

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

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| In the Matter of |) | |
| |) | |
| Terrestrial Use of the 2473–2495 MHz Band for Low-Power Mobile Broadband Networks; Amendments to Rules for the Ancillary Terrestrial Component of Mobile Satellite Service Systems |) | IB Docket No. 13-213 RM-11685 |
| |) | |
| Amendment of Parts 1, 21, 73, 74 and 101 Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advance Services in the 2150–2162 and 2500–2690 MHz Bands |) | WT Docket 03-66 |
| |) | |

To: The Commission

EIBASS Reply Comments

1. Engineers for the Integrity of Broadcast Auxiliary Services Spectrum (EIBASS) hereby respectfully submits its reply comments in response to the November 1, 2013, IB Docket 13-213 Notice of Proposed Rulemaking (NPRM). That NPRM was published in the Federal Register on February 19, 2014, with a reply comment deadline of 105 days after that publication. Thus, the deadline for reply comments is June 4, 2014, and these EIBASS reply comments are therefore timely filed.

I. EIBASS Agrees with SBE Comments

2. EIBASS agrees with the comments filed by the Society of Broadcast Engineers, Inc. (SBE). The proposed use by Globalstar of 2,473–2,483.5 MHz for Terrestrial Low-Power Service (TLPS) and 2,483.5–2,495 MHz for Mobile Satellite Service (MSS) Ancillary Terrestrial Component (ATC) use, dubbed Advanced Wireless Services Band 5 (AWS-5) by Globalstar, would increase interference to TV Broadcast Auxiliary Services (BAS) Channel A9 (2,467–2,483.5 MHz) and cause massive new interference grandfathered TV BAS Channel A10 (2,483.5–2,500 MHz). Grandfathered TV BAS Channel A10 licenses are co-primary with MSS, not secondary, and thus MSS is obligated to protect those earlier-in-time operations. As previously documented by EIBASS, and as now also documented by SBE, grandfathered TV BAS Channel A10 operations exist in virtually all of the major TV markets. Broadcasters holding TV Pickup licenses with A10

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grandfather rights are careful to maintain those licenses, since there is no sunset date to the grandfather rights, and since a single TV Pickup license authorizes an unlimited number of mobile TV Pickup transmitters for use by that licensee.

3. EIBASS further agrees with SBE that it is not only unconscionable but patently unfair that the 2004 proposal by SBE¹ to refarm the 2.5 GHz TV BAS band has been languishing at the Commission for ten years. Yet a mutually exclusive petition for rulemaking filed by Globalstar on November 13, 2012, received the benefit of a rulemaking (RM) public notice on November 30, 2012,² and the issuance of an NPRM less than twelve months thereafter.

4. EIBASS notes that grandfathered TV BAS Channel A10 also has co-channel overlap with Broadband Radio Service (BRS) Channel 1, at 2,496–2,502 MHz. EIBASS further notes that this co-channel overlap is a still-pending, another languishing unresolved issue in the WT Docket 03-66 proceeding. Adoption of the refarming of the 2.5 GHz TV BAS band proposed by SBE would solve the BRS1 conflict.

II. Wi-Fi Alliance, NCTA and WISP Comments

5. The Wi-Fi Alliance, the National Cable & Telecommunications Association (NCTA), and the Wireless Internet Service Providers (WISP) comments all support TLPS/AWS-5, but want it made clear that Globalstar would not be entitled to interference protection from existing Part 15 and Part 18 operations at 2,400–2,483.5 MHz.³ EIBASS agrees that an additional Part 15 use, the 2,473–2,483.5 MHz TLPS portion, is not entitled to interference protection from other Part 15 devices, Part 18 devices, or *any licensed radio service*. EIBASS notes that Part 74, Subpart F, TV BAS stations at 2,450–2,467 MHz (TV BAS Channel A8) and 2,467–2,483.5 MHz (TV BAS Channel A9) are licensed radio services, and further that Section 15.5(b) of the FCC rules states that Part 15 operations must accept interference from licensed services and may not cause interference to licensed services.⁴ Yet WiFi devices routinely cause interference to 2.5 GHz TV BAS operations, so much so that the 2.5 GHz TV BAS channels are less desirable than the 2 GHz

¹ September 8, 2004, timely-filed SBE Petition for Reconsideration of the July 16, 2004, IB Docket 02-364 Report & Order (R&O). See also the December 1, 2009, EIBASS *ex parte* comments to IB Docket 02-364.

² RM-11685, public notice 2971.

³ Wi-Fi Alliance comments, at page 15; NCTA comments, at page 13; WISP comments at page 4.

⁴ Section 15.5(b) states:

Operation of an intentional, unintentional, or incidental radiator is subject to the conditions that no harmful interference is caused and that interference must be accepted that may be caused by the operation of an authorized radio station, by another intentional or unintentional radiator, by industrial, scientific and medical (ISM) equipment, or by an incidental radiator.

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TV BAS channels. The Wi-Fi Alliance, NCTA and WISP seem as uninformed as Globalstar about their interference protection obligations under the FCC rules.

