

**Before the
Federal Communications Commission
Washington, D.C. 20554**

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

ORDER AND DECLARATORY RULING

Adopted: May 28, 2020

Released: May 28, 2020

By the Chief, International Bureau and Acting Chief, Office of Engineering and Technology:

I. INTRODUCTION

1. By this Order and Declaratory Ruling (Order), we grant the request of ViaSat, Inc. (ViaSat) to modify the terms of its grant of U.S. market access to provide fixed-satellite services (FSS) at the 88.9° W.L. orbital location via the VIASAT-3 space station. Specifically, we modify the terms of the market access grant for VIASAT-3 by (1) extending, until December 31, 2021, the launch and operation milestone, (2) removing the 19.7-20.2 GHz (space-to-Earth) and 29.5-30.0 GHz (Earth-to-space) bands, and (3) adding the 17.7-18.3 GHz,¹ 19.3-19.4 GHz, and 19.6-19.7 GHz (space-to-Earth) bands and the 27.5-28.1 GHz and 29.25-29.5 GHz (Earth-to-space) bands.² We deny, without prejudice to re-filing as part of specific earth station applications, ViaSat's request for U.S. market access in the 19.4-19.6 GHz (space-to-Earth) and 29.1-29.25 GHz (Earth-to-space) bands, which FSS may only use for feeder links for the mobile-satellite service (MSS).³ Grant of this request will allow ViaSat to access the U.S. market with a state-of-the-art satellite which will offer proposed advanced capabilities to provide broadband connectivity to rural and urban areas, aircraft and ships, and enhanced services for military and government customers.

II. BACKGROUND

2. On June 18, 2014, the Satellite Division granted ViaSat access to the United States market to provide FSS in the 19.7-20.2 GHz (space-to-Earth) and 29.5-30.0 GHz (Earth-to-space) bands,

¹ In the 17.7-17.8 GHz band, both the Fixed (FS) and FSS are authorized on a primary basis, and FSS is restricted to Broadcasting Satellite Service (BSS) feeder links in the Earth-to-space direction. See U.S. Table of Frequency Allocations, 47 CFR § 2.106, footnote US271. ViaSat requests use of this frequency band in the space-to-Earth direction on an unprotected, non-interference basis with respect to BSS feeder links and FS.

² ViaSat contemporaneously filed an application for authority to construct, deploy, and operate a U.S.-licensed space station on VIASAT-3, which would be called VIASAT-89US and would operate using U.S. filings with the International Telecommunication Union (ITU) in the 19.7-20.2 GHz (space-to-Earth) and 29.5-30.0 GHz (Earth-to-space) frequency bands at 88.9° W.L. See IBFS File No. SAT-LOA-20190617-00048. ViaSat's application has been granted separately via grant stamp today.

³ See 47 CFR § 2.106, footnote NG166.

as well as the 18.3-19.3 GHz (space-to-Earth) and 28.1-29.1 GHz (Earth-to-space) bands,⁴ via a new, yet-to-be-built satellite to be called VIASAT-3, to be operated at the 88.9° W.L. orbital location.⁵ The Commission's rules and the conditions of the grant of U.S. market access required that ViaSat launch and begin operations of VIASAT-3 by June 18, 2019.⁶ ViaSat was required to post a surety bond in the amount of \$3 million, which would be forfeited to the U.S. Treasury if ViaSat failed to meet its milestone obligations, unless otherwise waived or extended by the Commission.⁷ ViaSat timely posted the surety bond on July 16, 2014.⁸

3. On June 17, 2019, ViaSat filed the present request to modify the terms of the VIASAT-3 U.S. market access grant.⁹ ViaSat seeks three specific modifications: (1) extend, or in the alternative waive, the launch and begin operations milestone from June 18, 2019, until December 31, 2021; (2) add the 17.7-18.3 GHz and 19.3-19.7 GHz (space-to-Earth) and 27.5-28.1 GHz and 29.1-29.25 GHz (Earth-to-space) bands; and (3) remove the 19.7-20.2 GHz (space-to-Earth) and 29.5-30.0 GHz (Earth-to-space) bands.

