

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of	)	
	)	
Aeronet Global Communications, Inc.’s Petition for	)	RM-11824
Rulemaking to Amend the Commission’s Allocation	)	
and Service Rules for the 71-76 GHz, 81-86 GHz,	)	
and 92-95 GHz Bands to Authorize Aviation	)	
Scheduled Dynamic Datalinks	)	
	)	
Aeronet Global Communications, Inc.’s Petition for	)	RM-11825
Rulemaking to Amend the Commission’s Allocation	)	
and Service Rules for the 71-76 GHz, 81-86 GHz,	)	
and 92-95 GHz Bands to Authorize Maritime	)	
Scheduled Dynamic Datalinks	)	

**OPPOSITION OF T-MOBILE USA, INC.**

T-Mobile USA, Inc. (“T-Mobile”)<sup>1/</sup> submits this opposition to the Aeronet Global Communications, Inc. (“Aeronet”) Petitions for Rulemaking, which ask the Commission to initiate rulemaking proceedings to change the allocation and service rules for the 71-76 GHz, 81-86 GHz (together, “70/80 GHz”), and 92-95 GHz bands to authorize the use of maritime and aviation scheduled dynamic datalinks (“SDDLs”).<sup>2/</sup> The Commission should deny the Aeronet Petitions, or in the alternative, defer consideration and consolidate all proposals for use of the 70/80 GHz bands into a comprehensive proceeding.

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<sup>1/</sup> T-Mobile USA, Inc. is a wholly-owned subsidiary of T-Mobile US, Inc., a publicly traded company.

<sup>2/</sup> Petition for Rulemaking of Aeronet Global Communications, Inc., RM-11824 (filed Feb. 6, 2019) (“Aeronet Aviation Petition”); Petition for Rulemaking of Aeronet Global Communications, Inc., RM-11825 (filed Feb. 6, 2019) (“Aeronet Maritime Petition”) (together with the petition listed immediately prior, “Petitions”); *see also Consumer & Governmental Affairs Bureau Reference Information Center Petition for Rulemakings Filed*, Public Notice, Report No. 3112 (rel. Feb. 7, 2019); *Consumer & Governmental Affairs Bureau Reference Information Center Petition for Rulemakings Filed*, Public Notice, Report No. 3113 (rel. Feb. 7, 2019).

## I. INTRODUCTION AND SUMMARY

High-speed backhaul is critical to the continued success of the nation’s mobile broadband ecosystem, especially because of the expected increased use of small cell technology and the related densification of Fifth Generation (“5G”) wireless networks. In the *Wireless Backhaul* proceeding,<sup>3/</sup> the Commission is appropriately considering changes to the rules that would facilitate wireless backhaul in the 70/80 GHz bands. The Commission is also considering two requests for waiver of the rules governing these bands that would further enable wireless backhaul deployment.<sup>4/</sup> In addition, the Commission has not foreclosed use of the spectrum for mobile wireless deployment in the future.<sup>5/</sup> A wide range of interested parties have participated in these proceedings, leading to the development of a robust record – a record that Aeronet’s Petitions do not address. Aeronet’s Petitions instead attempt to sidestep these proceedings, all based on unsupported claims that its proposed services can co-exist with existing and future terrestrial uses.

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<sup>3/</sup> See *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 Licensees*, Second Report and Order, Second Further Notice of Proposed Rulemaking, Second Notice of Inquiry, Order on Reconsideration, and Memorandum Opinion and Order, 27 FCC Rcd. 9735 (2012) (“*Wireless Backhaul Proceeding NOI*”).

