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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

WT Docket No. 10-153

To: The Commission

COMMENTS OF

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

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Introduction and Summary

The Association for Maximum Service Television, Inc. (“MSTV”)¹ and the National Association of Broadcasters (“NAB”)² submit these comments in response to the Notice of Proposed Rulemaking (“NPRM”) and Notice of Inquiry (“NOI”) in the above-referenced proceeding.³ Broadcasters use the 7 GHz and the 13 GHz spectrum bands to support key broadcast infrastructure, such as fixed point-to-point studio transmitter links, relay stations, and

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). The NPRM and NOI also were released in WT Docket Nos. 07-121 and 09-106; however, pursuant to para. 83 of the NPRM and NOI, those proceedings are now terminated.
other broadcast operations in these bands. Importantly, these bands are also used for electronic newsgathering operations throughout a television station’s service area. While sharing between fixed point-to-point operations is feasible technically, there is a basic incompatibility between broadcasters’ itinerant newsgathering operations (which rely on the ability to establish longhaul and shorthaul links at unpredictable locations and times) and permitting wholesale sharing of these frequencies with substantial numbers of new fixed, point-to-point backhaul operations. The Commission’s proposal, as currently crafted, likely would result in interference between wireless backhaul operations and itinerant electronic newsgathering operations.

The broadcast industry believes, however, that, consistent with the protections proposed below, it may be possible to minimize the risk of interference in order to enable wireless backhaul users to share the 7 GHz and 13 GHz bands. To achieve the two goals of expanding broadband access and protecting the public’s ability to receive timely coverage of local news events and emergency information, the Commission should confirm that wireless backhaul operations will be secondary to broadcasters’ itinerant newsgathering operations and existing fixed operations, and it should reserve a portion of the 7 GHz and 13 GHz bands in certain congested markets for broadcaster uses.

I. MSTV AND NAB’S COMMENTS HERE ARE CONSISTENT WITH THEIR PAST AND ONGOING EFFORTS TO SUPPORT GOOD SPECTRUM POLICY GENERALLY AND IN CONNECTION WITH THE NATIONAL BROADBAND PLAN, IN PARTICULAR.

The television broadcast industry supports the Commission’s efforts to increase broadband access and recognizes the need to expand wireless backhaul infrastructure as part of these efforts. MSTV and NAB have stated that the broadcasting industry will work with the
Commission to find the best way to achieve national broadband goals (particularly the goal of deploying broadband services in underserved rural areas). 4

Broadcasters have long been a part of the solution to spectrum issues. The recent transition of the 2 GHz Broadcast Auxiliary Service (“BAS”) band, which received a full measure of broadcast cooperation, freed up 35 MHz of spectrum, or almost 30 percent of that band, for reallocation to other uses. And the digital television transition, on which broadcasters worked closely with FCC and other additional government actors to design, implement, and promote, provided another 108 MHz of spectrum. 5

We reiterate our commitment to cooperate in promoting the goal of expanding and improving broadband access. With care, we believe that this goal can be reached without compromising the public’s over-the-air television service—including the BAS operations that are so important in enabling coverage of live, on-the-scene news events and in supporting the infrastructure of the public’s broadcast service.

II. BOTH THE 7 GHZ AND THE 13 GHZ BANDS ARE USED EXTENSIVELY AND INCREASINGLY IN KEY NEWSGATHERING OPERATIONS.

While broadcasters use the 6875-7125 MHz (“7 GHz”) and the 12700-13200 MHz (“13 GHz”) BAS bands for a range of purposes, these bands are especially critical in supporting broadcasters’ core newsgathering and reporting functions. Broadcasters (and television networks) use these bands for Electronic News Gathering (“ENG”) operations. Protecting these operations from harmful interference is necessary because, as NAB noted in its

5 See Attachment A to Framework Document at 5.
comments in the Commission’s Future of Media proceeding, local television stations play a unique role in the media landscape.6 They are the most trusted (and most popular) source of news.7 Broadcasters also are the most important source of critical, life-saving emergency journalism, with local television stations providing vital initial and continuing reports during times of crisis.8 None of this would be possible without the robust system of fixed and itinerant links that provide the backbone of broadcasters’ ENG infrastructure.

