

GRANT (REISSUED)
Kuiper Systems LLC
ICFS File Nos. SAT-LOA-20211104-00145 and
SAT-AMD-20250311-00068

 GRANTED IN PART DEFERRED IN PART * Space Bureau *with conditions	File # SAT-LOA-20211104-00145 and SAT-AMD-20250311-00068 *Reissued	
	Call Sign <u>S3105/S3051</u> (or other identifier)	Grant Date <u>08/21/2026</u>
	From: <u>See conditions</u>	To: <u>See conditions</u>
	Approved: <u>Jennifer M. Gilsenan</u> Jennifer M. Gilsenan Acting Chief Space Bureau	

ICFS File No(s):	SAT-LOA-20211104-00145 and SAT-AMD-20250311-00068 ¹	GRANTED-IN-PART / DEFERRED-IN-PART² With Conditions  Space Bureau
Licensee/Grantee:	Kuiper Systems LLC ³	
Call Sign:	S3105/S3051	
Satellite Name:	Kuiper first-generation satellite system (Gen1), Kuiper second-generation satellite system (Gen2), and Kuiper polar system (Polar)	
Orbital Location:	Non-Geostationary Satellite Orbit (NGSO) <u>Gen 1 System</u> 3,232 satellites operating in the following orbital shells: 590 km, 30 and 33 degree inclination 610 km, 42 degree inclination 630 km, 51.9 degree inclination <u>Gen 2 System</u> 3,212 satellites operating in the following orbital	

¹ These applications were placed on public notice on July 3, 2025. *See Satellite Licensing Division and Satellite Programs and Policy Division Information, Applications Accepted for Filing*, Report No. SAT-01931 (July 3, 2025). Several interested parties filed petitions or comments and replies on the application and amendment. *See Comments of DIRECTV, LLC*, ICFS File Nos. SAT-LOA-20211104-00145, SAT-AMD-20250311-00068 (Aug. 4, 2025) (DIRECTV Comments); *Comments of Space Exploration Holdings, LLC*, ICFS File Nos. SAT-LOA-20211104-00145, SAT-AMD-20250311-00068 (Aug. 4, 2025) (SpaceX Comments); *Petition of Iridium Constellation LLC to Dismiss or Deny in Part and to Adopt Conditions*, ICFS File Nos. SAT-LOA-20211104-00145, SAT-AMD-20250311-00068 (Aug. 4, 2025) (Iridium Petition to Deny); *Petition to Deny of Viasat, Inc.*, ICFS File Nos. SAT-LOA-20211104-00145, SAT-AMD-20250311-00068 (Aug. 4, 2025) (Viasat Petition to Deny); *Consolidated Response and Opposition of Kuiper Systems, LLC*, ICFS File Nos. SAT-LOA-20211104-00145, SAT-AMD-20250311-00068 (Aug. 19, 2025) (Kuiper Consolidated Reply); *Reply of DIRECTV, LLC*, ICFS File Nos. SAT-LOA-20211104-00145, SAT-AMD-20250311-00068 (Aug. 27, 2025) (DIRECTV Reply); *Reply of Iridium Constellation, LLC*, ICFS File Nos. SAT-LOA-20211104-00145, SAT-AMD-20250311-00068 (Aug. 29, 2025) (Iridium Reply); *Reply of Viasat, Inc.*, ICFS File Nos. SAT-LOA-20211104-00145, SAT-AMD-20250311-00068 (Aug. 29, 2025) (Viasat Reply). Kuiper also filed a clarification letter and submitted an *ex parte*. *See Letter from Catherine Kuersten, Senior Corporate Counsel, Kuiper Systems LLC, to Marlene H. Dortch, Secretary, FCC in ICFS File Nos. SAT-LOA-20211104-00145, SAT-AMD-20250311-00068* (Aug. 22, 2025) (Kuiper August 22, 2025 Letter); *Letter from Negheen Sanjar, Corporate Counsel, Project Kuiper, to Marlene H. Dortch, Secretary, FCC, ICFS File Nos. SAT-LOA-20211104-00145, SAT-AMD-20250311-00068* (Sept. 11, 2025) (Kuiper September 11, 2025 *ex parte*). SpaceX filed an *ex parte*. *See Letter from Joseph Bissonnette, Principal, Satellite Policy, Space Exploration Technologies Corp., to Marlene H. Dortch, Secretary, FCC, ICFS File Nos. SAT-LOA-20211104-00145, SAT-AMD-20250311-00068* (Sept. 2, 2025) (SpaceX Sept. 2, 2025 *ex parte*).

