

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

In the Matter of)	
)	
Amendment of Part 101 of the Commission's)	
Rules to Facilitate the Use of Microwave for)	WT Docket No. 10-153
Wireless Backhaul and Other Uses and to Provide)	
Additional Flexibility to Broadcast Auxiliary)	
Service and Operational Fixed Microwave)	
Licenses)	
)	
Request for Interpretation of Section 101.141(a)(3))	WT Docket No. 09-106
of the Commission's Rules Filed by Alcatel-)	
Lucent, Inc., <i>et al.</i>)	
)	
Petition for Declaratory Ruling Filed by Wireless)	WT Docket No. 07-121
Strategies, Inc.)	
)	
Request for Temporary Waiver of Section)	
101.141(a)(3) of the Commission's Rules Filed by)	
Fixed Wireless Communications Coalition)	

To: The Commission

**REPLY COMMENTS OF THE
WIRELESS INTERNET SERVICE PROVIDERS ASSOCIATION**

The Wireless Internet Service Providers Association ("WISPA") hereby responds to points made in certain of the initial Comments filed in the above-captioned proceedings.¹ The Comments filed by WISPA² and others demonstrate widespread support for expanded eligibility to permit the BAS and CARS bands to be used for

¹ Amendment of Part 101 of the Commission's Rules to Facilitate the Use of Microwave for Wireless Backhaul and Other Uses and to Provide Additional Flexibility to Broadcast Auxiliary Service and Operational Fixed Microwave Licenses; Request for Interpretation of Section 101.141(a)(3) of the Commission's Rules Filed by Alcatel-Lucent, Inc., *et al.*; Petition for Declaratory Ruling Filed by Wireless Strategies, Inc.; and Request for Temporary Waiver of Section 101.141(a)(3) of the Commission's Rules Filed by Fixed Wireless Communications Coalition, WT Docket Nos. 10-153, 09-106 and 07-121, *Notice of Proposed Rulemaking and Notice of Inquiry*, FCC 10-146 (rel. Aug. 5, 2010) ("*NPRM/NOI*").

² Comments of WISPA, Docket Nos. 10-153, 09-106 and 07-121, filed Oct. 25, 2010 ("WISPA Comments").

licensed fixed service backhaul, flexible channel widths and adaptive modulation. By contrast, it is well beyond the scope of this proceeding for the Commission to consider rules for licensed backhaul in TV white space spectrum, as advocated by FiberTower Corporation (“FiberTower”). This proceeding was not initiated to give FiberTower yet another opportunity to debate the merits of its flawed white space proposal, but rather to consider allowing shared use of the 6875-7125 MHz and 12.7-13.2 GHz bands for backhaul under Part 101 of the Commission’s Rules.

Discussion

I. THE COMMISSION MUST REJECT IN THIS PROCEEDING FIBERTOWER’S PROPOSAL FOR LICENSED BACKHAUL IN TV WHITE SPACE SPECTRUM.

Not content to stick to the specific purposes and issues of this proceeding, FiberTower continues its campaign to appropriate much-needed point-to-multipoint TV white space spectrum to satisfy a claimed need to designate spectrum below 3 GHz for exclusive licensed point-to-point backhaul.³ WISPA’s strong opposition to FiberTower’s proposal is well-documented in the white spaces proceeding, ET Docket No. 04-186, and need not be repeated here.⁴ Suffice it to say, this proceeding is not the time or the place for FiberTower to reiterate its flawed arguments.

Any discussion concerning use TV white spaces is well beyond the scope of this proceeding. Indeed, the *NPRM/NOI* specifically acknowledged FiberTower’s earlier-

³ See Comments of FiberTower Corporation, Docket Nos. 10-153, 09-106 and 07-121, filed Oct. 25, 2010 (“FiberTower Comments”), at 7-10. See also Comments of WCAI, Docket Nos. 10-153, 09-106 and 07-121, filed Oct. 25, 2010 (“WCAI Comments”), at 2-4. In what is perhaps a modification of its earlier position, FiberTower appears to suggest that only Channels 14-20 be considered for licensed backhaul where they are available. See FiberTower Comments at 8-9.

⁴ For a detailed analysis and criticism of FiberTower’s proposal, see WISPA written ex parte presentation dated Sept. 9, 2010, ET Docket Nos. 04-186 and 10-24 and GN Docket No. 09-157. Among other things, WISPA pointed out that FiberTower’s proposal relies on poor engineering practices that would preclude point-to-multipoint broadband use and cause massive amounts of harmful interference.

filed petition for reconsideration in the white spaces proceeding seeking use of white spaces for licensed backhaul.⁵ More recently, the Commission specifically addressed FiberTower's arguments when it rejected its petition for reconsideration and stated that:

As we move forward, however, we are interested in pursuing the question of whether we can accommodate licensed rural backhaul in the white spaces within the UHF bands. Therefore, Commission staff will evaluate this possibility over the coming months, and will formulate and submit a recommendation on next steps to the Commissioners by the end of 2010.⁶