4. ViaSat's request was accepted for filing and placed on public notice.¹⁰ Three satellite operators –O3b Limited (O3b), Inmarsat, Inc. (Inmarsat), and Iridium Constellation LLC (Iridium)– filed pleadings in response to the public notice.¹¹ ViaSat filed a consolidated response and opposition to the comments filed.¹² O3b, Inmarsat, and Iridium filed separate replies to ViaSat's consolidated response.¹³

⁴ IBFS File Nos. SAT-LOI-20140204-00013; SAT-AMD-20140218-00023 (grant stamp, dated June 18, 2014). ViaSat was also subsequently granted a modification of the terms of market access for VIASAT-3 to change the center frequencies used for telemetry, tracking, and command (TT&C) operations and to reflect other revised technical parameters of the VIASAT-3 satellite under contract for construction. See IBFS File No. SAT-MOD-20150618-00037 (grant stamp, dated Oct. 21, 2015).

⁵ This satellite was originally to be called VIASAT KA-89W, but the name was subsequently changed to VIASAT-3. See IBFS File No. SAT-MOD-20150618-00037 (grant stamp, dated Oct. 21, 2015).

⁶ 47 CFR §§ 25.137(d) and 25.164(a); IBFS File No. SAT-LOI-20140204-00013, condition 12 (grant stamp, dated June 18, 2014). The Satellite Division subsequently re-issued the market access grant for VIASAT-3 on March 23, 2017 to incorporate the revised milestone and bond provisions that were adopted by the Commission in 2015. See *Comprehensive Review of Licensing and Operating Rules for Satellite Services*, Second Report and Order, 30 FCC Rcd 14713 (2015) (*Part 25 Streamlining Second Report and Order*). The 2015 revisions did not change the June 18, 2019 milestone to launch and operate VIASAT-3, nor the \$3 million surety bond that would be forfeited if this milestone were not met or otherwise waived or extended by the Commission.

⁷ 47 CFR § 25.165; IBFS File No. SAT-LOI-20140204-00013, condition 12 (grant stamp, dated June 18, 2014).

⁸ Letter from John P. Janka, Counsel for ViaSat, Inc., to Marlene H. Dortch, Secretary, FCC (dated Jul. 16, 2014), available in IBFS File No. SAT-LOI-20140204-00013.

⁹ See *Application for Modification of Market Access Grant and for Extension or Waiver of Milestone Date*, SAT-MOD-20190617-00047 (Narrative).

¹⁰ *Satellite Policy Branch Information: Space Station Applications Accepted for Filing*, Public Notice, Report No. SAT-01406 (Aug. 9, 2019).

¹¹ Comments of O3B Limited (filed Sep. 9, 2019) (O3b Comments); Comments of Inmarsat, Inc. (filed Sep. 9, 2019) (Inmarsat Comments); Comments and Petition to Hold in Abeyance of Iridium Constellation LLC (filed Sep. 9, 2019) (Iridium Comments and Petition).

¹² Consolidated Response and Opposition of ViaSat, Inc. (filed Sept. 24, 2019) (ViaSat Consolidated Response).

¹³ Reply of O3B Limited (filed Oct. 4, 2019) (O3b Reply); Consolidated Reply of Inmarsat, Inc. (filed Oct. 4, 2019) (Inmarsat Consolidated Reply); Reply of Iridium Constellation LLC (filed Oct. 4, 2019) (Iridium Reply).

III. DISCUSSION

A. Milestone Extension

5. The Commission's rules and the terms of the grant of U.S. market access required ViaSat to launch and operate VIASAT-3 within five years of the date of grant, which expired on June 19, 2019. ViaSat requests an extension of the launch and operation milestone deadline from June 19, 2019, until December 31, 2021. Milestone extensions may be granted when the delay is due to unforeseeable circumstances beyond the applicant's control, or when there are unique and overriding public interest concerns that justify an extension.¹⁴ An applicant must justify the precise extension period requested.¹⁵

6. ViaSat indicates that delays related to construction of the radio-frequency payload on the satellite necessitate additional time to complete construction, but that it has made substantial and tangible progress toward completing construction.¹⁶ As of June 2019, ViaSat had expended over 80 percent of the total cost of developing and manufacturing the VIASAT-3 satellite. Work on the satellite bus at its manufacturer's facility was in advanced integration and testing stages, the first solar array had been completed with the second solar array in integration, reflectors and batteries had been delivered, the satellite fueled, and virtually all of the other long lead-time items were on hand or ordered such that they would be ready for integration into the spacecraft consistent with its proposed new launch schedule.¹⁷ ViaSat stated that the VIASAT-3 radio-frequency payload, which is under construction at a ViaSat facility, will be integrated into the satellite bus by September 5, 2020, and that it has entered into contracts to launch VIASAT-3 by May 29, 2021, a few months after the anticipated completion of construction.¹⁸

