Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of

Revisions to Rules Authorizing the Operation of Low Power Auxiliary Stations in the 698-806 MHz Band

Public Interest Spectrum Coalition
Petition for Rulemaking Regarding Low Power Auxiliary Stations Including Wireless Microphones and the Digital Television Transition

Amendment of Parts 15, 74 and 90 of the Commission’s Rules Regarding Low Power Auxiliary Stations, Including Wireless Microphones

WT Docket No. 08-166
WT Docket No. 08-167
ET Docket No. 10-24

REPLY COMMENTS OF
THE COALITION OF WIRELESS MICROPHONE USERS

The Coalition of Wireless Microphone Users (“CWMU”) files these reply comments in response to comments filed in the above-cited dockets. 1 CWMU members have used wireless microphones within the TV Bands for decades in a variety of applications that have provided enrichment, enlightenment, and entertainment to the public. 2

---

1 Comments were filed in response to the Commission’s “Report and Order and Further Notice of Proposed Rulemaking,” FCC 10-16, released January 15, 2010 (“Order” or “Further Notice”).

2 Members of CWMU include The Broadway League; The Shubert Organization; Theatre Communications Group, Inc.; The Alliance of Resident Theatres/New York, Inc.; The Educational Theatre Association; League of Off-Broadway Theaters and Producers, Inc.; League of Resident Theatres; the John F. Kennedy Center for the Performing Arts, the African Methodist Episcopal Church; Sports Video Group, LLC; The National Football League, The National Hockey League, Major League Baseball; ESPN, Inc.; and News Corporation.
This proceeding is connected with the rulemaking in which the Commission is seeking to make spectrum available for unlicensed devices within the “White Spaces” of the television broadcasting frequencies. What the Commission has found without doubt, however, is that the television channels unused by broadcasters are not really “White” at all. They are alive with the colors, harmonies, inspiration, and imagination of America.

1. **An Overwhelming Majority of Commenters Support Licensing Wireless Microphones.**

   In the comments that it filed in this proceeding, CWMU reminded the Commission of the importance of wireless microphones and two-way cue and control communications devices to the operations of theatres on Broadway and across the nation, of educational theatre programs, services at houses of worship, and sports events. These significant operations can only continue without interruption if the wireless devices are covered by licenses and protected in the TV Band Device database. CWMU believes that expanded eligibility under Part 74 of the Commission’s rules will permit wireless microphones and TV Band Devices to coexist. Hundreds of other commenters have also urged the Commission to license wireless microphone users under Part 74 and to require that they be protected through the TV Band Device database so the commenting parties can continue to provide important public benefits.

   Wireless microphones and intercoms are used by professional and collegiate sports organizations to enable coach-to-coach and coach-to-player communications, to permit

---

4 Comments of the Coalition of Wireless Microphone Users, March 1, 2010.
officials to announce decisions, and to provide services to fans in stadiums and arenas.⁵ Because most major sporting events are broadcast or carried by cable, many sports entities already qualify for Part 74 licenses. Nonetheless, the Commission should clarify that Part 74 licensing covers game-day services for fans and internal team communications.

Major live entertainment companies rely on wireless devices for the successful operation of their business. Sophisticated American audiences demand the superior-quality audio provided by modern wireless microphones that operate only in the TV Bands. Additionally, interference with wireless communications would literally be a “show-stopper” to protect the life safety of artists and crew during the movement of large set pieces and the coordination of special effects, including pyrotechnics.⁶ Contemporary entertainment productions typically involve intricate and innovative choreography and it would be impossible and potentially dangerous to substitute wired microphones.⁷ Dynamic stage performances demand wireless technology to allow performers to move freely without any compromise in audio quality. Major entertainment productions cannot tolerate interference, which would make Part 15 regulation impractical.⁸

In the evolution of audio recording technology, wireless microphones have come to serve a pivotal function in the production of music.⁹ Changes in the economics of the music business place a new emphasis on live performances. The clear, consistent sound delivered by

