

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of)
)
Spectrum Task Force Requests Information) ET Docket No. 10-123
on Frequency Bands Identified by NTIA)
as Potential Broadband Spectrum)

To: The Commission

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

The Wireless Internet Service Providers Association (“WISPA”), in response to the *Public Notice* in the above-referenced proceeding,¹ hereby submits its Comments urging the Commission to propose rules that would allocate up to 100 megahertz of spectrum in the 3550-3650 MHz band using the “licensed-lite” licensing procedures and operating rules similar to those in place for the adjacent 3650-3700 MHz Service. Because of the incumbent radar operations adjacent to and in the 3550-3650 MHz band, commercial non-federal mobile WiMAX operations would be severely geographically constrained if the technical assumptions underlying NTIA’s compatibility studies were implemented.² By contrast, applying the operating rules for the 3650-3700 MHz band would, with possible minor adjustments, better promote the twin goals of expediting commercial broadband deployment and minimizing disruption to current Department of Defense operations.

¹ *Public Notice*, “Spectrum Task Force Requests Information on Frequency Bands Identified by NTIA as Potential Broadband Spectrum,” ET Docket No. 10-123, DA 11-444, released March 8, 2011 (“*Public Notice*”).

² An Assessment of the Near-Term Viability of Accommodating Wireless Broadband Systems in the 1675-1710 MHz, 1755-1780 MHz, 3500-3650 MHz, and 4200-4220 MHz, 4380-4400 MHz Bands, U.S. Department of Commerce, Oct. 2010 (available at http://ntia.doc.gov/reports/2010/FastTrackEvaluation_11152010.pdf) (“Fast Track Report”), at B-1.

Introduction

WISPA was founded in 2004 and represents the interests of approximately 500 wireless Internet service providers (“WISPs”), vendors, system integrators and others interested in promoting the growth and delivery of fixed wireless broadband services to Americans. WISPA estimates that more than 2,000 WISPs operate in the United States today, with the potential to serve more than 75 million people from existing tower sites if sufficient spectrum were available. WISPs provide fixed wireless broadband services to residences, businesses, hospitals, public safety locations and educational facilities using license-free frequencies authorized under Part 15 of the Commission’s Rules and “licensed-lite” services in the 3650-3700 MHz band under Part 90 rules. .

Since the service was initiated in November 2007, WISPs and others have used the 3650-3700 MHz band to provide point-to-multipoint broadband services and point-to-point “second mile” connectivity. Some companies use the band to deliver fixed broadband services to residences, while others focus on serving businesses and governmental facilities. Utility companies use the 3650-3700 MHz band to support their energy businesses. In short, allocation of the 3650-3700 MHz band has facilitated a variety of beneficial broadband services.

The rapid deployment of services is due in no small part to the Commission’s implementation of a hybrid “licensed-lite” scheme under which entities can obtain a low-cost non-exclusive nationwide license and then register their operating locations prior to launching services. Operators are expected to consult the Commission’s Universal Licensing Service database before initiating service and cooperate with each other to mitigate interference. Although the terms “interference” and “cooperation are not

defined,”³ the Commission’s rules generally have worked well to lower entry costs and foster expeditious network construction and service.

WISPA is pleased that NTIA has identified the adjacent 3550-3650 MHz band for fast-track allocation for non-federal uses. With the increasing congestion in unlicensed bands and increasing consumer usage of bandwidth-intensive applications (*i.e.*, video streaming), additional spectrum for fixed use is necessary.⁴ Because the propagation characteristics, service rules and equipment are known factors, WISPA welcomes the opportunity to work with the NTIA and the Commission to craft rules for the 3550-3650 MHz band. With appropriate rules, WISPA has a high level of confidence that incumbent federal and new non-federal uses can successfully co-exist.

Discussion

The *Public Notice* asks how “the technical assumptions upon which NTIA based its analyses affect how broadband services could be deployed in each band.”⁵ In conducting its technical analysis for the 3550-3650 MHz band, NTIA relied on technical parameters for high-power mobile WiMAX operations in evaluating the interference potential to radar systems in the 3500-3650 MHz band. Notwithstanding its general recognition that other technologies might promote co-channel or co-coverage sharing, NTIA did not consider technical parameters that would “require the use of low-power devices under specific technical and operational conditions to avoid causing harmful

³ See, e.g., Comments of WISPA, RM-11604, filed July 6, 2010 (supporting rule changes proposed by the Fixed Wireless Communications Coalition).