7. ViaSat maintains that the requested extension will allow it to complete the extensive work necessary to build a state-of-the-art satellite with unprecedented capability to provide broadband connectivity to rural and urban areas, aircraft and ships, and enhanced services for military and government customers.¹⁹ Additionally, ViaSat states that it has more than adequate financial resources to complete construction and that it will maintain the performance bond that continues to escalate in value, beyond the \$3 million value required for a standard construction period, and up to a value of approximately \$4 million at the requested extended milestone date.²⁰

8. Based on the record presented, we conclude that there are unique and overriding public interest considerations that warrant grant of ViaSat's request for a milestone extension. The Commission has established milestone requirements to deter "warehousing" by satellite operators before a proposed space station has been launched and begun operations.²¹ The policy objective of the Commission's milestone rules is to ensure that licensees proceed with construction and launch their satellites in a timely manner so that valuable spectrum will not be held to the exclusion of others by those who are unwilling or

¹⁴ 47 CFR § 25.117(e).

¹⁵ *Id.*

¹⁶ Narrative at 8-10.

¹⁷ Narrative at 10. In its response to comments filed regarding the modification application, ViaSat notes that construction on the satellite bus is now complete. ViaSat Consolidated Response at 2.

¹⁸ Narrative at 10.

¹⁹ Narrative at 7.

²⁰ *Id.* at 10-11.

²¹ *Part 25 Streamlining Second Report and Order*, 30 FCC Rcd at 14735, para. 53.

unable to proceed.²² As the Commission has elaborated, warehousing refers to the retention of preemptive rights to use spectrum and orbital resources by an entity that “does not intend to bear the cost and risk of constructing, launching, and operating an authorized space station, is not fully committed to doing so, or finds out after accepting the license that it is unable to fulfill the associated obligations.”²³ In the present case, there is no basis for concluding that ViaSat is unwilling or unable to proceed. In fact, the record establishes that there have been substantial expenditures and concrete progress toward completion of satellite construction, which is now in its later stages.

9. The various arguments raised by commenters seeking denial or limitation of the extension are unpersuasive. With respect to O3b’s argument²⁴ that ViaSat’s expenditure of 80% of the total manufacturing costs is substantially less than the 90% or more in previous cases where milestones have been extended, we do not view this difference as sufficiently significant in this case to warrant a denial of the extension, given that there is no indication whatsoever that expenditures for completion of the project have in any way ceased, and ViaSat’s statement that it has sufficient financial resources to complete construction and launch is uncontroverted. With respect to commenter’s reliance on prior cases in which milestone extensions were denied, those cases differ from the present case in at least one vital respect: in those cases, the licensee had either not begun construction or had made minimal progress toward construction.²⁵ In addition, in light of the substantial and continuing commitment ViaSat has demonstrated towards complete construction and system implementation, we find no basis to inquire further as to whether the delays ViaSat has incurred were a foreseeable outcome of its decision to alter its satellite design.²⁶ We also are not persuaded by arguments that ViaSat filing its request for an extension or waiver the day before the milestone deadline undercuts the validity of the request.²⁷ Our rules do not prescribe a specific date by which an extension request must be filed (assuming it is not filed after the milestone), nor require that a request must be filed the moment the licensee becomes aware of manufacturing difficulties.²⁸ With respect to objections to the duration of the requested extension,²⁹ we

²² *TerreStar Networks, Inc. Request for Milestone Extension*, Memorandum Opinion and Order, 22 FCC Rcd 17698, 17699-17770, ¶ 6 (Int’l Bur. 2007) (*TerreStar*).

²³ *Part 25 Streamlining Second Report and Order*, 30 FCC Rcd at 14735, para. 53 (citing, e.g., *TMI Communications and Company, Limited Partnership and TerreStar Networks Inc., Application for Review and Request for Stay*, Memorandum Opinion and Order, 19 FCC Rcd 12603, 12604, para. 2 (2004); *PanAmSat Licensee Corp., Application for Authority to Construct, Launch, and Operate a Ka-Band Communications Satellite System in the Fixed-Satellite Service at Orbital Locations 58° W.L. and 125° W.L.*, Memorandum Opinion and Order, 16 FCC Rcd 11534, 11537-38, para. 12 (2001)).

²⁴ O3b Comments at 6.

