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

In the Matter of
Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions
GN Docket No. 12-268

To: The Commission

CONSOLIDATED OPPOSITION TO PETITIONS FOR RECONSIDERATION

The Wireless Internet Service Providers Association ("WISPA"), pursuant to Section 1.429(f) of the Commission's Rules, hereby opposes certain of the petitions for reconsideration of the Report and Order adopted in the above-captioned proceeding.¹

Background

As the trade association representing the wireless Internet service provider ("WISP") industry, WISPA has advocated, in this proceeding and in others, for the efficient and effective allocation of unlicensed spectrum that can be used to deliver fixed wireless broadband service while being responsibly shared with other commercial and governmental users. To these ends, WISPA has asked the Commission to optimize the TV band through repackaging and other regulatory means to enable vacant spectrum to be put to efficient and productive commercial use. In addition to the Commission's statement in the Report and Order that "[w]e expect that there will be a substantial amount of spectrum available for use by these [TVWS] devices in the post-auction television bands,"² WISPA is pleased that the Commission is proposing other measures that would promote the more efficient and viable use of TV "white space" spectrum. These include proposals to adjust power levels, utilize directional antennas and relax adjacent-channel

¹ Expanding the Economic and Innovation Opportunities Through Incentive Auctions, 29 FCC Rcd 6567 (2014) ("Report and Order").
² Id. at 6683.
rules,\textsuperscript{3} to use the guard bands, duplex gap and Channel 37 subject to appropriate distance separation criteria\textsuperscript{4} and to allow TV and LPTV stations to share channels.\textsuperscript{5}

Certain of the petitions for reconsideration would, if adopted, undermine the Commission’s efforts. In some cases, the petitions argue against proposals that have not been adopted, and other petitions misinterpret statutory directives.

Discussion

I. THE COMMISSION SHOULD DISMISS PETITIONS THAT ESSENTIALLY SEEK RECONSIDERATION OF TECHNICAL RULES THAT HAVE NOT BEEN ADOPTED.

A. Concerns of WMTS Interests Regarding Unlicensed Use of Channel 37 are Premature and Misplaced.

GE Healthcare (“GEHC”) and the WMTS Coalition (“Coalition”) seek reconsideration of the Commission’s decision\textsuperscript{6} to allow shared unlicensed use of Channel 37 in the absence of any final technical rules.\textsuperscript{7} To quote the WMTS Coalition,

a balanced inquiry demands that the decision to authorize band sharing should only be made after, and only if, the Commission is satisfied that (a) there is a technological and regulatory regime that would assure that WMTS systems will not be subject to harmful interference, and (b) it is worthwhile to subject WMTS users to potential interference even if the geographic areas most in demand for unlicensed uses (urban and suburban) will be subject to significant exclusion zones.\textsuperscript{8}


\textsuperscript{4} See id.


\textsuperscript{6} See Report and Order at 6686.


\textsuperscript{8} WMTS Coalition Petition at 5. See also GEHC Petition at 9-10.
These arguments are premature and misplaced. The Commission’s decision to allow unlicensed use is clearly subject to the development of technical rules that will ensure that WMTS is protected from harmful interference. The Commission stated as follows:

In addition, we will make an additional six megahertz of spectrum available by allowing unlicensed use of channel 37 at locations where it is not in use by channel 37 incumbents, subject to the development of the appropriate technical parameters to protect the incumbent Wireless Medical Telemetry Service ("WMTS") and Radio Astronomy Service ("RAS") from harmful interference.9

The Commission added in a footnote that “[w]e will initiate a separate rulemaking proceeding to establish technical rules for unlicensed operations in the guard bands and on channel 37.”10 Elsewhere, the Commission clearly and repeatedly stated that “we will permit unlicensed operations on channel 37 at locations where it is not in use by incumbents, subject to the development of the appropriate technical parameters to protect incumbents from harmful interference.”11 The Commission further made clear that “[u]nlicensed operations on channel 37 will be authorized in locations that are sufficiently removed from WMTS users and RAS sites to protect those incumbent users from harmful interference.”12