<sup>4/</sup> See Aviat Networks, Request for Waiver, WT Docket No. 15-244 (filed Apr. 5, 2013) (“Aviat Waiver Request”); Aviat Networks, Amendment to Request for Waiver, WT Docket No. 15-244 (filed Mar. 24, 2014) (“Aviat Amended Waiver Request”); CBF Networks, Inc., Request for Waiver, WT Docket No. 15-244 (filed June 19, 2015) (“Fastback Waiver Request”); *Wireless Telecommunications Bureau Seeks Comment on Request for Aviat Networks and CBF Networks, Inc. d/b/a Fastback Networks for Waiver of Certain Antenna Requirements in the 71-76 and 81-86 GHz Bands*, DA 15-1166, WT Docket No. 15-244 (rel. Oct. 13, 2015).

<sup>5/</sup> *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services*, Report and Order, Second Further Notice of Proposed Rulemaking, Order on Reconsideration, and Memorandum Opinion and Order, 32 FCC Rcd. 10988, ¶ 201 (2017) (“*Spectrum Frontiers Second Report and Order*”) (reserving the right to revisit mobile use in the 70/80 GHz bands “as mobile use deploys in other millimeter wave bands, technology develops, and as further thought is given to mobile/fixed coexistence”).

These ongoing proceedings are why the Commission recently made clear that it is inappropriate to consider Aeronet's proposed SDDL use on its own.<sup>6/</sup> Aeronet's Petitions should therefore be denied or consideration of its proposals deferred until the Commission comprehensively addresses use of the bands for all current and future services, including wireless backhaul and potential mobile services. In addition, should the Commission consider Aeronet's proposed use – regardless of the proceeding in which it does so – it must require that Aeronet demonstrate with technical analysis the impact of its proposed operations on current and future terrestrial uses of the bands.

## **II. THE COMMISSION HAS CONFIRMED THAT THE 70/80 GHZ BANDS WILL BE USED FOR WIRELESS BACKHAUL**

The Commission recently reviewed future use of the 70/80 GHz bands in the *Spectrum Frontiers* proceeding, and it determined that “these bands can play an important role in 5G development by facilitating backhaul and other fixed uses.”<sup>7/</sup> Consequently, it acknowledged that “[i]t is important not only to protect existing links but also to provide an opportunity for future growth of fixed service in these bands as demand for backhaul and other related services increases.”<sup>8/</sup> In making this determination, the Commission noted the additional uses for the bands that Aeronet had proposed.<sup>9/</sup> The Commission correctly concluded, however, that it would be better to consider Aeronet's proposals in the ongoing *Wireless Backhaul* proceeding, in which the Commission is already considering proposals to modify the existing rules for fixed links in the 70/80 GHz bands.<sup>10/</sup>

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<sup>6/</sup> See *id.*

<sup>7/</sup> *Id.* ¶ 200.

<sup>8/</sup> *Id.*

<sup>9/</sup> *Id.* ¶ 201.

<sup>10/</sup> See *Wireless Backhaul Proceeding NOI* ¶¶ 76-81.

As the record in the *Wireless Backhaul* proceeding demonstrates, there is significant interest in updating the rules for the 70/80 GHz bands to facilitate wireless backhaul.<sup>11/</sup> Indeed, Aviat Networks (“Aviat”) and CBF Networks, Inc., d/b/a Fastback Networks (“Fastback”) have submitted requests for waivers of the rules governing the 70/80 GHz bands – requests that T-Mobile has supported<sup>12/</sup> – to better support 5G backhaul while the *Wireless Backhaul* proceeding moves forward.

Aeronet has provided no basis for the Commission to alter its conclusions regarding the 70/80 GHz bands or the focus of the ongoing proceedings. There is similarly no basis to permit Aeronet to circumvent the *Wireless Backhaul* proceeding, ignore the suggested modifications to the rules contained in the Aviat and Fastback waiver requests, and cut short consideration of the proposals in those proceedings in favor of its own desired changes.

