



October 17, 2018

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

Re: *International Bureau Seeks Comment on Recommendations Approved by World Radiocommunication Conference Advisory Committee*, IB Docket No. 16-185, WAC/066

Dear Ms. Dortch:

Cisco Systems, Inc. hereby comments on World Radiocommunication Conference Advisory Committee (“WAC”) recommendation WAC/066 for the upcoming CITEL PCC.II meeting and the 2019 World Radiocommunications Conference (“WRC-19”), which relates to potential regulatory changes for the 5150-5250 MHz frequency band to promote global broadband connectivity, improve economies of scale for U.S.-based Wi-Fi equipment makers, and lower costs for U.S. consumers. That recommendation includes two views. View A is consistent with both the very successful U.S. rules for this band as well as prior U.S. positions during negotiations leading up to WRC-19. View B would have the U.S. reverse course globally based on unpersuasive claims that a single satellite operator may experience harmful interference at some point in the future.

Cisco is a San Jose, California provider of Internet Protocol technology, equipment, and solutions, including Wi-Fi routers. Following the Commission’s 2014 decision amending the rules for unlicensed devices operating at 5150-5250 MHz, Cisco leveraged the improved flexibility permitted by the rule change to offer new outdoor and industrial wireless products. Customers deploy these devices outdoors as part of service provider and enterprise networks, at, for example, outdoor venues, mass transit stations, corporate campuses, and universities. Cisco is therefore deeply interested not only in the rules that govern the 5150-5250 MHz band but also, more broadly, in the development of global policy that makes efficient use of spectrum.

Clearly, View A of WAC/066 better supports these important goals, while ensuring that existing users will be protected. View A would support the global harmonization of the 5150-5250 MHz band consistent with U.S. rules: it would permit outdoor unlicensed operation by radio local area network devices (“RLANs”) at sufficient power levels to support expanded broadband deployment, while sharply limiting transmissions at angles greater than 30 degrees to provide robust protection for the sole satellite operator with service links in the band, Globalstar,

Inc.<sup>1</sup> The need for more efficient use of the 5150-5250 MHz band is especially pressing given the immense, and rapidly growing, demand for RLAN spectrum—and the lack of any corresponding growth in the global availability of RLAN spectrum since WRC-03.

View A is supported by U.S. contributions to Working Party 5A, the ITU body tasked with completing technical studies relating to RLAN spectrum. That study meticulously modeled the interference potential of RLAN devices in the 5150-5250 MHz band under a wide range of real-world conditions, aggregated across the entire continental United States. That U.S. study—submitted less than six months ago—concluded “it is evident that allowing RLANs to operate both indoors and outdoors with higher powers in the 5 150-5 250 MHz poses no harmful interference to the single operational MSS system, when sharing the band with the system’s FSS feeder uplink.”<sup>2</sup>

Globalstar and Omnispace point to Globalstar’s own study in opposing current FCC rules and View A. That study purports to show rising noise levels in support of a View B, which only these two companies support, and which prevented consensus at the WAC. View B would advance a proposal of “no change” to the existing ITU rules, opposing broader U.S. policy by extending 15 years of stagnation in global spectrum availability for RLANs. Globalstar’s study, a version of which Globalstar also submitted directly to the FCC, has been roundly rejected by virtually every commenter other than Globalstar, Globalstar’s own partners and customers, and Omnispace. Among the other numerous flaws parties have identified, Globalstar’s study:

- Acknowledges that, even if its measurements are accurate, Globalstar is not experiencing harmful interference today, and will only *possibly* experience harmful interference in the future if Globalstar’s subscriber base grows dramatically—when in fact it is shrinking.<sup>3</sup>
- Fails to draw any credible link between the purported noise rise and RLAN operations. In fact, it effectively disproves its own claim, by including a study that attempts to “predict” Globalstar’s measurements based on assumed RLAN deployment numbers. However, it inadvertently demonstrates that this connection can only possibly be drawn if one makes a series of wildly implausible assumptions about RLAN usage.<sup>4</sup>

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<sup>1</sup> See WRC-19 Agenda Item 1.16, Doc. WAC/066, at 13 (Oct. 1, 2018). A second operator, Omnispace, uses this band only for telecommand operations for an even smaller number of satellites. See *id.* at 12.

<sup>2</sup> *Sharing and Compatibility Study Between WAS/RLAN Applications and NGSO Systems in the Mobile Satellite Service with FSS Feeder Links Operating in the 5091-5250 MHz Band*, United States of America Contribution, Doc. No. 5A/727-E, at 39 (May 9, 2018).

<sup>3</sup> Opposition of NCTA – The Internet & Television Association, RM-11808, at 9-10 (filed July 6, 2018).

<sup>4</sup> Reply Comments of Hewlett Packard Enterprise, RM-11808, at 9-12 (filed July 23, 2018).

- Does not explain why only some of its satellites experience this noise rise and not others. Of course, if the noise rise were truly caused by a proliferation of RLAN devices, this should affect all of Globalstar's satellites equally as they pass over the same point on the earth.<sup>5</sup>

Indeed, as Cisco pointed out in its comments,<sup>6</sup> due to the lack of precision in Globalstar's measurements, it is unclear whether the alleged noise increase even exceeds the slight increase that all parties, including Globalstar, *expected* when the Commission adopted rules permitting higher power indoor operations in this band.<sup>7</sup> This is plainly insufficient to demonstrate that the Commission should not support international adoption of its own rules for the 5150-5250 MHz band. Accordingly, Cisco urges the Commission to support View A as the U.S. finalizes its proposals for CITEL this fall.

Respectfully submitted,

Cisco Systems, Inc.

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<sup>5</sup> Opposition of Cisco Systems, Inc., RM-11808, at 6-7 (filed July 6, 2018).

<sup>6</sup> *Id.* at 6.

<sup>7</sup> Letter from Regina M. Keeney, Counsel for Globalstar, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 13-49 (filed Mar. 6, 2014) (supporting conditions to enable unlicensed devices in the band). Globalstar was responding to a set of conditions for band operations initially proposed by NCTA. *See* Letter from Rick Chesson, Senior Vice President, Law and Regulatory Policy, NCTA, to Julius Knapp, Chief, Office of Engineering and Technology, FCC, ET Docket No. 13-49 (filed Mar. 4, 2014).