²⁵ See ViaSat Response at 4. See, e.g., *PanAmSat Review* at 16 FCC Rcd at 11542-11544, paras. 22-27 (denying petition for review of International Bureau decision cancelling license, emphasizing the lack of a construction contract); *Columbia Communications Corporation*, 15 FCC Rcd 15566, 15571, para. 11 (2001) (denying a request to toll milestone deadlines where the applicant asserted that it could not proceed with construction until it knew whether the Commission would grant its modification application seeking to add frequencies); *Motorola, Inc.*, 17 FCC Rcd 16543, 16551, para. 20 (2002) (denying an extension of the contract execution milestone where the applicant was unwilling to sign a construction contract until after the Commission approved an assignment of the license).

²⁶ Inmarsat Comments at 9; O3b Comments at 4-5.

²⁷ “We expect that any requests for an extension of time to meet the final milestone requirement will be filed near to the deadline and will demonstrate that, despite the licensee’s or market access recipient’s diligent efforts, circumstances beyond its control prevent compliance with the milestone requirement.” *Comprehensive Review of Licensing and Operating rules for Satellite Services*, 2nd Report and Order, 30 FCC Rcd 14713, 14740, n. 174, para. 63 (2015) (*Comprehensive Review of Licensing and Operating Rules*).

²⁸ ViaSat Response at 5-6.

find based on the facts in this case that the two-and-a-half year length of the extension request is not so long as to be proof by itself of an intent to warehouse spectrum or to indicate a lack of commitment to build the satellite. Inmarsat argues that any extension should be less than the time period requested by ViaSat,³⁰ but we agree that the December 31, 2021 deadline is reasonable given the nature of the steps being taken to complete construction of the satellite.³¹

10. Under the Commission's rules, there is no requirement that an applicant increase its milestone bond prior to having its milestone extended. Yet, as we have noted, "the bond requirement [was adopted] to establish a market-based mechanism for ensuring that licensees are willing and able to proceed with satellite construction and to discourage warehousing of scarce resources."³² ViaSat's voluntary bond increase proposal, on its own, does not establish the unique and overriding public interest considerations to justify the milestone extension; but it is consistent with and supports the Commission's policy of using a market-based approach toward ensuring that licensees complete construction and not warehouse scarce resources.³³

11. Based on all these factors, we conclude that there are unique and overriding public interest considerations that warrant an extension of time. ViaSat has demonstrated that the satellite is at an advanced stage of construction and it is working diligently to overcome construction delays. Thus, the record shows that ViaSat is willing and able to launch and operate VIASAT-3 and is not warehousing spectrum or orbital resources. Moreover, the milestone extension will be conditioned on maintenance of an escalating surety bond for VIASAT-3 as proposed by ViaSat.³⁴ In light of these factors, grant of an extension will serve the public interest by allowing ViaSat to expeditiously complete implementation of its system. As such, ViaSat's request for a waiver of the milestone date is dismissed as moot.

B. Request to Add and Remove Frequency Assignments

12. As part of its request for modification of the grant of U.S. market access for the VIASAT-3 space station, ViaSat makes three requests to add or remove frequency bands. We address each of these requests below.

1. Removal of 19.7-20.2 GHz (space-to-Earth) and 29.5-30.0 GHz (Earth-to-space) Bands

13. ViaSat requests removal of the 19.7-20.2 GHz and 29.5-30.0 GHz bands from the grant of market access for VIASAT-3.³⁵ ViaSat proposes to operate in these frequency bands at 88.9° W.L. under a U.S. license.³⁶ ViaSat filed an application for such a U.S. license contemporaneously with its request for modification of the market access grant for VIASAT-3, and that application is being acted on

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²⁹ See Inmarsat Comments at 10; O3b Comments at 6.

³⁰ Inmarsat Comments at 9-10.

³¹ We note that ViaSat is requesting an extension of the launch and operation deadline until December 31, 2021.

³² *Comprehensive Review of Licensing and Operating Rules*, 30 FCC Rcd at 14742, para. 71.

³³ The specific bond requirement included in the conditions of this grant requires that the bond amount continue to increase at the same rate as specified under our rules. For a bond coming due on December 31, 2021, this results in a required bond amount of \$4,020,000.

³⁴ We note that the escalation of the bond value beyond the regular five-year period is a simple extrapolation of the linear increase, i.e., \$400,000 per year, applicable within the five years. See 47 C.F.R. § 25.165(a)(2) (requiring the posting of a surety bond equal to \$1 million plus an amount per day that escalates to \$2 million over a five-year period, i.e., approximately \$1,100 per day, rounded to the nearest \$10,000).

³⁵ Narrative at 24.

