

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

<b>In the Matter of</b>	)	
	)	
<b>Unlicensed Operation in the TV Broadcast Bands</b>	)	<b>ET Docket No. 04-186</b>
	)	
<b>Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band</b>	)	<b>ET Docket No. 02-380</b>
	)	

**REPLY OF  
THE COALITION OF WIRELESS MICROPHONE USERS  
TO OPPOSITIONS TO PETITIONS FOR RECONSIDERATION**

The Coalition of Wireless Microphone Users ("CWMU"), pursuant to Section 1.429 of the Commission's rules, 47 C.F.R. § 1.429, presents its reply to certain arguments made by parties in their Oppositions to Petitions for Reconsideration of the Commission's "Second Report and Order and Memorandum Opinion and Order" in the above cited dockets.<sup>1</sup> The public interest requires changes to the Commission's rules that would permit existing Wireless Microphone users to acquire Part 74 licenses and receive protection from new unlicensed TV Band Devices ("TVBDs"). This protection would not result in the dire consequences imagined by TVBD proponents. Furthermore, an efficient and secure database is necessary for the coordination of Wireless Microphone and TVBD operations.

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<sup>1</sup> FCC 08-260, 23 FCC Rcd. 16807 (2008) (the "White Spaces Order").

**1. Incumbent Wireless Microphone Users Provide Exceptional Public Services.**

CWMU is an informal organization of entities that use wireless microphones, interruptible fold-back ("IFB") systems, and other wireless cue and control systems operating on frequencies assigned to Low Power Auxiliary Stations under Part 74, Subpart H of the Commission's rules (collectively herein, "Wireless Microphones"). CWMU members include professional and amateur theatres, educational institutions, support organizations, professional sports leagues, and producers of sports programming for broadcast and cable distribution.<sup>2</sup> Other major users of Wireless Microphones include houses of worship, and organizers of large meetings and trade shows. Wireless Microphones have become so integral to the operations of these enterprises that their missions would be far more difficult – or even impossible – to accomplish and their messages would be far less effective without the use of these powerful tools. Additionally, because Wireless Microphones include cue and control devices, they are used to prevent accidents and address life-safety requirements.

It is difficult to fathom that some parties in this proceeding actually recognize the clear social benefit provided by Wireless Microphone users in the arts, entertainment, sports, education, religion, and commerce, but still argue that providing them with protection from TVBD interference would be wrong.<sup>3</sup> Over the years, Wireless Microphone users have acted responsibly by painstakingly coordinating the use of frequencies to avoid interference with each other and with broadcasters. The proponents of the new technology would now punish Wireless

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<sup>2</sup> 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; Sports Video Group, LLC; National Basketball Association; National Football League, National Hockey League, Major League Baseball; ESPN, Inc.; and News Corporation.

<sup>3</sup> Consolidated Opposition to Petitions for Reconsideration, Dell Inc. and Microsoft Corp., May 8, 2009 ("Dell/Microsoft Opposition"), at 10.

Microphone users for not seeking long ago to expand the Commission's license eligibility requirements to include them.<sup>4</sup> Today, such disciplinary measures would also have a huge punitive effect on large segments of the public: theatre audiences, sports fans, churchgoers, students, and people from all walks of life who attend conventions, trade shows, and large meetings.

## **2. TVBD Proponents Exaggerate Wireless Microphone Spectrum Use.**

CWMU has explained that certain events, such as Broadway musicals and major sporting events, like the Super Bowl, use large numbers of Wireless Microphones. However, these events are limited in both times and locations. Microsoft and Dell attempted to extrapolate these temporally and geographically discrete situations to demonstrate that protection for Wireless Microphones would sound the death knell for TVBDs.<sup>5</sup> Their maps present a grossly distorted view of spectrum use when they use exclusion zones for houses of worship to argue that protection for Wireless Microphones in those areas would completely foreclose opportunities for TVBDs in major metropolitan markets. Some houses of worship use no Wireless Microphones at all. Most might use one for the principal minister, a few for vocal soloists, and perhaps one to aid the participation of the congregation. Very few churches present the type of tour de force production that rivals a Broadway musical.<sup>6</sup> Churches do not provide services employing Wireless Microphones 24 hours per day, 7 days per week. Accordingly, with the possible exceptions of Broadway on a busy night and the vicinity of major sports events like

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<sup>4</sup> See Opposition to Petitions for Reconsideration of the Public Interest Spectrum Coalition ("PISC Opposition"), at 8.

<sup>5</sup> Dell/Microsoft Opposition at 10 and Exhibits 1-4.

<sup>6</sup> Those that do, however, deserve the protection from interference that is necessary to the success of their efforts.

the Super Bowl, there will be enough frequencies available in the White Spaces to permit protection of Wireless Microphones and still allow TVBD services. Furthermore, the rural areas of the nation that are in greatest need of the services promised by proponents of new unlicensed devices are the areas where Wireless Microphones are used the least.

