

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

In the Matter of	)	
	)	
Viasat, Inc.	)	ICFS File No. SES-MOD-20260314-00641
	)	
Application for Modification of Earth	)	Call Sign E180006
Station License to Add Satellite Point of	)	
Communication	)	

MODIFICATION OF EARTH STATION LICENSE

By this application, Viasat, Inc. (“Viasat”) requests that the Commission modify Viasat’s existing blanket aeronautical earth station license to permit currently licensed M40 and GM40 terminals (collectively, the “Terminals”) to communicate with an additional satellite point of communication when located on U.S.-flagged aircraft operating outside U.S. airspace. More specifically, Viasat seeks authority to allow the Terminals to conduct fixed-satellite service (“FSS”) operations with KACIFIC-1 (a payload on the JCSAT-18 satellite) located at 150.0° E.L. in the 19.7-20.2 GHz (space-to-Earth) and 29.5-30.0 GHz (Earth-to-space) band segments.¹

To be clear, Viasat is **not** seeking U.S. market access for the KACIFIC-1 payload. Nevertheless, Viasat is providing the information typically required in connection with requests for U.S. market access to facilitate expeditious grant of this application. Viasat does not seek authority to modify any other aspect of the Terminals’ operations—*i.e.*, except as described in this application, all other information on file in connection with the above-referenced license and operation of the Terminals remains unchanged.

¹ 47 C.F.R. § 25.228(g)(2) (requiring ESAA terminals on U.S.-registered civil aircraft operating outside of U.S. airspace to be licensed by the Commission).

More specifically, this application includes a completed FCC Form 312 (including various schedules), this narrative, and Exhibits A and B thereto (which provide technical and ownership information not otherwise captured by FCC Form 312.²

I. GRANT WOULD SERVE THE PUBLIC INTEREST

Grant of this application would serve the public interest by allowing Viasat to more effectively meet growing demand for high-speed, high-capacity broadband access aboard aircraft. Among other things, enabling Viasat to communicate with KACIFIC-1 would allow Viasat to increase the overall capacity of its satellite broadband network, thereby supporting the increasing demand for faster broadband speeds, and providing the ability to support service to additional aircraft.

Viasat is a U.S. operator headquartered in Carlsbad, California. Viasat has previously demonstrated its qualifications as a Commission licensee of spacecraft and earth station networks, and its commitment to developing technologies that make the most efficient use of spectrum and responding to customers' needs for greater broadband bandwidth and capacity. Viasat is a leading provider of satellite-based broadband services to consumer, enterprise, and government users, and provides these services with a global satellite network consisting both of satellites owned and operated by Viasat and satellite capacity from third-party operators. Viasat has a long history and extensive expertise in providing and developing satellite communications technologies for both military and commercial uses, as well as innovating by improving the performance and bandwidth efficiency of satellite networks.

² Viasat is providing, in Exhibit B to this narrative, information with respect to Viasat's ownership, officers, and directors even though Viasat is **not** seeking a U.S. space station license or authorization to serve the U.S. market with a non-U.S.-licensed space station.

Additionally, as explained in Exhibit A, operations of the Terminals with KACIFIC-1 would be compatible with all relevant co-frequency operations—including adjacent geostationary orbit (“GSO”) networks. All Viasat operations using capacity on the payload would be on a non-common carrier basis.³

II. *DISCO II* SHOWING

Viasat seeks to operate with the KACIFIC-1 payload for the limited purpose of serving U.S.-flagged aircraft operating outside the United States. As noted above, Viasat is not seeking U.S. market access for this payload pursuant to Section 25.137 of the Commission’s rules. Nevertheless, in order to facilitate the expeditious grant of this application, Viasat is providing detailed information sufficient to satisfy the elements of the Commission’s *DISCO II* framework for granting market access to non-U.S.-licensed space stations. Satisfaction of these elements is more than sufficient to justify grant of the limited operations of the Terminals with KACIFIC-1 requested in this application.

