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April 1, 2011

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;
Innovation in the Broadcast Television Bands: Allocations, Channel Sharing and
Improvements to VHF, ET Docket No. 10-235

Dear Ms. Dortch:

On March 31st, 2011, Shure Incorporated (“Shure”) met with Charles Mathias, Senior Legal Advisor - Wireless, International and Public Safety, to Commissioner Baker to discuss ET Docket No. 04-186 and ET Docket No. 10-235. Attending this meeting on behalf of Shure were Mark Brunner, Senior Director, Global Public Relations, Edgar Reihl, Principal Engineer, and Catherine Wang and Tim Bransford of Bingham McCutchen LLP, outside counsel to Shure.

During this meeting Shure discussed issues of critical importance for the wireless microphone community pending on reconsideration before the Commission in ET Docket No. 04-186. Shure also provided feedback to OET on recent developments concerning the implementation of the TV bands databases that will enable dynamic access to broadcast frequencies not in use by higher priority incumbents. Specifically:

- Shure discussed why the Commission’s existing out-of-band-emission (“OOBE”) mask is essential for the successful introduction of TV band devices in the “white spaces,” and why a degraded mask that might be appropriate for operations in other bands is not acceptable for the TV broadcast bands and would jeopardize wireless microphone operations.
- Shure reemphasized that the Wi-Fi Alliance’s proposal to permit “quasi” fixed devices that are more akin to personal/portable devices lacking GPS functionality to operate under the rules for fixed devices is dangerous and unacceptable, and will create harmful interference for both incumbents and unlicensed spectrum users.

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- Shure reemphasized that current TV band device power levels and operating parameters were developed after years of technical analysis, testing and comprehensive industry feedback, and that no meaningful analysis has been subsequently conducted or scientific data submitted that supports relaxation of these parameters.
- Shure discussed the positive steps made toward implementation of TV bands geolocation databases, and the cooperative atmosphere fostered by OET engineers at the initial working group meeting conducted at the Columbia laboratory.
- Shure urged the Commission to consider implementing a central FCC-managed web portal through which licensed wireless microphone users would be able to register in the geolocation database, similar to the portal to be established by the Commission for unlicensed users, and discussed the many benefits of such a registration method, including greater accuracy of data, reduced delays in registrations, and streamlined user experience. We also discussed the extent to which the Commission could implement this approach without expending significant additional administrative resources. (see attached presentation).
- Shure discussed the need to minimize disruption to UHF wireless microphone operations as the Commission considers changes to the TV band spectrum and the need to refrain from locating additional public safety operations in channels 14-21 in view of the potentially increased demand to use those channels by TV broadcasting and wireless microphones.

If you have any questions regarding this meeting, please do not hesitate to contact the undersigned.

Very truly yours,

/s/

Catherine Wang
Tim Bransford

CC: Charles Mathias

5800 Touhy Avenue, Niles IL 60714-4608

Proposal: Create a Single Portal for Voluntary Registration of Licensed and Unlicensed Wireless Microphones

Edgar Reihl – March 16, 2011

Overview

We believe that the most efficient and effective process for voluntary registration of both licensed and unlicensed wireless microphones would be through a single FCC web portal. This would offer a number of advantages for the database administrators, the Commission, and the registrants. If the registrant is licensed, the data would immediately be made available to all nine database operators for inclusion according to their particular synchronization schedules. If the registrant is unlicensed, it would be put through the Commission's review process before being submitted to the databases. It is worth noting that the Commission will have to implement at least the "back end" of this process for the voluntary unlicensed registrants, since it will be supplying the registration data to all databases upon successful completion of its review and public comment process.

Advantages for database administrators:

- Pull voluntary registration data from a single point
- Eliminate any possibility of having duplicate or conflicting voluntary registration data in the database by creating a "single version of the truth"

Advantages for the Commission:

- Monitor and control all voluntary registrations from a single point

Advantages for the registrants:

- Enter registration data in one format
- Submit registration data to a single address
- Save time and avoid errors caused by having to enter data at up to 9 different web interfaces
- Reduce the amount of time for voluntary licensed registration data to be included in all 9 databases without the need to submit it directly to each one

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Discussion

The Commission already maintains several portals for managing licensed facilities, including the Universal Licensing System (ULS). Recently, it proposed using the ULS to register unlicensed microphones. The ULS could potentially serve as the single registration point for both voluntary licensed and unlicensed microphones if it can be adapted for unlicensed microphone registration. From a user perspective, the only drawback is the requirement to obtain an FCC Registration Number (FRN), but this is a one-time procedure and therefore should not be overly burdensome.

