THE NATIONAL **OPERA** CENTER **AMERICA**

STATEMENT OF CONCERN

PROTECTING WIRELESS TECHNOLOGY FOR THE ARTS

FEDERAL COMMUNICATIONS COMMISSION

It is essential that the FCC protect wireless microphones and other devices used by performing arts entities that provide valuable public service. Congress should urge the FCC to provide licenses and geo-location database protection to preserve nonprofit performing arts and education operations and their financial investments in technical equipment.

- **The performing arts provide valuable public service.** Performances by opera and dance companies, symphony orchestras, and regional theaters reach a combined audience of 190 million Americans and collectively represent $7.8 billion industry annually. In the United States, there are more than 26,000 school theater programs, which impact approximately 600,000 students. Given the thousands of performances held by arts organizations each year, the use of wireless microphones is essential to producing high-quality performances, ensuring public safety, and enabling high-quality audio feeds to persons with disabilities.
- **Performing arts entities need interference protection.** Wireless microphones and other devices used by performing arts entities use the same radio frequency channels as "White Space Devices" now under development. Participation in a geo-location database is the only method providing vital interference protection for wireless microphones. The FCC has limited access to the database to licensed performing arts entities, and the Commission now grants licenses to only entities regularly using 50 or more wireless devices. This arbitrary threshold *excludes* almost all regional theaters, symphony orchestras, opera companies, educational theater, and presenting organizations.
- **The FCC should be urged to expand license eligibility.** The FCC issued a Further Notice of Proposed Rulemaking (FNPRM) in July 2017 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 this proposal. Only Microsoft opposed the FCC proposal, claiming that it 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.
- **Congress should recognize the investment that organizations in the performing arts and education have made in wireless microphone technology.** Performing arts and education organizations provide demonstrable service to the public in improving quality of life; preserving our cultural heritage; providing jobs, education, and entertainment; and contributing to local economies in every community across this country. K–16 schools committed to the performing arts as part of their well-rounded curriculum have also expended considerable funding to ensure their students have the opportunity to learn and train on up-to-date audio equipment. These valuable public benefits and significant investments should be considered in proposals that would require wireless microphones to operate in a different part of the radiofrequency spectrum, demanding the purchase of new sound equipment—a challenge to the limited budgets of nonprofit performing arts organizations and educational institutions.

BACKGROUND

For 40 years, wireless microphone technology has allowed users unrestricted on-stage movement and helped to create sophisticated sound, primarily within "White Spaces," radio frequencies between broadcast channels of the television band. Wireless systems are also integral to backstage communications used by stagehands to execute complex technical activity. Interference to these backstage communications, along with the hazards of cords, could compromise the safety of performers, technicians, and audiences. Additionally, many theatres use wireless microphones to feed high-quality audio into assistive listening devices mandated by the Americans with Disabilities Act.

In 2010, the FCC determined that White Spaces could be shared by wireless microphones used in the performing arts and new White Space Devices. The FCC ordered the establishment of a geo-location database which would allow the new devices and wireless microphones to share spectrum without interference and two safe-haven channels reserved for wireless microphones. The FCC ordered wireless microphone users to vacate the 700 MHz band by June 12, 2010, to make room for licensed wireless phone and data operations. For many performing arts organizations, that migration caused unanticipated expenses of $25,000–$100,000 for sound equipment that would operate in a different area of the broadcast spectrum.

The geo-location database launched nationwide in December 2012, and White Space Devices were allowed to operate nationally in March 2013. In October 2012, the FCC began implementing the *Middle Class Tax Relief and Job Creation Act of 2012*, which transitions spectrum from TV broadcasting to wireless broadband through auctions. The FCC has announced the repacking of the broadcast spectrum following the incentive auctions—which will require relocation of wireless microphones from the 600 MHz band and, once more, the potential for costly replacement of sound equipment.

In 2014 the FCC restricted wireless microphone licenses to the largest users, and on August 6, 2015, the FCC eliminated the ability of unlicensed wireless microphones to access the database for protection from White Space Devices. The Commission also began the process by which wireless microphones may move to new spectrum following the television spectrum auction, which dramatically reduced the amount of available White Spaces. The two safe-haven channels were eliminated.

Bipartisan letters in support of protections for wireless microphones were sent to the FCC in October 2013, May 2015, and May 2017 by Members of Congress: Reps. Lance (R-NJ), Slaughter (D-NY), Blackburn (R-TN), Engel (D-NY), Cramer (R-ND), Nadler (D-NY), Young (R-AK), Pingree (D-ME), DeFazio (D-OR), Lewis (D-GA), Cohen (D-TN), Green (D-TX), Lujan (D-NM), Pitts (R-PA), Olson (R-TX), Bilirakis (R-FL), Long (R-MO), Pompeo (R-KS), and Rush (D-IL). The Wireless Microphone Users Interference Protection Act of 2013 (H.R. 2911), introduced by Rep. Rush (D-IL), had five cosponsors: Reps. Castor (D-FL), Cohen (D-TN), Green (D-TX), Lujan (D-NM), and Maloney (D-NY).

Reps. Walden (R-OR) and Eshoo (D-CA), senior members of the Communications and Technology Subcommittee of the Energy and Commerce Committee, held an FCC oversight hearing in July 2016, during which they voiced bipartisan support for the nonprofit performing arts and protection of wireless microphones used in theatres. They sent a letter to the FCC Chairman on August 8, 2016, urging the FCC to "provide relief" to users of fewer than 50 wireless microphones. The FCC promised to work on the issue.

The FCC issued an FNPRM in 2017 to expand Part 74 license eligibility to entities that can demonstrate the need for professional, high-quality audio and the capability to provide it through conscientious use of wireless microphones. Filed comments have overwhelmingly supported the FCC's proposal; Microsoft's opposition, however, has garnered support, principally from Statehouses across the country. Congressional support is vital to encourage the FCC's decision.