at 4 (“[N]ew licenses could be expressly conditioned on operation in a post-transition mode.”); HITN Opposition at 3-4 (proposing that the auctioned spectrum be grouped for use under the new bandplan); Sprint Nextel Opposition, at 15 (“The Commission need only clarify that new EBS licensees will not receive transition benefits from proponents, including any transition costs or other transition benefits, if the new EBS licensee elects to initiate operations pursuant to the pre-transition band plan.”); WiMAX Comments at 6 (“Moreover, those commenting on the issue in response to the *Further Notice of Proposed Rulemaking* (“FNPRM”) suggested that the Commission make clear that those securing EBS white space authorizations not be entitled to receive replacement downconverters or cost-free migration of programming to the MBS. By adopting those suggestions, the Commission will eliminate any risk that the existence of new EBS licensees will deter a proponent from transitioning a market or that a new EBS licensee will somehow be able to delay transitions.”) (footnotes omitted).

⁴² See WCA Opposition at 15-16; CTN/NIA Opposition at 3-4; Clearwire Opposition at 4-5; HITN Comments at 3-4.

⁴³ CTN/NIA Opposition at 4-5. See also WCA Opposition at 15-16; Clearwire Opposition at 3-5.

white space and what is already spoken for.⁴⁴ Thus, to clear the way for the most expeditious possible EBS white space auction, the Commission should promptly address those matters pending before it that go to the heart of whether a given license is valid or not (such as petitions for reinstatement of forfeited licenses and requests for waiver of the renewal application filing deadline), and should cleanse the Universal Licensing System of licenses shown as “active” but that have in fact been forfeited or canceled.

However, it would be counterproductive to the goal of expediting the EBS white space auction to adopt Clearwire’s proposal that the Commission “permit [EBS licensees] one final opportunity to demonstrate an intent to use their previously licensed spectrum and to cure any defects which may currently exist with respect to their licenses.”⁴⁵ EBS licensees have had ample opportunity to present their cases to the Commission. WCA urges the Commission to quickly resolve the pending cases, one way or the other, and thus pave the way for the EBS white space auction. A Commission invitation to additional EBS licensees that have lost their licenses to seek reinstatement can only slow the scheduling of the EBS white space auction – before the Commission could provide auction participants with certainty as to what spectrum is available, the Commission would have to devote resources to processing requests for reinstatement and then address the inevitable petitions for reconsideration and applications for review from those whose requests are found wanting.

⁴⁴ See Petition of Nextwave Broadband, Inc. for Reconsideration, WT Docket No. 03-66, at 11-12 (filed July 19, 2006).

⁴⁵ Clearwire Opposition at 6.

IMWED contends, quite rightly, “that the Commission should place a premium on implementing EBS auctions thoughtfully.”⁴⁶ The issues that concern IMWED, such as the applicability of designated entity rules or the propriety of permitting EBS auction participants to utilize funding received from commercial spectrum lessees, were fully addressed in response to the *Further Notice of Proposed Rulemaking* in this proceeding. WCA’s positions on those issues are a matter of record before the Commission, and need not be repeated in detail here.⁴⁷

IV. THE COMMISSION SHOULD REJECT AD HOC MDS ALLIANCE’S LATEST PROPOSAL FOR ADDRESSING PROTECTED SERVICE AREA OVERLAPS INVOLVING BRS CHANNEL 2.

In its petition for reconsideration, Ad Hoc MDS Alliance (“Ad Hoc”) proposed revising the rules for “splitting the football” where a BRS channel 2 protected service area (“PSA”) overlaps a BRS channel 2A PSA. Under Ad Hoc’s proposal the BRS channel 2 licensee would have one GSA for the 4 MHz segment at 2618-2622 MHz created by application of the standard “splitting the football” rules, and a larger GSA for the 2 MHz segment at 2622-2624 MHz

⁴⁶ IMWED Opposition at 5.