³⁶ *Id.* ViaSat refers to the requested frequency assignments for which it seeks a license as VIASAT-89US.

contemporaneously with this action.³⁷ We therefore grant ViaSat's request. The U.S. license will be subject to the same milestone and bond conditions for VIASAT-3 specified in this Order. We do not consider this action to facilitate U.S. licensing as triggering a default with respect to the bond filed for VIASAT-3.³⁸

2. Requests to Add 17.7-18.3 GHz, 19.3-19.4 GHz, and 19.6-19.7 GHz (space-to-Earth), 27.5-28.1 and 29.25-29.5 GHz (Earth-to-space) Bands

14. ViaSat seeks to access the U.S. market via VIASAT-3 using additional frequencies in the Ka-band. For the reasons stated below, we grant market access in the 17.7-18.3 GHz, 19.3-19.4 GHz, and 19.6-19.7 GHz, 27.5-28.1 GHz and 29.25-29.5 GHz bands, subject to conditions.

15. *17.7-17.8 GHz (space-to-Earth)*. In the United States, the 17.7-17.8 GHz band is allocated on a co-primary basis to the terrestrial Fixed Service (FS) and FSS, but the FSS allocation is limited to BSS feeder links in the Earth-to-space direction.³⁹ Accordingly, ViaSat requests a waiver of the U.S. Table of Frequency Allocations to permit the provision of FSS downlinks from VIASAT-3 to earth stations in the United States on a non-conforming basis.⁴⁰

16. We find that waiver of the U.S. Table to permit FSS downlinks in the 17.7-17.8 GHz band is justified in this instance. ViaSat states that its downlinks in this segment would not cause harmful interference into FS operations and would comply with the power flux density (PFD) limits in this band set forth in the Commission's rules.⁴¹ We also condition the waiver on ViaSat accepting any interference from existing and future FS transmissions, as well as FSS earth station transmissions, in the 17.7-17.8 GHz frequencies. In addition, ViaSat presented a satisfactory analysis addressing VIASAT-3 compliance with the space-path interference requirements in sections 25.264(a) and (b) of the Commission's rules.⁴² As VIASAT-3 is going to use only 100 megahertz of the 500 megahertz to which section 25.264 applies, we also agree that providing off-axis gain information at a single frequency, instead of at three frequencies, is justifiable. Accordingly, we grant the waiver requested by ViaSat in this respect. Based on these conditions and representations, we find that there is little potential for interference into any service authorized under the U.S. Table and that waiver of the U.S. Table is justified.⁴³

17. *17.8-18.3 GHz (space-to-Earth)*. In the United States, the 17.8-18.3 GHz band is allocated on a primary basis to FS and on a secondary basis to FSS (space-to-Earth).⁴⁴ FSS operations in this band are subject to coordination between Federal FSS systems and non-Federal space systems.⁴⁵ Accordingly, we find ViaSat's request is consistent with the allocations for the 17.8-18.3 GHz band and grant VIASAT-3 access to the U.S. market in this band on a secondary basis to the FS and subject to coordination with Federal FSS systems.

³⁷ IBFS File No. SAT-LOA-20190617-00048, grant stamp May 27, 2020.

³⁸ See 47 CFR § 25.165(c).

³⁹ 47 CFR § 2.106, footnote US271.

⁴⁰ Narrative at 22.

⁴¹ *Id.* at 23, citing 47 CFR § 25.208(c).

⁴² See Narrative, Attachment A at 14-15 and Annex 1.

⁴³ See *Northeast Cellular Tel. Co. v. FCC*, 897 F.2d 1166 (D.C. Cir. 1990); see also *Fugro-Chance, Inc.*, 10 FCC Rcd 2860, at para. 2 (1995) (waiver of U.S. Table of Frequency Allocations appropriate "when there is little potential for interference into any service authorized under the Table of Frequency Allocations and when the non-conforming operator accepts any interference from authorized services.").

⁴⁴ 47 CFR § 2.106.

⁴⁵ 47 CFR § 2.106, footnote US334.

18. *19.3-19.4 GHz and 19.6-19.7 GHz (space-to-Earth).* In the United States, these frequency bands are allocated to FS and FSS (space-to-Earth) on a co-primary basis.⁴⁶ FSS operations in this band are subject to coordination between Federal FSS systems and non-Federal space and terrestrial systems.⁴⁷ The Commission adopted changes to its rules in 2017 that expanded FSS use from NGSO MSS feeder links to the full range of GSO FSS and NGSO FSS operations in the 19.3-19.4 GHz and 19.6-19.7 GHz bands, subject to the condition that NGSO FSS systems operate on a secondary basis with respect to GSO FSS networks in these bands and on the continued use of PFD limits to protect terrestrial stations.⁴⁸ ViaSat states that the VIASAT-3 downlinks in these bands will comply with the PFD limits established to protect FS stations.⁴⁹ Accordingly, we find ViaSat's request is consistent with the allocations for these bands and grant VIASAT-3 access to the U.S. market in these bands on a co-primary basis.

