

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington DC 20554**

In the Matter of)
)
Amendment of Part 101 of the Commission's) WT Docket No. 10-153
Rules to Facilitate the Use of Microwave for)
Wireless Backhaul and Other Uses and to)
Provide Additional Flexibility to Broadcast)
Auxiliary Service and Operational Fixed)
Microwave Licensees)

To: The Commission

REPLY COMMENTS OF

**THE ASSOCIATION FOR MAXIMUM SERVICE TELEVISION, INC. AND
THE NATIONAL ASSOCIATION OF BROADCASTERS**

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The Association for Maximum Service Television, Inc. (“MSTV”)¹ and the National Association of Broadcasters (“NAB”)² submit this reply to certain comments on the Notice of Proposed Rulemaking (“NPRM”) and Notice of Inquiry (“NOI”) in the above-captioned proceeding.³ The comments filed in this proceeding show that broadcast operations in the 7 GHz and 13 GHz bands are critical to the public’s timely access to news reports wherever and whenever news events occur. The comments also show that permitting an influx of new fixed, point-to-point wireless backhaul operations in the 7 GHz and 13 GHz bands will be a

¹ MSTV is a nonprofit trade association of local broadcast television stations committed to achieving and maintaining the highest technical quality for the local broadcast system.

² NAB is a nonprofit trade association that advocates on behalf of local radio and television stations and also broadcast networks before Congress, the Federal Communications Commission and other federal agencies, and the courts.

³ *In the Matter of Amendment of Part 101 of the Commission’s Rules to Facilitate the Use of Microwave for Wireless Backhaul and Other Uses and to Provide Additional Flexibility to Broadcast Auxiliary Service and Operational Fixed Microwave Licensees*, NPRM and NOI, FCC 10-146, WT Docket No. 10-153 (rel. Aug. 5, 2010).

challenge, because new fixed operations will be incompatible with existing anytime, anywhere itinerant newsgathering operations. Commenters from both the broadcast and wireless industries express concern that frequency coordination alone will not be sufficient to avoid or manage interference between the incumbent broadcast operations and the proposed new wireless backhaul operations.

It is possible, however, to expand wireless backhaul for broadband *and* to protect the public's ability to receive timely coverage of local news events and emergency information. The Commission can minimize the risk of interference while moving forward with its spectrum sharing proposal for the 7 GHz and 13 GHz bands by limiting the band segments that new wireless backhaul operations may use (in certain congested markets), and by confirming that wireless backhaul operations will be secondary to broadcasters' itinerant newsgathering operations and existing fixed operations.

I. THE 7 GHz BAND AND 13 GHz BAND ARE CRITICAL TO KEY BROADCAST INFRASTRUCTURE, INCLUDING ELECTRONIC NEWSGATHERING OPERATIONS.

Broadcasters (and television networks) use the 6875-7125 MHz ("7 GHz") and the 12700-13200 MHz ("13 GHz") bands to support important electronic newsgathering ("ENG") operations.⁴ Television broadcasters must establish longhaul and shorthaul links in support of their itinerant newsgathering operations, with longhaul links generally established in the 7 GHz band and shorthaul links generally established in the 13 GHz band. The ability to establish these links on short notice (and to protect fixed receive sites) is critically important because these links enable broadcasters to provide live, on-the-scene coverage of news events,

⁴ As MSTV and NAB noted in their comments in this proceeding, "these bands are especially critical in supporting broadcasters' core newsgathering and reporting functions." *See* Comments of MSTV and NAB at 3 (October 25, 2010).

from developments at national and state capitals to reporting on emergency situations or other breaking news. Broadcasters also use these bands for fixed point-to-point studio transmitter links, television relay stations, television translator relay stations, and other key broadcast infrastructure.

Several commenters in this proceeding explain the importance of protecting broadcast auxiliary service (“BAS”) operations, and, in particular, broadcasters’ ENG operations in the 7 GHz and 13 GHz bands (especially as the 2 GHz band is becoming increasingly congested). For example, the Society of Broadcast Engineers, Inc. (“SBE”) stated that “[t]he specific bands at issue in this proceeding... are in active daily use for fixed, mobile, temporary fixed and aeronautical mobile applications in virtually all television markets, at all times of the day and night.”⁵ Engineers for the Integrity of Broadcast Auxiliary Services Spectrum (“EIBASS”) also explained that “in addition to fixed ENG-RO sites, TV Pickup stations also use portable and mobile receive sites. For example, coverage of major sporting events often involves use of portable receive sites, especially for physically large venues such as racetracks and temporary racing circuits. Airborne relays in helicopters are examples of mobile TV BAS receive sites.”⁶

II. THE CURRENT PROPOSAL LIKELY WOULD RESULT IN INTERFERENCE BETWEEN WIRELESS BACKHAUL OPERATIONS AND ITINERANT ELECTRONIC NEWSGATHERING OPERATIONS.