⁴⁷ See, e.g., Reply Comments of Wireless Communications Ass’n Int’l, Inc., WT Docket No. 03-66, at 25 (filed Feb. 8, 2005) (“Although not proposed in the *FNPRM*, the non-accredited entities behind IMWED suggest for the third time in this proceeding that the Commission adopt a rule under which EBS licensees would be required to pay for any authorizations secured at auction with their own funds and would be precluded from relying upon funding from third parties, including excess capacity lessees. However, no matter how many times IMWED floats its proposal, the public interest will never be advanced by its adoption.”); *id.* at 26-27 (“Although wrapped in pro-education rhetoric, IMWED’s proposal clearly appears to favor the handful of non-profit entities (such as its members) that have amassed substantial financial gains from the leasing of excess capacity on EBS facilities licensed two decades ago. WCA, along with the leading EBS representatives, NIA and CTN, have consistently made clear in this proceeding that there is no reasoned policy basis to suggest that non-profit entities with spare funding available for bidding should generally prevail in auctions over all others.”); *id.* at 30 (“WCA agrees with NIA and CTN that ‘traditional auction concepts supporting the bids of so-called designated entities have no proper application in this context’ and thus joins with them in opposing the issuance of bidding credits to any EBS auction participants.”).

segment.⁴⁸ That proposal drew no support from any filer, and was roundly criticized for being late filed,⁴⁹ for exacerbating an already fractionalized licensing system,⁵⁰ and for creating narrow slivers of bandwidth that are unlikely to be productively utilized in broadband offerings.⁵¹

Perhaps anticipating the criticism that its proposal would draw, Ad Hoc utilized the opposition phase of this proceeding to submit a second proposal, contending that “[a]fter further consideration, Ad Hoc is persuaded that its initially proposed resolution may be unduly complex to administer, and that a simpler and more equitable solution is available.”⁵² This time, Ad Hoc suggests that where a BRS channel 2 license has a PSA that overlaps the PSA of a BRS channel 2A license, *the entire overlap area should become part of the GSA of the BRS channel 2 licensee.*⁵³ WCA opposes this untimely proposal, too.

Of course, any material departure from the standard “splitting the football” rules at this late date will frustrate ongoing efforts to make productive use of the 2.5 GHz band. For example, Sprint Nextel noted that it and other licenses “are already in the midst of the network

⁴⁸ See Petition of Ad Hoc MDS Alliance for Reconsideration, WT Docket No. 03-66, at 4-5 (filed July 19, 2006).

⁴⁹ See WCA Opposition at 20 (“Although [Ad Hoc] did not seek reconsideration of the 2004 BRS/EBS R&O, it now urges the Commission to adopt a convoluted exception to the general rules for “splitting the football” to apply where the PSA of a BRS channel 2 licensee overlaps that of a BRS channel 2A licensee.”).

⁵⁰ See *id.* at 21 (“Creating two separate GSAs for BRS channel 2 licensees will further Balkanize the 2.5 GHz band, which is already hampered by a crazy-quilt of authorized service areas that often vary substantially from channel-to-channel even within a single market.”); WiMAX Comments at 11 (“Implementation of Ad Hoc’s proposal will create unnecessary confusion, as no other channel within the BRS/EBS allocation has separate GSAs for separate frequencies.”); Sprint Nextel Opposition at 10-11 (“Ad Hoc’s proposal would further fragment the BRS band into smaller, even more irregular pieces and would present even greater obstacles to the deployment of broadband to American consumers over 2.5 GHz than the current framework does.”).

⁵¹ See WCA Opposition at 21.

⁵² Ad Hoc Comments at 3.

⁵³ See *id.*

design implementation process” and that “[m]odifying the Commission’s rules will disturb licensees’ design and deployment plans that are premised upon the Commission’s method for calculating geographic service areas.”⁵⁴ Thus, Ad Hoc’s failure to raise its concerns in a timely manner, either in response to the WCA-NIA-CTN proposal for creating GSAs or even as late as seeking reconsideration of the 2004 *Report and Order* adopting that proposal, is not an immaterial matter. Licensees and system operators require finality, and the Commission can and should reject Ad Hoc’s proposals as untimely.⁵⁵

This is particularly true because grant of Ad Hoc’s approach will yield a windfall for Ad Hoc’s members as it relates to the 4 MHz that is shared between BRS channel 2 and 2A licensees. Where there is an overlap between the PSA of a BRS channel 2 license and the PSA of a BRS channel 2A license, both stations had been co-primary. However, the overlap area effectively was “no man’s land” that neither could effectively serve because of the applicable interference protection rules.⁵⁶ Thus, when that 4 MHz is allocated to exclusive GSAs using the “splitting the football” approach, the effect is to give each party access to territory that it could not previously serve. Now, however, Ad Hoc is asking the Commission to provide it with the entire overlap territory, denying the BRS channel 2A licensee its one-half even though both

⁵⁴ Sprint Nextel Opposition at 11.

⁵⁵ The Commission’s policy of dismissing petitions for reconsideration that raise matters in an untimely manner is fully addressed in WCA’s Opposition in connection with American Petroleum Institute’s late effort to secure rules governing service in the Gulf of Mexico. *See* WCA Opposition at 30-33. The arguments advanced there are equally applicable to Ad Hoc, which should have raised its objections to the Commission’s “splitting the football” rules no later than the January 10, 2005 deadline for petitioning to deny the 2004 *Report and Order* in WT Docket No. 03-66.