III. Sprint and WCAI Comments

6. Sprint Corporation (Sprint) and the Wireless Communications Association International (WCAI) do not oppose TLPS/AWS-5, but want to ensure that the AWS-5 portion not cause interference to BRS Channel 1 at 2,496–2,502 MHz, which would be an *adjacent-channel situation*. However, missing from the Sprint and WCAI comments are any discussion of the conflict BRS1 has with grandfathered TV BAS Channel A10, which would be a *co-channel situation*, since there is a 4 MHz overlap with A10. So while BRS1 may have an "absolute right to protection against harmful interference"⁵ from newcomer AWS-5 operations (if, of course, adopted), BRS1 licensees in turn have an absolute obligation to protect earlier-in-time, co-primary, TV BAS Channel A10 operations. The only way to do that is to not deploy in those markets with grandfathered A10 stations. As already noted, most of the major TV markets have grandfathered A10 stations. Thus, as a practical matter, BRS1 cannot deploy until the Commission eliminates the co-channel problem. Adopting the 2004 SBE proposal to reform the 2.5 GHz TV BAS band would solve the co-channel conflict by eliminating the co-channel overlap.

IV. Globalstar Comments

7. Globalstar continues to insist that new terrestrial AWS-5 operation at 2,483.5–2,495 MHz will not cause interference to co-primary and co-channel TV BAS Channel A10 stations.⁶ While it is true that the International Bureau has concluded that TV BAS Channel A10 and MSS ATC can share spectrum in the same area at the same time through frequency coordination, the Wireless Telecommunications Bureau (WTB) and the Office of Science & Technology (OET) reached a diametrically opposite conclusion in the ET Docket 95-18 and WT Docket 02-55 rulemakings. OET found that the then 1,990–2,110 MHz TV BAS band would have to be reformed to 2,025–2,110 MHz in order to permit MSS and AWS operations at 1,990–2,025 MHz. That is, mobile TV Pickup operations (meaning electronic news gathering, or ENG) cannot operate in the same area at the same time as commercial mobile radio service (CMRS) stations, with its cellular architecture and usage determined by customer demands. Any service at 2,483.5–2,495 MHz that is patterned on the Wi-Fi model would create new and devastating interference to co-primary, earlier-in-time grandfathered TV BAS Channel A10 operations. While MSS transmitting space-to-Earth

⁵ Sprint comments, at page 5; WCAI comments, at page 2.

⁶ Globalstar comments, at page 28.

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downlinking on 2,483.5–2,495 MHz would have had a low interference risk to Channel A10 TV BAS operations, changing the allocation to a terrestrial use increases the interference risk by orders of magnitude. The reverse allocation case for terrestrial MSS S-band use in the major TV markets would probably not have this result, but, as the newcomer user, it would have created a situation that would have been Globalstar's problem to deal with. Just as the Commission ultimately concluded that LightSquared's proposed terrestrial use of L-band MSS frequencies instead of the originally allocated satellite-based use would cause unacceptable interference to terrestrial global positioning system (GPS) operations⁷, Globalstar's unworkable proposal, that is, “Let's-change-the-allotted use of S-band MSS frequencies to include terrestrial as well as satellite use”, would cause harmful interference to Channel A10 TV BAS operations.

V. MSUA Comments

8. The Mobile Satellite Users Association (MSUA) comments support Globalstar's proposed TLPS/AWS-5 operation only if it would not mean a back-door abandoning of Globalstar's MSS services.⁸ EIBASS again asks how Globalstar can be awarded terrestrial use of MSS spectrum it received for free, under the ET Docket 92-9 "Emerging Technologies" rulemaking, and then instead be allowed to use MSS spectrum for a terrestrially-based system.⁹ That is, the Communications Act requires that CMRS frequencies be awarded by spectrum auction. If Globalstar wants to instead use MSS for terrestrial, CMRS-like applications, it should have to win the right to do so by being the successful spectrum auction bidder.

VI. Summary

9. EIBASS and SBE are in agreement: TLPS/AWS-5 is a bad idea because it would cause increased interference to 2.5 GHz TV BAS operations. It would also provide an unjustified spectrum windfall to Globalstar. MSS should stay a space-based service, and not attempt to use spectrum allocated for space-to-Earth instead for terrestrial use. Such terrestrial use is a fundamentally changed allotment, and requires new frequency coordination with existing terrestrial services. If such coordination is inherently impractical, because a mobile service cannot share spectrum with a high-density CMRS-like service in the same area at the same time, then the

⁷ See IB Docket 11-109.

⁸ MSUA comments, at pages 2 and 3.

⁹ EIBASS notes that the Iridium supplemental comments, at pages 3–4, concisely characterize the Globalstar proposal as follows: "In 2012, Globalstar sought to reopen the Big LEO MSS band plan when it requested relief from any obligation to provide a satellite service and Commission authority to convert its satellite spectrum into another wireless band."

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newcomer must first demonstrate the availability of alternative spectrum for the existing user, and be willing to pay the cost of relocating the existing user. Finally, EIBASS must again point out the apparent unfairness of the Commission acting on a mutually exclusive petition for rulemaking filed by Globalstar on November 13, 2012, giving them the advantage of a rulemaking (RM) public notice on November 30, 2012, and the issuance of an NPRM less than twelve months thereafter while the timely filed 2004 proposal by SBE to reform the 2.5 GHz TV BAS band was gathering a decade of dust.

Respectfully submitted,

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