

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)	
)	
Viasat, Inc.)	IBFS File No. SAT-MOD-20190617-00047
)	
Application to Modify Market Access)	Call Sign S2917
Grant and for Extension or Waiver)	
of Milestone Date)	

**COMMENTS AND PETITION TO HOLD IN ABEYANCE OF IRIDIUM
CONSTELLATION LLC**

Iridium Constellation LLC (“Iridium”), pursuant to Section 25.154 of the Commission’s rules,¹ hereby submits these comments with respect to the portion of the above-referenced Application to Modify Market Access Grant (the “Application”), filed by Viasat, Inc. (“Viasat”), in which Viasat seeks to modify its U.S. market access grant² so that its geostationary satellite orbit (“GSO”) Fixed-Satellite Service (“FSS”) VIASAT-3 space station at 88.9° W.L. may use the 29.1-29.25 GHz and 19.4-19.6 bands. Iridium uses these bands on a primary basis for feeder links that control its non-geostationary satellite orbit (“NGSO”) mobile-satellite service (“MSS”) satellites and connect its

¹ 47 C.F.R. § 25.154.

² See *Stamp grant*, ViaSat, Inc., IBFS File No. SAT-LOI-20140204-00013 (Jun 20, 2014). See also *Stamp grant*, ViaSat, Inc., IBFS File No. SAT-AMD-20140218-00023 (Jun 18, 2014, reissued Mar 23, 2017); and *Stamp grant*, ViaSat, Inc., IBFS File No. SAT-MOD-20150618-00037 (Oct 21, 2015, reissued Mar 23, 2017).

customers' voice and data transmissions with the public switched telephone network and the Internet.³

Because of the unique capabilities of the Iridium network, commercial, military, and civilian government users depend on Iridium for mission-critical communications needs. In addition to supporting the missions of the Department of Defense, Iridium supports the core commercial operations of large and economically significant industrial sectors, and a diverse set of civilian public safety functions, including the efforts of our first responders. In February 2019, Iridium completed the replacement of its first-generation satellites with the Iridium® NEXT satellite constellation, which supports higher data speeds for new products and services.

Viasat acknowledges that its proposed operations in the 29.1-29.25 and 19.4-19.6 GHz bands are non-conforming because they conflict with the U.S. Table of Allocations and with the Commission's Ka-band plan.⁴ If permitted, therefore, the operations would require waivers of the rules, which Viasat has requested, and would have to be on an unprotected, non-interference basis.⁵

But the limited information Viasat has provided is inadequate to support its waiver requests. Viasat's technical information does not even address the potential for

³ The feeder links connect all of Iridium's over one million subscribers. The 29.1-29.25 GHz band comprise 75% of the uplink portion of Iridium's feeder link band, and the 19.4-19.6 GHz band comprise 100% of the downlink portion.

⁴ Application Narrative at p. 21.

⁵ *Id.* at pp. 22-23.

its uplink operations in the 29.1-29.25 GHz band to interfere with Iridium's feeder links. The Commission, therefore, should reserve judgment on those issues.

In addition, Viasat's technical information concerning the potential for interfering with Iridium's feeder links in the 19.4-19.6 GHz downlink band is conclusory, incomplete, and reflects an attempt to bypass the Commission's requirements. The Commission should not act on Viasat's request for a waiver to use the 19.4-19.6 GHz band, an essential element of which is that Viasat not cause harmful interference to Iridium's feeder links, unless and until Viasat makes an appropriate showing.

29.1-29.25 GHz uplink band. Viasat provides no analysis of the potential for its uplinks in the 29.1-29.25 GHz band to interfere with Iridium's satellite receivers. Viasat merely states that when it files applications for earth stations that would use the 29.1-29.25 GHz band to communicate with VIASAT-3 it will at that time provide "an appropriate demonstration that the proposed operations, either have been coordinated with, or will otherwise be compatible with Iridium and will operate on a secondary basis."⁶

The adequacy of any such future demonstration cannot be assessed, of course, until Viasat actually files its earth station applications and makes a showing. And in

⁶ Application Attachment A: Technical Information to Supplement Schedule S, at p. 12.

connection with any such demonstration, is important to recognize that to date the Commission has authorized only a single GSO FSS gateway earth station to operate in the United States in the 29.1-29.25 band, at a location at Lino Lakes, Minnesota.⁷ Viasat, on the other hand, intends to operate user terminals in the bands. Gateway earth stations and user terminals have distinct technical characteristics that would need to be considered.