The KACIFIC-1 payload would operate at the 150.0° E.L. orbital location under the authority of the government of Japan.⁴ As such, operations with KACIFIC-1 would be covered by the Commission’s *DISCO II* framework if Viasat were to seek U.S. market access for the payload.⁵ The *DISCO II* analysis includes consideration of a number of factors, such as the effect on competition in the United States, spectrum availability, eligibility requirements,

³ See *Amendment to the Commission’s Regulatory Policies Governing Domestic Fixed Satellites and Separate International Satellite Systems*, 11 FCC Rcd 2429, at ¶¶ 46-50 (1996).

⁴ Specifically, KACIFIC-1 would operate at the 150.0° E.L. orbital location under the N-SAT-Y12-150E and N-SAT-Y15-150E filings with the International Telecommunication Union.

⁵ See *Amendment of the Commission’s Regulatory Policies to Allow Non- U.S. Licensed Satellites Providing Domestic and International Service in the United States*, 12 FCC Rcd 24094, at ¶¶ 30-49 (1997) (“*DISCO II*”).

technical requirements, national security, law enforcement, foreign policy, and trade concerns.⁶ Each of these elements would weigh in favor of granting U.S. market access for KACIFIC-1, and therefore also justifies grant of more limited authority to facilitate communications with the Terminals on U.S.-flagged aircraft operating outside the United States. Additionally, Viasat notes that the Commission has previously granted market access for the KACIFIC-1 payload in nearly all portions of the Ka band requested in the present application.⁷

A. Effect on Competition in the United States

In *DISCO II*, the Commission established a rebuttable presumption that it will further competition in the United States to allow non-U.S. satellites authorized by WTO Members to provide services covered by the U.S. commitments under the WTO Basic Telecommunications Agreement.⁸ Japan is a member of the WTO. Furthermore, Viasat seeks to use the requested spectrum to provide satellite services that are covered by the WTO Basic Telecommunications Agreement.⁹ Accordingly, the presumption in favor of entry would apply if Viasat were to seek U.S. market access for KACIFIC-1.

Grant of this application would similarly enhance competition for satellite service by permitting Viasat to expand the available capacity of its satellite broadband network when

⁶ See, e.g., *Telesat Canada, Petition for Declaratory Ruling for Inclusion of Anik F2 on the Permitted Space Station List, Petition for Declaratory Ruling to Serve the U.S. Market Using Ka-band Capacity on Anik F2*, 17 FCC Rcd 25287, at ¶ 6 (2002).

⁷ See *Kacific Broadband Satellites International Ltd.*, Call Sign E210112, ICFS File No. SES-LFS-20210521-00824 (granted Apr. 15, 2022) (“KACIFIC-1 Market Access Grant”). The earth station associated with the grant of market access for KACIFIC-1 was surrendered in 2023. See Letter from Kacific Broadband Satellites International to FCC, ICFS File No. SES-LFS-20210521-00824 (Nov. 8, 2023).

⁸ *DISCO II* at ¶ 39; see also 47 C.F.R. § 25.137(a)(2).

⁹ Viasat does not seek to provide direct-to-home (“DTH”), direct broadcast satellite (“DBS”), or digital audio radio service (“DARS”) in the United States.

serving U.S.-flagged aircraft outside the United States. Grant of this application would therefore improve service quality, increase broadband service options, and foster technological innovation—all public interest factors that the Commission consistently has long relied upon in granting more expansive requests for authority.¹⁰

B. Spectrum Availability

Grant of this application is fully consistent with Commission spectrum policies. Viasat would communicate with the KACIFIC-1 payload using spectrum in the 19.7-20.2 GHz (space-to-Earth) and 29.5-30.0 GHz (Earth-to-space) band segments.¹¹ These band segments are designated for the GSO FSS on a primary basis. As explained in Exhibit A, KACIFIC-1 would comply with the uplink off-axis EIRP density envelopes in Section 25.218(i) and downlink PFD levels specified in Section 25.140(a)(3)(iii) of the Commission’s rules.¹² Therefore, the use of these frequencies when operating the Terminals with KACIFIC-1 would be compatible with adjacent satellite systems in the relevant band segments.