⁸ Comments of the Grand Ole Opry.
wireless microphones is an absolutely fundamental requirement of any professional live music performance. The American public enthusiastically supports these live performances which evoke strong, positive, and memorable emotional responses that cannot be replicated by downloading a song from the Internet.\textsuperscript{10} Live concerts and events are the primary source of revenue for the music industry and it’s essential that they continue with impeccable world-class audio.\textsuperscript{11}

Owners and operators of large-scale multiple-purpose venues have noted that interference to wireless microphones and wireless intercom systems would be crippling to their extensive public presentations.\textsuperscript{12} Wireless communications systems and wireless microphones are critical for their live concerts and special events; interference is their worst enemy.\textsuperscript{13}

The mix of music, sermons, readings, theatrical performances, and other visual and audio productions presented in today’s American churches requires equipment that performs at the highest levels, including wireless microphones.\textsuperscript{14} The ability to deliver clear audio signals throughout a large church is crucial, especially to those with special needs such as hearing impairments and to non-native English speakers.\textsuperscript{15}

Comments submitted to the Commission in this proceeding resound with examples of important public service provided through the use of wireless microphones and communications devices – services that would disappear if these providers are not eligible for

\textsuperscript{10} Letter of over 170 performing artists, March 1, 2010.
\textsuperscript{12} Letter of Gates Performing Arts Center (Kamuela, Hawaii), February 21, 2010.
\textsuperscript{13} Letter of The Fillmore (San Francisco, California), February 22, 2010.
\textsuperscript{14} Letter of Cherry Hills Community Church, February 24, 2010.
\textsuperscript{15} Letter of the Archdiocese of Los Angeles, March 1, 2010.
Part 74 licensing and inclusion in the TV Band Device database. These examples lend support to the plan proposed by CWMU in its comments, which would permit licensed wireless microphones to coexist with new TV Band devices.

2. **TV Band Device Proponents Dismiss the Needs of Public and Private Institutions that Serve Millions of Americans.**

   Only a handful of filing parties oppose the Part 74 licensing of wireless microphones that CWMU recommends. It is more than ironic that members of the alliance that calls itself the “Public Interest Spectrum Coalition (PISC)” should urge the Commission to choose the untested promise of TV Band Devices to the exclusion of wireless microphones “no matter the societal benefits” provided by current wireless microphone users.\(^{16}\) While CWMU believes that both interests can be served in a regime where certain wireless microphone users are licensed and listed in the database, PISC members are unwilling to cede protection to users that have decades of providing valuable services in the public interest to countless multitudes. The Commission must not ascribe a pro-social objective to organizations that clearly oppose the public interest, regardless of what they name their coalition.

   Companies that intend to reap commercial benefits from the sale of TV Band Devices and related services also claim that their business plans cannot coexist with “even a modest expansion of Part 74” [license eligibility].\(^ {17}\) Notwithstanding their leadership positions in computer technology, these companies can provide no hard scientific evidence for their positions, but rely on speculation. Their suggestions for alternative technology and frequencies

---

\(^{16}\) Comments of Media Access Project, New America Foundation, and Public Knowledge, p.3.

\(^{17}\) Comments of Dell Inc. and Microsoft Corp., p.11.
are clearly unsuitable for replacing currently used wireless microphones.\textsuperscript{18} Technology may, indeed, one day provide dramatic new solutions for wireless audio and cue and control needs. But until then, TV Band Devices should share the spectrum and protect the valuable services provided to the public under the status quo. The Commission should not be in the business of picking winners and losers, but should ensure that the public interest is served.

