

**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)	

OPPOSITION OF IRIDIUM SATELLITE LLC

The Commission recently adopted rules to facilitate the deployment of non-geostationary satellite orbit (“NGSO”) systems in the fixed-satellite service (“FSS”).¹ Those rules include targeted revisions to the Ka-band plan that made much of the spectrum designated for NGSO mobile-satellite service (“MSS”) feeder links newly available for FSS operations. Now Viasat, an FSS operator, asks for even more on reconsideration.² Viasat’s petition is nothing more than a naked grab for spectrum that plainly falls beyond the scope of this proceeding, as the Commission already has determined. Accordingly, the Commission should promptly deny the petition.

I. Viasat’s Proposal Exceeds the Scope of This Proceeding.

In the *NGSO R&O*, the Commission declined Viasat’s proposal to designate the 19.4-19.6 GHz and 29.1-29.25 GHz bands (the “MSS/Iridium Feeder Link Bands”) for FSS use, finding that the “issue falls outside the scope of the present rulemaking.”³ Viasat claims that the Commission’s determination is “belied” by the “clear intent” and “specific language” of the *NPRM*, and asks the Commission to permit FSS use of the spectrum on that basis.⁴

¹ *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, FCC 17-122 (rel. Sept. 27, 2017) (“*NGSO R&O*”).

² Petition for Reconsideration of Viasat, Inc., IB Docket No. 16-408 (filed Jan. 17, 2018) (“Petition”).

³ *NGSO R&O* ¶ 18 n.40.

⁴ Petition at 6.

As explained below, however, the Commission’s determination was entirely correct. In the *NPRM*, the Commission did not simply *neglect* to propose the MSS/Iridium Feeder Link Bands for FSS use. It expressly *excluded* the MSS/Iridium Feeder Link Bands from its proposal. The Commission determined that only *unused* portions of NGSO MSS feeder-link spectrum would be considered for new FSS operations, and that the MSS/Iridium Feeder Link Bands, which are used by Iridium, therefore did not make the cut. *That* was the “clear intent” of the Commission’s approach to NGSO MSS feeder-link spectrum in this proceeding, and Viasat’s attempts to prove otherwise rely on a fictionalized redrafting of the *NPRM* that must be rejected.

A. The *NPRM* Expressly Excluded the MSS/Iridium Feeder Link Bands.

In the *NPRM*, the Commission proposed to allow new FSS operations in a handful of frequency bands without an FSS allocation or where FSS use had been curtailed or precluded. The Commission identified the spectrum subject to potential rule changes as clearly and as explicitly as it reasonably could. First, the Commission specifically enumerated the bands under consideration. It “propos[ed] to reinstate certain secondary FSS use in the 17.8-20.2 GHz band and to allow new FSS operations in the 19.3-19.4 GHz, 19.6-19.7 GHz, and 29.3-29.5 GHz bands.”⁵ Then, for each of those bands, and for those bands only, the Commission proceeded to explain the suitability of the spectrum for FSS operations, and to seek comment on band-specific issues raised by existing operations.⁶

None of those bands include the MSS/Iridium Feeder Link Bands that are the subject of Viasat’s petition. And at no point does the *NPRM* even broach the question of how band-specific issues, such as sharing with Iridium’s incumbent operations, might be managed if NGSO FSS

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 ¶ 8 (2016) (“*NPRM*”).

⁶ *Id.* ¶¶ 9-13.

operations were permitted. Thus, as evidenced by the *NPRM*'s "specific language," the MSS/Iridium Feeder Link Bands plainly fall outside the scope of the rulemaking.