⁵⁶ *See* 2004 *Report and Order*, 19 FCC Rcd at 14192.

licensees have always had equal right to serve that territory. Yet, there is no logical reason why a BRS channel 2 licensee should receive such a benefit.

In adopting the “splitting the football” rules, the Commission recognized that they were not ideal, but were a pragmatic, “rough justice” solution to the problem of overlapping PSAs.⁵⁷ Ad Hoc focuses on just one of those instances in which the result may not be ideal, but where the Commission has worked “rough justice” in the interests of simplicity and equity. As Sprint Nextel notes “the Commission need not adopt a rule of general applicability to address peculiar historical anomalies.”⁵⁸ By affording BRS channel 2 licensees with unfettered access to one-half of the 4 MHz of “no man’s land” they could not previously serve, the Commission has treated them in a manner that is certainly fair and reasonable under the circumstances. Ad Hoc has failed to present any justification for overturning the planning that has been ongoing over the two years since the “splitting the football” rules were adopted.

Respectfully submitted,

THE WIRELESS COMMUNICATIONS
ASSOCIATION INTERNATIONAL, INC.

By: /s/ Paul J. Sinderbrand

Paul J. Sinderbrand

Robert D. Primosch

WILKINSON BARKER KNAUER, LLP
2300 N Street, NW, Suite 700
Washington, DC 20037-1128
202.783.4141
Its Attorneys

August 31, 2006

⁵⁷ *Id.*

⁵⁸ Sprint Nextel Opposition at 11.

CERTIFICATE OF SERVICE

I, Lauren Boyd-Ellis, do hereby certify that the foregoing Consolidated Reply was served this 31st day of August, 2006 by delivering true and correct copies thereof, first class postage prepaid, to the United States Postal Service, addressed as follows:

Wayne V. Black
Jack Richards
Gregory E. Kunkle
Keller and Heckman LLP
1001 G Street, NW, Suite 500 West
Washington, DC 20001

Rudolph J. Geist
Evan D. Carb
RJGLaw LLC
1010 Wayne Avenue, Suite 950
Silver Spring, MD 20910

Bennett L. Ross
BellSouth Corporation
1133 21st Street, NW, Suite 900
Washington, DC 20036

Kemp R. Harshman
Clarendon Foundation
4201 31st Street South, Suite 826
Arlington, VA 22206-2187

Edwin N. Lavergne
Fish & Richardson P.C.
1425 K Street, NW, Suite 1100
Washington, DC 20005

Kenneth E. Hardman
2154 Wisconsin Ave., NW, Suite 250
Washington, DC 20007-2280

Bruce D. Jacobs
Tony Lin
Pillsbury Winthrop Shaw Pittman LLP
2300 N Street., NW
Washington, DC 20037

Stephen E. Coran
Jonathan E. Allen
Rini Coran, PC
1615 L Street, NW, Suite 1325
Washington, DC 20036

George Alex
NextWave Broadband, Inc.
75 Holly Hill Road, Suite 200
Greenwich, CT 06830

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

Terri B. Natoli
Nadja S. Sodos-Wallace
Clearwire Corporation
815 Connecticut Ave., NW, Suite 610
Washington, DC 20006

Todd D. Gray
Dow Lohnes PLLC
1200 New Hampshire Ave., NW, Suite 800
Washington, DC 20036-6803

John B. Schwartz
John Primeau
The ITFS/2.5 GHz Mobile Wireless
Engineering & Development Alliance
P.O. Box 6060
Boulder, CO 80306

William F. Adler
Globalstar, Inc.
461 S. Milpitas Blvd.
Milpitas, CA 95035

Lawrence R. Krevor
Trey Hanbury
Nicole McGinnis
Sprint Nextel Corporation
2001 Edmund Halley Drive
Reston, VA 20191

William T. Lake
Josh L. Roland
Nathan Mitchler
Wilmer Cutler Pickering Hole and Dorr LLP
1875 Pennsylvania Ave., NW
Washington, DC 20006

Tim Hewitt
WiMAX Forum
2495 Leghorn Street
Mountain View, CA 94043

Joseph A. Belisle
Leibowitz & Associates, PA
One SE 3rd Avenue, Suite 1450
Miami, FL 33131

/s/ Lauren Boyd-Ellis
Lauren Boyd-Ellis