

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of	)	
	)	
ICEYE US, INC.	)	ICFS File: SAT-LOA-20260626-00261
	)	
Application for Authority to Launch and	)	Call Sign: S_____
Operate the Tranche 4 (X83) Satellite in the	)	
Earth Exploration-Satellite Service	)	

APPLICATION

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July 13, 2026

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APPLICATION

ICEYE US, Inc. (“ICEYE”)¹ requests authority to launch and operate one non-geostationary orbit (“NGSO”) satellite, named X83 (under Tranche 4), through the standard satellite licensing process.² The X83 satellite will advance ICEYE’s space-based synthetic aperture radar (“SAR”) capabilities through a larger, more capable satellite. The requested license issue date is September 13, 2026.³

I. PUBLIC INTEREST

ICEYE owns and operates the world’s largest SAR constellation serving the United States (“US”) government, its allies, and commercial partners. ICEYE’s current system delivers up to 25 cm resolution, the highest fidelity in the industry, for any Earth location in any environmental condition, day or night. The proposed X83 satellite will introduce ICEYE’s next-generation

¹ ICEYE is an Irvine, California-based company incorporated in Delaware.

² *See* 47 C.F.R. § 25.110 *et seq.*

³ A companion 60-day special temporary authority application has been filed. *See* ICEYE, Application, ICFS File No. SAT-STA-20260629-00263 (filed July 13, 2026). Its requested grant date is August 13, 2026, to satisfy the launch service provider regulatory documentation submission deadline.

capability as a larger, more advanced platform that enhances imaging performance, increases capacity, and improves the timeliness and quality of actionable intelligence delivered to users.

These capabilities are crucial for providing precise, near real-time information on activities such as maritime domain awareness, border monitoring, site activity tracking, port operations, oil spill detection, deforestation assessment, and sea ice monitoring.⁴ ICEYE's services are invaluable for national security, natural disaster response, and informed decision-making that supports community resilience and sustainable development. The continued evolution of ICEYE's system, including deployment of X83, will further advance US-based technological innovation and enhance competition in the intelligence, surveillance, and reconnaissance marketplace. Thus, granting this application would serve the public interest.

II. SYSTEM DESCRIPTION

Attachment A (Technical Annex) and Attachment B (Waiver Requests) capture the orbital, Earth station, and radiofrequency parameters. The X83 satellite will operate in the Earth exploration-satellite service ("EESS").

The EESS is a "radiocommunication service between earth stations and one or more [satellites in which] information relating to the characteristics of the Earth and its natural phenomena, including data relating to the state of the environment, is obtained from active sensors" onboard satellites that collect EESS data by transmitting and receiving the same radio waves.⁵ The satellite will receive ground-based commands to transmit radiofrequency energy and receive this same energy after it reflects off the Earth's surface using an active sensor to image the

⁴ See *Use Cases*, ICEYE, <https://tinyurl.com/5ycz595s> (last visited July 8, 2026).

⁵ International Telecommunication Union ("ITU") Radio Regulations ("RR") Nos. 1.51, 1.182.

Earth's surface. It will also transmit such data collection to its Earth stations. As a result, ICEYE's operations qualify as EESS.

Table 1 shows the frequency plan, including the associated service classification and allocation status.

Table 1: Frequency Plan⁶

Targeted Frequency (MHz)⁷	Link Direction and Service Area	Description	Service	Int'l Allocation?	US Allocation?
2025-2110	Earth-to-space (outside US only)	service (primary) TT&C (primary)	EESS	Yes	N/A
2200-2290	space-to-Earth (outside US only)	service (backup) TT&C (primary)	EESS	Yes	N/A
8025-8400	space-to-Earth (global)	service (primary)	EESS	Yes	Yes
9200-10400	space-to-Earth Earth-to-space (global)	service (primary)	EESS (active) ⁸	Yes	Yes

⁶ ICEYE requests authority for passive reception of the existing unmodified GPS L1 signal (center frequency 1575.42 MHz) for on-orbit determination as permitted for other ICEYE and third-party satellites. *See, e.g.,* ICEYE, Stamp Grant, ICFS File Nos. SAT-LOA-20260128-00047 at Frequencies (granted Apr. 24, 2026); ICEYE, Stamp Grant, ICFS File No. SAT-LOA-20250915-00276 at Frequencies (granted Jan. 29, 2026); Loft Orbital Solutions Inc., Stamp Grant, ICFS File No. SAT-LOA-20220606-00057, at n.4 (granted Nov. 15, 2022); Spire Global, Inc., Stamp Grant, ICFS File No. SAT-MOD-20200603-00065, at 3 (granted Nov. 9, 2022). ICEYE additionally requests authority for passive reception in the 900 MHz-3 GHz and 8.8-10.7 GHz frequency ranges because the X83 satellite includes an antenna capable of receiving existing signals and can be made technically incapable of intentional transmission through hardware disablement and firmware/software lockouts. As ICEYE has previously explained, these operations generate no new emissions and cannot cause harmful interference. *See* ICEYE, Application, ICFS File Nos. SAT-MOD-20260425-00172 & SAT-MOD-20260425-00171, Narrative at 1 (granted June 9, 2026).

