



PUBLIC NOTICE

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Office of Engineering and Technology Authorizes TV White Space Database Administrators to Provide Service to Unlicensed Devices Operating on Unused TV Spectrum in the East Coast Region

Operation Authorized in: New York, New Jersey, Pennsylvania, Delaware, Maryland, Washington DC, Virginia, and North Carolina

ET Docket No. 04-186

The Commission's Office of Engineering and Technology (OET) announces that it is authorizing approved TV white space database systems to provide service to unlicensed radio devices that operate on unused spectrum in the TV bands (referenced herein as "TV white space devices") in the East Coast region. This action is a significant step towards providing for nationwide operation of TV white space devices using new methods for efficiently using unused spectrum (white space) in bands allocated for licensed services. It follows the recent launch within the East Coast region of the Commission's on-line registration system for large entertainment, sports, and similar venues where a significant number of unlicensed wireless microphones are used (unlicensed wireless microphone venue registration system). This registration system allows qualifying major event/production venues to register with the TV bands white space database systems so that their operations of unlicensed wireless microphones and other low power auxiliary station devices will be protected from potential interference caused by TV white space devices. The next step in this process will be to authorize operation of the TV white space database systems nationwide at the beginning of next year. We anticipate authorizing nationwide operations of TV white space databases by mid-January 2013.¹

The Commission's rules (47 C.F.R. § 15.701 *et seq.*) permit unlicensed radio devices to transmit on white space in the spectrum bands used by the broadcast television service, *i.e.*, 54-72 MHz, 76-88

¹ Concurrent with issuance of this public notice, we are opening up the unlicensed wireless microphone registration system to accept registration of venues across the nation. See Office of Engineering and Technology and Wireless Telecommunications Bureau Announce the Nationwide Launch of Unlicensed Wireless Microphone Registration System, *Public Notice*, DA 12-1957 (rel. Dec. 6, 2012). We are launching this nationwide unlicensed wireless microphone registration system prior to authorizing nationwide operations of TV white space databases to enable us to complete our validation that the nationwide registration system and process is working properly and qualifying operators can register their venues as intended. We plan to authorize nationwide operation of the TV white space databases after we validate that our nationwide unlicensed wireless microphone registration system is functioning properly.

MHz, 174-216 MHz, 470-608 MHz and 614-698 MHz.² In order to protect TV broadcast and other licensed services operating in these bands, the rules require these TV white space devices to obtain a list of channels that are available for their operation (*i.e.*, in general, channels not occupied by authorized radio services) at their individual locations from a database system authorized by the Commission and then to operate only on those channels.³ The database systems protect authorized services by preventing TV white space devices from operating on channels on which they could cause interference to the authorized services and unlicensed wireless microphones used by eligible venues.

The FCC rules require that TV white space database systems protect the following radio services and receive operations (authorized services): (1) broadcast television stations (including full power, TV translator, low power TV, and Class A stations); (2) fixed broadcast auxiliary service (BAS) links (regular licensed and temporary); (3) receive sites (and received channels) of TV translator, low power and Class A TV stations, and multichannel video programming distributors (MVPDs); (4) public safety and private land mobile operations; (5) offshore radio telephone service operations; (6) radio astronomy service operations at specific sites; and (7) low power auxiliary service operations (licensed and certain approved unlicensed wireless microphone venue sites).⁴ Except for MVPD receive sites, sites where licensed wireless microphones are used, and approved unlicensed wireless microphone venues, the necessary protection data are either extracted by the database systems from the Commission's databases or are specified in the rules. Operators of MVPD receive sites, licensed wireless microphones and approved unlicensed wireless microphone venues obtain protection by registering with one of the database administrators (these registrations are also exchanged among the several database systems). In addition, operators of venues where unlicensed wireless microphones are used must request approval from the Commission to register with one of the database administrators.

Previously, the TV white space database systems that have been approved for operation have been restricted to providing service in specific local areas because the Commission's system for accepting and approving requests to register venues where unlicensed wireless microphones are used has been under development and not operational.⁵ That system was launched for use by venues in the East Coast region, specifically New York, New Jersey, Pennsylvania, Delaware, Maryland, Washington DC, Virginia, and North Carolina, by OET and WTB in a Public Notice on September 19, 2012.⁶ The Commission's

² 47 C.F.R. § 15.701 *et seq.* As noted above, we refer to these devices herein as TV white space devices. We also have termed these devices as "TV bands devices." See *Unlicensed Operation in the TV Broadcast Bands*, ET Docket No. 04-186, *Second Memorandum Opinion and Order*, 25 FCC Rcd 18661 (2010).

³ There are currently 10 authorized TV bands white space database administrators, two of which are currently approved to provide service to TV white space devices. The two currently "approved" database systems are those operated by Spectrum Bridge, Inc. and Telcordia Technologies, Inc. See *Unlicensed Operation in the TV Broadcast Bands*, ET Docket No. 04,186, DA 11-131, *Order* (rel. Jan. 26, 2011); *Unlicensed Operation in the TV Broadcast Bands*, ET Docket No. 04-186, DA 11-1291, *Order* (rel. July 29, 2011).

⁴ The TV bands white space database administrators each operate a database system that include records for all licensed facilities and additional facilities in the TV bands that are to be protected from interference.

⁵ See Office of Engineering and Technology Announces the Approval of Spectrum Bridge, Inc.'s TV Bands Database System for Operation, *Public Notice*, DA 11-2043 (rel. Dec. 22, 2011) at 2-3; Office of Engineering and Technology Announces the Approval of Telcordia Technologies, Inc.'s TV Bands Database System for Operation," *Public Notice*, DA 12-466 (rel. March 22, 2012); and Office of Engineering and Technology Permits Telcordia Technologies, Inc. to Provide TV Bands Database Service in Nottoway County, Virginia, *Public Notice*, DA 12-620 (rel. April 19, 2012).

⁶ See Office of Engineering and Technology and Wireless Telecommunications Bureau Announce the Initial Launch of Unlicensed Wireless Microphone Registration System, *Public Notice*, DA 12-1514 (rel. Sept. 19, 2012).

unlicensed wireless microphone venue registration system specifies that registrations, if approved, will not become effective until 30 days after the submittal of the request.⁷ To accommodate this 30-day processing cycle and insure that venues where unlicensed wireless microphones are used could obtain registrations and be protected prior to operation of TV white space devices, it was necessary to launch the registration system for those venues in advance of allowing the database systems to provide service to TV white space devices.

We find that there has now been sufficient time since the launch of the unlicensed wireless microphone venue registration system to allow eligible venues in the East Coast Region to become aware of the availability of the registration system, to request registration and to accommodate the 30-day processing cycle. We therefore conclude that it is now appropriate to allow the TV white space database systems to provide service to TV white space devices located in that region. Accordingly, the Office of Engineering and Technology is hereby authorizing TV white space database administrators that it has approved for operation to provide service to TV white space devices in that region. Specifically, this authority applies to those database systems that have already been approved by OET, *i.e.*, the systems of Spectrum Bridge, Inc. and Telcordia Technologies, Inc., and will subsequently apply to any other TV white space database system as they obtain approval by OET.

Further Questions

Questions regarding TV white space devices and TV white space database administration and/or this Public Notice may be directed to Alan Stillwell at (202) 418-2470 or Hugh L. Van Tuyl at (202) 418-7506 (OET).

By the Chief, Office of Engineering and Technology.

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⁷ See 47 C.F.R. § 15.713(h)(9).