

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of:)
)
Unlicensed White Space Device Operations in the) ET Docket No. 20-36
Television Bands)
)

**COMMENTS OF
THE NATIONAL ASSOCIATION OF BROADCASTERS**

I. INTRODUCTION AND SUMMARY

The National Association of Broadcasters (NAB)¹ hereby submits the following comments in response to the Commission’s Notice of Proposed Rulemaking seeking comment on potential changes to the Commission’s rules governing TV white spaces (TVWS) devices.²

NAB generally supports the majority of the proposals set forth in the NPRM. NAB and Microsoft worked together over many months to negotiate a set of adjustments to the Commission’s existing rules that would enable meaningful improvements for TVWS devices while protecting television reception from harmful interference. NAB strongly discourages the Commission from unraveling this compromise or introducing novel interpretations of its longstanding rules that will jeopardize existing and future television service.

¹ The National Association of Broadcasters (NAB) is the nonprofit trade association that advocates on behalf of free local radio and television stations and broadcast networks before Congress, the Federal Communications Commission and other federal agencies, and the courts.

² *Unlicensed White Space Device Operations in the Television Bands*, Notice of Proposed Rulemaking, ET Docket No. 20-36, FCC 20-17 (March 2, 2020) (NPRM).

Accordingly, while NAB supports the majority of the proposals set forth in the NPRM, we focus our comments on three important points. First, the Commission should not, and legally cannot, seek to rewrite Part 15 of its rules under the guise of balancing policy considerations. The Commission's foremost consideration in this proceeding must be ensuring that the rules it adopts will not set the stage for harmful interference to existing or future broadcast television operations – not simply expanding the opportunities for a technology that has thus far failed to live up to its alleged promise and produce meaningful results.

Second, the Commission should abandon its proposal to substitute its own judgment for Microsoft's with respect to a reasonable coordination process for TVWS operations with heights above average terrain (HAAT) exceeding 250 meters. The NPRM contends that the proposal Microsoft itself set forth in its own petition for rulemaking is unduly complex and instead proposes a grossly oversimplified process that will not work in the real world.

Finally, the Commission should not allow higher power operations on first-adjacent channels to TV operations. There has not been a single development in white spaces deployments or technology that would warrant revisiting the relevant rules at this time.

II. THE COMMISSION'S PRIMARY OBLIGATION UNDER PART 15 OF ITS RULES IS TO ENSURE THAT UNLICENSED OPERATIONS DO NOT CAUSE HARMFUL INTERFERENCE

In discussing the potential for allowing higher power limits, the NPRM asks, "What are the trade-offs, both technically and economically, regarding the potential for causing interference versus the ability to serve more areas?"³ NAB respectfully submits that this question is misplaced.

³ NPRM at ¶ 14.

Part 15 of the Commission’s rules could not be clearer on the point that unlicensed devices must not cause harmful interference, must accept any interference they receive, and have no vested spectrum rights whatsoever.⁴ These rules, which are necessarily consistent with Section 301 of the Communications Act of 1934, as amended,⁵ establish a categorical prohibition of unlicensed devices or operations that cause harmful interference to licensed operations. The rules leave no room for a balancing of economic benefits against harmful interference; harmful interference is simply prohibited.

If the Commission wishes to rewrite Part 15, it should do so in the sunlight through a rulemaking expressly proposing such changes. Of course, as noted above, there are statutory limits on the Commission’s ability to do so. Plainly, however, what the Commission should *not* do is replace the clear prohibitions set forth in Part 15 with an amorphous “balancing” test by incorporating such questions into Part 15 rulemakings. The Commission’s foremost responsibility in this proceeding should be to ensure that the rules it adopts will not cause harmful interference to licensed services. Once it determines they will not, and only after reaching that determination, the Commission may consider the potential benefits of relaxing the TVWS rules and how those potential benefits should be weighed. But the Commission cannot, consistent with its rules and statutory obligations, balance, or even consider, the potential economic benefits of relaxing the TVWS rules against the right of licensed operators to be protected from interference caused by TVWS operations.