Viasat would like the Commission to believe that the omission of the MSS/Iridium Feeder Link Bands was somehow mistaken, and contradicts an unspoken intent to include that spectrum in its proposal.⁷ But as the Commission is well-aware, that simply is not the case. The *NPRM* clearly explains that among all Ka-band spectrum currently designated for NGSO MSS feeder links, the Commission was proposing only to "make available for FSS systems spectrum currently designated for, *but never used by*, NGSO MSS feeder links."⁸ Applying that criteria, the Commission recognized that the MSS/Iridium Feeder Link Bands have been used by Iridium's NGSO MSS feeder links for decades, and therefore would not be considered for FSS use.⁹ And as if explaining its approach once were not enough, the Commission repeated it when discussing the details of rule changes to govern unused NGSO MSS feeder-link spectrum. Using familiar language, the Commission reiterated that it was "propos[ing] to permit both GSO and NGSO FSS systems to operate in" all NGSO MSS feeder-link spectrum *except* for the MSS/Iridium Feeder Link Bands, specifically "the 19.3-19.4 GHz, 19.6- 19.7 GHz, and 29.3-29.5 GHz bands currently designated for, *but unused by*, NGSO MSS feeder links."¹⁰

B. Viasat's Arguments to the Contrary Are Based on a Fictionalized Version of the *NPRM*.

In comments filed in response to the *NPRM*, several FSS operators, including Viasat, asked the Commission to allow FSS operations in the MSS/Iridium Feeder Link Bands, notwithstanding

⁷ Petition at 6.

⁸ *NPRM* ¶ 8 (emphasis added). See also *id.* ¶ 13.

⁹ *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.").

¹⁰ *Id.* ¶ 13.

their express exclusion from the proposal. At the time, these operators—again including Viasat—had the candor to acknowledge that they were asking for relief that the Commission never proposed. In no uncertain terms, SES and O3b conceded that FSS operations in the MSS/Iridium Feeder Link Bands were “not proposed by the Commission.”¹¹ Even Viasat recognized that the *NPRM* “d[id] not address” changes to the MSS/Iridium Feeder Link Bands.¹²

That candor has given way to mindless chicanery on reconsideration. With an imaginative reinterpretation of the *NPRM*, Viasat takes the Commission on a journey to discover “specific language” demonstrating a “clear intent” to permit FSS operations in the MSS/Iridium Feeder Link Bands.¹³ But none of the passages on Viasat’s meandering tour of the *NPRM* comes even close to suggesting that the MSS/Iridium Feeder Link Bands were under consideration. When viewed in their entirety and without Viasat’s sly editorializing, they merely underscore the Commission’s conscious exclusion of the MSS/Iridium Feeder Link Bands.

1. Paragraphs 7 and 8 of the *NPRM*.

First, Viasat claims that paragraphs 7 and 8 of the *NPRM* express “the Commission’s intent to allow secondary FSS use of portions of the Ka band allocated for use by NGSO MSS feeder links in order to increase spectral efficiency,” including “the 19.4-19.6 GHz and 29.1-29.25 GHz band segments [i.e., the MSS/Iridium Feeder Link Bands] [that] are allocated for NGSO MSS feeder links.”¹⁴ While Viasat’s interpretation happens to use some of the words that the *NPRM* uses, Viasat reorders them, excises unhelpful language, and adds some fiction.

Paragraph 7 explains that while some NGSO MSS feeder-link bands have been entirely unused by NGSO MSS operators, others are currently in use by Iridium:

¹¹ Comments of SES and O3b Limited at 14, IB Docket No. 16-408 (filed Feb. 27, 2017).

¹² Comments of Viasat, Inc. at 9, IB Docket No. 16-408 (filed Feb. 27, 2017).

¹³ Petition at 6.

¹⁴ *Id.*

7. *NGSO MSS Feeder Links*. In addition, since 1996, only one licensee has made use of the designation for NGSO MSS feeder links in the 19.3-19.7 GHz and 29.1-29.5 GHz bands. 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. The 19.3-19.4 GHz, 19.6-19.7 GHz, and 29.3-29.5 GHz bands, in contrast, have not been used by any NGSO MSS licensee in the United States.