⁷ Final frequency selection will depend on coordination results.

⁸ For most EESS (active) operations, the satellite will transmit a signal that will reflect the Earth's surface and return to the satellite.

III. CONCLUSION

The proposed operations support ICEYE's next-generation Earth observation technology. Authorizing the requested satellite and license consolidation would help promote this necessary initiative and, therefore, serve the public interest.

Respectfully submitted,

/s/ Leola Moss

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ATTACHMENT A (TECHNICAL ANNEX)

This attachment offers supplemental technical details regarding the X83 satellite because the above Narrative and attached Form 312, Schedule S require further clarification.

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I. ITU FILINGS AND COST RECOVERY

When issuing launch-and-operational authority, the Commission submits advance publication information and/or coordination request filings to the ITU.¹ In concert with this application, ICEYE will submit the necessary ITU filings and unconditionally accepts all associated cost-recovery responsibilities.

II. SYSTEM DESCRIPTION

Attachment B (Waiver Requests) specifies the satellite's orbital, Earth station, and radiofrequency parameters for the global SAR operations.²

III. POWER LIMITS

The satellite will satisfy relevant in-band and out-of-band power limits.

A. In-Band Power

In the 2025-2110 MHz (Earth-to-space) band, the ITU and FCC rules impose an EIRP density limit mask based on elevation angle.³ When $\theta \leq 0^\circ$, the EIRP limit is 40 dBW/4 kHz; when $0^\circ < \theta \leq 5^\circ$, the EIRP limit is $40 + 3\theta$ dBW/4 kHz.⁴ Each ICEYE earth station will transmit at $\theta \geq 5^\circ$, so the relevant EIRP density limit is 55 dBW/4 kHz. Based on the earth station locations in Attachment B (Waiver Requests), the worst case EIRP level is 65 dBW and the corresponding EIRP density level is 41.5 dBW/4 kHz for the 0.9-megahertz channel. This is below the 55 dBW/4 kHz limit.

¹ See 47 C.F.R. § 25.111.

² The Mission Operations Center ("MOC") for the satellite is located at ICEYE facilities in Irvine, California. Through its MOC, ICEYE will monitor and control all aspects of satellite operations.

³ See ITU RR No. 21.8; 47 C.F.R. § 25.204(a).

⁴ θ is the angle of elevation of the horizon viewed from the center of radiation of the antenna of the earth station and measured in degrees as positive above the horizontal plane and negative below it. See ITU RR No. 21.8.

In the 2200-2290 MHz (space-to-Earth) band, the FCC rules do not specify a power limit; however, ITU RR Table 21-4 imposes PFD limits within the broader 1525-2300 MHz range.⁵ Schedule S shows compliance with these limits calculated at 400 km with the nominal power.⁶

In the 8025-8400 MHz band (space-to-Earth), the FCC rules do not specify power limits; however, ITU RR Table 21-4 imposes PFD limits at the Earth's surface.⁷ Schedule S shows compliance with these limits calculated at 400 km with the nominal power. In the same band, ITU RR No. 22.5 imposes a PFD limit of $-174 \text{ dBW/m}^2/4 \text{ kHz}$ at the geostationary orbit ("GSO"). At the GSO arc, ICEYE's PFD would be $-188.66 \text{ dBW/m}^2/4 \text{ kHz}$, and therefore, will not exceed the maximum PFD requirement.

In the 9200-9900 MHz (EESS (active)) band, no power limits exist in either the ITU or FCC rules, and in the 9900-10400 MHz band (space-to-Earth) band, only the ITU rules impose PFD limits at the Earth's surface.⁸ Schedule S shows compliance with these limits calculated at 400 km from 25-90° for the 1200-megahertz channel.⁹

B. Out-of-Band Power

The US federal agencies require out-of-band-emissions limits compliance to safeguard space research service (deep space) operations adjacent to the 2200-2290 MHz and 8025-8400 MHz bands.¹⁰ ICEYE will use a deep space network filter to ensure that its out-of-band emissions

⁵ See ITU RR Table 21-4.