C. National Security, Law Enforcement, and Public Safety Matters

Grant of this application is consistent with U.S. national security, law enforcement, and public safety considerations. The KACIFIC-1 payload is operated by Kacific Broadband Satellites International Ltd. (“Kacific”) under the authority of Japan. As noted above, the Commission previously granted U.S. market access for the KACIFIC-1 payload and did not find

¹⁰ See, e.g., *Digital Broadband Applications Corp.*, 18 FCC Rcd 9455 (2003); *Pegasus Development Corp.*, 19 FCC Rcd 6080 (2004); *DIRECTV Enterprises, LLC, Request for Special Temporary Authority for the DIRECTV 5 Satellite*, 19 FCC Rcd 15529 (2004).

¹¹ As discussed in Exhibit A, gateway and TT&C operations would rely on facilities located outside the United States. As no U.S. authority is not needed in connection with these gateway operations, additional detail is not being provided in this application.

¹² See 47 C.F.R. §§ 25.140(a)(3)(iii), 25.218(i).

such grant to implicate U.S. national security, law enforcement, and public safety considerations.¹³ There is no reason for the Commission to reach a different conclusion in the present case.

III. LEGAL AND TECHNICAL INFORMATION

A. Legal Qualifications

Viasat's legal qualifications are set forth in this narrative and in the attached Form 312. Specifically, this narrative and attached Form 312 demonstrate Viasat's satisfaction of the applicable requirements for earth station applicants seeking to communicate with non-U.S.-licensed satellites, including Section 25.114 of the Commission's rules.¹⁴ As noted above, Viasat holds numerous Commission licenses, and its legal qualifications are a matter of record before the Commission.

B. Technical Qualifications

Exhibit A to this application includes technical information with respect to the operation of Terminals with the KACIFIC-1 payload. Except as specified in Exhibit A for communications with KACIFIC-1, all operations of the Terminals will be consistent with prior authorizations for operation of the Terminals with other satellites. The Commission has repeatedly authorized Viasat to operate licensed facilities and its technical qualification are otherwise a matter of public record.

C. Orbital Debris Mitigation

Exhibit A to this application includes an orbital debris mitigation showing of the type required by Sections 25.114(d)(14) and 25.137 of the Commission's rules.¹⁵

¹³ See KACIFIC-1 Market Access Grant.

¹⁴ See 47 C.F.R. § 25.114.

¹⁵ See *id.* §§ 25.114(d)(14), 25.137(b).

IV. ADDITIONAL INFORMATION

A. Milestone, Bond, and Reporting

Because Viasat is not seeking U.S. market access for the KACIFIC-1 payload, the requirements of Section 25.137(d) of the Commission's rules regarding milestones, reporting requirements, and surety bond requirements do not apply to this application.¹⁶ Moreover, even in the case of a request for U.S. market access the bond and milestone requirements would not apply because the KACIFIC-1 payload is already in orbit and operating.¹⁷

B. Ownership Information

Information on the ownership of Viasat is available in the attached Exhibit B.

V. REQUEST FOR WAIVERS

Viasat requests the following limited waivers of the Commission's rules. The Commission may grant a waiver if its rules for good cause shown.¹⁸ Waiver is appropriate if (i) special circumstances warrant a deviation from the general rule, and (ii) such deviation would better serve the public interest than would strict adherence to the general rule.¹⁹ Generally, the Commission may grant a waiver of its rules in a particular case only if the relief requested would not undermine the policy objective of the rule in question, and would otherwise serve the public interest. The following waiver requests satisfy these criteria.

¹⁶ For the avoidance of doubt, Viasat intends to comply with all applicable service rules for operation of earth stations in the FSS in portions of the Ka band when communicating with KACIFIC-1. 47 C.F.R. § 25.137(d)(3).

