

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

In the Matter of)	
)	
Revisions to Rules Authorizing the Operation of)	WT Docket No. 08-166
Low Power Auxiliary Stations in the 698-806)	
MHz Band)	
)	
Public Interest Spectrum Coalition, Petition for)	
Rulemaking Regarding Low Power Auxiliary)	WT Docket No. 08-167
Stations, Including Wireless Microphones, and the)	
Digital Television Transition)	

To: The Commission

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

October 20, 2008

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

The Association for Maximum Service Television, Inc. (“MSTV”)¹ and the National Association of Broadcasters (“NAB”)² hereby respond to the comments filed in the above-captioned proceeding. The record in this proceeding confirms that the Commission should adopt the reasonable phase-out process proposed by MSTV and NAB, narrowly expand the categories of users eligible for licensing under Part 74, and adopt rules in the *TV White Spaces* proceeding that protect licensed wireless microphones from interference.

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 more than 8,300 free, local radio and television stations and also broadcast networks before Congress, the Federal Communications Commission, the Courts, and other federal agencies.

INTRODUCTION AND SUMMARY

The record in this proceeding demonstrates that a gradual phase out of licensed wireless microphone operations in the 700 MHz band is a reasonable — and necessary — alternative to the Commission’s proposed February 17, 2009, deadline. While the commenters put forward several different phase-out proposals, the MSTV/NAB approach is the only alternative that both fully protects 700 MHz entrants from any risk of interference and provides wireless microphone licensees with the flexibility needed to avoid unnecessary costs and service disruptions. Under the MSTV/NAB compromise plan, licensed wireless microphone operations in a given 700 MHz band frequency and geographic area must cease upon the earlier of (1) sixty days prior to the date on which the 700 MHz wireless entrant intends to begin service, per a notice sent to the affected wireless microphone licensees, or (2) February 17, 2012.

The record also supports the view of MSTV and NAB that a narrow expansion of Part 74 eligibility would be appropriate. MSTV and NAB recommend that the Commission narrowly expand the list of entities eligible to hold Part 74 licenses for wireless microphone operation in the core broadcast spectrum to include theaters, live music producers, houses of worship, and government bodies. This measured approach helps ensure that interference to broadcast television station reception is avoided.

Finally, MSTV and NAB agree with Nady Systems, Shure, the Society of Broadcast Engineers, and others to the extent that they recognize that this proceeding is significantly related to the *TV White Spaces* proceeding. The record confirms that it is critical that the rules adopted in the *TV White Spaces* proceeding protect licensed wireless microphones from interference.

I. THE MSTV/NAB COMPROMISE APPROACH FULLY PROTECTS 700 MHZ ENTRANTS WHILE PROVIDING A REASONABLE TRANSITION PERIOD FOR LICENSED WIRELESS MICROPHONES

Among the various alternatives presented by the commenters, the MSTV/NAB proposal represents the middle ground. Under this proposal, all wireless microphone use in the 700 MHz band must end no later than February 17, 2012. However, prior to this date, a 700 MHz entrant could cause licensed wireless microphone operations to cease by notifying licensed users of the date on which the entrant intends to commence service. Not only does this proposal fully protect the interests of 700 MHz entrants, but a gradual phase-out of licensed wireless microphones avoids unnecessary costs and service disruptions as well.

Other commenters submit proposals that would protect wireless microphone licensees, or protect wireless entrants, but unlike the MSTV/NAB plan, these proposals would fail to serve all parties' interests. For example, Motorola, Inc. requests "the immediate evacuation of LPAS devices from the 700 MHz band," notwithstanding the fact that in many areas, wireless entrants will not build out service for years.³ By allowing wireless microphone users to remain on a 700 MHz frequency only until such time that a 700 MHz entrant is ready to use the spectrum, the MSTV/NAB plan represents a well-reasoned compromise.

A. The MSTV/NAB Proposal Fully Protects 700 MHz Entrants from Interference

Those opposed to allowing licensed wireless microphone operations beyond February 17, 2009, expressed concern that 700 MHz entrants might experience interference.⁴ However, the MSTV/NAB proposal fully addresses this sole concern in two ways.

³ Comments of Motorola, Inc., WT Docket Nos. 08-166 and 08-167, at 3 (filed Oct. 3, 2008) (emphasis added) [hereinafter "Motorola"].