**3. The Database Must Provide Reliable Protection for Wireless Microphones.**

Several proponents of TVBDs have requested that the Commission eliminate its requirement that new unlicensed devices protect Wireless Microphones through both a database look-up procedure and spectrum-sensing technology. Spectrum sensing has never been demonstrated to work with Wireless Microphones and, if it remains mandated, its parameters must be adjusted for real-world deployment. Problems with spectrum sensing heighten the importance of an efficient, reliable, and secure database. A failure in the database authorization process would lead to catastrophic interference to Wireless Microphones.

In its Opposition, CWMU provided a discussion of database features and requirements that it considers vital.<sup>7</sup> Database security is not something intended to delay development and deployment of TVBDs, as Google claims,<sup>8</sup> but is necessary for the uninterrupted continuation of the services provided to the public by Wireless Microphone users. Additionally, it is extremely important for both the protection of Wireless Microphones and the operation of TVBDs that the database accept and distribute information on a real-time basis.

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<sup>7</sup> Opposition of CWMU, May 8, 2009, § 3 (its "Opposition").

<sup>8</sup> Opposition and Comments of Google Inc., at 19.

This will protect Wireless Microphone users who have sudden changes in plans and will permit rapid release of newly vacated frequencies for use by TVBDs.<sup>9</sup>

An examination of the opposing positions set forth by parties in Petitions for Reconsideration and in Oppositions clearly demonstrates the divisive nature of the issues +presented by this proceeding. These differences are likely to continue through the development of the database and into its actual operations. Thus, it is important that the Commission maintain a supervisory role over the database. Otherwise, control of its development might be assumed by one faction or another or management of the database could be stymied by an inability to reach agreements or compromises.<sup>10</sup>

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<sup>9</sup> In contrast, frequencies could be unavailable for re-use much longer under PISC's position that database access be required only once daily. PISC Opposition, at 11-12.

<sup>10</sup> Google's suggestion that the White Spaces Database Group can work out all issues without Commission supervision could lead to the type of delay that Google believes other parties desire. Id., at 14 and 18.

**4. Conclusion.**

CWMU members are eager to continue serving the public with live presentations and sporting events. Their operations warrant protection from interference from new unlicensed devices, and they seek changes in the Commission's rules that would permit them to become Part 74 licensees. Protection for Wireless Microphones will not make it impossible for TVBDs to operate in most areas of the country at most times. The database procedures proposed by the Commission present the most promising method of providing protection, but the database must be efficient and secure. Accordingly, for all the reasons set forth above and in its Opposition, CWMU respectfully urges the Commission to modify its rules in conformance with the requests it has made in this proceeding.

Respectfully submitted,

THE COALITION OF WIRELESS MICROPHONE USERS

/s/

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## Certificate of Service

I, Valerie Covarrubias, certify that I have caused a copy of the "Reply of The Coalition of Wireless Microphone Users to Oppositions to Petitions for Reconsideration" to be sent by First Class Mail to the following:

- Al Ittner, on behalf of Land Mobile Communications Council,
- Robert M. Gurss, on behalf of APCO International,
- Robert M. Gurss, for Fletcher, Heald & Hildreth, PLC, on behalf of the County of Los Angeles, California,
- Jonathan D. Blake for Covington & Burling LLP, on behalf of the National Association of Broadcasters and the Association for Maximum Service Television, Inc.
- E. Ashton Johnston, for Lampert, O'Connor & Johnston, P.C., on behalf of Google Inc.
- Mitchell Lazarus, for Fletcher, Heald & Hildreth, PLC, on behalf of Sennheiser Electronic Corporation,
- Jim Hollis, on behalf of the Federation of Internet Solution Providers of the Americas,
- James Carlson, on behalf of Carlson Wireless Technologies, Inc.
- Rich Kennedy, on behalf of The Wi-Fi Alliance,
- Christopher D. Imlay, for Booth Freret Imlay & Tepper PC, on behalf of The Society of Broadcast Engineers, Inc.,
- Richard A. Rudman & Dane E. Ericksen,
- Richard Harnish, for Rini Coran PC, on behalf of The Wireless Internet Service Providers Association,
- Susan Eid, on behalf of DIRECTV, Inc.,
- Peter Tannenwald, for Fletcher Heald & Hildreth PLC., on behalf of The Community Broadcasters Association,
- R. Paul Margie, for Harris Wiltshire & Grannis LLP, on behalf of Dell Inc., & Microsoft Corp.,

-Steve B. Sharkey & Robert D. Kubik, on behalf of Motorola, Inc.,

-Neal M. Goldberg, on behalf of National Cable &  
Telecommunications Association,

-Harold Feld, on behalf of Public Interest Spectrum Coalition

-Catherine Wang, for Bingham McCutchen LLP, on behalf of  
Shure Incorporated,

-Jesse M. Caulfield, on behalf of Key Bridge Global LLC.

/s/  
Valerie Covarrubias