As the International Bureau recognized in its Lino Lakes order, moreover, interference is cumulative.⁸ The Bureau has held, therefore, that Commission grants of authority for GSO FSS earth stations to use Iridium's feeder link band on a non-conforming basis must take into account the aggregate impact of existing interference and new interference.⁹

Accordingly, once Viasat applies for non-conforming earth station authority, at a minimum any interference analysis will need to take into account (i) the distinctions between gateway earth stations and user terminals and (ii) the combined effect of all of Viasat' newly contemplated operations plus the impact of all previously-authorized operations.

⁷ 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*, DA 15-382 at ¶ 18 (IB rel. Mar 30, 2015).

⁸ *Id.*

⁹ *Id.*

19.4-19.6 GHz downlink band. Although Viasat acknowledges it has not reached any agreement with Iridium, it nevertheless claims a right to operate in the 19.4-19.6 GHz band, based on a set of operational parameters it unilaterally has assumed will protect Iridium's feeder links. Viasat is attempting to bypass the Commission's processes, and the Commission should reject this effort.

In cases like these, operators need to come to an agreement based on an understanding as to the operational parameters that would provide the required protection for an incumbent operator (in this case, Iridium). Absent this understanding, the interfering operator (in this case, Viasat) has no idea what it means to operate on a secondary, non-interference basis, since it has no idea of what "non-interference" means in this situation. Furthermore, Viasat's downlink information is limited to the potential impact on Iridium's Tempe gateway earth station, while ignoring Iridium's other U.S.-licensed earth stations, and Viasat makes no showing, conclusory or otherwise, about how it purports to protect those other earth stations. Unless Viasat cures these defects, the Commission should not act on Viasat's request to operate in the 19.4-19.6 GHz band on a non-conforming basis.

CONCLUSION

In view of the forgoing:

- No assessment can be made of the potential for Viasat's uplink operations in the 29.1-29.25 GHz band to interfere with Iridium's feeder links until Viasat files earth station applications and provides a technical analysis. The Commission, therefore, should reserve judgment on issues in this band, including the differences between gateway earth stations and user terminals and the potential for cumulative interference.
- Viasat's technical information concerning the potential for its downlink operations in the 19.4-19.6 GHz band to interfere with Iridium's feeder links is conclusory, incomplete, and reflects an attempt to bypass the Commission's processes. The Commission should not act on Viasat's request to use this band on a non-conforming basis unless and until Viasat submits an appropriate showing.

Respectfully submitted,

IRIDIUM CONSTELLATION LLC

By: /s/Maureen C. McLaughlin
Vice President Public Policy
Iridium Constellation LLC
1750 Tysons Boulevard
Suite 1400
McLean, VA 22102
(703) 287-7518

September 9, 2019

DECLARATION OF MAUREEN C. MCLAUGHLIN

1. I am Vice President Public Policy for Iridium Constellation LLC.
2. I have reviewed the foregoing Comments and Petition to Hold in Abeyance of Iridium Constellation LLC.
3. I hereby declare under penalty of perjury that all statements of fact made therein are true and correct to the best of my knowledge, information, and belief.

By: /s/Maureen C. McLaughlin

Date: September 9, 2019

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing Comments and Petition to Hold in Abeyance of Iridium Constellation LLC were sent by email, this 9th day of September, 2019, to:

Christopher J. Murphy
Associate General Counsel, Regulatory Affairs
Daryl T. Hunter
Chief Technical Officer, Regulatory Affairs
VIASAT, INC.
6155 El Camino Real
Carlsbad, CA 92009

John P. Janka
Matthew T. Murchison
Elizabeth R. Park
LATHAM & WATKINS LLP
555 Eleventh Street, N.W. Suite 1000
Washington, DC 20004

/s/ Vicki Taylor