⁴ 47 C.F.R. § 15.5.

⁵ 47 U.S.C. § 301.

III. THE COMMISSION SHOULD ADOPT MICROSOFT'S PROPOSED COORDINATION REQUIREMENT FOR TVWS OPERATIONS WHERE THE HAAT EXCEEDS 250 METERS

In its petition for rulemaking, Microsoft set forth a special coordination procedure for those TVWS operations that are most likely to cause widespread interference – where the HAAT would exceed 250 meters.⁶ Modeled on the Commission's existing Part 101 rules,⁷ this procedure would require that, prior to commencing any operation where the HAAT would exceed 250 meters, an entity must: (1) contact a TVWS database administrator to identify all broadcast contours within an applicable separation distance if the TVWS devices was operating at an HAAT of 50 meters higher than proposed; (2) notify each television licensee, provide technical parameters of the proposed operation, and receive confirmation that each licensee has received this information. No earlier than 48 hours after this notification, an entity could commence operations at an HAAT above 250 meters pursuant to a 30-day trial authorization. As Microsoft described it, "This process, combined with the increased separation distances above, creates a conservative layered interference protection approach," that addresses both the likelihood of interference and the means for identifying and resolving the source of interference.⁸ NAB supports this approach.⁹

Unfortunately, the NPRM suggests that this approach is too burdensome and instead proposes only to require TVWS operators to notify potentially affected broadcasters at least 48 hours prior to operation.¹⁰ Beyond that, the NPRM asks whether such a procedure is even

⁶ Microsoft Corporation Petition for Rulemaking at 14, ET Docket Nos. 14-165, 20-36 (filed May 3, 2019).

⁷ See e.g., 47 CFR § 101.103

⁸ *Id.* at 15.

⁹ Comments of the National Association of Broadcasters at 3, ET Docket 14-165, RM-11840 (June 10, 2019).

¹⁰ NPRM at ¶ 20.

necessary and whether it balances the interests of potentially affected licensees with “the ability to deploy devices with high HAATs in a timely manner.”¹¹ The NPRM does not propose a 30-day trial period given the obligations of unlicensed devices not to cause harmful interference.¹²

There are a variety of problems with the NPRM’s logic. First, the proposal to simply notify stations 48 hours prior to operations and to proceed regardless of whether the station has responded is flatly unreasonable. There is no guarantee that the TVWS operator will contact the right person at the station, or that the right person will be available and able to respond within 48 hours. If, for example, a station is focused primarily on staying on the air and keeping its staff and reporters safe in order to keep its viewers informed in the midst of a global pandemic and an emerging economic catastrophe, the Commission should not elevate receiving a white spaces notification over serving the public in a time of need.

Second, the NPRM’s stated concern over balancing the needs of protected licensees with the need to deploy high HAAT TVWS operations in a timely manner again runs afoul of Section 301 of the Communications Act as implemented by Part 15 of the Commission’s rules. No such balancing is called for. This is particularly because any perceived urgency around short-term deployment of high HAAT white spaces operations is wholly speculative and has no basis in actual experience to date. No one seriously believes that, 12 years after the Commission authorized TVWS operations and while those operations continue to be primarily hypothetical, there will suddenly be a time-sensitive need to deploy TVWS operations with HAATs above 250 meters that cannot possibly wait.

¹¹ *Id.* at ¶¶ 21-23.