19. *27.5-28.1 GHz (Earth-to-space).* The 27.5-28.1 GHz band is designated for FSS use on a secondary basis in the United States. The FSS (Earth-to-space) is secondary to the Upper Microwave Flexible Use Service (UMFUS) in the band except for FSS operations associated with certain excepted earth stations, as specified in the Commission's rules.⁵⁰ We grant ViaSat's request for market access in this band and ViaSat's operations within the United States are subject to these conditions.

20. *29.25-29.5 GHz (Earth-to-space).* In the United States, the 29.25-29.5 GHz band is allocated to the FSS (Earth-to-space) on a primary basis and the use of this allocation is limited to GSO FSS and to NGSO MSS feeder links.⁵¹ Accordingly, we find ViaSat's request is consistent with the allocations for the 29.25-29.5 GHz band and grant VIASAT-3 access to the U.S. market in this band.

3. Request to Add 19.4-19.6 GHz (space-to-Earth) and 29.1-29.25 GHz (Earth-to-space) bands

21. *19.4-19.6 GHz (space-to-Earth).* In the United States, the 19.4-19.6 GHz band is allocated to the FS and FSS (space-to-Earth) on a co-primary basis, but FSS operations in this band are limited to feeder links of non-geostationary space stations operating in the MSS.⁵² FSS operations in this band are subject to coordination between Federal FSS systems and non-Federal space systems.⁵³ The Commission adopted changes to its rules in 2017 to allow FSS operations in the 19.3-19.4 GHz and 19.6-19.7 GHz bands other than MSS feeder links, but did not extend these changes to the 19.4-19.6 GHz band. ViaSat requests a waiver of the U.S. Table to permit market access for FSS operations in the 19.4-19.6 GHz band.⁵⁴ ViaSat proposes to access the U.S. market on a non-conforming basis if its request for a waiver is granted.⁵⁵

⁴⁶ 47 CFR § 2.106.

⁴⁷ 47 CFR § 2.106, footnote US334.

⁴⁸ *Update to Parts 2 and 25 Concerning Non-Geostationary, Fixed-Satellite Service Systems and Related Matters*, Report and Order, 32 FCC Rcd 7809, 7815-16, para. 19 & n.46 (2017).

⁴⁹ Narrative at 20, citing 47 CFR § 25.208(c).

⁵⁰ 47 CFR § 25.136.

⁵¹ 47 CFR § 2.106, footnote NG535A.

⁵² 47 CFR § 2.106, footnote NG166.

⁵³ 47 CFR § 2.106, footnote US334.

⁵⁴ Narrative at 21.

⁵⁵ Narrative at 22.

22. ViaSat states its operations in the 19.4-19.6 GHz frequency band would protect fixed-service operations by complying with the PFD limits in the Commission's rules.⁵⁶ ViaSat has not successfully coordinated with Iridium, which currently operates MSS feeder links in this band, or O3b, which has market access for MSS feeder links, but it states that it will maintain "a suitable separation distance" for co-frequency, co-polar operations in the vicinity of MSS feeder link stations and provides an analysis calculating a suitable angular offset to protect the operation of one particular Iridium facility.⁵⁷ ViaSat does not dispute, however, that its interference analysis is based upon a single Iridium feeder link station and does not provide an analysis of potential interference to O3b feeder link stations, but simply states that the same approach used to protect Iridium would also protect O3b and offers to "provide a complete analysis ... based on additional information about the operational scenarios for O3b's constellation."⁵⁸ Both Iridium and O3b argue that the analysis provided by ViaSat is insufficient to demonstrate that VIASAT-3 can downlink in the United States without causing harmful interference to MSS feeder link stations and that a more detailed technical record is required before such a conclusion can be reached. We agree that absent successful coordination or a more detailed technical record, ViaSat has not provided the demonstration that there is little potential for interference into MSS feeder link operations which is required to provide adequate support for a waiver. We deny ViaSat's request for waiver of the U.S. Table to access the U.S. market in the 19.4-19.6 GHz frequency band. Our denial, however, is without prejudice to ViaSat re-filing this waiver request as part of applications to operate earth stations at specific locations. The applications should provide evidence of successful coordination or a more detailed technical showing.