² This grant is being reissued to modify condition 4 consistent with the Commission’s recently adopted *NGSO-GSO Spectrum Sharing Order* that replaced the Equivalent Power Flux Density (EPFD) framework for spectrum sharing between NGSO and GSO satellite systems. *See Modernizing Spectrum Sharing for Satellite Broadband*, Report and Order, SB Docket No. 25-157, FCC 26-26 (rel. May 1, 2026) (*NGSO-GSO Spectrum Sharing Order*). In that Order, the Commission directed current licensees to submit a letter request to “modify particular conditions in their grants consistent with the rule changes” adopted in the Order. *Id.* at para. 81, fn. 285. We note that the rules adopted in the *NGSO-GSO Spectrum Sharing Order* are not yet effective and Kuiper’s operations that exceed the EPFD limits in section 25.146 of the Commission’s rules are subject to the conditions below. 47 CFR § 25.146.

³ We note that Kuiper has recently changed the constellation name from Project Kuiper to Amazon Leo. *See Project Kuiper is now Amazon Leo*, <https://www.aboutamazon.com/news/amazon-leo/project-kuiper-becomes-amazon-leo>, last visited Nov. 25, 2025. This grant will continue to refer to Kuiper as the holder of the FCC license.

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	shells: 590 km, 33 degree inclination 610 km, 42 degree inclination 630 km, 51.9 degree inclination <u>Polar System</u> 1,292 satellites operating in the following orbital shells: 600 km, 82 degree inclination 620 km, 66 degree inclination 650 km, 80 degree inclination	
Administration:	United States of America	
Nature of Service:	Fixed Satellite-Service (FSS); Mobile Satellite-Service (MSS)	
Scope of Grant:	Authorization for Kuiper: (1) to communicate in additional Ka- and V-band frequencies on the Kuiper Gen1 system and (2) to communicate with both gateway earth stations and user terminals in all authorized frequencies. Authorization for Kuiper: (1) to deploy and operate 3,212 satellites comprising the Kuiper Gen2 system operating in orbital shells centered at 590 km, with a 33 degree inclination, 610 km with a 42 degree inclination, and 630 km with a 51.9 degree inclination; (2) to deploy and operate 1,292 satellites comprising the Kuiper Polar system operating in orbital shells centered at 600 km with a 82 degree inclination, 620 km with a 66 degree inclination, and 650 km with an 80 degree inclination; (3) to communicate in certain Ku-, Ka-, and V-band frequencies on its Gen2 and Polar system satellites; and (4) to communicate with both gateway earth stations and user terminals in all authorized frequencies.⁴ Grant of Kuiper’s request for waiver of the Commission’s equivalent power flux density (EPFD) limits for operations inside the United States.⁵	
Previous Grant(s):	Authority to construct, deploy, and operate 3,236 satellites operating in the Ka-band at altitudes of 590 km, 610 km, and 630 km (<i>Kuiper Authorization</i>).⁶ Modification of Kuiper’s license to approve Kuiper’s updated orbital debris mitigation plan (<i>Kuiper Orbital Debris Modification Order</i>).⁷	

⁴ We defer Kuiper’s request to operate in the 20.2-21.2 GHz and 30.0-31.0 GHz bands.

⁵ See Condition 4. Kuiper submitted a request seeking to modify its Gen1 system authorization operating conditions and waive the applicable EPFD limits in section 25.146. 47 CFR § 25.146; see Letter from Emily Hsu, Corporate Counsel, Kuiper Systems LLC, to Marlene H. Dortch, Secretary, FCC, ICFS File Nos. SAT-MOD-20210806-00095 and SAT-AMD-20230329-00067 (filed July 10, 2026) (Kuiper EPFD Letter); Letter from Emily Hsu, Corporate Counsel, Kuiper Systems LLC, to Marlene H. Dortch, Secretary, FCC, ICFS File Nos. SAT-MOD-20210806-00095, SAT-LOA-20211104-00145, SAT-AMD-20230329-00067, and SAT-AMD-20250311-00068 (filed Aug. 17, 2026) (Kuiper EPFD Supplement).

⁶ *Kuiper Systems, LLC, Application for Authority to Operate a Ka-band Non-Geostationary Satellite Orbit System*, Order and Authorization, 35 FCC Rcd 8324 (2020) (*Kuiper Authorization*).

⁷ *Kuiper Systems, LLC, Request for Modification of the Authorization for the Kuiper NGSO Satellite System*, Order and Authorization, 38 FCC Rcd 1112 (SB Feb. 8, 2023) (*Kuiper Orbital Debris Modification Order*).

