

November 6, 2020

**VIA ELECTRONIC FILING**

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
45 L Street, N.E.  
Washington, DC 20554

Re: *RM-11768*

Dear Ms. Dortch:

This proceeding was initiated in 2016 by a petition for rulemaking that proposes to remove non-geostationary orbit fixed-satellite service (“NGSO FSS”) systems such as the one deployed by Space Exploration Holdings, LLC (“SpaceX”) from the 12.2-12.7 GHz band (the “12 GHz Band”) so that new rights can be bestowed for free upon Multichannel Video and Data Distribution Service (“MVDDS”) licensees.<sup>1</sup> Throughout this proceeding, the MVDDS licensees have reiterated that “coexistence between MVDDS 5G operations and NGSO FSS operations is not possible.”<sup>2</sup> These conclusions were confirmed as recently as December 2019, when Dish Network (the largest MVDDS licensee) stated categorically that “concurrent sharing of spectrum between co-primary 5G and NGSO FSS operations is not viable in the 12 GHz Band.”<sup>3</sup>

The 12 GHz Band has been a dramatic success story for the Commission and for the power of spectrum sharing. The band is used by multiple licensees across multiple services. The MVDDS licensees and the groups they support have been demanding the Commission undermine this success. As part of this campaign, some parties supported by the MVDDS licensees have urged the Commission to initiate a rulemaking with a “neutral” proposal that would grant new rights to MVDDS operators but also purport to protect the rights of other users of the band. The latest such filing was submitted by Federated Wireless, Inc. (“Federated”), which claims “industry confidence in the ability of dynamic spectrum sharing technologies to enable new and innovative uses in a spectrum, while protecting incumbent operations.”<sup>4</sup> Federated provided no technical evidence to support

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<sup>1</sup> MVDDS 5G Coalition Petition for Rulemaking to Permit MVDDS Use of the 12.2-12.7 GHz Band for Two-Way Mobile Broadband Service, RM-11768 (filed Apr. 26, 2016).

<sup>2</sup> Tom Peters, MVDDS 12.2-12.7 GHz Co-Primary Service Coexistence (June 8, 2016) *as attached to* Comments of MVDDS 5G Coalition at Attachment I, File No. RM-11768 (filed June 8, 2016).

<sup>3</sup> Letter from Alison Minea, DISH Network L.L.C., to Marlene H. Dortch, Secretary, FCC, IBFS File No. SAT-MOD-20180319-00022, File No. RM-11768, at 3 (filed Dec. 2, 2019).

<sup>4</sup> Letter from Jennifer M. McCarthy to Marlene H. Dortch, RM-11768, at 1 (filed Nov. 3, 2020) (“Federated Ex Parte”).

this claim or to explain why the previous technical studies submitted by the MVDSS licensees demonstrating that co-existence was not possible were faulty. Instead, the only support Federated provided is a citation to the use of dynamic spectrum sharing techniques in the Citizens Broadband Radio Service (“CBRS”), which operates in the 3.55-3.70 GHz band (the “3.5 GHz Band”). Yet even a cursory review of the rules adopted to enable CBRS demonstrates that they could not be applied to this proceeding – and if they were, it would cause significant harm to NGSO satellite customers in the 12 GHz Band.

Federated seems unaware of critical distinctions between the 12 GHz and 3.5 GHz bands, including that, unlike the 3.5 GHz Band, the 12 GHz Band is already heavily used for mass consumer services. In contrast, very few FSS earth stations were licensed in the 3.5 GHz Band, and all of them were authorized on an individual basis, before the Commission adopted the mobile allocation for CBRS. The minimal deployment in the band resulted because FSS use was limited to international inter-continental systems and was subject to case-by-case electromagnetic compatibility analysis.<sup>5</sup> To accommodate CBRS, the Commission decided to grant certain protections to the few earth stations authorized or pending prior to the rulemaking, so long as they registered their operating parameters on an annual basis. The Commission deemed the information in these registrations essential to the ability of spectrum coordinators to protect these grandfathered locations.<sup>6</sup> Critically, all *future* earth stations in the band would be secondary to CBRS.<sup>7</sup>

In contrast, the 12 GHz Band is already intensively licensed for use by consumers of satellite television and satellite broadband. Hence, a similar addition of exclusive licenses could not be applied to the 12 GHz Band for two reasons. First, relegating future NGSO FSS and Direct Broadcast Satellite (“DBS”) deployment to secondary status would effectively preclude satellite development of this band.<sup>8</sup> Without protection, consumer units would be subject to interference from terrestrial 12 GHz operations with no recourse. This would be especially devastating for NGSO operators like SpaceX, which are now deploying earth stations after investing hundreds of millions of dollars in development and launch of the required infrastructure. Yet Federated would consign future customers to secondary status, effectively preventing them from benefiting from the service. Thus, Federated’s assertion that the sharing techniques used for CBRS would “allow[] existing services to continue to operate *and evolve unimpeded*” is patently incorrect.<sup>9</sup> To the contrary, if the Commission were to effectively freeze earth station deployment by only

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<sup>5</sup> See generally *Amendment of the Commission’s Rules with Regard to Commercial Operations in the 3550-3650 MHz Band*, 30 FCC Rcd. 3959, ¶ 18 (2015) (“*CBRS Allocation Order*”) (discussing allocation history).

<sup>6</sup> See *Amendment of the Commission’s Rules with Regard to Commercial Operations in the 3550-3650 MHz Band*, 31 FCC Rcd. 5011, ¶ 157 (2016) (“In order for the SAS to adequately protect FSS incumbents, it must be able to access detailed information on the technical and operational characteristics of each FSS earth station seeking protection.”).

<sup>7</sup> See *CBRS Allocation Order* ¶ 34; 47 C.F.R. § 2.106 n.US107.

<sup>8</sup> AT&T has authoritatively documented “the interference threat to DBS posed by two-way co-channel terrestrial services” that the MVDDS parties propose. See Letter from Michael P. Goggin to Marlene H. Dortch, RM-11768 (filed Oct. 16, 2020).

<sup>9</sup> Federated Ex Parte at 1 (emphasis added).

protecting grandfathered antennas, it would strangle this new service in its infancy and deny currently unserved consumers the broadband service they need.

Second, satellite earth stations in this band are authorized on a blanket basis, deployed ubiquitously, and only use the band to receive signals from satellites. These conditions apply not only to NGSO FSS systems such as SpaceX,<sup>10</sup> but also to tens of millions of DBS antennas currently deployed throughout the country. Under the terms of these blanket licenses, consumers are free to use the units wherever they want, including moving the units after initial installation. And because most DBS units have been installed by third parties at consumers' homes, the operators themselves do not have the information necessary to register them as contemplated in the CBRS rules. Yet, Federated has not even suggested how it would accomplish the tracking of consumer deployments required to achieve the real-time coordination it suggests or how it would grapple with the privacy implications of such a tracking system. Moreover, protecting such mass-market deployments would leave little (if any) room for a new 12 GHz mobile service to operate.

To be clear, SpaceX supports spectrum sharing and shares every megahertz for which it is licensed. The 12 GHz Band is already home to extensive sharing across multiple operators and multiple services. But what the MVDDS industry and Federated propose is not spectrum sharing – it is spectrum expropriation.

Very best regards,

*/s/ David Goldman*

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<sup>10</sup> For example, SpaceX has a blanket authorization to deploy up to 1,000,000 earth stations at any location throughout the United States. See Radio Station Authorization, IBFS File No. SES-LIC-20190211-00151 (granted Mar. 13, 2020).