Many of the comments filed in this proceeding illustrate the need to proceed with caution because of the interference challenges posed by the Commission’s spectrum sharing

⁵ Comments of SBE at 3 (October 25, 2010). *See also id.* at 5: “BAS licensees actively and intensively use the 7 and 13 GHz bands in all markets.”

⁶ Comments of EIBASS at 2 (October 25, 2010).

proposal. MSTV and NAB agree with the commenters who recognized that the interference concerns are real and substantial. For example, the National Spectrum Management Association (“NSMA”) stated that “sharing spectrum between Temporary Fixed/Mobile licenses and Fixed Part 101 Fixed licenses using the present band structures would be difficult to accomplish without the risk of significant interference.”⁷ Motorola, Inc. (“Motorola”) also argued that “sharing between fixed wireless backhaul operations and temporary, mobile Electronic News Gathering (‘ENG’) operations in the 6875-7125 MHz band may give rise to harmful interference.”⁸ And Orion Broadcast Solutions (“Orion”) explained that “[i]n the top 50 broadcast markets, the broadcast auxiliary services bands at 6.875-7.125 and 12.7 – 13.2 GHz are crowded to the point that frequency coordination is difficult at best.... The on-going conversion of LPTV and translator stations to ATSC will tax these frequencies even more over then next two to four years.”⁹

Other comments suggest that the benefits of opening up these bands to new wireless backhaul users may be small. For example, AT&T Inc. (“AT&T”) stated that “the NPRM’s existing proposals are unlikely to result in any significant use of BAS bands for long haul FS deployments. Accordingly, the proposals would not materially advance the objective of making additional spectrum below 10 GHz available for wireless backhaul.”¹⁰ Because the interference risks are substantial and because the offsetting benefits for wireless backhaul uses

⁷ Comments of NSMA at 3-4 (October 25, 2010).

⁸ Comments of Motorola at 4 (October 25, 2010).

⁹ Comments of Orion at 1 (October 25, 2010).

¹⁰ Comments of AT&T at 9-10. *See also* Comments of FiberTower Corporation at 5.

may be limited, these comments underscore the importance of the Commission moving cautiously in opening up these bands.

III. FREQUENCY COORDINATION WILL NOT BE ABLE TO SOLVE THE INTERFERENCE PROBLEMS CAUSED BY INCOMPATIBLE USES OF THESE BANDS.

As MSTV and NAB noted in their Comments, temporary fixed uses are essentially incompatible with large numbers of fixed operations in the same spectrum band.¹¹ Thus, an influx of new fixed, point-to-point backhaul operations in the 7 GHz and 13 GHz bands would not be compatible with broadcasters' itinerant newsgathering operations in these bands, as such broadcast operations rely on the ability to establish longhaul and shorthaul links at unpredictable locations and times. Due to this basic incompatibility, we disagree with those commenters who suggested that frequency coordination alone will be sufficient to prevent interference.¹²

In fact, commenters from multiple industries properly recognized that an influx of new wireless backhaul facilities would not be compatible with the incumbent BAS operations, and they explained that frequency coordination would not be sufficient to mitigate this incompatibility. For example, NSMA noted that "it is difficult to envision how the Fixed Service (FS) could effectively coordinate deployment of high-availability links in these bands in many locations without encountering potential interference from a mobile operation in the local

¹¹ Comments of MSTV and NAB at 2 and 5-6.

¹² *See, e.g.*, Comments of Clearwire Corporation at 7-8 (October 25, 2010); Comments of T-Mobile USA, Inc. at 6 (October 25, 2010) ("T-Mobile agrees that incumbent BAS and CARS stations in the 7 GHz and 13 GHz bands should be protected from harmful interference. With proper frequency coordination, however, fixed microwave systems can successfully share these bands without affecting BAS and CARs operations").

or a distant market.”¹³ The Fixed Wireless Communications Coalition (“FWCC”) also stated that it “foresees problems in frequency coordination with TV pickup operators. The Fixed Service relies on detailed frequency coordination typically conducted over a 30 day period.... In contrast, TV pickup operators must go where the news is, and hence are allowed to coordinate immediately through a local coordinator. We question whether Fixed Service users can [attain] the reliability they need, while operating in the same band with TV pickup units.”¹⁴ And SBE explained that “coordination of BAS and FS operations on a co-channel basis is impractical and incompatible from both the FS and the BAS perspectives, and technical rules changes which contribute to the incompatibility should not be enacted; [in addition,] the Part 101 prior coordination notice (PCN) frequency coordination process is flawed as it pertains to Part 74 BAS facilities, and it is impractical for use in general in the 7 and 13 GHz Bands.”¹⁵

IV. THE COMMISSION CAN SEEK TO MITIGATE THE INTERFERENCE RISKS BY CONFIRMING THE PRIMARY STATUS OF BROADCAST OPERATIONS VIS-À-VIS BACKHAUL FIXED OPERATIONS AND BY RESERVING A PORTION OF EACH OF THE 7 GHz AND 13 GHz BANDS FOR MOVABLE/MOBILE BAS OPERATIONS.