Then, in paragraph 8, the *NPRM* excludes the 19.4-19.6 GHz and 29.1-29.3 GHz bands from consideration precisely because of their existing use by Iridium:

8. *Proposal Overview*. In light of the waiver decisions subsequent to the 2000 *18 GHz Order*, and to promote more flexible use of the spectrum, we propose to reinstate certain secondary FSS use in the 17.8-20.2 GHz band and to allow new FSS operations in the 19.3-19.4 GHz, 19.6-19.7 GHz, and 29.3-29.5 GHz bands. This proposal would codify existing practices and formally enable the spectrum use proposed by NGSO FSS broadband constellations currently pending before the Commission. It would further make available for FSS systems spectrum currently designated for, but never used by, NGSO MSS feeder links.

Thus, when viewed as they are actually written, these paragraphs explicitly distinguish the unused portions of MSS feeder-link spectrum from those in use by Iridium, and make clear that only the former will be considered for new FSS operations. As a result, they do not reveal an unstated intent to allow FSS operations in the MSS/Iridium Feeder Link Bands, but rather a manifest intent to do no such thing.

2. “Codifying existing practices” and the “the spectrum use proposed” in pending NGSO FSS system applications.

Second, Viasat suggests that the Commission’s exclusion of the MSS/Iridium Feeder Link Bands must have been an oversight because “the *NPRM* . . . notes the Commission’s intent to ‘codify existing practices’ so as to ‘formally enable the spectrum use proposed by NGSO FSS broadband constellations currently pending before the Commission.’”¹⁵ Here, too, Viasat siphons words away from their context and forces the Commission to review snippets of text in a vacuum.

¹⁵ *Id.* (quoting *NPRM* ¶ 8).

Viasat fails to mention that the “existing practices” that the *NPRM* proposes to “codify” are the non-conforming uses of spectrum by the FSS as granted by the International Bureau’s recent waivers. Those waivers, which the *NPRM* describes at length in paragraph 6, permitted FSS operations in the 17.8-18.3 GHz, 18.3-18.6 GHz, 18.8-19.3 GHz, and 19.7-20.2 GHz bands—and *not* in the MSS/Iridium Feeder Link Bands.¹⁶

Viasat also ignores that the Commission cited specific NGSO system applications when it observed that its proposal would “formally enable the spectrum use proposed by NGSO FSS broadband constellations [then] pending before the Commission.”¹⁷ Both applications cited by the Commission sought authority to operate in bands specifically proposed in the *NPRM*. Neither one, however, sought authority to operate in the MSS/Iridium Feeder Link Bands.¹⁸

3. Paragraph 13 of the *NPRM*.

Third, Viasat claims that “Paragraph 13 of the *NPRM* specifically proposes to allow FSS use of certain band segments that are allocated for NGSO MSS feeder links but underutilized for that purpose,” including the MSS/Iridium Feeder Link Bands.¹⁹ Again, Viasat simply ignores what the *NPRM* actually says. In paragraph 13, the Commission “propose[d] to permit both GSO and NGSO FSS systems to operate in the 19.3-19.4 GHz, 19.6- 19.7 GHz, and 29.3-29.5 GHz bands currently designated for, but unused by, NGSO MSS feeder links,”—i.e., all Ka-band NGSO MSS feeder-link spectrum that could be opened to FSS use *except for the MSS/Iridium Feeder Link Bands*.²⁰ Although Viasat may view the MSS/Iridium Feeder Link Bands as “underutilized” for its own purposes, the Commission did not share that view in the *NPRM*. Precisely because the

¹⁶ *NPRM* ¶ 6.

¹⁷ *Id.* ¶ 8.

¹⁸ *See id.* n.24; WorldVu Satellites Limited, IBFS File No. SAT-LOI-20160428-00041 (filed Apr. 28, 2016); Telesat Canada, IBFS File No. SAT-PDR-20161115-00108 (filed Nov. 15, 2016).