### **III. IF THE COMMISSION INITIATES A RULEMAKING, IT SHOULD REQUIRE THAT AERONET DEMONSTRATE THAT ITS PROPOSAL IS CONSISTENT WITH OTHER USES OF THE BAND**

Spectrum is a critical but finite component of America’s telecommunications infrastructure. The Commission therefore has an obligation to manage spectrum in the public interest, as mandated by the Communications Act.<sup>13/</sup> Competing spectrum demands require an analysis of the relative benefits of dedicating spectrum in the 70/80 GHz bands to Aeronet’s SDDLs versus the use of the same spectrum by *all* other applications, including by taking into consideration how those other applications will evolve based on current proposals. As discussed above, several ongoing proceedings – *Wireless Backhaul*, the Aviat and Fastback waiver

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<sup>11/</sup> See, e.g., Comments of the Fixed Wireless Communications Coalition, WT Docket No. 10-153 (filed Oct. 5, 2012); T-Mobile Ex Parte, WT Docket Nos. 10-153, 15-244 (filed Jan. 18, 2018).

<sup>12/</sup> See T-Mobile Ex Parte, WT Docket Nos. 10-153, 15-244, at 2 (filed Jan. 18, 2018); T-Mobile Ex Parte, WT Docket No. 15-244 (filed Nov. 30, 2015).

<sup>13/</sup> See 47 U.S.C. §§ 151, 303.

requests, and potential further phases of the *Spectrum Frontiers* proceeding – may all impact the future use of the 70/80 GHz bands. Contrary to Aeronet’s suggestions, consideration of the bands for SDDL use cannot therefore take place in a vacuum. While T-Mobile acknowledges that there may be consumer desire for additional in-air and at-sea connectivity, there are competing needs that must be considered. Should the Commission initiate a rulemaking to consider the additional uses of the 70/80 GHz bands that Aeronet proposes, it must consider *all* potential uses of the band, including effective, extensive wireless backhaul and potential mobile service.<sup>14/</sup>

And any consideration of competing uses of the band must include an evaluation of the technical compatibility of those potentially diverse deployments. While Aeronet claims that its proposed service and rule changes will not cause interference to existing and future fixed uses,<sup>15/</sup> it provides no technical support for this contention. If the Commission decides to revisit use of the 70/80 GHz bands based on Aeronet’s requests – as suggested above, under a more comprehensive approach that considers all other uses of the band – it should require that Aeronet provide technical support for its interference claims and this support take into account how the bands could also support other uses.

A thorough technical analysis may show that it is possible to accommodate Aeronet’s proposed use, but that decision should be made alongside consideration of the bands for other, demonstrated needs. The Commission should therefore deny Aeronet’s Petitions at this time, or

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<sup>14/</sup> As noted above, although the Commission declined to authorize mobile use in the 70/80 GHz bands in the *Spectrum Frontiers Second Report and Order*, it explicitly reserved the right to revisit mobile use in these bands as technology develops. See *Spectrum Frontiers Second Report and Order*, ¶ 201. Technology today does not support mobile applications in these bands, but this could change rapidly. As the *Spectrum Frontiers* proceeding shows, mobile broadband technology can accomplish today what was considered impossible only a few years ago.

<sup>15/</sup> Aeronet Aviation Petition at 19-24; Aeronet Maritime Petition at 18-22.

in the alternative, defer consideration of the Petitions and consolidate all proposals for use of the 70/80 GHz bands into a more comprehensive proceeding.

#### **IV. CONCLUSIONS**

The 70/80 GHz bands have the potential to help meet the growing need for additional backhaul facilities and could also possibly be allocated for licensed mobile use in the future. These uses are critical to facilitate the further development of wireless broadband networks, and the Commission should not prematurely handicap them by considering Aeronet's Petitions as presented. To ensure that the rules for the 70/80 GHz bands enable the bands to be put to efficient use, the Commission should deny or defer consideration of Aeronet's Petitions.

Respectfully submitted,

/s/ Steve B. Sharkey

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March 11, 2019

**CERTIFICATE OF SERVICE**

I, Radhika U. Bhat, hereby certify that on March 11, 2019 a copy of the foregoing Opposition of T-Mobile USA, Inc. was served by first-class mail, postage paid, on the following:

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/s/ Radhika U. Bhat  
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