

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554**

In the Matter of)	
)	
Update to Parts 2 and 25 Concerning Non-)	IB Docket No. 16-408
Geostationary, Fixed-Satellite Service)	
Systems and Related Matters)	

REPLY OF IRIDIUM SATELLITE LLC

In its petition for reconsideration, Viasat, Inc. (“Viasat”) has asked the Commission to designate the 19.4-19.6 GHz and 29.1-29.25 GHz bands (the “MSS Feeder Link Bands”) for use by the fixed-satellite service (“FSS”). As Iridium has explained¹ and as the Commission previously concluded²—and as FSS operators once were willing to concede themselves³—Viasat’s proposal plainly falls outside the scope of this rulemaking and thus must be rejected.

That fatal limitation has not stopped OneWeb, and SES Americom, Inc. and its affiliate O3b Limited (together, “SES/O3b”), from expressing perfunctory support for Viasat’s petition.⁴ As explained below, however, neither operator manages to move the needle even slightly in Viasat’s direction. OneWeb and SES/O3b have not explained why they disagree with the Commission’s decision as to the scope of the *NPRM*,⁵ and their conclusory statements about the feasibility of Viasat’s proposal are unsupported and beside the point. Accordingly, the

¹ Opposition of Iridium Satellite LLC, IB Docket No. 16-408 (filed Feb. 20, 2018) (“Iridium Opposition”).

² *Update to Parts 2 and 25 Concerning Non-Geostationary, Fixed-Satellite Service Systems and Related Matters*, Report and Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd. 7809, 7815 ¶ 18 n.40 (2017) (*NGSO R&O*).

³ See Comments of SES S.A. and O3B Limited at 14-15, IB Docket No. 16-408 (filed Feb. 27, 2017) (“SES/O3b Comments”); Comments of Viasat, Inc. at 9-10, IB Docket No. 16-408 (filed Feb. 27, 2017).

⁴ Opposition and Response of SES Americom, Inc. and O3b Limited to Petitions for Reconsideration at 1-2, IB Docket No. 16-408 (filed Feb. 20, 2018) (“SES/O3b Opposition”); Comments of WorldVu Satellites Limited at 2, 3-4, IB Docket No. 16-408 (filed Feb. 20, 2018) (“OneWeb Comments”).

⁵ *Update to Parts 2 and 25 Concerning Non-Geostationary, Fixed-Satellite Service Systems and Related Matters*, Notice of Proposed Rulemaking, 31 FCC Rcd. 13651, 13655, 13657 ¶¶ 8, 13 (2016) (“*NPRM*”).

Commission should deny Viasat’s petition, and should stay the course on its approach to FSS use of the non-geostationary satellite orbit (“NGSO”) mobile-satellite service (“MSS”) feeder-link bands.

I. OneWeb and SES/O3b Fail to Demonstrate that the MSS Feeder Link Bands Fall Within the Scope of This Proceeding.

In the *NGSO R&O*, the Commission rejected proposals to designate the MSS Feeder Link Bands for FSS use because the “issue falls outside the scope of the present rulemaking.”⁶ As Iridium explained in its opposition to Viasat’s petition, the Commission’s determination was clearly correct.⁷ In the *NPRM*, the Commission proposed to allow FSS operations in Ka-band spectrum that was designated for NGSO MSS feeder-link operations *but unused* by NGSO MSS feeder links.⁸ Because the MSS Feeder Link Bands are used by Iridium, the Commission *expressly* excluded them from its proposal.⁹ That is why the *NPRM*, when enumerating the frequencies it proposed for expanded FSS operations, made no mention of the MSS Feeder Link Bands.¹⁰ It is also why the *NPRM* does not explore any of the band-specific issues, such as sharing with incumbent operations, that the Commission would have to address even to consider whether FSS operations should be permitted in the MSS Feeder Link Bands.

Importantly, because the Commission clearly explained its rationale for excluding the MSS Feeder Link Bands, it foreclosed any argument that final rules permitting FSS operations in that spectrum would be consistent with its proposal. Again, the Commission twice explained that it was proposing only to “make available for FSS systems spectrum currently designated for,

⁶ *NGSO R&O* ¶ 18 n.40.

⁷ Iridium Opposition at 1-3.

⁸ *Id.* at 3; *NPRM* ¶¶ 8, 13.

⁹ *NPRM* ¶ 7.

¹⁰ *Id.* ¶ 8.

but never used by, NGSO MSS feeder links.”¹¹ The Commission then observed that the MSS Feeder Link Bands did not meet the criteria it had established, because they have been used by Iridium’s NGSO MSS feeder links for decades, and would be used in the future to support Iridium’s second-generation constellation, Iridium NEXT (and with forty Iridium NEXT satellites already in orbit, that future is now).¹² There is simply no credible argument that the *NPRM* left open the question of whether to allow FSS use of the MSS Feeder Link Bands. The Commission said as plainly as possible that the MSS Feeder Link Bands were off the table.¹³

Notwithstanding the *NPRM*’s clarity, Viasat’s petition claimed that the *NPRM* contained “specific language” expressing a “clear intent” to open the MSS Feeder Link Bands to FSS use, and that final rules of that kind would somehow reflect a “logical outgrowth” of the *NPRM*.¹⁴ But as Iridium explained, Viasat’s heavy editorializing of the *NPRM* was misleading at best, and the language referenced by Viasat, when viewed in context, merely underscored the conscious exclusion of the MSS Feeder Link Bands from the Commission’s proposal.¹⁵ Iridium also pointed out that Viasat’s novel interpretation of the logical outgrowth doctrine was incorrect and irrational, and, if accepted by the Commission, would effectively eliminate notice and comment requirements altogether.¹⁶

Although OneWeb and SES/O3b now express nominal support for Viasat’s proposal, they fail to salvage Viasat’s blatant misinterpretation of the *NPRM*. In fact, they barely

¹¹ *Id.* ¶ 8; *see also id.* ¶ 13.