¹⁹ Petition at 6.

²⁰ *NPRM* ¶ 13. The 29.25-29.3 GHz sub-band is already available for FSS operations.

MSS/Iridium Feeder Link Bands are used by Iridium, the *NPRM* expressly excluded them from use by the FSS.

4. Paragraph 17 of the *NPRM*.

Viasat offers one final argument in its search for “specific language” expressing a “clear intent” to open the MSS/Iridium Feeder Link Bands to FSS services. It claims that its proposal to permit FSS access in the MSS/Iridium Feeder Link Bands “is responsive” to the Commission’s request in “Paragraph 17 of the *NPRM*,” which seeks comment on ““additional technical rules or other means by which we can facilitate additional sharing in these bands.””²¹ While Viasat portrays the Commission’s request as a catch-all invitation for comment, a full reading of the paragraph demonstrates that it was no such thing. Paragraph 17 unequivocally states that the Commission was seeking comment on how NGSO FSS “systems can share spectrum with *other non-satellite systems*”—and not how Viasat’s GSO FSS systems can share with Iridium.²² Moreover, by limiting its request to “these bands” and “this spectrum,” the Commission clearly invited input on sharing only in frequencies actually proposed for FSS use. And again, none of that spectrum includes the MSS/Iridium Feeder Link Bands.²³

C. The “Logical Outgrowth” Doctrine Is No Help to Viasat.

There is perhaps a more fundamental reason why Viasat’s fanciful reconstruction of the *NPRM* fails at each turn. To succeed in its argument, Viasat must transform a proposal to permit FSS operations in all NGSO MSS spectrum *except* the spectrum used by Iridium into a proposal to permit FSS operations in all NGSO MSS spectrum *including* the spectrum used by Iridium.

²¹ Petition at 7 (quoting *NPRM* ¶ 17).

²² *NPRM* ¶ 17 (emphasis added).

²³ *Id.*

That, of course, is an impossible task. Those two proposals do not just differ in some respects. They are, as a logical matter, mutually exclusive.

Viasat nevertheless claims that its proposal is a “logical outgrowth” of the *NPRM* because Iridium had “more than ‘fair notice’ that proposals like Viasat’s could be entertained and adopted.”²⁴ Not so. Iridium had no reason to believe that the Commission would do precisely what it proposed *not* to do and permit FSS operations in MSS feeder-link bands that are in use by a licensed operator. And Iridium *still* had no reason to anticipate final rules of that sort after Viasat proposed them for the first time in its comments. Iridium, like any interested party, is entitled to expect that rule changes under serious consideration will be described, explained, and justified in a notice released by *the Commission*—not in a paragraph of text filed by another satellite operator.²⁵ Moreover, the record only reinforced the common-sense conclusion that the MSS/Iridium Feeder Link Bands fell outside the scope of the Commission’s proposal. As explained above, advocates of Viasat’s proposal, including Viasat itself, once straightforwardly admitted that the MSS/Iridium Feeder Link Bands were not proposed in the *NPRM*.²⁶ And as also explained above, the record is silent on the band-specific interference considerations that would be implicated by permitting NGSO FSS systems to operate in the MSS/Iridium Feeder Link Bands.

Finally, Viasat claims that because rules that *were* proposed in *NPRM* “had the potential to impact Iridium operations,” rules that *were not* proposed qualify as a logical outgrowth so long as they affect Iridium.²⁷ Viasat’s bizarre application of the logical outgrowth doctrine would

²⁴ Petition at 7-8.

²⁵ See *Fertilizer Inst. v. EPA*, 935 F.2d 1303, 1312 (D.C. Cir. 1991) (an agency “must *itself* provide notice of a regulatory proposal,” and, “[h]aving failed to do so . . . cannot bootstrap notice from a comment.”).

²⁶ See *supra* nns. 11-12 & accompanying text.