Certain members of the wireless industry have proposed band “segmentation” in order to address the interference risks of the Commission’s proposal.¹⁶ NSMA proposes that the Commission consider limiting temporary/mobile operation to the upper half of the 13 GHz band,

¹³ Comments of NSMA at 3.

¹⁴ Comments of FWCC at 5 (October 25, 2010). FWCC also cited concerns about the discrepant channel widths used by BAS and CARS facilities versus those used by Fixed Service facilities, which may cause spectrum inefficiencies during the coordination process. *See id.* at 6-7.

¹⁵ Comments of SBE at 3. *See also id.* at 8 (“the vastly different applications make co-channel operation of FS links and BAS TV pickup operations constitute a fundamental incompatibility”).

¹⁶ *See, e.g.*, Comments of Ceragon at 2-3 (October 25, 2010); Comments of Comsearch i and 21 (October 25, 2010); Comments of Verizon and Verizon Wireless at 3 (October 25, 2010).

allowing Part 101 use in the lower half of the band.¹⁷ MSTV and NAB believe that the Commission should recognize the incompatibility issues described above. We disagree with the segmentation proposal, however, to the extent that segmentation would entail *limiting* broadcasters' use of these bands in order to accommodate new users. As SBE pointed out, it is not feasible "to attempt to reduce the incompatibility between BAS operations at 7 and 13 GHz and FS operations in those same bands by segregating channels used for mobile operations from those that are used for fixed operations, creating in essence mobile and fixed subbands. This would result in a substantial reduction in the availability of both bands for TV pickup operation going forward."¹⁸

The better approach is to preserve broadcasters' ability to use these bands fully for important newsgathering operations—already a difficult task to coordinate in many congested markets—while cautiously permitting new fixed, point-to-point backhaul operations to begin sharing these bands. New fixed, point-to-point wireless backhaul operations should not be permitted, however, in certain band segments in certain congested markets, in order to ensure sufficient spectrum and flexibility for critical itinerant newsgathering operations.

We share SBE's concern that "nothing in this proceeding should preclude or inhibit the licensing of new TV Pickup stations in the 7 or 13 GHz band. The concept of making new FS and BAS facilities co-equal in priority in these bands is tantamount to a preclusion of all new and likely all incumbent TV pickup operation, because a mobile or temporary fixed

¹⁷ Comments of NSMA at 5 (proposing that fixed BAS and CARS licensees could still use the entire band).

¹⁸ Comments of SBE at 9.

[broadcast] facility simply will not be able to protect a FS facility.”¹⁹ MSTV and NAB urge the Commission to confirm that broadcasters’ itinerant operations will not be required to protect new backhaul fixed operations, while clarifying that new backhaul fixed operations will be required to protect broadcasters’ itinerant operations. It would disserve the public interest to have critical ENG operations at the scene of breaking news or an emergency compromised because broadcast stations sought to protect wireless backhaul sites (or because wireless backhaul sites caused interference to ENG transmissions). The Commission also should clarify that the “incumbent” BAS uses to be protected include not just existing BAS licenses, but also licenses that broadcasters may obtain or modify in the future.

V. CONCLUSION

The broadcast industry supports the Commission’s efforts to increase broadband access, in part by expanding the wireless backhaul infrastructure. Broadcasters’ ability to establish an ENG transmission path that is neither vulnerable to interference nor a likely cause of interference, at virtually any place and time, would be undermined by substantial numbers of new fixed backhaul sites in the these bands under the regulatory regime proposed in the NPRM. We believe, however, that the goal of providing more spectrum for wireless backhaul can be reached without compromising the public’s television service—including key BAS infrastructure and the ENG operations that are so important in enabling coverage of live, on-the-scene news events—by implementing the solutions described above.

¹⁹ Comments of SBE at 15. *See also id.* at 8 (“proposed Section 74.602(a)(j) in the Appendix to the Notice indicates that, while existing TV pickup operation will be protected from new FS operation, future TV pickup operation will be on a *co-equal basis* with FS and will have to protect FS operation from interference. Because there is no way to guarantee interference protection to a FS station from a BAS TV pickup facility as a practical matter, future TV pickup operation is effectively precluded by the proposed rules.”).

Respectfully submitted,

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