⁴ See, e.g., Comments of MetroPCS, WT Docket Nos. 08-166 and 08-167, at 2-3 (filed Oct. 3, 2008); Motorola, at 3; Comments of Verizon Wireless, WT Docket Nos. 08-166, 08-167, at 3-5 (filed Oct. 3, 2008) [hereinafter

First, where the 700 MHz entrant does not commence service before February 17, 2012, continued licensed wireless microphone operations during this period cannot interfere. MSTV and NAB disagree with APCO, Motorola, and NPSTC that as of February 17, 2009, many 700 MHz entrants will be prepared to begin immediate operations.⁵ Verizon Wireless, which won the most spectrum in the 700 MHz auction, acquired 109 commercial wireless licenses nationwide, including all twelve, large Regional EAG (“REAG”) C-Block licenses.⁶ Verizon Wireless acknowledges in its comments that it will not begin testing in the 700 MHz band until sometime in 2009 and that commercial deployment will not occur until 2010.⁷ Of course, it would not be realistic to expect even by 2010 that Verizon Wireless, or any other 700 MHz entrant, will begin service in every or even most parts of its licensed service area. The Commission’s performance requirements recognize that build-out will be gradual; on its C-Block licenses, Verizon Wireless will have until February 2013 to serve 40 percent of the population in each EA comprising its REAG service area. The Commission’s performance requirements are consistent with the comments of MSTV/NAB, Audio-Technica, and Thomas C. Smith, which state that it will take many 700 MHz entrants years, not months, to construct new 700 MHz facilities throughout their licensed service areas.⁸

“Verizon”]; Comments of the Wireless Communications Association International, Inc., Docket Nos. 08-166, 08-167 (filed Oct. 3, 2008) [hereinafter “WCAI”].

⁵ See Comments of APCO, WT Docket Nos. 08-166 and 08-167, at 2 (filed Oct. 3, 2008); Motorola, at 3; Comments of the National Public Safety Telecommunications Council, WT Docket Nos. 08-166 and 08-167, at 4–5 (filed Oct. 3, 2008).

⁶ See *Auction of 700 MHz Band Licenses Closes: Winning Bidders Announced for Auction 73*, Public Notice, 23 FCC Rcd. 4572 (Mar. 20, 2008).

⁷ See Verizon, at 2 n.2.

⁸ See Comments of the Association for Maximum Service Television, Inc. and The National Association of Broadcasters, WT Docket Nos. 08-166, 08-167, at 5 (filed Oct. 3, 2008); Comments of Audio-Technica U.S., Inc., WT Docket Nos. 08-166, 08-167, at 9 (filed Oct. 3, 2008) [hereinafter “Audio-Technica”]; Comments of Thomas C. Smith, WT Docket Nos. 08-166, 08-167, at 3 (filed Oct. 3, 2008) [hereinafter “Smith”].

Second, even if a 700 MHz entrant commences service immediately, it will be fully protected under the MSTV/NAB plan. The 700 MHz entrant may force wireless microphone operation on a specific frequency and geographic area to cease simply by sending a notification to the affected wireless microphone licensees. The notice would specify the date on which service will begin (which date should be no sooner than 120 days before the date on which the notice was sent). The licensed wireless microphone user would be required to cease all operations throughout the applicable geographic area on that frequency within 60 days before the date services begin. Therefore, no interference can occur because, by the time the 700 MHz entrant commences service, all licensed wireless microphone operations will have already ended.

B. The MSTV/NAB Phase-Out Approach Avoids Unnecessary Costs and Service Disruptions

As Audio-Technica, Nady Systems, Shure, Thomas C. Smith, the Wireless Communications Association International, and the Society of Broadcast Engineers document, it is unreasonable to expect all wireless microphone licensees to immediately relocate out of the 700 MHz band after the DTV transition is complete.⁹ Consequently, a phase-out approach is necessary to allow wireless microphone licensees sufficient time to retune or purchase new equipment.

Shure explains that the costs of relocating wireless microphone equipment out of the 700 MHz band range from \$50,000 to \$250,000. In addition, manufacturers may not be able to meet the unexpected spike in demand for new equipment over the next four months.¹⁰

Adoption of a gradual phase-out approach, however, would provide manufacturers the necessary

⁹ See Audio-Technica, at 4–10; Smith, at 3; Comments of Shure Incorporated, WT Docket Nos. 08-166, 08-167, at 5 (filed Oct. 3, 2008) [hereinafter “Shure”]; Nady Systems, at 8–10; Comments of the WCAI, at 1 n.2; Comments of the Society of Broadcast Engineers, WT Docket Nos. 08-166, 08-167, at 3 (filed Oct. 3, 2008).

