



July 7, 2017

Ex Parte

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

Re: *Promoting Spectrum Access for Wireless Microphone Operations, GN Docket 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, ET Docket No. 14-165
Preservation of One Vacant Channel in the UHF Television Band for Use by White Space
Devices and Wireless Microphones, MB Docket No. 15-146*

Dear Ms. Dortch:

On July 6, 2017 Michael Calabrese, director of the Wireless Future Program at New America's Open Technology Institute (OTI), spoke by phone to Julius Knapp, chief of the Office of Engineering & Technology, and OET staff members Ira Keltz, Paul Murray and Geraldine Matisse regarding the above-listed proceedings.

I began by reiterating OTI's general support for the draft Order on Reconsideration and for the Commission's efforts to find spectrum to accommodate both wireless microphones and TV White Space devices in the post-auction TV band and (in the case of Part 74 microphones) in many other bands as well. However, I expressed OTI's concern that the draft FNPRM suggests a potential major expansion of Part 74 eligibility without making a clear distinction between the spectrum designated for licensed microphones (e.g., the 6 megahertz reserved for its use in the 600 MHz Duplex Gap and guard band, as well as at 900 MHz and in the 1435-1525 MHz band) and the TV White Space channels (including the 6 megahertz portion of the Duplex Gap and the single Vacant Channel proposed for sharing by unlicensed devices, including unlicensed microphones).

The problem is that although the draft FNPRM proposes to provide licensed microphone operators with at least 156 megahertz of spectrum *in addition to the vacant UHF TV channels*, it does not appear to prohibit Part 74 licensees from using the TV Bands Database to reserve and thereby block public use of an entire 6 megahertz TVWS channel – even for a single microphone needing just 200 khz of spectrum – without first at least attempting to use other designated microphone spectrum.

Although the precise rules and process could be a topic for notice and comment, OTI believes that ***the FNPRM should tentatively conclude that as a condition prerequisite to reserving (and thereby blocking) a 6 megahertz TVWS channel, all Part 74 licensees must make a showing that there is no other spectrum available to meet their needs*** at the location and during the hours of their performance.

Requiring Part 74 microphone operators to use microphone spectrum first – and, at worst, a TVWS channel as a last resort – promotes efficient spectrum use and sharing. As the FNPRM observes, Part 74 operators are able to coordinate as many as 16 microphones in a single 6 megahertz TV channel. Since it’s unlikely that many hundreds of microphones will be operating within the same 1 kilometer protection area, the need to use one of the few TVWS channels in a metro market should be rare – and not left up to microphone operators who never paid for their spectrum (and, in the case of microphones not used in connection with broadcasting, by squatting on broadcast spectrum illegally for years until they could harness the political clout to coerce a windfall).

In addition, because the market and affordability of TVWS devices will depend on a sufficient amount of unlicensed spectrum being available in *every market nationwide*, ***the FNPRM should also tentatively propose – or at least ask for comment on – to prohibit Part 74 operation in the unlicensed portion of the Duplex Gap and in the single Vacant Channel***, should the Commission adopt its pending proposal to do so, thereby enabling national markets for unlicensed TVWS devices.

Finally, I reiterated the importance and strong support of the Public Interest Spectrum Coalition (PISC) for the Commission’s pending proposal to preserve at least one vacant television channel in every market nationwide for unlicensed use. Policies that ensure a minimum of at least three channels for unlicensed public access in every market nationwide is critical to facilitate investment and deployment both in rural areas for WISP, “homework gap” and other fixed wireless deployments (using the current 802.22 standard), as well as for mobile device access in urban scenarios (using the 802.11af Wi-Fi standard). Leading chipmakers and other tech industry stakeholders have steadfastly maintained that if the post-auction band plan and repacking policies do not ensure at least three channels of 6 megahertz of unlicensed access in every market, the Commission will be killing off many emerging unlicensed use cases and the economic and social benefits that depend on low-band spectrum.

Respectfully submitted,

/s/ *Michael Calabrese*
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cc: Julius Knapp
Ira Keltz
Paul Murray
Geraldine Matisse