It is likely that both licensed and unlicensed wireless microphones may be in use, especially at larger venues or events. The Commissions' Rules expressly acknowledge this fact in §15.713(h)(9), which state that "As a benchmark, at least 6–8 wireless microphones should be operating in each channel used at such venues (both licensed and unlicensed wireless microphones used at the event may be counted to comply with this benchmark)." Therefore, it makes sense for both users and for the Commission to manage all of the microphone registrations in one place.

Beyond mere convenience, one of the main benefits of having a single portal for all microphone database registrations is that it would help prevent errors and duplicate records from appearing in the database. Presumably this will not be a problem for unlicensed microphones, since the Commission will apparently be sending the registration data to all of the administrators after review and completion of the 30-day public comment process. If licensed users are allowed or encouraged to register with multiple database administrators, it is likely that errors will occur.

Conversely, under the current rules, licensed users actually have an incentive to register with all of the databases if they have time-critical needs such as a breaking news story or disaster. FCC

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rules only require database synchronization to occur once per day¹. In addition, further delays in getting the information out to the TV Band Devices will occur because such devices are only required to check the database once per day², and may continue operating for an additional day if they lose contact with a database³. This could potentially result in data being as much as 72 hours out of date from the time it was originally submitted to a database operator, which would not suffice to provide the necessary protection in an urgent situation. The Commission has stated informally on various occasions that it expects the two reserved microphone channels (and any other available channels that are not in use by TV Band White Space devices) to fulfill the requirements for these events. However, this is not a valid assumption for several reasons. The two reserved microphone channels are available for general wireless microphone use and are not reserved for licensed microphones. Even though licensed microphones would have priority, there might not be time to coordinate channel usage in an emergency situation. Furthermore, a large event would require more than a few channels.

Registration Methodology

We envision at least two methods for voluntary licensed and unlicensed wireless microphone registration. The first would involve logging onto a secure web site and manually entering data in a form or uploading an Excel spreadsheet. The second would utilize a machine-to-machine interface whereby a wireless microphone system would authenticate itself and submit registration data over the Internet without direct human intervention. This method could be implemented at a later date but should be considered now, based on the likely future capabilities of wireless microphone systems. In addition, this method would likely be required in other bands where

¹ See §15.715(l); “If more than one database is developed, the database administrators shall cooperate to develop a standardized process for providing on a daily basis or more often, as appropriate, the data collected for the facilities listed in § 15.713(b)(2) to all other TV bands databases to ensure consistency in the records of protected facilities.”

² See §15.711(b)(3)(ii); “A Mode II personal/portable device that has been in a powered state shall re-check its location and access the database daily to verify that the operating channel(s) continue to be available.”

³ See §15.715(b)(3)(iii); “If a fixed or Mode II personal/portable TVBD fails to successfully contact the TV bands database during any given day, it may continue to operate until 11:59 p.m. of the following day at which time it must cease operations until it re-establishes contact with the TV bands database and re-verifies its list of available channels.”



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databases might be used to manage shared spectrum use in the future.

We anticipate that the Commission would develop a means of determining whether to route the submitted registration data directly to the database administrators or to send it through the 30-day review process, based on Call Sign and other data supplied by the registrant. We also believe that it is important for the Commission to be able to accept registration data from either a web form or an Excel spreadsheet, particularly for large venues.

For unlicensed microphone registrations, which must be reviewed by the FCC and put through the 30-day public comment cycle, we envision that it would be important for registrants to be able to amend or update certain aspects of their registration data during the waiting period (the Commission has also acknowledged this need). It should be relatively straightforward to implement this capability on the proposed web registration portal.

Conclusions

We believe that having a single web portal for voluntary registration of both licensed and unlicensed wireless microphones would be beneficial to all parties, and that the best time to implement this would be at the time the databases go online.

Respectfully submitted,

-S-

Edgar C. Reihl, P.E.
Technology Director
Advanced Development
Shure Incorporated