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July 24, 2012

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

Re: IB Docket No. 97-95, Spectrum for Fixed-Satellite Services in the 37.5-38.5 GHz, 40.5-41.5 GHz and 48.2-50.2 GHz Frequency Bands

Ex Parte Communication

Dear Ms. Dortch:

On behalf of the Fixed Wireless Communications Coalition (FWCC), ¹ pursuant to Section 1.1206(b)(2) of the Commission's Rules, I am electronically filing this written *ex parte* communication in the above-referenced docket.

The FWCC is a coalition of companies, associations, and individuals interested in the Fixed Service—i.e., in terrestrial fixed microwave communications. Our membership includes manufacturers of microwave equipment, fixed microwave engineering firms, licensees of terrestrial fixed microwave systems and their associations, and communications service providers and their associations. The membership also includes railroads, public utilities, petroleum and pipeline entities, public safety agencies, cable TV providers, backhaul providers, -and/or their respective associations, communications carriers, and telecommunications attorneys and engineers. Our members build, install, and use both licensed and unlicensed point-to-point, point-to-multipoint, and other fixed wireless systems, in frequency bands from 900 MHz to 95 GHz. For more information, see www.fwcc.us.

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The FWCC supports deletion of the Broadcast-Satellite Service (BSS) allocation at 42-42.5 GHz, and opposes a Fixed Satellite Service (FSS) allocation in that band.

This submission is further to the FWCC's recent Petition for Rulemaking in RM-11664, which requests service rules for the Fixed Service (FS) at 42-42.5 GHz in conformance with an existing FS allocation.²

In the interest of maximum transparency, the FWCC is serving both the present *ex parte* letter and its Reply Comment in RM-11664 on each party cited below.

A. BSS ALLOCATION

There is no support in the docket for maintaining the BSS allocation at 42-42.5 GHz. All of the filed comments that take a position on the issue favor deleting the allocation. We note, moreover, that the ubiquitous downlinks that are characteristic of BSS are incompatible with FS operations. The FWCC thus concurs in the consensus to delete the allocation.

B. FSS ALLOCATION

The *V-Band Third Notice* cautiously suggests a possible, additional 42-42.5 GHz allocation to FSS, while noting that the band is not paired with any other, and so may be of limited use.³ The Commission asks particularly whether such an allocation is necessary to promote the band sharing arrangement it adopted in the *V-Band Second Report and Order*.⁴ It proposes limiting the use of any such allocation to narrow spot-beams serving a small number of gateway earth stations, with power limitations,⁵ and asks how gateway earth stations could take advantage of additional spectrum in this band.⁶

So far as we can tell, a 42-42.5 GHz FSS allocation would neither support nor hinder the other band usages laid out in the *V-Band Second Report and Order*. Nothing in the record suggests the allocation is needed in order for other parts of the band plan to be effective. Of the three parties that favor the allocation,

Service Rules for the Fixed Service in the 41.0-42.5 GHz Band, Petition for Rulemaking of the Fixed Wireless Communications Coalition in RM-11664 (filed May 9, 2012). That Petition originally sought FS service rules for the 41-42 GHz band as well, but the FWCC withdraws that portion of the request in Reply Comments filed today, July 24, 2012.

³ Spectrum for Fixed-Satellite Services in the 37.5-38.5 GHz, 40.5-41.5 GHz and 48.2-50.2 GHz Frequency Bands, Third Notice of Proposed Rulemaking, 25 FCC Rcd 15663 at ¶ 17 (2010) (V-Band Third Notice).

⁴ Id. at ¶ 19, citing 18 FCC Rcd 25428 (2003) (V-Band Second Report and Order).

⁵ V-Band Third Notice at ¶ 14, and Appendix A.

⁶ V-Band Third Notice at \P 19.