23. 29.1-29.25 GHz (*Earth-to-space*). For the same reasons articulated in the 19.4-19.6 GHz band, we deny ViaSat's request for a waiver of the U.S. Table to permit VIASAT-3 to provide FSS in the 29.1-29.25 GHz band, which is similarly allocated to the FS and FSS (*Earth-to-space*) on a co-primary basis, but FSS operations in this band are limited to feeder links to non-geostationary space stations operating in the MSS.⁵⁹ As above, our denial is without prejudice to ViaSat re-filing this waiver request as part of applications to operate earth stations in these bands at specific locations and ViaSat providing evidence of successful coordination or a more detailed technical showing.⁶⁰

24. ViaSat argues that it should be authorized to operate in the 29.1-29.25 GHz band prior to filing its earth station applications because in a previous decision, *Lino Lakes*, the International Bureau's Satellite Division and the Office of Engineering and Technology's Policy and Rules Division, granted a waiver to allow GSO FSS operations in the 19.4-19.6 GHz and 29.1-29.25 GHz bands.⁶¹ In *Lino Lakes*, it was noted that widespread deployment of GSO FSS earth stations in the 29.1-29.25 GHz band may cause harmful interference to Iridium or LMDS operations.⁶² Furthermore, *Lino Lakes* was made in the context of an application for a single GSO FSS gateway earth station at a specific location.⁶³ Thus, we conclude

⁵⁶ Narrative at 23; 47 CFR § 25.208(c).

⁵⁷ Narrative at 24 and Attachment A at 9-12.

⁵⁸ ViaSat Consolidated Response at 9.

⁵⁹ 47 CFR § 2.106, footnote NG166.

⁶⁰ The denial, without prejudice to re-filing at a later date as part of an earth station application, satisfies the request of Iridium to hold in abeyance ViaSat's request to operate in the 19.4-19.6 GHz and 29.1-29.25 GHz frequency bands. Iridium Comments and Petition to Hold in Abeyance at 3-4.

⁶¹ *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 (Sat. Div. IB and Policy and Rules Div. OET) (*Lino Lakes*).

⁶² *Id.* at 2776, para. 18.

⁶³ *Id.* at 2775-2776, paras. 15, 18.

that, consistent with *Lino Lakes*, the determination of whether a waiver of the U.S. Table is justified in the 19.4-19.6 GHz and 29.1-29.25 GHz bands is most appropriately made in the context of a specific earth station application.⁶⁴

IV. ORDERING CLAUSES

25. Accordingly, IT IS ORDERED that ViaSat Inc's Petition for Declaratory Ruling to access the U.S. market using the 17.7-18.3 GHz, 19.3-19.4 GHz, and 19.6-19.7 GHz (space-to-Earth) bands, and the 27.5-28.1 GHz and 29.25-29.5 GHz (Earth-to-space) bands is GRANTED IN PART AND DENIED IN PART, pursuant to sections 0.31, 0.51, 0.241, 0.261, and 25.137(c) of the Commission's Rules, 47 CFR §§ 0.31, 0.51, 0.241, 0.261, and 25.137(c).

26. IT IS FURTHER ORDERED that this grant does not include the provision of any direct-to-home (DTH) services, Direct Broadcast Satellite (DBS) Service, or Digital Audio Radio Service (DARS) to, from, or within the United States.

27. IT IS FURTHER ORDERED that VIASAT-3 must be maintained with an east/west and north/south station-keeping tolerance of ± 0.05 degrees of the 88.9° W.L. orbital location.

28. IT IS FURTHER ORDERED that space-to-Earth operations in the 17.7-18.3 GHz and 19.3-19.4 GHz and 19.6-19.7 GHz bands must complete coordination with U.S. Federal systems, in accordance with footnote US334 to the United States Table of Frequency Allocations, 47 CFR § 2.106, prior to being used. The use of space-to-Earth operations must be in accordance with any signed coordination agreement with U.S. Federal operators. Two weeks prior to the start of any operations in the 17.7-18.3 GHz and 19.3-19.4 GHz and 19.6-19.7 GHz bands, contact information for a 24/7 point of contact for the resolution of any harmful interference must be provided to Jimmy Nguyen, Email: Jimmy.Nguyen@us.af.mil.

29. IT IS FURTHER ORDERED that prior to commencing operations with the VIASAT-3 space station, ViaSat must file with the Commission the information required by section 25.172 of the Commission's rules, 47 CFR § 25.172.