¹⁰ Shure, at 10.

lead time to increase production, thereby avoiding sharp increases in the costs of obtaining new or re-tuned equipment that will likely result from a shortage of supply. Such high costs and equipment shortages would inevitably result in harmful service disruptions to the public; in contrast, a gradual phase-out approach affords wireless microphone licensees sufficient flexibility to acquire financing and purchase equipment *before* they are required to relocate out of the 700 MHz band.

In addition, a balanced, phase-out approach has already been used in relocating low power television, TV Translator, and Class A stations (collectively, “LPTV stations”) from the 700 MHz band. Audio-Technica explains that in 2004, the Commission concluded that LPTV stations could build new digital companion stations in the lower 700 MHz band and that operations could continue on a secondary basis until a new wireless entrant notified the licensee of its intention to initiate service. After receiving notification, the LPTV station could continue operating indefinitely only if it obtained the consent of the wireless entrant or a stay from the Commission. MSTV and NAB agree with Audio-Technica that this approach serves as a model for the relocation of licensed wireless microphones out of the 700 MHz band. However, MSTV and NAB add a February 17, 2012, hard deadline for the cessation of licensed wireless microphone operations in the 700 MHz band as a “belts-and-suspenders” protection to ensure that the interests of commercial wireless and public safety entrants are fully protected.

II. THE COMMISSION SHOULD NARROWLY EXPAND THE CATEGORIES OF ENTITIES LICENSED TO USE WIRELESS MICROPHONES UNDER PART 74

Many commenters echo MSTV and NAB’s position that the category of entities authorized to use wireless microphones should be expanded. However, this list must be narrowly tailored to ensure that new, licensed users are those likely to operate away from residential areas and in coordinated, professional settings. Accordingly, consistent with the

Commission's rules, a narrow expansion of the current classes of eligible entities to include theaters, live music producers, government bodies, and houses of worship is reasonable.¹¹

As MSTV and NAB explained in their initial comments, these types of entities serve functions similar to the categories of users that are already eligible (i.e., licensees of AM, FM, TV, International broadcast, or LPTV stations; broadcast network entities; operators of a cable television system that produces program material for origination or access cablecasting; motion picture and television producers; and certain entities with specified interests in broadband radio service or educational broadband service licenses).¹² Moreover, because these new users would be subject to frequency coordination under Part 74 and are unlikely to use wireless microphones in venues where television equipment is located, these entities are unlikely to interfere with full-power television service.

MSTV and NAB accordingly disagree with Verizon Wireless and V-Comm's claims that all low power auxiliary devices, including licensed wireless microphones, are nomadic, used intermittently, and difficult to identify and locate.¹³ This claim confuses licensed wireless microphones with the types of unlicensed devices proposed for use in the *TV White Space* proceeding, as described below. As MSTV and NAB explain in their comments, licensed wireless microphones typically operate in controlled, professional environments and are licensed to users who can be located easily in the event of an interference concern. The same is true for the four new categories of entities — theaters, live music producers, government bodies, and houses of worship — that MSTV and NAB would add to the list of eligible entities under Part 74. These entities use licensed wireless microphones in Broadway theaters, sports stadiums,

¹¹ See Part 74 C.F.R. §832(d) of the Commission's rules.

¹² See 47 C.F.R. § 74.832(a).

¹³ See Comments of Verizon Wireless, WT Docket Nos. 08-166, 08-167, at 6 (filed Oct. 3, 2008); Report of V-Comm, LLC, WT Docket Nos. 08-166, 08-167, at 1 (filed Oct. 3, 2008).

movie and television studios, and town halls. These venues are not residential, and television receiving equipment is unlikely be found there. Furthermore, all licensed wireless microphone use must be coordinated pursuant to the requirements of Part 74, making it easy to identify and locate the relevant licensee.

III. THE RECORD CONFIRMS THAT IT IS CRITICAL FOR THE RULES ADOPTED IN THE *TV WHITE SPACES* PROCEEDING TO ADDRESS INTERFERENCE RISKS FROM UNLICENSED DEVICES

Several commenters agreed with MSTV and NAB that this proceeding has a significant relationship to the *TV White Spaces* proceeding.¹⁴ MSTV and NAB agree with the White Spaces Coalition to the extent that it requests that “any solution necessarily must take into account the impact of introducing numerous additional wireless microphone operations in the remaining TV bands.”¹⁵ Because more wireless microphones will operate in the core broadcast spectrum as a result of this proceeding, the *TV White Spaces* proceeding should bring about rules — including a geolocation-based framework and safe harbor for wireless microphones — that protect licensed wireless microphones from interference.