²⁷ See Petition at 8 (internal quotation marks omitted) (arguing that Iridium had “fair notice” because “Iridium’s comments demonstrate that it was fully aware that rule changes had the potential to impact ‘Iridium operations’ in the 19.4-19.6 GHz and 29.1-29.25 GHz band segments”).

eliminate notice-and-comment requirements altogether if accepted by the Commission. Under Viasat's logic, a party to a rulemaking would have to anticipate not just the rules proposed by an agency and closely related alternatives, but also all other rules that might potentially affect how it does business. That standard, of course, would allow an agency to adopt any rule it sees fit.²⁸

II. The Commission Should Fully Protect Operational MSS Feeder-Link Spectrum.

As Iridium previously explained in this proceeding, the FSS operations that the *NGSO R&O* has enabled in unused MSS feeder-link spectrum make it that much more important to protect MSS feeder-link spectrum actually in use by MSS providers.

The amount of Ka-band spectrum available for NGSO MSS feeder links is fixed and relatively small in comparison to the amounts available to the FSS. And in the wake of the *NGSO R&O*, much of that spectrum has been opened to FSS operators. In today's broadband environment, however, demand for NGSO MSS feeder-link spectrum continues to grow substantially. To keep pace with the increasing throughput requirements of its customers, Iridium continues to invest in its feeder-link operations, and to evaluate the prospects for expanding its ground infrastructure in the United States.

The pressures that Iridium continues to face from new users and uses threaten to compound this problem. Until recently, only a small number of GSO systems used the shared portion of the 29.1-29.3 GHz MSS feeder uplink band, and their use was confined to a limited number of gateway earth stations. Now, however, it is becoming increasingly common for GSO operators to include these frequencies on new satellites. Moreover, Iridium must confront requests to coordinate not only GSO gateway earth stations, but also large numbers of GSO user terminals. In addition,

²⁸ For example, Viasat's understanding of the logical outgrowth doctrine would permit the Commission to propose allocating a new service to a frequency band, only to adopt final rules that remove an allocation for an existing service. Under Viasat's logic, both "rule changes" would have "the potential to impact" incumbent operations in the affected band, and therefore would be acceptable under the Administrative Procedure Act. *Id.*

Iridium is facing the prospect that several applicants in the current NGSO processing round might use the MSS/Iridium Feeder Link Bands for their systems, a development that would introduce uniquely challenging interference scenarios as multiple large and complex NGSO systems attempt to share spectrum. And in separate rulemakings, GSO and terrestrial interests continue to push for new rules that would allow them to deploy ubiquitous mobile terminals in uplink portions of the MSS/Iridium Feeder Link Bands—operations with which sharing feeder-link spectrum would prove all but impossible.

Something has to give. Iridium serves a unique and indispensable role in the world's telecommunications system and needs reliable access to feeder-link spectrum to meet the growing needs of its customers. Iridium urges the Commission to consider these requirements as it defines the Ka-band regulatory environment.

CONCLUSION

The Commission should deny Viasat's petition.

Maureen C. McLaughlin
Vice President Public Policy
IRIDIUM SATELLITE LLC
1750 Tysons Boulevard, Suite 1400
McLean, VA 22102
(703) 287-7518

Respectfully submitted,



Scott Blake Harris
V. Shiva Goel
HARRIS, WILTSHIRE & GRANNIS LLP
1919 M Street, NW, Eighth Floor
Washington, DC 20036
(202) 730-1300

Counsel to Iridium Satellite LLC

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing Opposition was served this February 20, 2018 by First Class Mail to the following party:

John P. Janka
Elizabeth R. Park
Latham & Watkins LLP
555 Eleventh Street, NW, Suite 100
Washington, DC 20004

Counsel to Viasat, Inc.

/s/ Anne M. Menasche
Anne M. Menasche
Legal Assistant
Harris, Wiltshire & Grannis LLP
1919 M Street, NW, 8th Floor
Washington, DC 20036

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