¹⁷ To the extent necessary, Viasat seeks a waiver of these requirements. The fundamental purpose of the bond and milestone requirements are to incentivize rapid deployment and deter warehousing of orbital locations, but these issues are simply not implicated by this application.

¹⁸ See 47 C.F.R. § 1.3.

¹⁹ See *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969); *Northeast Cellular Tel. Co. v. FCC*, 897 F.2d 1166 (D.C. Cir. 1990).

To the extent necessary, Viasat requests a waiver of Section 25.210(f) of the Commission's rules concerning full frequency reuse of the of the 19.7-20.2 GHz, 29.5-30 GHz band segments. The KACIFIC-1 satellite has 56 Ka-band spot beams with four color reuse and can fully reuse frequencies over multiple beams and polarizations to satisfy the requirements of 47 C.F.R. § 25.210(f). However, through this application Viasat seeks to operate in only 7 of those spot beams and therefore it is not possible to employ full frequency reuse across the beams. Accordingly, Viasat seeks a limited waiver of Section 25.210(f) to the extent necessary to enable Viasat to serve customers on U.S.-flagged aircraft flying within these KACIFIC-1 beams. The Commission has previously granted a similar waiver of Section 25.210(f) for communications with the KACIFIC-1 payload on the basis that doing so would allow satellite capacity that would otherwise lay dormant to be used to provide service, and on the basis that no compliant satellite was offering service to the United States in the relevant portions of the Ka band at the 150.0° E.L. orbital location.²⁰ For the same reasons the Commission should grant a waiver in the present case.

To the extent necessary, Viasat requests a limited waiver to allow submission of a completed Schedule S to FCC Form 312 in non-standard fashion given limitations of the Commission's ICFS interface. Specifically, due to unknown technical issues with ICFS, Viasat has been unable to generate a "standard" instance of Schedule S describing the KACIFIC-1 payload and associate it with this application. Based on previous guidance from the ICFS helpdesk about this issue, Viasat has included a PDF version of the Schedule S information and the GIMS container file as attachments to the application. Grant of this limited waiver to facilitate submission in this fashion would serve the public interest by enabling the Commission

²⁰ KACIFIC-1 Market Access Grant, Condition 90698.

to begin processing the application despite the limitations of ICFS, while still providing the Commission with access to all of the information that would have been provided through a “standard” Schedule S submitted through ICFS (consistent with the underlying purpose of Schedule S).

Additionally, the Commission previously authorized operations of the Terminals with other satellites and granted certain waiver requests subject to Viasat complying with certain licensing conditions.²¹ To the extent applicable, Viasat requests extension of these waivers to operation of the Terminals with KACIFIC-1 and confirms that all operations of the Terminals with KACIFIC-1 will be consistent with the conditions of the existing license for the Terminals.

VI. WAIVER PURSUANT TO SECTION 304 OF THE COMMUNICATIONS ACT

In accordance with Section 304 of the Communications Act of 1934, as amended, Viasat hereby waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise.

²¹ See Viasat, Inc., Call Sign E180006, ICFS File No. SES-MOD-20191216-01737 (granted Dec. 13, 2019).

VII. CONCLUSION

For the foregoing reasons, granting Viasat's application to communicate with the KACIFIC-1 payload using the Terminals in portions of the Ka band under the authority of Japan will serve the public interest, convenience, and necessity. Viasat respectfully requests that the Commission promptly grant this application.