3. \textbf{The National Broadband Plan Supports the Protection of Wireless Microphones and Provides Alternatives for New Data Services.}

On March 16, 2010, the Commission unveiled its ambitious “Connecting America: The National Broadband Plan (the Plan).” The Plan does not envision the current configuration of TV White Spaces as a major source of spectrum to meet America’s wireless broadband needs. Instead, the Plan proposes the repacking of TV station allocations\textsuperscript{19} and the use of other spectrum-saving measures, all of which will decrease the available White Spaces. Additionally, the Plan recommends that the Commission free up a “new, contiguous nationwide band for unlicensed use.”\textsuperscript{20} This new band would be the final resting place for services such as those proposed for TV Band Devices. Possibly the major contribution to come from TV Band Devices, as noted in the Plan, is a test of the potential benefits of providing access to spectrum by means of a database and cognitive radio techniques, which could be extended to other spectrum.\textsuperscript{21} Thus, the status quo, in which services are provided to the public by wireless microphones without

\begin{itemize}
\item \textsuperscript{18} For example, Dell and Microsoft suggest digital handheld microphones manufactured by Sony or Lectrosonics ISM-band devices designed to be “carried in an over-shoulder carrying case.” \url{www.lectrosonics.com/wireless/digital/d4/d4.htm}. Comments of Dell Inc. and Microsoft Corp., p. 13. Neither instrument would be acceptable for use in a Broadway musical.
\item \textsuperscript{19} \textit{Id.}, p. 89.
\item \textsuperscript{20} \textit{Id.}, p. 94.
\item \textsuperscript{21} \textit{Id.}, p. 95.
\end{itemize}
interference, should be continued with licensing and database protection. The TV Band devices can perform the important function of demonstrating database access and cognitive radio technologies while coexisting with protected wireless microphones. Furthermore, wireless microphone users are moving from the 700 MHz band at great expense. If the Plan is going to potentially result in additional changes to their operations, it’s only fair to preserve the status quo with licensed and protected wireless microphones until the Commission has finished all of its adjustments to the TV Band.

When the Plan recommends proceedings to reallocate spectrum from the TV broadcast band, it notes that any changes to the TV spectrum must be carefully considered to weigh the impact on consumers, the public interest, and the various services that share this spectrum, including wireless microphones and prospective TV white spaces devices. As so many commenters in this proceeding have pointed out, the public interest is currently served through the use of wireless microphones and this actual service must be carefully weighed against “prospective” TV Band Devices. This task is simplified because, under the proposals in CWMU’s Comments, licensed and protected wireless microphones can coexist with TV Band Devices and it is not necessary for the Commission to choose one or the other.

The Plan also recommends the establishment of a digital national archive, sort of a “video vault” of recorded materials. Several commenters noted that they are recording productions that use wireless microphones for use as webcasts. These productions are recorded and made available for wide-spread viewing on the Internet and, once copyright and performance

---

22 Plan, pp. 88-89.
23 Plan, p. 304.
24 Comments of Orange County Convention Center.
rights issues are resolved, they may be available for viewing into the future, providing
tremendous educational opportunities.\textsuperscript{25} Therefore, the line between producers of live
productions (who seek eligibility for licenses) and motion picture and television producers (who
are currently eligible for licenses under Part 74) becomes blurry to the point of insignificance
and it is difficult to justify the continuation of disparate treatment. Thus, several elements of the
Plan are consistent with CWMU's licensing proposal.

4. \textbf{Conclusion.}

The American public does not have the opportunity to cast a vote for either the
continuation of quality live performances, sporting events, and religious presentations or the
possibility of amazing new services. The Commission must make this decision on their behalf.
The overwhelming majority of commenters in this proceeding, however, representing vast
numbers of audiences, fans, and participants, have cast the equivalent of ballots favoring the
continuation of interference-free wireless microphones and cue and control devices. This can
only happen through licensing under Part 74 and protection in the TV Band Device database.
Thus CWMU urges the Commission to adopt the licensing plan discussed in its Comments.

\textsuperscript{25} Plan, p. 304.
Respectfully submitted,

THE COALITION OF WIRELESS MICROPHONE USERS

By: [Signature]

Antoinette C. Bush
David H. Pawlik
SKADDEN, ARPS, SLATE, MEAGHER & FLOM LLP
1440 New York Avenue, N.W.
Washington, D.C. 20005
(202) 371-7000

Its Attorneys

Dated: March 22, 2010