In this regard, it has been reported that the pending white space proposal would set aside only a few, perhaps one or two, channels for wireless microphone use. Such a set aside would be inadequate to meet the demands of current licensed wireless microphones. The problems with this proposal would be exacerbated once wireless microphones leave channels 52-69 and attempt to relocate on current TV channels 2-51. Therefore, we request that the FCC examine the relationship between these two proceedings. Expanding the category of licensed

¹⁴ See, e.g., Nady Systems, at 10-11; Shure, at 9-10; Comments of the Society of Broadcast Engineers, Inc., WT Docket Nos. 08-166, 08-167, at 8 (filed Sept. 26, 2008); Comments of the White Spaces Coalition, WT Docket Nos. 08-166, 08-167 (filed Oct. 3, 2008) [hereinafter “WSC”].

¹⁵ WSC, at 5-6.

wireless microphones in this proceeding will require the FCC to set aside more spectrum for wireless microphones in the *TV White Spaces* proceeding.

Moreover, MSTV and NAB disagree with the White Spaces Coalition's assertion that any wireless microphones that are licensed as part of this proceeding (e.g., for religious services) should be subordinated to unlicensed devices that may be authorized for operation in the broadcast spectrum. In making this argument, the White Spaces Coalition reveals the intention of white-space proponents to claim, unlawfully, an incumbency interest in this spectrum. Such an interest would turn the Communication Act's longstanding principle that unlicensed devices must "do no harm" on its head. In accordance with Section 301 of the Communications Act, every unlicensed device lawfully sold in the United States during the past seven decades has been required to not interfere with any licensed service.¹⁶ When an unlicensed device does create harmful interference to a licensed user, the unlicensed device has always been legally bound to cease operation unless and until it corrects the problem. Additionally, unlicensed devices must accept interference not only from primary users, but also from any other secondary users, regardless of whether that secondary user could have avoided the interference by operating in alternative spectrum. Thus, as the Commission has explained, unlicensed devices "do not have any allocation status, but are authorized to operate under our Part 15 rules on an unprotected, non-interference basis with respect to all other users."¹⁷ To the extent that members of the White Spaces Coalition desire protection from secondary licensed services such as wireless microphones, the proper course for them is to obtain licenses at auction

¹⁶ 47 C.F.R. § 15.5.

¹⁷ *Amendments of Parts 2 and 97 of the Commission's Rules to Create a Low Frequency Allocation for the Amateur Radio Service*, 18 FCC Rcd 10258, 10260 (2003).

or in the secondary marketplace.¹⁸ Simply put, by definition, users of unlicensed devices cannot have an incumbency interest in a specific band of radiospectrum that is allocated for licensed users.

The White Spaces Coalition also appears to argue, incorrectly, that current uses of wireless microphones in the broadcast spectrum are akin to the unlicensed uses that it advocates for in the *TV White Spaces* proceeding. In this respect, the White Spaces Coalition makes the same mistake as Verizon Wireless and V-Comm in overlooking the fact that licensed wireless microphones are subject to coordination requirements and are used in controlled, professional settings apart from residential areas. Unlike licensed wireless microphones, personal/portable TV white space devices would operate in homes and apartment buildings within feet of digital television receivers and converter boxes. The use of these unlicensed devices is nomadic and intermittent. Consequently, it is nearly impossible to identify and locate the source of interference.

¹⁸ MSTV has addressed previously a similar attempt by white-space proponents to obtain an incumbency interest in the broadcast spectrum. See *Opposition of MSTV to the Petition for Reconsideration of New America Foundation and the Champaign Urbana Wireless Internet Network*, MB Docket No 03-185 (March 2, 2005). There, white-space proponents attempted to prevent digital low power television stations from transitioning to digital service by providing that digital LPTV stations (a secondary licensed service) should be “co-equal” to unlicensed devices in the broadcast spectrum.

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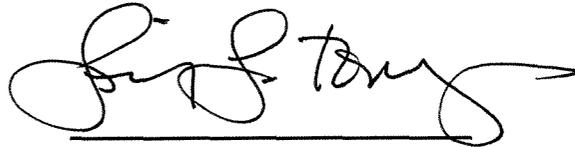
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Pursuant to the record established in this proceeding, MSTV and NAB respectfully request that the Commission adopt a reasonable phase-out process requiring licensed wireless microphone operations in a given 700 MHz band frequency and geographic area to cease upon the earlier of (1) sixty days prior to the date on which the 700 MHz wireless entrant intends to begin service, per a notice sent to the affected wireless microphone licensees, or (2) February 2012.

Respectfully submitted,

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