Respectfully submitted,

/s/

Jarrett S. Taubman
VP & Deputy Chief Government Affairs
and Regulatory Officer
Viasat, Inc.
901 K Street NW, Suite 400
Washington, DC 20001

Exhibit A

Supplemental Technical Information

Exhibit A

Supplemental Technical Information

A.1 Scope and Purpose

Viasat, Inc. (“Viasat”) seeks authority to operate M40 and GM40 aeronautical ESIM terminals (collectively, the “Terminals”) on U.S.-flagged aircraft operating outside U.S. airspace with the KACIFIC-1 payload located at 150° E.L. using the 19.7 – 20.2 GHz band in the space-to-Earth (downlink) direction and the 29.5 – 30.0 GHz band in the Earth-to-space (uplink) direction. KACIFIC-1 is a payload on the JCSAT-18 satellite and operates under a combination of the N-SAT-Y12-150E and N-SAT-Y15-150E ITU satellite network filings submitted by the administration of Japan. The satellite bus is operated by SKY Perfect JSAT Corporation (“JSAT”), while Kacific Broadband Satellites International Ltd. (“Kacific”) operates the KACIFIC-1 Ka-band payload. This Exhibit A supplements Schedule S to provide the technical characteristics of the proposed operations as required by 47 C.F.R. § 25.114.

A.2 General Description

The KACIFIC-1 payload operates from the JCSAT-18 satellite at the 150° E.L. orbital location. Viasat seeks Commission authority to operate the Terminals on U.S.-flagged aircraft located in portions of the KACIFIC-1 coverage area outside of the U.S. in the 29.5 – 30.0 GHz (Earth-to-space) and the 19.7 – 20.2 GHz (space-to-Earth) band segments. All analyses in this exhibit apply to that service area and those bands. There will not be any KACIFIC-1 gateways in the U.S., and no authority for the operation of gateway links is requested in this application.¹

The KACIFIC-1 payload will be used for communications with the Terminals on U.S.-flagged aircraft operating outside the U.S. using non-steerable spot beam antennas, both transmit and receive. KACIFIC-1 uses asymmetric forward and return links and uses adaptive coding and

¹ For informational purposes, the non-U.S. gateway links operate in portions of Ka-band (27.5 – 30 GHz and 17.7 – 20.2 GHz) under the Japanese authority and national authority from the countries in which the gateway terminals are situated.

modulation to combat rain fades—*i.e.*, the modulation type, amount of coding and/or user data rate are dynamically varied to meet the link requirements during rain events (in addition to employing uplink power control).

A.3 Frequency Plan

The detailed frequency plan for communications with the Terminals is provided in Schedule S. The transponders on the KACIFIC-1 satellite convert the 29.5 – 30.0 GHz uplinks from the Terminals to the gateway downlink band and transmit them to the gateway locations outside of the U.S. The transponders also convert the gateway uplinks from outside of the U.S. to downlinks in the 19.7 – 20.2 GHz band and transmit them to the Terminals. Viasat is not seeking U.S. authority to communicate with KACIFIC-1 in any other frequency bands or band segments, and is not seeking any authority to communicate with KACIFIC-1 to or from locations within the U.S. The KACIFIC-1 network is compatible with co-frequency GSO FSS networks in the specified band segments while communicating with the Terminals (Section A.8).

A.4 Satellite Antenna Beams and Gain Contours

KACIFIC-1 will utilize non-steerable spot beam antennas for communicating with the Terminals. When operating with the Terminals these beams will be limited to operations outside of U.S. airspace.

In accordance with 47 C.F.R. § 25.114(c)(4)(vi)(a), Viasat is providing the predicted antenna gain contours for the transmit and receive spot beams. The contours are plotted on an area map at 2 dB intervals down to 10 dB below the peak gain and at 5 dB intervals between 10 dB and 20 dB below the peak gain. The spot beam contours, as listed in Table A.4-1, are provided in the attached GIMS container².

² As noted in the Legal Narrative, due to issues with the ICFS interface the Schedule S and GIMS container are being filed as attachments to this application.