⁶ ICEYE will reduce the power when operating below this altitude to satisfy the PFD limits.

⁷ See ITU RR Table 21-4.

⁸ See *id.*

⁹ For all channel sizes, ICEYE will not point to angles greater than 55 degrees off-axis angle from nadir to satisfy the PFD limits. For channel sizes smaller than 1200 megahertz, ICEYE will lower the power to satisfy the PFD limits.

¹⁰ See Rec. ITU-R SA.1157 at Table 5; Rec. ITU-R SA.1014 at Table 3.

will not cause interference to authorized services in adjacent frequency bands. ICEYE will also submit spectrum roll-off measurements to the US federal agencies, and if such plots are unsatisfactory or ICEYE cannot reach agreement based on alternative mitigation measures, it will not transmit when the satellite is visible (or at a certain slant range) to such deep space Earth stations.

IV. US FEDERAL PROTECTION

ICEYE agrees to coordinate with US federal spectrum users to safeguard their operations. Attachment B (Waiver Requests) includes the parameters necessary for these deliberations.

V. SPECTRUM SHARING ANALYSIS

A. 2025-2110 MHz, 2200-2290 MHz, and 8025-8400 MHz

In this spectrum, satellite systems normally communicate only in short periods of time while visible from the dedicated earth stations or satellites (typically less than 10 minutes for a single pass). For interference to occur, (i) either another operator's satellite would have to travel through the antenna beam of ICEYE's serving earth station or the ICEYE satellite would have to pass through the antenna beam of the other operator's serving earth station and (ii) both systems would need to transmit at the same time on overlapping frequencies. In such an unlikely circumstance, ICEYE can mitigate interference by coordinating the communications with other operators in the same frequency bands to prevent simultaneous transmission. Other parties have historically coordinated the requested frequencies without issue before commencing operations and commit to undertaking similar coordination for the instant system.¹¹ ICEYE anticipates that successful coordination in these bands is achievable because the ICEYE satellite will only

¹¹ See, e.g., Spire Global, Inc., Stamp Grant, ICFS File Nos. SAT-MOD-20200603-00065 et al. (granted in part Nov. 9, 2022); Spire Global, Inc., Order and Declaratory Ruling, 39 FCC Rcd 5854 (rel. June 7, 2024).

communicate when in view of an authorized earth station using small bandwidths, limited duty cycle, frequency agile software-defined radios, scheduled ground transmissions, and interference-mitigation techniques, including conjunction-avoidance angles.

B. 9200-10400 MHz

For the 9200-10400 MHz band, the international and US frequency allocations permit EESS (active) operations subject to the following applicable footnotes: 5.474A, 5.474B, 5.474C, and 5.474D.¹² ICEYE seeks waiver of footnote 5.474A in Attachment B (Waiver Requests) § II. ICEYE certifies it will satisfy footnotes 5.474B and 5.474C by operating consistent with Rec. ITU-R RS.2066-0 and Rec. ITU-R RS.2065-0.¹³ ICEYE also will comply with footnote 5.474D by operating on a non-interference, non-protected basis with respect to stations of the maritime radionavigation, radionavigation, and radiolocation services in the relevant band segments.¹⁴

VI. REPRESENTATIVE ANTENNA GAIN CONTOUR PLOTS

For all space-to-Earth and Earth-to-space bands, the Schedule S includes representative antenna gain contour plots at 600 km (the highest possible operational altitude representing the broadest possible contour).¹⁵

¹² See 47 C.F.R. § 2.106(a) nn. 5.474A, 5.474B, 5.474C, 5.474D, US474D; *see also Amendment of the Commission's Rules Regarding Implementation of the Final Acts of the World Radiocommunication Conference (Geneva, 2015) (WRC-15), Other Allocation Issues, and Related Rule Updates*, Report and Order, 40 FCC Rcd 10322 at Appendix A (2025).

¹³ See 47 C.F.R. § 2.106(a) nn. 5.474B, 5.474C.

¹⁴ See *id.* nn. 5.474D, US474D.

¹⁵ Where the gain contour does not intersect the Earth, the contour is not shown in those figures.