⁴ Notably, President Obama’s directive to NTIA and the Commission to make more non-federal spectrum available included spectrum for *fixed spectrum*, and was not limited to spectrum solely for mobile uses. See Memorandum for the Heads of Executive Department and Agencies, Unleashing the Wireless Broadband Revolution, released June 28, 2010, 75 Fed. Reg. 38387 (July 1, 2010, available at <http://www.whitehouse.gov/the-press-office/presidential-memorandum-unleashing-wireless-broadband-revolution>).

⁵ *Public Notice* at 2.

interference to other authorized users.”⁶ WISPA believes that an NTIA analysis of the technical parameters underlying current 3650-3700 fixed wireless broadband equipment would lead to rules in the 3550-3650 MHz band that would enable successful spectrum sharing between current government radiolocation users and future non-governmental use.

The *Public Notice* also asks whether conditions placed on the band, such as exclusion zones, would affect the usefulness for broadband deployment.⁷ Large exclusion zones are not appropriate for mobile WiMAX services. The exclusion zones in the Fast Track Report covers significant coastal and inland portions of the Pacific, Atlantic and Gulf coasts, including Los Angeles, San Francisco, Seattle, Portland, Houston, New Orleans, Tampa, Miami, Jacksonville, Baltimore, New York and Boston. With exclusion zones covering the huge population in these markets as well as the smaller cities and rural areas inside the zones and the roaming potential inherent in a mobile service, the commercial potential of mobile WiMAX or LTE services would be highly questionable.⁸ Moreover, mobile WiMAX equipment in the 3500-3650 MHz band is not “readily available.”⁹ The requirements on which the Fast Track Report is predicated likely would require new mobile equipment designed to meet transmit spectral mask and receiver selectivity standards.¹⁰ In sum, the “clean” spectrum needed for mobile networks does not exist given the large exclusion zones and the equipment changes that would be required to make such services financially viable.

⁶ Fast Track Report at 4-1.

⁷ See *Public Notice* at 2.

⁸ See *id.* at 4 (questioning willingness of commercial users to deploy with coastal exclusion zones).

⁹ *Id.*

¹⁰ See *id.* (asking whether commercial users would be willing to accept receiver standards to promote spectrum sharing with high-power federal systems).

Curiously, NTIA did not conduct its analysis using the technical rules for the adjacent 3650-3700 MHz band. Operations in the 3650-3700 MHz Service are limited to 25 Watts/25 MHz EIRP with a 1 Watt limit for any one megahertz slice of spectrum.¹¹ Had NTIA based its assumptions on the rules for low power fixed operations in the adjacent 3650-3700 MHz band, its conclusions about filtering, transmit spectral mask and exclusion zones would likely have been different. Such lower power fixed operations would cause less disruption to governmental radar systems.

By relying on mobile WiMAX technical assumptions for its 3550-3650 MHz analysis, NTIA's Fast Track Report neglected to consider other viable technologies and uses, including use of the spectrum for fixed broadband uses such as those deployed in the adjacent 3650-3700 MHz band. NTIA offered no explanation for its failure to analyze the use of low-power devices under rules already in place for fixed, contention-based technologies.

WISPA believes that extending the rules for the 3650-3700 MHz Service to the 3550-3650 MHz band would enable the deployment of new, fixed broadband services in large portions of the country – an area larger than would be permissible under the higher-power mobile WiMAX parameters that NTIA assumed. WISPs have deployed fixed networks extensively in the 3650-3700 MHz band notwithstanding the low power limits and the existence of earth station exclusion zones. While not perfect, the current 3650-3700 MHz rules should be extended to the 3550-3650 MHz band and authorized under the “licensed-lite” process that has lowered entry costs and led to a competitive fixed wireless ecosystem in equipment manufacturing, distribution and service deployment.

¹¹ See Section 90.1321(a).

Conclusion

WISPA urges the Commission to look beyond the narrow assumptions made by NTIA and consider allocating the 3550-3650 MHz band for fixed wireless networks under operating standards similar to those being used effectively and successfully in the adjacent 3650-3700 MHz band.

Respectfully submitted,

**THE WIRELESS INTERNET
SERVICE PROVIDERS ASSOCIATION**

April 22, 2011

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

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