Further, as the Commission acknowledged, Section 15.5(b) states that unlicensed devices must not cause harmful interference and have no interference protection rights.13 This rule was not amended in the Report and Order, and remains a hallmark of Part 15 unlicensed operations. Moreover, the Commission did not adopt in the Report and Order any specific Part 15 technical rule allowing unlicensed use of Channel 37, so in light of the “subject to” language throughout

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9 Report and Order at 6576 (emphasis added).
10 Id. at n.38
11 Id. at 6683 (emphasis added). See also id. at 6681 (unlicensed use of Channel 37 “will be subject to the completion of a rulemaking proceeding that we will initiate after the release of this Order”); id. at 6686 (same); id. at 6687 (same); id. at 6688, n.838 (same).
12 Id. at 6686 (emphasis added).
13 Id. at 6681, n.787.
the Report and Order, GEHC and the WMTS Coalition need not be concerned about the potential for unlicensed use of Channel 37 before technical rules are developed.\(^{14}\)

True to its word, in the Part 15 NPRM the Commission invited comment on a host of issues related to unlicensed use of Channel 37 and proposed specific interference protection criteria.\(^{15}\) Consistent with its statements in the Report and Order, the Commission stated that:

We recognize the importance of WMTS to patient care, and will remain mindful of this critical function when developing these technical parameters. In this Notice, we propose technical parameters below to protect the WMTS and RAS from harmful interference and will develop a full record on the issues raised in this proceeding before adopting final rules.\(^{16}\)

Nothing has been decided regarding unlicensed use of Channel 37, other than Commission’s determination to develop a complete technical record in order to ensure that any use it may allow protects WMTS from harmful interference. GEHC and the WMTS Coalition have a full and fair opportunity to comment on the Commission’s proposals and questions in response to the Part 15 NPRM. That is the forum in which its technical and other concerns should be vetted.

**B. Qualcomm’s Concerns Regarding Unlicensed Use of Guard Bands and the Duplex Gap are Premature and Misplaced.**

Likewise, the Commission should dismiss Qualcomm’s claims that the Commission acted without an adequate technical record in authorizing unlicensed use of the guard bands and duplex gap.\(^{17}\) Qualcomm acknowledges that the Commission will be initiating a proceeding regarding technical rules for unlicensed TV band spectrum,\(^{18}\) but expresses concern over the

\(^{14}\) See GEHC Petition at 3.
\(^{15}\) See Part 15 NPRM at §§ 97-115.
\(^{16}\) Id. at ¶ 100 (emphasis added).
\(^{17}\) See Petition for Reconsideration of Qualcomm Incorporated, GN Docket No. 12-268 (filed Sept. 15, 2014) ("Qualcomm Petition").
\(^{18}\) See id. at 1.
Commission’s “confidence” that that unlicensed devices can operate in the duplex gap without causing harmful interference.  

Contrary to Qualcomm’s view, the Commission did not “announce[] a technical decision to allow unlicensed operations in the 600 MHz duplex gap and guard bands without providing any analysis of the extensive technical evidence in the record of this proceeding.” Rather, the Commission made a policy decision and specifically deferred action on the technical rules and interference protection criteria to the Part 15 NPRM. Indeed, the Part 15 NPRM provides extensive analysis and specifically seeks comment on proposed rules.

Because use of the guard bands, the duplex gap and licensed 600 MHz operations will not commence until after a full public record that addresses technical and interference protection criteria has been developed, Qualcomm can rest assured that its concerns will be duly addressed. Qualcomm also can take comfort in the long-standing restrictions in Section 15.5(b) that prevent unlicensed devices from causing harmful interference. Like the WMTS interests, Qualcomm has a full and fair opportunity to present its concerns in the Part 15 NPRM proceeding.

II. THE COMMISSION SHOULD UPHOLD ITS DECISION TO ELIMINATE THE TWO RESERVED CHANNELS FOR WIRELESS MICROPHONES.

In light of the Commission’s decision to discontinue designating two channels for exclusive use by unlicensed wireless microphones, Sennheiser and RTDNA ask the Commission to reserve other spectrum for their exclusive use. Sennheiser asserts that

