Federal Communications Commission
Safeguarding Performing Arts Wireless Microphone Technology

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Important policy statement

- The performing arts community recognizes the benefits of greater access to the internet and encourages innovations that expand connectivity for everyone.
- At the same time, we are advocating for protection of wireless microphones from audio interference, as new white space devices enter the market. Shared use of a re-allocated broadcast spectrum, with all devices working properly, is our goal.
As you know, the television industry transitioned to digital transmission, which opened up certain “white spaces” in the broadcast spectrum.

The FCC authorized new White Space devices such as PDAs, cordless phones, laptops, and even newer technologies to operate in these frequencies.

However, performing arts venues have operated wireless microphones and audio systems in this “white space” spectrum for more than 40 years.
The new devices could pose a threat to performing arts technologies by causing interference in wireless systems.

There are three uses for this wireless technology in the performing arts, all of which could suffer interference from the new devices:

- Amplifying performers’ voices, allowing unrestricted movement onstage along with sophisticated sound
- Communicating backstage among stagehands
- Supplying sound to assistive listening systems used for hearing-impaired patrons
FEDERAL COMMUNICATIONS COMMISSION
White Space – Why is this important?

• Interference could compromise the safety of performers, stagehands, and audiences.

• Interference would compromise the quality of performances by organizations that provide important cultural and educational programs.
The FCC adopted an order on September 23, 2010 making certain interference protections available to wireless microphone users, including:

- Two national "safe harbor" channels set aside for entities using wireless microphones
- Additional channels in densely populated markets available for wireless microphone use

If wireless microphone users need more than these interference-free channels, they will be permitted to register uses in a geolocation database, which would provide an interference-protection mechanism.

Performing arts organizations were granted permission to operate under FCC Rules as Part 15 users and were made eligible to participate in the geo-location database.
The FCC took away a number of those provisions in 2014—no more safe-haven channels.

Also in 2014, the FCC expanded Part 74 licensing eligibility (previously available only to TV broadcasters, radio stations, and film productions) to performing arts entities that regularly use 50 or more wireless devices.

Part 74 licensing allows venues and sound engineers to register immediately in the national geo-location database and access the interference protections it affords. While this measure may offer safeguards for larger performance settings, it excludes most regional theatres, symphony orchestras, opera companies, educational theatres, and presenting organizations.
In 2015, the FCC eliminated the ability of unlicensed wireless microphones to access the database for protection from white space devices, removing the only interference protection mechanism remaining. Shure and Sennheiser, two wireless microphone manufacturers, filed Petitions for Reconsideration with the FCC to urge the agency to reverse this decision.
In July 2017, the FCC issued a Further Notice of Proposed Rulemaking and proposed to expand license eligibility to include persons and organizations that can demonstrate the need for professional, high-quality audio and the capability to provide it through conscientious use of wireless microphones.

Hundreds of individuals and performing arts organizations filed comments in support of the FCC proposal. Only Microsoft opposed, claiming the proposal would interfere with the company’s concept of expanded wireless networking. Performing arts organizations replied that performances and networking can coexist through the use of the database.
In 2012, Congress authorized the FCC to conduct an incentive auction to encourage broadcasters to voluntarily relinquish their spectrum to raise federal revenues and to free up spectrum to meet increased demand. The auction has concluded.

The FCC has announced the repacking of the broadcast spectrum, pushing stations closer together and eliminating white space. Consequently many, if not most, wireless microphone users are being forced to move to new spectrum locations. This move will demand the purchase of new sound equipment—a difficult cost for nonprofit performing arts organizations and educational institutions. The full impact of repacking varies by location.
Wireless microphone users, including those in the performing arts, were subject to an FCC Rule that required cessation of operations in the 700 MHz band by June 12, 2010. For many performing arts organizations, this migration out of the 700 MHz band caused an unanticipated expenditure of $25,000 to $100,000 for the purchase of new, compliant sound equipment.

As the FCC repacks the spectrum, we urge Congress to consider the expense to the performing arts community and allow current equipment to be used as long as possible through the transition.
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Arts Advocacy Day Goals:

- Our goal for Arts Advocacy Day is to educate and inform Members of Congress about the impact of the White Space issue on wireless microphones used in the performing arts and to ask Congress to:
  - Urge the FCC to restore access to a reliable geo-location database for professional performing arts and educational entities. The FCC should conclude Rulemaking and expand Part 74 license eligibility to entities that can demonstrate the need for professional audio and the capability to provide it through conscientious use of wireless microphones, regardless of the number of microphones they operate. This outcome would provide the interference protection that they need.

Protection of wireless microphones has bipartisan support in Congress. We need Congressional support to encourage the FCC’s decision.
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