Table A.4-1. Beam Contours

GXT File	Beam	Link	Polarization	Type
RX27.gxt	RX27	Up	RHCP	Spot
RX37.gxt	RX37	Up	RHCP	Spot
RX38.gxt	RX38	Up	RHCP	Spot
RX39.gxt	RX39	Up	RHCP	Spot
RX40.gxt	RX40	Up	LHCP	Spot
RX41.gxt	RX41	Up	LHCP	Spot
RX54.gxt	RX54	Up	LHCP	Spot
TX27.gxt	TX27	Down	LHCP	Spot
TX37.gxt	TX37	Down	LHCP	Spot
TX38.gxt	TX38	Down	LHCP	Spot
TX39.gxt	TX39	Down	LHCP	Spot
TX40.gxt	TX40	Down	RHCP	Spot
TX41.gxt	TX41	Down	RHCP	Spot
TX54.gxt	TX54	Down	RHCP	Spot

Right-hand circular polarization (RHCP) and left-hand circular polarization (LHCP) are used on both the downlinks and uplinks such that the downlink polarization is orthogonal to the uplink polarization. The KACIFIC-1 payload has 56 Ka-band spot beams with four color reuse and can fully reuse frequencies over multiple beams and polarizations to satisfy the requirements of 47 C.F.R. § 25.210(f). However, because this application only includes seven of those beams, in an abundance of caution, Viasat requests a waiver of Section 25.210(f) to the extent one is required, as further discussed in the Legal Narrative.

A.5 TT&C Information

TT&C operations will be conducted from outside the U.S. and are not the subject of this application.³

A.6 Cessation of Emissions

All KACIFIC-1 downlink transmissions to the Terminals can be turned on and off by ground telecommand, thereby causing cessation of emissions from the satellite, as required by 47

³ For informational purposes, Viasat notes that TT&C operations are conducted from Midori ku, Yokohama, Kanagawa, Japan and Hitachiomiya, Ibaraki, Japan, in portions of the Ku-band.

C.F.R. § 25.207.

A.7 FSS Operations

Kacific has represented to Viasat that KACIFIC-1 will not generate power flux-density (PFD) at the Earth's surface in excess of -118 dBW/m²/MHz while transmitting to the Terminals in the 19.7–20.2 GHz band and that all operations of the satellite will be consistent with the technical parameters specified herein. Based on these representations, Viasat certifies that KACIFIC-1 will not generate PFD at the Earth's surface in excess of -118 dBW/m²/MHz while transmitting to the Terminals on U.S.-flagged aircraft in the 19.7–20.2 GHz band, and that associated uplink operation of the Terminals will not exceed applicable EIRP density envelopes in 47 C.F.R. § 25.218(i) unless the non-routine uplink operation is coordinated with operators of authorized co-frequency space stations at assigned locations within six degrees of the orbital location.⁴ As such, operations of KACIFIC-1 with the Terminals will be consistent with 47 C.F.R. § 25.140(a)(3)(iii).

A.8 Sharing with GSO FSS

The KACIFIC-1 satellite is two-degree compliant in all portions of the Ka-band for which Commission authority is sought and is thus compatible with other GSO FSS operations. The Commission has not authorized any GSO FSS satellite within two degrees of the 150° E.L. location to access the U.S. market or otherwise communicate with U.S.-licensed earth stations in the band segments that are the subject of this application.

A.9 Orbital Debris Mitigation Plan

As noted above, KACIFIC-1 is a payload on the JCSAT-18 satellite operated by JSAT and licensed by Japan. The JCSAT-18 satellite was launched in 2019 and the Commission approved the orbital debris mitigation plan for the satellite in 2022 when the Commission granted U.S. market access

⁴ As Viasat explained in prior applications regarding operation of the Terminals, under certain circumstances the Terminals may create grating lobes that would result in exceedances of the applicable EIRP density envelopes at the GSO arc. The Commission previously authorized operation of the Terminals with other satellites based on Viasat's implementation of operational techniques and coordination procedures to mitigate the impact on other operators, and Viasat will use the same techniques and procedures for operations with KACIFIC-1.

for the satellite.⁵ A copy the previously approved orbital debris mitigation plan is included as an attachment to this Exhibit A. Viasat understands from Kacific that there are no material changes to the previously approved orbital debris mitigation plan.