ENGINEERING CERTIFICATION

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/ Adam Porter

Adam Porter
Spacecraft Operations Engineer

ATTACHMENT B (WAIVER REQUESTS)

I. Introduction.....1

II. 47 C.F.R. § 2.106 nn.5.474A and US128 (International and US Non-Federal Frequency Allocation Tables).....1

III. 47 C.F.R. § 25.112 (Application Completeness)2

IV. 47 C.F.R. § 25.114 (Schedule S)3

I. INTRODUCTION

The Commission may waive any of its rules for “good cause.”¹ Waiver is appropriate when (i) special circumstances warrant a deviation from the general rule; and (ii) such deviation will serve the public interest better than strict adherence to the rule.² In general, the Commission will grant a waiver of its rules if the relief requested would not undermine the policy objective of the rule in question and would otherwise serve the public interest.³ Additionally, the Commission generally grants a waiver of the frequency allocation table “when there is little potential for interference into any service authorized under the [table] and when the non-conforming operator accepts any interference from authorized services.”⁴

II. 47 C.F.R. § 2.106 NN.5.474A AND US128 (INTERNATIONAL AND US NON-FEDERAL FREQUENCY ALLOCATION TABLES)

47 C.F.R. § 2.106 n.5.474A. International frequency allocation table and US non-federal frequency allocation table footnote 5.474A states the following:

The use of the frequency bands 9200-9300 MHz and 9900-10 400 MHz by the Earth exploration-satellite service (active) is limited to systems requiring necessary bandwidth greater than 600 MHz that cannot be fully accommodated within the frequency band 9300-9900 MHz. Such use is subject to agreement to be obtained under No. 9.21 from Algeria, Saudi Arabia, Bahrain, Egypt, Indonesia, Iran (Islamic Republic of), Lebanon and Tunisia. An administration that has not replied under No. 9.52 is considered as not having agreed to the coordination request. In

¹ See 47 C.F.R. § 1.3; *Ne. Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990); see also *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969).

² *Ne. Cellular*, 897 F.2d at 1166.

³ *WAIT Radio*, 418 F.2d at 1157.

⁴ *The Boeing Company Application for Blanket Authority to Operate Up to Eight Hundred Technically Identical Transmit and Receive Mobile Earth Stations Aboard Aircraft in the 14.0-14.5 GHz and 11.7-12.2 GHz Frequency Bands*, Order and Authorization, 16 FCC Rcd 22645 ¶ 12 (2001) (internal punctuation omitted). See generally *Application of Fugro-Chance, Inc. for Blanket Authority to Construct and Operate a Private Network of Receive-Only Mobile Earth Stations*, Order and Authorization, 10 FCC Rcd 2860 (1995); *Application of Motorola Satellite Communications, Inc. for Modification of License*, Order and Authorization, 11 FCC Rcd 13952 (1996).

this case, the notifying administration of the satellite system operating in the Earth exploration-satellite service (active) may request the assistance of the Bureau under Sub-Section IID of Article 9. (WRC-15).

ICEYE has requested bandwidths sized 150, 200, 300, 600, and 1200 megahertz. These different channels can be operated together to create contiguous channels greater than 600-megahertz bandwidth to improve ICEYE's synthetic aperture radar resolution, quality, signal-to-noise ratio, and interference resilience. These different channel sizes are also necessary for coordination flexibility with co-frequency US federal agency operators.

47 C.F.R. § 2.106 n.US128. US frequency allocation table footnote US128 prohibits pulsed emissions in 10-10.5 GHz. ICEYE seeks authority to transmit pulsed emissions in 10-10.4 GHz. ICEYE certifies it will operate in these bands to protect other Federal and non-Federal operations, including amateur use.

III. 47 C.F.R. § 25.112 (APPLICATION COMPLETENESS)

Application dismissal may occur if the submission contains incomplete information or internal inconsistencies.⁵ Even in these cases, however, the Commission's rules provide that the Commission may accept a defective application if accompanied by an appropriate waiver request.⁶ ICEYE requests waiver of this rule and asks the Commission to permit ICEYE to supplement its application if additional information or explanation is necessary. Granting it would avoid unduly harsh results, given that no regulatory framework properly captures the proposed operations and would conserve limited FCC resources by allowing any concerns to be addressed on an issue-specific basis.

⁵ See *id.* § 25.112(a).

⁶ See *id.* § 25.112(b).

IV. 47 C.F.R. § 25.114 (SCHEDULE S)

A Schedule S form accompanies this application.⁷ ICEYE cannot accurately describe the proposed operations given Schedule S limitations and, therefore, requests waiver of the Schedule S to the extent necessary based on the additional related clarifications below.