In adopting this process, the Commission well understood what FiberTower apparently does not – that any consideration of rules creating new licensed services in TV white spaces must necessarily be part of a proceeding on how, if at all, the TV spectrum generally should be re-packed. Given this logical decision and the Commission's specific instructions to staff, the Commission should not consider FiberTower's arguments in this proceeding as well.⁷

As evidence that the Commission has not forgotten about FiberTower's proposal, the Commission has scheduled for its November 30, 2010 open meeting the release of a Notice of Proposed Rulemaking "seeking comment on rules to facilitate the most efficient use of the UHF and VHF TV bands."⁸ Thus, it would appear that FiberTower will have the opportunity to make its case again in the context of this upcoming proceeding. However, until such time as the Commission adopts and implements a new plan for TV broadcast spectrum, it would be imprudent for the Commission to designate

⁵ See *NPRM/NOI* at 28, n.157.

⁶ *Unlicensed Operations in the TV Broadcast Bands; Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band, Second Memorandum Opinion and Order*, FCC 10-174 (rel. Sept. 23, 2010) ("*White Spaces Order*"), at 50-51.

⁷ To the extent FiberTower believes that the Commission's decision to consider FiberTower's arguments in the white spaces proceeding is flawed, it can seek reconsideration of the *White Spaces Order* – but using this proceeding to accomplish that goal is misguided and inappropriate.

⁸ *Public Notice*, "FCC Announces Tentative Agenda for November 30th Open Meeting," rel. Nov. 4, 2010. To its credit, WCAI urged the Commission to initiate a separate proceeding to consider rules for low-frequency backhaul. See WCAI Comments at 4.

any white space channels for exclusive licensed backhaul. The prematurity of FiberTower's proposal here is yet another reason why it must be rejected.

II. THE RECORD SHOWS WIDESPREAD SUPPORT FOR ALLOWING SHARED USE OF BAS AND CARS SPECTRUM FOR BACKHAUL.

WISPA and other commenters generally agree that the Commission should adopt its proposal to allow fixed services to share the 6875-7125 MHz and 12.7-13.2 GHz bands to address the increase in demand for wireless backhaul capacity. In general, commenters agreed with the Commission that this spectrum is "well suited" for licensed backhaul.⁹ Noting the significant congestion in the existing 6 GHz microwave bands, Sprint Nextel states that permitting fixed services on frequencies previously limited to BAS and CARS operation "would be beneficial and cost effective as existing FS equipment could be used on the adjacent BAS and CARS channels."¹⁰ Sprint Nextel also observes that "these bands could support new microwave backhaul operations that are less susceptible to rain fade as compared to microwave bands at higher frequencies."¹¹ The Telecommunications Industry Association concludes that "[e]nhancing wireless backhaul services will increase competition, speed 4G services, and help meet the incredible demand for high capacity long distance data links."¹² United States Cellular Corporation observes that these bands are well suited for backhaul and other microwave applications and would be compatible with existing uses through frequency

⁹ *NPRM/NOI* at 9.

¹⁰ Comments of Sprint Nextel Corporation, Docket Nos. 10-153, 09-106 and 07-121, filed Oct. 25, 2010 ("Sprint Nextel Comments"), at 3.

¹¹ *Id.*

¹² Comments of Telecommunications Industry Association, Docket Nos. 10-153, 09-106 and 07-121, filed Oct. 25, 2010, at 2.

coordination.¹³ Clearwire Corporation notes the “well-documented history demonstrating that FS, BAS and CARS operations can co-exist” and recommends using more formalized frequency coordination procedures.¹⁴

Opponents consist of broadcast interests arguing that certain BAS activities, especially itinerant ENG use, could be compromised by allowing FS users to obtain licensed spectrum in the bands.¹⁵ MSTV/NAB argues that fixed operations should be secondary to BAS operations and that portions of the bands should be reserved for BAS in areas where the bands are already congested.¹⁶ WISPA believes that adopting the MSTV/NAB proposals at this time would unfairly favor potential future interests of broadcasters over the demonstrable current interests of broadband users that have an urgent need for additional backhaul spectrum. Instead, the Commission can and should adopt less restrictive means to ensure the viability of existing BAS licensees, to mitigate the potential for interference and to provide for the filing of new BAS licenses.

III. THE RECORD SUPPORTS ADOPTION OF RULES PERMITTING ADAPTIVE MODULATION.

The WISPA Comments support adoption of rules that would enable users to employ adaptive modulation to mitigate against anomalous propagation conditions and other events beyond the licensee’s control.¹⁷ There is broad support in the record for allowing adaptive modulation to allow users to maintain communications under these

¹³ See Comments of United States Cellular Corporation, Docket Nos. 10-153, 09-106 and 07-121, filed Oct. 25, 2010, at 3. See also Comments of Motorola, Inc., Docket Nos. 10-153, 09-106 and 07-121, filed Oct. 25, 2010 (“Motorola Comments”), at 4.

¹⁴ Comments of Clearwire Corporation, Docket Nos. 10-153, 09-106 and 07-121, filed Oct. 25, 2010, at 7.