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19 Id. at 3, citing Report and Order at 6686. See also Petition for Reconsideration of Radio Television Digital News Association, GN Docket No. 12-268 (filed Sept. 15, 2014) (“RTNDA Petition”), at 4 (“allowing unlicensed devices to operate in the duplex gap at levels permitted under the TV White Spaces rules would cause harmful interference to licensed LTE operations”) (emphasis added).
20 Qualcomm Petition at 4.
21 See Part 15 NPRM at ¶¶ 78-96.
22 See id. at ¶ 86, ¶ 95.
23 See Report and Order at 6701.
unlicensed wireless microphones require two exclusive channels, and suggests that the Commission could designate the post-repacking nationwide channel or Channel 37, or two other unspecified, spectrally separated channels. RTDNA takes a different approach, asking the Commission to allow wireless microphones to have exclusive unlicensed use of the duplex gap, to allow shared unlicensed use of the guard bands and to allow unlicensed use exclusively on Channel 37. Each of these approaches should be rejected.

Any loss of exclusive spectrum for wireless microphones that will result from the incentive auction will be largely offset by other actions the Commission has taken and may take. In the Report and Order, the Commission amended Section 74.802(b) to permit wireless microphones to operate as close as four kilometers from the protected contour of co-channel television stations. This will enable wireless microphones to use TV channels in more areas, and without having to share the channel with other unlicensed devices. Second, the Commission has expanded eligibility for wireless microphones to include professional sound companies and locations where wireless microphones are used for major events. Third, the Commission is seeking comment on how to accommodate the long-term needs of wireless microphone users and has signaled its intent to initiate a proceeding regarding shared use by wireless microphones and unlicensed devices of a remaining nationwide channel. Wireless microphone interests will have a full and fair opportunity to present their views in that proceeding.

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25 See Sennheiser Petition at 9-10. Sennheiser also seeks reimbursement expenses for licensed and unlicensed wireless microphone users that are displaced. See id. at 10-15. WISPA takes no position on this request.
26 See RTDNA Petition at 4.
27 See Report and Order at 6698.
30 See Report and Order at 6701.
Moreover, it would appear that Sennheiser and RTDNA disagree with each other on the use of the duplex gap. Sennheiser explains that licensed LTE operations can cause harmful interference to wireless microphones operating in the duplex gap,\(^{31}\) while RTDNA seeks exclusive use of the duplex gap for wireless microphones.\(^{32}\) The answer to this disagreement may rest in the technical rules the Commission plans to adopt for unlicensed wireless microphones in the *Part 15 NPRM*, where the Commission is inviting comment on whether wireless microphones should be permitted to operate in the guard bands and duplex gap.\(^{33}\)

Finally, these petitioners’ mischaracterize the Commission’s policy choice as one “between an irreplaceable service that has delivered high value for decades, *versus* one that has yet to realize the ambitious promises it made twelve years ago.”\(^{34}\) As has been made clear on many occasions, unlicensed deployment on vacant TV channels has been stymied by years of legislative and regulatory uncertainty that continues to persist today. The Commission’s proposals in the *Part 15 NPRM* acknowledge these facts and demonstrate affirmative steps to promote cost-effective unlicensed services deployment.

**III. THE COMMISSION SHOULD REJECT ARGUMENTS FROM LPTV INTERESTS THAT MISCHARACTERIZE THE REPORT AND ORDER.**

LPTV industry parties argue that the *Report and Order* allocated spectrum for unlicensed use in a manner that exceeds the scope of the Spectrum Act by establishing a guard band of up to 11 megahertz\(^{35}\) and by acknowledging that there will be a UHF channel available nationwide for

\(^{31}\) See Sennheiser Petition at 6.

\(^{32}\) See RTDNA Petition at 4.

\(^{33}\) See *Part 15 NPRM* at §§ 145-165.

\(^{34}\) Sennheiser Petition at 9 (emphasis in original). See also RTDNA Petition at 2-3.

unlicensed use as a result of the repacking process. These parties are apparently concerned that
more spectrum for unlicensed services would result in fewer channels for LPTV displacement
which could, in the hyperbolic view of one petitioner, “extinguish LPTV services.”

In its Petition, FAB takes extreme liberties with the specific language of the Spectrum
Act. It acknowledges that Section 6407(b) of the Spectrum Act states that “guard bands shall be
no larger than is technically reasonable to prevent harmful interference between licensed
services outside the guard bands,” but then misinterprets “technically reasonable” as
“technically necessary” – a term specifically rejected by Congress – and “minimally
sufficient.” There is an obvious difference between these terms, and FAB’s transparent attempt
to obfuscate the statutory basis for the Commission’s authority is unavailing.