⁵ Kacific Broadband Satellites International Ltd., Call Sign E210112, ICFS File No. SES-LFS-20210521-00824, Technical Annex at 11-13 (granted Apr. 15, 2022)

ATTACHMENT

**Orbital Debris Mitigation Information Approved in Kacific
2022 U.S. Market Access Grant**

MD-A-19-058

JCSAT-18

The JCSAT-18 Spacecraft is a Boeing BSS702MP model satellite that will be positioned at 150° E.L. This statement addresses requirements contained in Section 25.114(d)(14)(i)-(iv) of the Commission's rules.

DEBRIS RELEASE ASSESSMENT - 25.114(d)(14)(i).

JSAT has assessed and limited the amount of debris released in a planned manner during normal operations of JCSAT-18 and has assessed and limited the probability of the spacecraft becoming a source of debris by collisions with small debris or meteoroids. No debris is generated during foreseeable on-station operations.

During the JCSAT-18 Spacecraft design, the possibility of the spacecraft itself becoming a source of debris due to collisions with small debris or meteoroids that could cause loss of control preventing appropriate deorbit or disposal was considered and mitigated with redundant components and minimization of single points of failure. In addition, critical components are located within the structure of the spacecraft and are shielded from external debris. The spacecraft does not use any subsystems for end-of-life disposal that are not used for normal operations.

MINIMIZING RISK OF ACCIDENTAL EXPLOSIONS – 25.114(d)(14)(ii)

JSAT has assessed and limited the probability of accidental explosions during and after completion of mission operations. The JCSAT-18 Spacecraft has been designed to minimize the risk that on-board hazardous materials within the Propulsion Subsystem and the Electrical Power Subsystem (e.g. batteries) will cause an event that has the potential to generate orbital debris. Specifically:

- The Propulsion Subsystem was designed, manufactured, and tested to ensure a very low risk of propellant leakage and a very low risk of undesired mixing of propellant to prevent conditions that could potentially result in the release of orbital debris.
- The Electrical Power Subsystem has multiple on-board safety systems to maintain the on-board batteries within their safe operating range as specified by the manufacturer to mitigate the risk of battery overcharge, undercharge, thermal runaway, or instability that could potentially result in the release of orbital debris, even in the event of an Electrical Power Subsystem component failure.

Throughout the JCSAT-18 mission, critical subsystems such as the Propulsion Subsystem and Electrical Power Subsystem will be monitored to further reduce the already very remote risk of an event that could result in the release of orbital debris. At the end of operational life, after the satellite has reached its final disposal orbit, unless prevented by technical failures beyond its control, JSAT will deplete or secure all on-board sources of stored energy by venting excess propellant, discharging batteries, relieving pressure vessels, and other appropriate measures to minimize any possibility that an explosion will create debris.

SAFE FLIGHT PROFILES AND ORBITAL COORDINATION – 25.114(d)(14)(iii)

JSAT has assessed and limited the probability of the JCSAT-18 Spacecraft becoming a source of debris through collision with large debris or another operating spacecraft. Apart from JCSAT-6, which is planned to be relocated away from 150° E.L. before the arrival of JCSAT-18, JSAT is not aware of any other FCC- or non-FCC licensed spacecraft that are operational or planned to be deployed at 150° E.L. or to nearby orbital locations such that there would be an overlap with the stationkeeping volume of JCSAT-18. In order to monitor nearby objects, JSAT receives conjunction data messages (CDM) from the Combined Space Operations Center (CSpOC) in a timely manner. As a result of CDM evaluation, collision avoidance maneuvers will be implemented if needed.