30. IT IS FURTHER ORDERED that communications between U.S.-licensed earth stations and the VIASAT-3 space station must comply with all existing and future space station coordination agreements reached between the United Kingdom and other administrations. In the absence of a coordination agreement, such communications must comply with applicable provisions of the International Telecommunication Union (ITU) Radio Regulations as the Commission cannot guarantee the success of the required conditions.

31. IT IS FURTHER ORDERED that the power flux density (PFD) at the Earth's surface produced by the emissions from the VIASAT-3 space station for all atmospheric conditions, and for all methods of modulation in the 17.7-18.3 GHz, 19.3-19.4 GHz, and 19.6-19.7 GHz (space-to-Earth) bands, must comply with the limits in section 25.208(c).

32. IT IS FURTHER ORDERED that waiver of section 2.106 of the U.S. Table of Frequency Allocations, 47 CFR § 2.106, to permit operations in the 17.7-17.8 GHz band, including a waiver of footnote US271 to section 2.106, IS GRANTED. Operations in this band are on an unprotected, non-harmful interference basis, that is, they must not cause harmful interference to any authorized users, nor can they claim protection from harmful interference caused by any authorized users.

33. IT IS FURTHER ORDERED that operations in the 17.8-18.3 GHz frequency band are on a secondary basis with respect to the fixed service.

⁶⁴ Because we are not granting U.S. market access in these bands until further technical information is provided, our action herein effectively grants the petition of Iridium to hold consideration of market access in these bands in abeyance until further technical information is provided.

34. IT IS FURTHER ORDERED that ViaSat's request for a waiver of section 2.106 of the U.S. Table of Frequency Allocations, 47 CFR § 2.106, for operations in the 19.4-19.6 GHz (space-to-Earth) frequency band, including a waiver of footnote NG166 to section 2.106 to permit operations in the 19.4-19.6 GHz (space-to-Earth) frequency band is DENIED WITHOUT PREJUDICE TO RE-FILING.

35. IT IS FURTHER ORDERED that ViaSat's operations in the 27.5-28.1 GHz (Earth-to-space) band are secondary with respect to Upper Microwave Flexible Use Service (UMFUS) operations, except for FSS operations associated with earth stations authorized pursuant to 47 CFR § 25.136.

36. IT IS FURTHER ORDERED that ViaSat's request for a waiver of section 2.106 of the U.S. Table of Frequency Allocations, 47 CFR § 2.106, for operations in the 29.1-29.25 GHz (Earth-to-space) band, including a waiver of footnote NG166, is DENIED WITHOUT PREJUDICE TO RE-FILING.

37. IT IS FURTHER ORDERED that, based on the contemporaneous license grant in File No. SAT- LOA-20190617-00048, ViaSat is relieved of the requirements concerning reporting of U.K. license approvals specified in Condition 9 of the grant issued March 23, 2017, in File No. SAT-MOD-20150618-00037.

38. IT IS FURTHER ORDERED that this grant of market access for VIASAT-3 is subject to the following conditions:

- a. ViaSat must maintain a surety bond requiring payment in the event of default as defined in section 25.165(c) of the FCC rules, in an amount, at a minimum, determined according to the following formula, with the resulting dollar amount rounded to the nearest \$10,000: $A = \$3,000,000 + \$2,000,000 * D / 1827$, where A is the amount to be paid and D is the lesser of 927 or the number of days elapsed from June 19, 2019, until the date when the grant is surrendered.
- b. ViaSat must launch the VIASAT-3 space station, position it in its assigned orbital location, and operate it in accordance with this grant and the license granted in File No. SAT- LOA-20190617-00048 no later than December 31, 2021.

This grant of U.S. market access will be null and void automatically, without further Commission action if ViaSat fails to comply with these requirements. Failure to comply with the milestone requirement will also result in forfeiture of ViaSat's surety bond. By January 15, 2022, ViaSat must either demonstrate compliance with its milestone requirement or notify the Commission in writing that the requirement was not met. 47 CFR § 25.164(f).

39. This grant of market access will terminate in the event that the VIASAT-3 space station is relocated from the 88.9° W.L. orbital location or ceases to operate. In either case, VIASAT-3 will be

removed from the Permitted List and will no longer have market access to the United States. If ViaSat wishes to provide service to the United States using another space station, it must file a new application for market access to the United States in order to have that space station placed on the Permitted List.

FEDERAL COMMUNICATIONS COMMISSION

Thomas P. Sullivan
Chief, International Bureau

Ronald T. Repasi
Acting Chief, Office of Engineering and Technology