Orbital plane 1. The satellite has an orbital altitude and inclination range. Further, the satellite has no argument of perigee, right ascension of ascending node (“RAAN”), RAAN tolerance, satellite spacing, phase angle spacing, first satellite initial phase angle, or maximum orbital eccentricity. As a result, these fields contain placeholder values.

Transmitting beam XA1 – maximum transmit EIRP density. The maximum transmit EIRP density field is based on a 1200-megahertz channel.

Transmitting beam XA1 – maximum power flux density (“PFD”). The maximum PFD field is based on a 1200-megahertz channel.

All transmitting beams – polarization. The polarization can be right-hand circular polarization (“RHCP”) or left-hand circular polarization (“LHCP”) for beams SR1, ST1, XT1, and XT2. Schedule S lists only RHCP although the satellite can host both RHCP and LHCP.

The polarization can be vertical linear (“V”) or horizontal linear (“H”) for beam XA1. Schedule S lists only H although the satellite can host both V and H.

The polarization is not applicable to beam XR1. Schedule S lists a placeholder value of H because the field cannot be left blank.

⁷ See *id.* § 25.114(c).

ATTACHMENT C (COORDINATION SPREADSHEET)

Channel ID	Channel Bandwidth (MHz)	Center Frequency (MHz)
XA1	150	9275
XA2	150	9425
XA3	150	9575
XA4	150	9725
XA5	150	9875
XA6	150	10025
XA7	150	10175
XA8	150	10325
XA9	200	9300
XA10	200	9500
XA11	200	9700
XA12	200	9900
XA13	200	10100
XA14	200	10300
XA15	300	9350
XA16	300	9650
XA17	300	9950
XA18	300	10250
XA19	600	9500
XA20	600	10100

Comments

ICEYE does not stationkeep.

Duty cycle describes the ratio between the time the satellite is visible in relation to the ground station versus the percentage the radios are typically transmitting. The satellite does not transmit 24/7.

The S-band uplink and downlink may operate down to 250 km. But the X-band downlink and SAR payload will operate down to only 400 km.

The X-band SAR payload will operate for three minutes (maximum) of each orbit (approximately 92 minutes at 400 km and 97 minutes at 600 km). Each image capture will not exceed 180 seconds.

For Tranche 1, six of the six authorized and coordinated satellites have deorbited, and ICEYE surrendered its authorization.

For Tranche 2 and Tranche 3, nine of the nine authorized and coordinated satellites are launched and operational.

For Tranche 3.1, the one authorized and coordinated satellite is launched and operational.

For Tranche 3.2, the one authorized and coordinated satellite is launched but not yet operational.

ATTACHMENT D (OWNERSHIP INFORMATION)

This attachment includes the ownership information sought in the attached Form 312, Main Form.¹

*

*

*

I. 10% OR MORE OF THE EQUITY AND/OR VOTING INTEREST HOLDERS

ICEYE is a wholly owned subsidiary of ICEYE OY, a private corporation. The following parties are shareholders with 10% or more of the equity and/or voting stock in ICEYE:

Name: ICEYE OY (Finland)
Ownership: 100% voting interest and equity interest

The following parties are indirect shareholders with 10% or more of the equity and/or voting stock in ICEYE, through their ownership of ICEYE OY:

Name: True Ventures Management LLC (“TVM”) (USA)
Ownership: 15.4% voting interest and equity interest

True Ventures funds hold 15.4% of the total shares and votes of ICEYE OY. They include True Ventures IV; True Ventures Select II, L.P.; True Ventures Select III, L.P.; and True Ventures Select IV, L.P. Each entity is incorporated in the US. Following is a breakdown of each True Ventures fund:

- True Ventures IV – 6.8%
- True Ventures Select II, L.P. – 4.9%
- True Ventures Select III, L.P. – 2.6%
- True Ventures Select IV, L.P. – 1.1%

The General Partner is True Ventures Partners IV LLC and has designated TVM to manage all day-to-day operations. TVM is co-owned 50% each by Jon Callaghan (USA) and Philip D. Black (USA). Both individuals, therefore, have a 7.7% ownership and voting interest in ICEYE OY.

II. DIRECTORS

Herbert Satterlee
Lance VandenBrook
Tony Scott
Keith J. Masback

¹ Form 312, Main Form questions 30-34 are inapplicable because ICEYE does not seek broadcast, common carrier, aeronautical en route, or aeronautical fixed radio station licensing. *See* 47 U.S.C. § 310(b).

III. OFFICERS

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Leola Moss – VP Operations and Customer Delivery

Anne Eastwood-Ritter – VP Finance and Business Operations

Justin Darnall – VP Software Engineering

Dan Getman – VP Product

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