Further, FAB ignores other provisions of the Spectrum Act that give the Commission
broad discretion to allocate spectrum for unlicensed use. Section 6403(b)(1)(B) states that the
Commission “may . . . (i) make such reassignments of television channels as the Commission
cconsiders appropriate; and (ii) reallocate such portions of such spectrum as the Commission
determines are available for reallocation.” As the Commission correctly observed,
“[p]rotection of LPTV and TV translator stations in the repacking process is not mandated by
section 6403(b)(2).” Further, Section 6407(c) of the Spectrum Act grants the Commission
authority to permit unlicensed use of guard bands, subject to the requirement of Section 6407(e)
that such use does not cause harmful interference to licensed services. There thus are no

15, 2014) (“FAB Petition”) at 8.
37 ATBA Petition at 7.
38 See FAB Petition at 7-10.
39 Id. at 7, n.17, quoting Spectrum Act, Section 6407(b) (emphasis added).
40 FAB Petition at 8.
41 See also Letter from Austin Schlick, Director, Communications Law, Google Inc., to Gary Epstein, Chair of the
42 Report and Order at 6673.
statutory restrictions on the Commission’s reallocation authority, and the Commission can, as it did in the Report and Order, reallocate some spectrum for unlicensed use. Legally, the Report and Order is on sound footing in making “a significant amount of spectrum available for unlicensed use, a large portion of it on a nationwide basis.”

Contrary to the LPTV Coalition’s claim, the Commission did not “assign spectrum for an expanded guard band for unlicensed users without first determining if that spectrum is needed by licensed LPTV users.” Rather, the Commission first determined that LPTV licensees should not be given protection in the repacking process because to do so would “increase the number of constraints on the repacking process significantly, and severely limit our recovery of spectrum to carry out the forward auction, thereby frustrating the purposes of the Spectrum Act.” The Commission also determined that it would allow operating LPTV and TV translator stations to file displacement applications in a filing window if they are (a) displaced during the auction or repacking process, (b) will cause interference to or receive interference from 600 MHz licensees, or (c) are licensed on frequencies that will become guard band. The rights of LPTV licensees and permittees were clearly considered independently of the interests of unlicensed users.

ATBA and LPTV Coalition misread the Commission’s acknowledgement regarding a post-repacking nationwide channel as a violation of their secondary status in favor of unlicensed interests. To the contrary, the Commission made clear that “we anticipate that there will be at least one channel not assigned to a television station in all areas of the United States at the end of the repacking process, and we intend, after notice and an opportunity for public input, to designate one such channel in each area for shared use by TVWS devices and wireless

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43 Id. at 6572.
44 LPTV Coalition Petition at 2.
45 Report and Order at 6674.
46 See id. at 6835.
The Commission added that “[a]s is the case today, these white space channels will be necessary to avoid interference between primary broadcast stations in the final channel assignment process.” Three points emerge from this passage. First, the Commission has made no final decision, but has instead signaled its intent to allow unlicensed use after a full public record has been developed. Second, any nationwide channel would be available only after the Commission completes its repacking. Third, in the Commission’s construct, the nationwide channel will operate to protect primary television stations from interfering with each other. Consistent with interference protection rules the Commission will adopt, unlicensed use can and should be permitted, especially if the alternative is vacant and unused spectrum.

**Conclusion**

The Commission should dismiss the petitions for reconsideration discussed above.

Respectfully submitted,

**WIRELESS INTERNET SERVICE PROVIDERS ASSOCIATION**

November 12, 2014

By: /s/ Chuck Hogg, President  
/s/ Alex Phillips, FCC Committee Chair  
/s/ Jack Unger, Technical Consultant

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47 Id. at 6683 (footnote omitted) (emphases added).

48 Id. (emphasis added).

49 The Commission has not yet solicited comment regarding use of any nationwide channel that may remain after the repacking process is completed.
CERTIFICATE OF SERVICE

I, Sharon Krantzman, do hereby certify that on this 12th day of November 2014, a copy of the foregoing Consolidated Opposition to Petitions for Reconsideration was sent by first-class, postage prepaid mail to the following:

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