

Unlicensed Wireless Microphone Timetable

Now

1. Operations as usual. If White Space Devices (Formerly Known As TV Band Devices) begin to cause interference, register performances in the database at least 30-days in advance.

Effective with OMB approval (Late 2015?).

2. Unlicensed wireless microphones in the 600 MHz TV Band must register with a database and provide name, address, email address, phone number, and coordinates.
3. Unlicensed wireless microphones must check a white space database to determine available channels at a given location and must re-check if the location changes.
 - a. This registration provides **no protection**.
 - b. A database administrator may charge a fee for provision of lists of available channels upon request from an unlicensed microphone user.
 - c. Unlicensed wireless microphone users in the 600 MHz band may register with and access the database manually.” § 15.713(f), *i.e.* they do not require automatic database inquiry, like WSDs (formerly known as TVBDs).
 - d. The Spectrum Act only required database checking for unlicensed devices in the Guard Bands and Duplex Gap; the FCC expanded this requirement.

Effective sometime between July 2016 and April 2017 (earlier of [i] the release of the post-auction *Channel Reassignment PN* or [ii] 18 months after the effective date of the rule).

4. Unlicensed wireless microphones will no longer be able to register in the databases and reserve channels protected from WSDs.
5. Wireless microphones must comply with tighter European Telecommunication Standards Institute emission masks. (This will outlaw cheaper, less sophisticated wireless microphones and permit more microphones per TV channel.)
 - a. Revised ETSI emission mask standard is effective nine months after the Channel Reassignment PN (approximately March 2017).
6. Unlicensed wireless microphones must stay at least 4 kilometers outside a co-channel TV station’s protected contour. (Licensed wireless microphones may use a TV signal test regardless of distance from contour: below -84 dbm.)
7. Unlicensed microphones may operate at maximum power levels of 50 mW EIRP.
 - a. Portable WSDs may operate at power levels of 40 mW and 100 mW EIRP.

39 months after the release of the Channel Reassignment PN (approximately September 2019).

8. All wireless microphones must be out of the 600 MHz “service band” (the part of the TV band that is auctioned to wireless carriers). Unlicensed microphones may continue using the guard bands and the duplex gap. (Licensed wireless microphones may also use the duplex gap.)
9. See the “FCC Authorized Wireless Microphone Frequencies” chart for available new homes.

Coping With the New Order

- Hope that WSDs do not cause interference.
 - Current projections are that the WSD application most likely to cause interference with wireless microphones will be “Super Wi-Fi.”
 - Super Wi-Fi will be expensive to build, require a subscription fee and relatively expensive equipment, probably including an outdoor antenna. Its usefulness is now limited to rural broadband Internet service (but this could change with advances in technology).
- Facilitate an Equipment Exchange Bank.
 - Following the incentive auction, frequencies available for wireless microphones (and WSDs) will vary from market to market. Existing equipment that meets the FCC’s emission standards, but cannot be tuned to locally available frequencies, could be traded with other theatres for similar equipment that operates on useable channels.
- Get “Wired.”
 - Return to the golden days of yesteryear with zone coverage from microphones hidden in lampshades and other set pieces.
 - Use talent with superior vocal projection (*e.g.* Ethel Merman).
- Get a License.
 - Find or create a “professional sound company.”
 - A professional sound company “routinely” uses 50 or more devices in a production. The FCC defines “routinely” as “most.”
 - A professional sound company could register 49 smaller productions for every 51 involving 50 or more devices.
 - Become a “television program producer.”
 - A theatre or group of theatres that produces television programs qualifies for a Part 74 license.
 - Either of these methods provides database protection **plus** the use of a much wider range of frequencies for new wireless devices.