Broadcasters use the 7 GHz and the 13 GHz bands in slightly different ways. Television broadcasters rely on the 7 GHz band for fixed operations and, importantly, for longhaul and shorthaul links in support of their itinerant newsgathering operations. Local “itinerant” ENG operations are those that are temporarily fixed, that is, the truck does not move while transmitting, but it does move to various points within the station’s service area in order to be on-location for specific news events. (Its location for any particular day or even at a particular hour generally is not known in advance of the news event.) Longhaul ENG links commonly extend for many miles, such as a link from an ENG truck back to a studio. Broadcasters’ itinerant newsgathering operations also require the use of shorthaul links, in this case typically in the 13 GHz band. A shorthaul use would be, for example, a transmission from a mobile “backpack camera” inside a government office building to the ENG truck located on a nearby street.

7 Future of Media Comments at 2; 6.
8 Id. at 14-17 (citing examples of the unique role that broadcasters have played and illustrating their commitment to provide emergency information, often at significant expense).
Preserving broadcasters’ ability to establish and operate shorthaul and longhaul links on short notice, and protecting the ability of fixed receive sites to receive their ENG communications, are critical in enabling broadcasters to provide on-the-spot coverage of news events, from coverage of events in the national and state capitals to coverage of emergency situations or other breaking news. Moreover, these uses are growing as the 2 GHz band becomes increasingly congested as a result of the Commission’s reclaiming 35 MHz of spectrum from that band for MSS and other mobile broadband services.

These bands are not used by broadcasters exclusively for itinerant ENG operations. Broadcasters also use these bands for other important television infrastructure purposes, such as for television studio-to-transmitter (“STL”) links, television relay stations, and television translator relay stations. They also are used by television networks in their newsgathering operations. Moreover, this spectrum is used by the Cable TV Relay Service (“CARS”).

III. BECAUSE INTERFERENCE-AVOIDANCE MECHANISMS IN THESE BANDS ALREADY ARE COMPLEX AND REQUIRE INTENSIVE COORDINATION, THEIR USE FOR WIRELESS BACKHAUL WOULD CREATE INTERFERENCE RISKS TO BOTH WIRELESS BACKHAUL AND BROADCASTERS’ BAS OPERATIONS.

Given broadcasters’ use of the 7 GHz and 13 GHz bands for important local itinerant ENG operations, the Commission’s proposal, as currently crafted, likely would result in interference to wireless backhaul operations and create a risk of interference to ENG operations.

Currently, because the number of licensed, fixed links in these bands is relatively modest, advance coordination to avoid interference to those links is feasible in most markets. Introduction into the band of many more fixed links for wireless backhaul would make coordination much more difficult, and perhaps impossible (particularly in markets where this spectrum already is congested). That is because temporary fixed uses (such as broadcasters’
itinerant ENG operations) are essentially incompatible with large numbers of fixed operations in the same band.

Broadcasters’ local itinerant ENG operations are unpredictable. They depend on where and when a news event occurs, and often occur without any advance notice. Coverage of a breaking news event or an emergency situation may cause a spike in usage. Thus, unlike broadcasters’ fixed operations in these bands (which have known locations and continuous use), broadcasters’ itinerant operations are volatile and can peak at unpredictable times and locations. These operations may cause interference to wireless backhaul sites if there is an influx of such sites into these bands. Further, an influx of new wireless backhaul sites may also cause interference to broadcasters’ itinerant ENG operations.9

Currently, broadcasters avoid interference by not placing fixed links in the bands that are used for itinerant operations. This solution will be much more difficult to implement, however, if there is an influx of new fixed sites as a result of the proposals in this proceeding. Local coordination often must be done on the fly, at any time of day or night. Prior notification and coordination with many new backhaul operators in the band likely will be a major challenge and interference will likely result, potentially jeopardizing broadcasters’ live, on-the-spot coverage of important news events.