¹⁵ See, e.g., Comments of the Association for Maximum Service Television, Inc. and the National Association of Broadcasters (“MSTV/NAB”), Docket Nos. 10-153, 09-106 and 07-121, filed Oct. 25, 2010; Comments of the Society of Broadcast Engineers, Docket Nos. 10-153, 09-106 and 07-121, filed Oct. 25, 2010, at 5-10.

¹⁶ See MSTV/NAB Comments at 8-9.

¹⁷ See WISPA Comments at 3-4.

conditions.¹⁸ In addition to adopting its proposed rule, the Commission also should adopt the safeguards proposed by the National Spectrum Management Association¹⁹ and supported by FiberTower,²⁰ which would ensure that links are designed in accordance with good engineering practices and require prior coordination notices for links employing adaptive modulation techniques. These safeguards will encourage good design practices prior to licensing and deter the construction of poorly engineered links.²¹

IV. THE COMMISSION SHOULD PERMIT SECONDARY USE OF FIXED SERVICE FREQUENCIES “AUXILIARY STATIONS.”

In its Comments, WISPA agreed with the Commission that allowing secondary fixed service use of the BAS and CARS bands would “allow substantially greater spatial reuse of microwave spectrum, thereby potentially reducing the cost of using FS spectrum.”²² Commenters such as Sprint Nextel also support this proposal²³ and some like Motorola provide conditional support,²⁴ while other commenters oppose it. WISPA disagrees with Comsearch’s assertion that permitting auxiliary stations as secondary services would “significantly undercut the efficiency of the Part 101 rules.”²⁵ To the contrary, allowing auxiliary stations to re-use the same frequencies used by the primary licensed point-to-point stations would in fact conserve frequencies, leaving more

¹⁸ See, e.g., Comments of Ceragon Networks, Ltd., Docket Nos. 10-153, 09-106 and 07-121, filed Oct. 25, 2010, at 4; Comments of Aviat Networks, Inc., Docket Nos. 10-153, 09-106 and 07-121, filed Oct. 25, 2010, at 2; Comments of the Fixed Wireless Communications Coalition, Docket Nos. 10-153, 09-106 and 07-121, filed Oct. 25, 2010, at 8; Comments of the Satellite Industry Association, Docket Nos. 10-153, 09-106 and 07-121, filed Oct. 25, 2010, at 12; Comments of Comsearch, Docket Nos. 10-153, 09-106 and 07-121, filed Oct. 25, 2010 (“Comsearch Comments”), at 18; Sprint Nextel Comments at 5.

¹⁹ See Comments of the National Spectrum Management Association, Docket Nos. 10-153, 09-106 and 07-121, filed Oct. 25, 2010, at 6-8

²⁰ See FiberTower Comments at 7.

²¹ See also Comments of AT&T Inc., Docket Nos. 10-153, 09-106 and 07-121, filed Oct. 25, 2010, at 10-12; Motorola Comments at 8.

²² NPRM/NOI at 16.

²³ See Sprint Nextel Comments at 6-7.

²⁴ See Motorola Comments at 10-11.

²⁵ Comsearch Comments at 5.

frequencies available to be used by other licensees. For example, a primary (hub) station communicating with a dozen auxiliary stations all using the same frequency pair would clearly conserve spectrum because a dozen additional frequency pairs would not be needed between the dozen auxiliary station locations and the hub station location.

Rather than undercut the efficiency of the Part 101 rules, WISPA believes that the use of auxiliary stations would significantly improve the efficiency of the Part 101 rules by conserving spectrum.

V. THE COMMISSION SHOULD CONSIDER ALLOWING SMALLER ANTENNAS.

In the *NOI*, the Commission sought comment on whether it should consider rules permitting smaller antennas for fixed services.²⁶ Sprint Nextel correctly observes that “[a]ntenna size is one of the factors that limits microwave deployment due to the accompanying lease costs, tower structure integrity and zoning.”²⁷ WISPA agrees with this conclusion and supports Sprint Nextel’s view that rules should be patterned after rules in the 11 GHz service that allow for smaller, less expensive Category B antennas to be used except where larger Category A antennas are necessary to avoid harmful interference.²⁸ WISPA urges the Commission to initiate a rulemaking proceeding where a complete record on antenna standards can be developed.

Conclusion

WISPA supports adoption of rules allowing fixed service licensees to share the BAS and CARS bands for backhaul, permitting adaptive modulation and authorizing auxiliary stations. WISPA also believes that rules authorizing smaller antennas should be

²⁶ See *NPRM/NOI* at 25-26.

²⁷ Sprint Nextel Comments at 8.

²⁸ See *id.* See also Comsearch Comments at 24-29.

adopted. WISPA strongly opposes FiberTower's request for the Commission to designate, in this proceeding, TV white space spectrum for exclusive licensed backhaul.

Respectfully submitted,

**THE WIRELESS INTERNET
SERVICE PROVIDERS ASSOCIATION**

November 22, 2010

By: */s/ Elizabeth Bowles, President*
/s/ Jack Unger, Chair of FCC Committee

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