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none ties its support to the overall band-sharing scheme. Two of those parties—the Satellite Industry Association and Telesat Canada—foresee use of the band for gateway earth stations, ⁷ but neither offers any specificity as to what operations the gateways might support. Nor does either respond to the Commission's query on how gateway earth stations could take advantage of additional spectrum in the band.

Alone among the satellite parties, ViaSat favors use of the 42-42.5 GHz band not for gateways, but for data service to the public, and as a substitute for direct-to-home BSS video services. While ViaSat acknowledges the need to protect radio astronomy operations, it does not extend the same consideration to the FS, which has a primary allocation and designation in the band.

A later ViaSat filing exacerbates the issue by misunderstanding the impact of an FSS allocation on the FS. ViaSat tries to argue that FSS downlink earth stations would pose no threat of harmful interference to FS receivers. ¹⁰ This is correct as far as it goes, but overlooks a much bigger problem. If FSS and FS have co-primary allocations in the band, the FS will ordinarily be obliged to prevent harmful interference into FSS earth stations. The FS has learned the hard way that ubiquitous downlink earth stations can preclude frequency coordination across large areas. The 3.7-4.2 GHz band, for example, although nominally co-primary between the FS and FSS C-band downlinks, in practice is essentially closed to the FS due to a very large number of registered downlink earth stations, each entitled to interference protection. A pending application for multiple downlink earth stations in the 41-42 GHz band prompted the FWCC to withdraw its request for service rules in that band, again notwithstanding a co-primary FS allocation. ¹¹

Although ViaSat refers obliquely to FSS earth station licensees forgoing interference protection from FS transmitters, ¹² nowhere does ViaSat state that it seeks or would accept such non-protection as a condition of an FSS allocation at 42-*42.5 GHz. A provision denying FSS earth stations protection from FS transmitters would resolve the FS frequency coordination problem. But it would also make the band far less valuable for FSS use and, we suspect, could lead to future requests to rebalance the rights of the various users. On the whole, ubiquitous FSS downlinks and FS operations are simply a bad match.

Reply Comments of ViaSat, Inc. at 3 (filed Feb. 7, 2011).

⁷ Comments of the Satellite Industry Association at 4-6 (filed Jan. 6, 2011); Comments of Telesat Canada at 2-3 (filed Jan. 6, 2011).

⁸ Comments of ViaSat, Inc. at 4-5 (filed Jan. 6, 2011).

⁹ *Id.* at 5.

Reply Comments of the Fixed Wireless Communications Coalition in RM-11664 (filed July 24, 2012).

Comments of ViaSat, Inc. at 7 (filed Jan. 6, 2011); Reply Comments of ViaSat, Inc. at 4 (filed Feb. 7, 2011).

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ViaSat also asks the Commission to rule that "mobile satellite terminals"—specifically, earth stations on vessels, vehicle-mounted earth stations, and aircraft earth stations—operating anywhere in the V band are FSS applications. The FWCC opposes this request, which would double and redouble the difficulties of FS frequency coordination in the band. The Commission labored for years to arrive at rules for earth stations vessels in shard C-band FS/FSS spectrum, ¹⁴ and even then arrived at outcomes that imposed severe restrictions on ESVs without fully resolving the concerns of FS users. The Commission should not try to pick its way down this difficult path yet again.

For all of the above reasons, the Commission should set aside its proposal for an FSS allocation at 42-42.5 GHz. In the alternative, if the Commission does make such an allocation, it should limit use of the band to narrow spot beams for communicating with a small number of gateway earth stations and impose power limitations, in keeping with the current sharing arrangements below 40 GHz.¹⁵

Please do not hesitate to contact me with any questions.

Respectfully submitted,

Mitchell Lazarus

Counsel for the Fixed Wireless Communications Coalition

Mulchel Rosarus

cc: Courtesy Service List

Comments of ViaSat, Inc. at 5 (filed Jan. 6, 2011).

See generally IB Docket No. 02-10.

¹⁵ *V-Band Third Notice* at ¶ 18 and Appendix A.

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