¹² *Id.* ¶ 7 (“Iridium Constellation LLC operates feeder links in the 19.4-19.6 GHz and 29.1-29.3 GHz sub-bands for its current NGSO MSS constellation, and has requested and been authorized for the same frequencies on its upcoming second-generation constellation.”).

¹³ *See* Iridium Opposition at 1-4.

¹⁴ Petition for Reconsideration of Viasat, Inc. at 6, IB Docket No. 16-408 (filed Jan. 17, 2018).

¹⁵ *See* Iridium Opposition at 3-9.

¹⁶ *Id.* at 8-9.

undertake the admittedly impossible task of arguing that the Commission was wrong when it ruled that the MSS Feeder Link Bands fall outside the scope of the present rulemaking.

SES/O3b simply asserts “that considering th[e] allocation [of the MSS Feeder Link Bands] is within the scope of the Commission’s NGSO NPRM.”¹⁷ But in support, SES/O3b does nothing but cite Viasat’s flawed petition. Moreover, battling selective amnesia, SES/O3b does not even explain how its current position comports with the contrary position it took while the rulemaking was pending. In its comments, SES/O3b plainly admitted that the MSS Feeder Link Bands were “*not* proposed by the Commission” for FSS use in the *NPRM*.¹⁸

OneWeb, for its part, just ignores the issue, even though the limited scope of the rulemaking was the Commission’s basis for declining Viasat’s proposal in the *NGSO R&O*.¹⁹ Accordingly, there is nothing new on the record to support Viasat’s misguided petition.

II. SES/O3b and OneWeb’s Other Arguments About FSS Use of the MSS Feeder Link Bands Can Be Disposed of Promptly.

SES/O3b and OneWeb briefly argue it would be feasible to permit FSS operations in the MSS Feeder Link Bands. But their argument about the disruption of Iridium’s primary operations are conclusory and lack technical support.²⁰ For that reason alone, the Commission should reject their arguments.

Nevertheless, while an extended debate on these issues remains beyond the scope of this proceeding, it may be helpful to remind the Commission of some of the many reasons why NGSO MSS feeder-link designations remain worthy of continued protection. First, SES/O3b and OneWeb grievously understate how crowded the NGSO MSS feeder-link bands have

¹⁷ SES/O3b Opposition at 4.

¹⁸ SES/O3b Comments at 14.

¹⁹ *See generally* OneWeb Comments.

²⁰ *See* SES/O3b Opposition at 5; OneWeb Comments at 4.

become. As Iridium has explained, it already shares a portion of its uplink feeder link band with multiple GSO networks, and some of those networks support both gateway earth stations and user terminals in the United States.²¹ Moreover, the number of these networks and earth stations continues to rise, making NGSO-GSO interference assessments, and the establishment of corresponding interference protection criteria, increasingly complex even with Iridium's existing ground infrastructure.²²

SES/O3b and OneWeb also fail to acknowledge the importance of preserving expansion capabilities for Iridium's MSS constellation, which the Commission already has recognized as a reason to proceed cautiously when considering non-conforming GSO FSS operations in the MSS Feeder Link Bands.²³ That reasoning applies even more strongly to non-conforming uses by NGSO systems in the FSS, because coordination between Iridium and other NGSO networks is dramatically more complex than with GSO networks.

Moreover, SES/O3b and OneWeb fail to recognize that the Commission's approach to the MSS Feeder Link Bands protects not only Iridium's system, but also an entire special service designation. Although Iridium currently holds the only NGSO MSS feeder-link license in this spectrum, the bands will grow more crowded in the future if pending requests from other operators to use the bands for NGSO MSS feeder links are approved. Because of the challenges inherent in sharing spectrum among multiple large NGSO systems, the introduction of new NGSO MSS constellations would add significant complexity to the interference environment in these bands.

²¹ Iridium Opposition at 9-10.

²² *Id.*

²³ *Inmarsat Mobile Networks, Inc., Application to Operate a Fixed-Satellite Service Gateway Earth Station Facility in Lino Lakes, Minnesota with the Inmarsat-5 F2 Space Station*, Order and Authorization and Declaratory Ruling, 30 FCC Rcd. 2770, 2776 ¶ 18 (IB and OET 2015) (cautioning that non-conforming FSS access to the 29.1-29.25 GHz band "may not be compatible with the deployment of new Iridium earth stations," and that "[a]ny future Commission grant for ... use of the band will consider the aggregate effect on Iridium and LMDS and will not be approved based only on the interference caused by the new earth station(s) being proposed").

Finally, the self-serving proposals of FSS operators must be viewed in the context of the Commission's band plans as a whole. There is dramatically more spectrum available for FSS operations than for NGSO MSS feeder links. And while FSS operators like OneWeb, Viasat, and SES/O3b seek access to multiple *gigahertz* of spectrum for their satellite constellations, Iridium continues to support an entire network providing critical services to approximately one million users everywhere on earth in only 200 MHz of feeder-link spectrum in each direction.

CONCLUSION

The Commission correctly determined that the MSS Feeder Link Bands are beyond the scope of this proceeding, and neither SES/O3b, OneWeb, nor Viasat provide any good reason to reconsider. Moreover, the Commission should reject SES/O3b and OneWeb's unsupported arguments about the feasibility of expanded FSS use of the MSS Feeder Link Bands.

Respectfully submitted,



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CERTIFICATE OF SERVICE

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