¹² *Id.*

Finally, the NPRM's proposal not to require a 30-day trial period given that unlicensed devices have an obligation not to cause harmful interference misses the point. The requirement not to cause harmful interference is not self-executing. If it were, unlicensed users in the 2.4 GHz band and the 5 GHz band would not even today be causing harmful interference to broadcast newsgathering operations and Terminal Doppler Weather Radar systems, respectively. Many locations where high HAAT operations may occur are in the intermountain west, where that same high HAAT enables rural viewers to receive distant television stations. The "average terrain" calculation used to establish HAAT provides only an abstraction of the potential for interference from TVWS devices because it ignores terrain features beyond 10 miles. The 30-day trial period will give distant and rural viewers a reasonable opportunity to notify an affected station of lost reception. To give effect to the requirement that unlicensed operations not cause harmful interference, the Commission must put in place processes and rules that make that outcome more likely. Microsoft's proposal, which, again, is modeled after the Commission's existing Part 101 prior coordination notice procedures, sets forth a reasonable process to help ensure that broadcasters actually receive notification of the proposed operations and that they have a realistic opportunity to observe how those operations actually affect service in the real world. We urge the Commission to say yes to the compromise the parties have delivered in this proceeding and adopt the special coordination procedure Microsoft itself proposed.

IV. THE COMMISSION SHOULD NOT ADJUST ITS RULES FOR FIRST ADJACENT CHANNEL OPERATIONS

NAB continues to urge the Commission not to consider higher power operations on first-adjacent channels to broadcasters at this time. Microsoft based its proposal in part on the assumption that consumer Next Gen TV receivers might be more robust to adjacent-channel interference than the consumer DTV receivers that the Commission's previous

analysis assumed. The NPRM in turn asks if there is any indication that consumer Next Gen TV receivers will in fact have superior adjacent channel interference rejection than current receivers.¹³

The simple fact is that there are not yet commercially available consumer Next Gen receivers against which the Commission or other stakeholders could test this theory. While we continue to be optimistic that Next Gen receivers will be in the marketplace soon, it is grossly premature to consider rule changes based on more robust Next Gen receivers until the existing receiver base is replaced with Next Gen receivers, or at least largely replaced. This transition will likely take several years, whereas the other issues in this proceeding can likely be resolved fairly quickly. Simply put, Next Gen TV provides no basis for any adjustment of the Commission's rules at this time.

The NPRM also asks whether, "more sophisticated computer models, such as Longley-Rice, be used to permit higher power unlicensed operations on adjacent channels?"¹⁴ We urge the Commission not to pursue such an approach. In the specific case of the Longley-Rice model, the nature of high HAAT operations leads to a potential for out-of-range conditions (error codes) and opens up a debate about how to handle such situations, as well as what terrain data, sampling strategy, and other parameters are appropriate. And, with regard to low-power adjacent-channel operations, no propagation model can account for the hidden nodes that passive television receivers present. Even if the locations of television receivers were known, the distances involved are likely to be small such that accurate modeling would be

¹³ NPRM at ¶ 52.

¹⁴ *Id.*

impractical. Use of such models in this case would necessarily rely on a set of presumptions that would prove inaccurate in numerous specific cases.

In short, nothing has changed regarding white spaces technology, broadcast technology, or the laws of physics that would warrant reexamination of the Commission's existing rules with respect to first-adjacent channel operations. We urge the Commission not to make changes to the existing rules at this time.

V. CONCLUSION

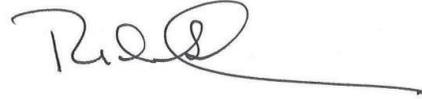
Under its own rules and pursuant to its governing statute, the Commission's first imperative in this and other unlicensed proceedings is to ensure that unlicensed devices will not cause harmful interference to licensed services. The Commission cannot wave away interference concerns due to a balancing of public policy considerations. This is all the more true where, as is the case with white spaces technology to date, the public policy benefits are far more theoretical than practical.

Accordingly, the Commission should take a measured approach to loosening its rules to facilitate TVWS operations in this proceeding. While we agree with most of the proposals set forth in the NPRM, we urge the Commission to adopt the special coordination procedure Microsoft proposed in its petition for rulemaking, and not to make any changes to the existing rules governing first-adjacent channel operations.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "Rick Kaplan", with a long horizontal line extending to the right from the end of the signature.

Rick Kaplan
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May 4, 2020