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VIA ELECTRONIC FILING

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: ***EX PARTE NOTICE***

Unlicensed Operation in the TV Broadcast Bands, ET Docket No. 04-186

Dear Ms. Dortch:

On September 14, 2010, Shure Incorporated (“Shure”) met with Julius Knapp, Bruce Romano, Ira Keltz, Geraldine Matisse, Rashmi Doshi, Bill Hurst, Walter Johnston, Thomas Phillips, Hugh Van Tuyl, Karen Ansari and Steve Jones of the Commission’s Office of Engineering and Technology to discuss ET Docket No. 04-186. Shure met separately to discuss various issues related to the above docket on September 14, 2010 with Jennifer Flynn, Legal Advisor to Chairman Genachowski, Angela Giancarlo, Legal Advisor to Commissioner McDowell, Charles Mathias, Legal Advisor to Commissioner Baker and Louis Peraertz, Legal Advisor to Commissioner Clyburn. Attending these meetings on behalf of Shure were Mark Brunner, Senior Director, Global Public Relations, Edgar Reihl, Principal Engineer, as well as Catherine Wang and Tim Bransford of Bingham McCutchen LLP, outside counsel to Shure.

Shure discussed issues of critical importance to the wireless microphone community pending on reconsideration before the Commission in ET Docket No. 04-186. Shure discussed the extensive and devastating interference risk to all classes of wireless microphone users if new devices are introduced *en masse* into the TV band “white spaces” without meaningful protection. Shure reviewed the wide variety of professional wireless microphone uses critical to broadcast, music, religious service, theater, educational, business and government productions, to name a few, susceptible to devastating interference caused by TV Band Devices (“TVBDs”) entering the spectrum. Together these endeavors generate billions of dollars of economic activity for Americans. Today, wireless microphone technology is fundamental to nationally loved sports, popular entertainment in music and the performing arts, the way we educate our students, conduct business, engage with our government, and worship together. Wireless microphones are used in live presentations and productions where interference to the audio will often ruin the event. The record in this proceeding is replete with input from many representatives of these diverse sectors attesting to their extensive reliance on professional wireless microphones for their core activities --

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from the coaches instructions to the players on the field, the singer and musicians at a concert, the actors on stage, or the minister before his or her congregation -- and the irreversible damage that they and their audiences will suffer if new devices are allowed to operate in the TV band without meaningful, comprehensive protections for wireless microphones.

Shure discussed its view that the Commission correctly implemented a suite of complementary protections in its 2008 Order. Spectrum sensing was an essential element of this suite of protections. Spectrum sensing would serve as the first and only line of defense for many important microphone users who would not be able to find clear channels in the presence of TVBD operations and who would not be protected by registration in the database either because access to the database was to be limited or the nature of the use made registration difficult (*e.g.*, itinerant users such as roving news teams). Shure stated its support for the continued development of this promising technology and the rigorous testing and equipment evaluation process that should apply when sensing devices are presented to the Commission for certification.

If, at this point in the proceeding, the Commission has now decided that spectrum sensing should not be a mandatory requirement for geolocation devices because it is too costly to incorporate into TVBDs or the technology has not developed rapidly enough, or for some other reason, it is critical to recognize that eliminating the spectrum sensing provisions will leave a multitude of professional wireless microphone users unprotected and completely vulnerable to devastating interference.

We discussed the Commission's plan to identify channels in the UHF band that will be free from TVBD interference. In the absence of spectrum sensing, those channels would be protected for professional microphone operations that are not registered in the database and for which interference-free operations are a priority. Without spectrum sensing, it will be critical to modify the Commission's Order to add a reservation in every market of, at a minimum, two (2) channels in the UHF band in which TVBD operations will not be permitted. In our meetings, Shure urged the Commission to make clear that these reserve channels would not be limited to a small class of wireless microphone user based on status or other criteria but rather would be available for use by any wireless microphone system. While this, in and of itself, will not offer significant protection to large-scale users, designating a small number of clear channels for wireless microphone operations, along with the other provisions in the 2008 Order, is a reliable method for ensuring that new entrants co-exist without causing devastating interference to the majority of small-scale productions.

While the addition of two or more reserve channels is an important spectrum refuge to avoid TVBD interference, there remains a category of events where extensive wireless microphone operations require greater interference protection through registration in the database. Major entertainment venues such as the Las Vegas Strip, the Nashville music scene, Broadway, touring music concerts and theater, major sporting events, special events such as the Grammy Awards, and productions of large houses of worship and other productions with widespread microphone use still require protection in the database during events. The ability to scale up protections through the database to cover these extensive-use events for temporary periods is key to protecting this category of incumbent uses while enabling efficient spectrum use.

We also discussed how changing circumstances routinely require wireless microphone coordinators and users to adjust to their environment quickly by reassigning wireless microphones to different channels the day of major live events (*e.g.*, broadcast sports programs), and how the current rule language which does not require TVBDs to update more than once a day significantly diminishes the utility of the geolocation database.¹ As proposed in Shure's Petition for Reconsideration, the Commission's Rules should be changed to require databases to update and synchronize at least once an hour, and also to require TVBDs to query a database at least once an hour to confirm channel availability.² Given that multiple database administrators (*e.g.*, Key Bridge Global and WsDB LLC) support near real-time updates and synchronization, an hourly requirement should present no undue technical or logistical challenges. Requiring more frequent updates will also promote greater spectrum efficiency.

Although Shure continues to be concerned about the risk of interference to wireless microphone operations in the presence of new TVBD devices, the current plan as discussed with the above meeting participants establishes a reasonable path forward. Shure appreciates the Commission's dedication and hard work to develop strong interference protections for wireless microphones and other incumbents while allowing new services to make use of TV band spectrum. If you have any questions regarding this *ex parte* notice, please do not hesitate to contact the undersigned.

Very truly yours,

/s/

Catherine Wang
Tim Bransford

CC: Jennifer Flynn
Angela Giancarlo
Charles Mathias
Louis Peraertz

Julius Knapp
Bruce Romano
Ira Keltz
Geraldine Matisse
Rashmi Doshi
Bill Hurst
Walter Johnston
Thomas Phillips
Hugh Van Tuyl
Karen Ansari
Steve Jones

¹ Under the current rules, a TVBD is permitted to operate up to 48 hours without confirming channel availability through a geolocation database.

² See *Petition for Reconsideration of Shure Incorporated*, ET Docket No. 04-186, 14-16 (Mar. 19, 2009).