POST MISSION DISPOSAL – 25.114(d)(14)(iv)

At the end of mission life, the JCSAT-18 Spacecraft will be moved to a disposal orbit approximately 300 km higher than the geostationary orbit altitude, in compliance with:

- (a) Recommendation ITU-R S.1003.2 12/2010 environmental protection of the geostationary satellite orbit. S Series Fixed-satellite services. Geneva, 2011;
- (b) IADC Space Debris Mitigation Guidelines, IADC-02-01 Rev 1, Action Item number 22.4.9/2007; and
- (c) Space systems - disposal of satellites operating at geosynchronous altitude, ISO 26872. Switzerland, 2010.

The minimum post-mission disposal altitude above the geostationary orbit is calculated as follows (using the IADC formula):

$$235 \text{ km} + (1000 \cdot CR \cdot A/m) = 276 \text{ km}$$

$$CR = 1.5 \quad \text{JCSAT-18 Solar radiation pressure coefficient}$$

$$A = 82 \text{ m}^2 \quad \text{JCSAT-18 Area based on deployed on-station configuration}$$

$$M = 3006 \text{ kg} \quad \text{JCSAT-18 dry mass}$$

Planned post-mission disposal altitude: 300 km

Margin to minimum altitude requirement: 24 km

JSAT intends to reserve 5.2 kg of propellant to account for post-mission disposal of JCSAT-18. JSAT has assessed propellant gauging uncertainty and has provided an adequate margin of propellant reserve to address the assessed uncertainty.

**CERTIFICATION OF PERSON RESPONSIBLE FOR
PREPARING ENGINEERING INFORMATION**

I hereby certify that I am the technically qualified person responsible for preparation of the engineering information contained in this application, that I am familiar with Part 25 of the Commission's rules, that I have either prepared or reviewed the engineering information submitted in this application, and that it is complete and accurate to the best of my knowledge and belief.

 /s/
Mark A. Sturza
President
3C Systems Company

March 30, 2026

Exhibit B

Ownership Information

Exhibit B

Viasat, Inc. Ownership Information

Viasat is a Delaware corporation and a publicly traded company headquartered at 6155 El Camino Real, Carlsbad, California 92009. As a publicly traded company, the stock of Viasat is widely held. Based on publicly available SEC filings, the following entities and their affiliates beneficially owned 10 percent or more of Viasat's voting stock as of March 2, 2026:

Beneficial Owner	Citizenship	Voting Percentage
BlackRock, Inc. ("BlackRock") ¹ 50 Hudson Yards New York, NY 10001	Delaware	13.81%
The Vanguard Group ("Vanguard") 100 Vanguard Blvd. Malvern, PA 19355	Pennsylvania	12.49%

No other stockholders are known by Viasat to directly or indirectly hold 10 percent or more of Viasat's voting stock. No stockholder (or principal of such stockholder) "controls" Viasat or otherwise exercises voting rights with respect to Viasat beyond those rights ordinarily conferred by stock ownership.

Officers and Directors of Viasat, Inc.

The following are the officers and directors of Viasat, all of whom can be reached c/o Viasat, Inc., 6155 El Camino Real, Carlsbad, CA 92009. Each director and officer listed below is a U.S. citizen.

Directors

Mark D. Dankberg, Chairman and Chief Executive Officer
Richard A. Baldrige
Barbara Frenkel
William LaPlante
Sean Pak
Michael Paull
John P. Stenbit
Dr. Theresa Wise

¹ Based on publicly available SEC filings, Viasat understands that BlackRock's interest in Viasat may be held indirectly through one or more subsidiaries, none of which is known by Viasat to hold a 10 percent or greater direct interest in Viasat.

Officers/Senior Management

Mark D. Dankberg, Chairman and Chief Executive Officer

Robert Blair, Senior Vice President, General Counsel and Secretary

Girish Chandran, Corporate Chief Technology Officer and Senior Vice President
Engineering

Garrett Chase, Senior Vice President and Chief Financial Officer

Camellia FitzGerald, Chief Accounting Officer

Craig Miller, Senior Vice President and President, Viasat Government

Benjamin Palmer, Senior Vice President and President, Commercial