Further complicating the matter is the fact that the BAS spectrum already is congested, especially in larger markets. The Commission appears to have recognized this fact.

9 For example, in a scenario where a newsgathering truck is used at the scene of breaking news to transmit footage to a fixed receive site, the receive site can be protected with advance engineering so that a new point-to-point wireless backhaul operation does not desensitize the receive site. But, depending on the circumstances, the backhaul site could receive interference from the truck. And there is a risk that the backhaul site could cause interference to the truck (which may be receiving a shorthaul communication from a backpack camera, for example).
It noted that the Wireless Telecommunications Bureau (“WTB”) has granted a “series of waivers” of the final link rule because applicants “demonstrated that there were no BAS frequencies available that could accommodate their proposed operations.”\textsuperscript{10} The Commission observed that, “[b]ased on the record developed in waiver requests granted by [WTB], it appears that there is an increasing number of markets where [BAS] spectrum is scarce.”\textsuperscript{11} Adding significantly more new wireless backhaul users to the 7 GHz and 13 GHz bands will exacerbate the existing congestion, make coordination more difficult, and increase the risk of interference. The proposals to allow “auxiliary” Part 101 stations, which would increase the number of wireless backhaul sites and paths, and to relax the minimum payload capacity requirements, would add to these challenges.\textsuperscript{12}

IV. PROTECTION FOR BROADCASTERS’ ITINERANT OPERATIONS WOULD HELP TO ADDRESS THESE INTERFERENCE CONCERNS.

For the reasons set forth above, broadcasters are concerned about implementation of the proposal to open up the 7 GHz and 13 GHz bands to wireless backhaul uses. At the same time, they are committed to working with the Commission to achieve the national goal of expanding and improving broadband access. While it would not be possible to eliminate all of the risks outlined above, it should be possible to move forward in a way that helps to mitigate the risks. We propose two complementary approaches here. First, the Commission should recognize the need to protect broadcasters’ BAS operations by designating wireless backhaul uses as secondary to BAS operations. Second, the Commission should, in certain congested

\textsuperscript{10} See NPRM at para. 23.

\textsuperscript{11} Id. at 89-90.

\textsuperscript{12} Further, in the NOI, the Commission sought comment on permitting reduced antenna sizes. This proposal would have the effect of intensifying the use of the bands by wireless backhaul operators.
markets, protect a portion of the 7 GHz and 13 GHz bands, ensuring that no wireless backhaul operations are licensed to operate in the set-aside portions. These recommendations are more specifically described below.

The Commission should clarify that broadcasters’ itinerant operations are not required to protect backhaul fixed operations, and conversely, should clarify that backhaul fixed operations are required to protect broadcasters’ itinerant operations. Currently, fixed links are given priority over itinerant operations. As described above, however, fixed uses in these bands are relatively modest and providing them with protection is manageable. An influx of new wireless backhaul sites would be incompatible with robust, unpredictable itinerant newsgathering and news reporting 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 felt compelled to protect nearby 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.13

Moreover, in areas where this spectrum already is particularly congested, the Commission should reserve a portion of the 7 GHz and the 13 GHz bands for broadcasters’ itinerant ENG operations. No licenses for wireless backhaul operations would be granted in these reserved segments. These reserved segments will guarantee that broadcasters can provide news coverage in the areas particularly prone to peak ENG usage. Thus, for example, the

13 The NPRM is somewhat ambiguous on this point. See, e.g., NPRM at para. 11 (stating that “new [backhaul] licenses in this band will need to provide full protection for existing licensees”) (emphasis added).
Commission could establish a safe harbor of a certain number of channels in these bands in particular congested markets.

V. CONCLUSION

The broadcast industry continues to stand ready to work with the Commission to expand broadband access while ensuring that the public’s news coverage is not compromised and that other critical BAS operations are protected. We believe that it is possible to achieve both goals with a careful approach, and we look forward to continuing to work with the Commission on this issue.
Respectfully submitted,

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