

July 3, 2017

Ex Parte

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Re: Promoting Spectrum Access for Wireless Microphone Operations, GN Docket No. 14-166; Amendment of Part 15 of the Commission's Rules for Unlicensed Operations in the Television Bands, Repurposed 600 MHz Band, 600 MHz Guard Bands and Duplex Gap, and Channel 37, and Amendment of Part 74 of the Commission's Rules for Low Power Auxiliary Stations in the Repurposed 600 MHz Band and 600 MHz Duplex Gap, ET Docket No. 14-165

Dear Ms. Dortch:

On June 29, 2017, Paula Boyd of Microsoft Corporation and Rob Carter of Harris, Wiltshire & Grannis, LLP met with Daudeline Meme, Legal Advisor to Commissioner Clyburn and Law Clerk Jamila Toussaint. On June 30, 2017, Ms. Boyd, Mr. Carter, and I met with Alison Nemeth, Legal Advisor to Commissioner Pai. On July 3, Ms. Boyd and I spoke via telephone with Erin McGrath, Legal Advisor to Commissioner O'Rielly, and I spoke via telephone with Nicholas Degani, Senior Counsel to Chairman Pai. In each meeting, we discussed the draft Order on Reconsideration and Further Notice of Public Rulemaking ("FNPRM") regarding wireless microphones that the Commission will consider at the July Open Meeting.¹ Specifically, Microsoft recommended that the Commission not propose to permit an expanded class of wireless microphone users to block wireless broadband operations in White Spaces channels.

The Commission recently granted licensed wireless microphone users access to a large number of additional frequencies for their operations. Indeed, licensed wireless microphone users now have access to almost 160 MHz of additional spectrum² that the Commission made available less than two years ago—more than the entire new 84 MHz of spectrum for LTE in the 600 MHz band and the necessary 18 MHz of White Spaces channels *combined*. These new frequencies can accommodate expanded classes of wireless microphone licensees without the need to displace wider consumer broadband access by the public in the White Spaces. Therefore, while the Commission may determine that it should allow an expanded class of wireless

¹ FCC Fact Sheet, Promoting Spectrum Access for Wireless Microphone Operations et al. (Jun. 22, 2017), http://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db0622/DOC-345478A1.pdf (attaching Draft Order on Reconsideration and FNPRM).

² See *id.* ¶ 85.

microphone users access to the new bands, it should not propose to expand wireless microphone preemption of consumer broadband in the White Spaces.

We further discussed that the Commission recently found that a key goal of the FCC's wireless microphone policy should be to incentivize manufacturers to produce more spectrally efficient wireless microphones. Unfortunately, the proposal in the pending FNPRM would have exactly the opposite result. The FNPRM would expand spectrum rights for wireless microphone users without any mechanism that either results in these users internalizing the cost of their spectrum use or that requires improved efficiency. Consequently, the FNPRM would reward wireless microphone manufacturers for continuing to market spectrally inefficient technologies by granting wireless microphones additional spectrum rights rather than incentivizing these manufacturers to achieve what the FCC has asked of virtually every other class of wireless technology—investment to make the digital transition and use scarce spectrum resources more efficiently. The FNPRM should therefore include questions asking:

- What is the evidence that use of the approximately 160 MHz of newly granted spectrum in the 900 MHz, 1.4 GHz, and 7 GHz bands could not accommodate smaller performing arts organizations?
- The FNPRM notes that current analog wireless microphone technology may now accommodate 16 high-fidelity microphones in a 6 MHz channel.³ To what extent have wireless microphone manufacturers continued to market and sell equipment that accommodates operations of fewer than 16 wireless microphones per 6 MHz channel, including equipment that allows only 6-8 microphones to operate per 6 MHz channel?
- To what extent are wireless microphone manufacturers marketing and selling equipment that uses digital rather than analog modulation?
- Given the draft FNPRM's determination that the use of more spectrally efficient wireless microphones could also "be part of the solution,"⁴ what is the evidence that use of these technologies would not allow smaller performing arts organizations access to the spectrum needed for productions/events?

Finally, Microsoft noted that the FNPRM's proposal would be administratively burdensome and likely ungovernable. It would permit wireless microphone users to obtain a license, and exclude other users from channels, by making a vague showing of a need for and the capability to provide professional, high-quality audio that is integral to their events/productions. This appears to include any type of microphone user, not only theater companies but also users such as yoga studios and corporate meeting spaces. The proposal does not include a workable standard for how applicants would "demonstrate" that they qualify for a license that the FCC could apply in judging applications, or any discussion of how the Commission would ensure that microphone users actually meet such a standard. This leads to a set of important questions that the NPRM should ask:

³ See *id.* ¶ 89 n. 267.

⁴ *Id.*

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- Would the administrative burdens associated with this proposal outweigh its benefits?
- Would this proposal require FCC staff to review applications for thousands of microphone users and judge whether each proposed use was deserving of a license?
- Does the FCC have the expertise to differentiate between events/productions that require high-quality audio and those that do not?
- How will FCC enforcement staff be able to ensure that microphone users do not abuse this proposal by (a) using their license for purposes where high-quality audio is not essential, (b) reserving channels for longer than needed for their event/production, or (c) reserving more channels than necessary for their event/production?
- How should FCC rules ensure that this new class of licenses is explicitly limited to performing arts organizations to avoid unwarranted use by other organizations?

Pursuant to the Commission's rules, a copy of this notice is being filed electronically in the above-referenced dockets. If you require any additional information please contact the undersigned.

Sincerely,

A handwritten signature in blue ink, appearing to read "Paul Margie".

Paul Margie
Counsel for Microsoft Corporation

cc: meeting participants