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	Modification of Kuiper’s license to reduce total number of satellites from 3,236 to 3,232 and modify the orbital parameters (<i>Kuiper Orbital Parameters Modification Order</i>).⁸ Modification of Kuiper’s processing round coordination condition on its license (<i>Kuiper Processing Round Coordination Modification Grant</i>).⁹ Modification of Kuiper’s license to allow partial waiver of EPFD rules (<i>Kuiper EPFD Modification Order</i>).¹⁰
Service Area(s):	Global
Frequencies:	<u>Gen1 System Frequencies</u> Ka-Band:¹¹ 17.3-17.8 GHz (space-to-Earth) 17.8-18.6 GHz (space-to-Earth) 18.8-19.3 GHz (space-to-Earth) 19.3-19.7 GHz (space-to-Earth) 19.7-20.2 GHz (space-to-Earth) 27.5-28.6 GHz (Earth-to-space) 28.6-29.1 GHz (Earth-to-space) 29.1-29.5 GHz (Earth-to-space) 29.5-30.0 GHz (Earth-to-space) V-Band:¹² 37.5-42.0 GHz (space-to-Earth) 42.0-42.5 GHz (space-to-Earth) (outside of the U.S. and possessions (U.S.&P) only)¹³ 47.2-50.2 GHz (Earth-to-space) 50.4-51.4 GHz (Earth-to-space) 51.4-52.4 GHz (Earth-to-space) <u>Gen2 and Polar System Frequencies</u> Ku-Band: 10.7-12.7 GHz (space-to-Earth) 12.75-13.25 GHz (Earth-to-space) 14.0-14.5 GHz (Earth-to-space)

⁸ *Kuiper Systems, LLC, Request for Modification of the Authorization for the Kuiper NGSO Satellite System*, Order and Authorization, 39 FCC Rcd 2180 (SB rel. Mar. 8, 2024) (*Kuiper Orbital Parameters Modification Order*).

⁹ *Kuiper Systems, LLC*, Grant Stamp, ICFS File No. SAT-MOD-20230201-00013 (granted Apr. 5, 2024) (*Kuiper Processing Round Coordination Modification Grant*).

¹⁰ *Kuiper Systems, LLC, Request for Modification of the Authorization for the Kuiper NGSO Satellite System*, Order and Authorization, DA 24-376 (SB rel. April 22, 2024) (*Kuiper EPFD Modification Order*).

¹¹ Kuiper is authorized to provide both FSS and MSS in the 19.7-20.2 GHz (space-to-Earth) and 29.5-30.0 GHz (Earth-to-space) bands. *See Kuiper Authorization*, 35 FCC Rcd at 8328, paras. 19-23.

¹² We authorize Kuiper to provide both FSS and MSS globally in the 40.0-40.5 GHz (space-to-Earth) and 50.4-51.4 GHz (Earth-to-space) bands. *See Kuiper V-Band Amendment*, Legal Narrative at 13-14.

¹³ *See Kuiper V-band Amendment*, Legal Narrative at 7.

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	Ka-Band:¹⁴ 17.3-17.8 GHz (space-to-Earth) 17.8-18.6 GHz (space-to-Earth) 18.6-18.8 GHz (space-to-Earth) 18.8-19.3 GHz (space-to-Earth) 19.3-19.7 GHz (space-to-Earth) 19.7-20.2 GHz (space-to-Earth) 27.5-28.6 GHz (Earth-to-space) 28.6-29.1 GHz (Earth-to-space) 29.1-29.5 GHz (Earth-to-space) 29.5-30.0 GHz (Earth-to-space) V-Band:¹⁵ 37.5-42.0 GHz (space-to-Earth) 42.0-42.5 GHz (space-to-Earth) (outside of the U.S.&P only)¹⁶ 47.2-50.2 GHz (Earth-to-space) 50.4-51.4 GHz (Earth-to-space) 51.4-52.4 GHz (Earth-to-space)
Unless otherwise specified herein, operations under this grant must comport with the legal and technical specifications and commitments set forth by the applicant or petitioner and with the Federal Communications Commission's rules not waived herein. This grant is also subject to the conditions below. 1. During orbit-raising, including launch and early orbit phase operations, and deorbit of its satellites, Kuiper must operate on a non-harmful interference basis. 2. Kuiper's operations in Ka-band frequencies are subject to the following conditions: a. Kuiper's request for waiver of the U.S. Table of Frequency Allocations (U.S. Table), section 2.106(a), (d)(164) of the Commission's rules (47 CFR § 2.106(a), (d)(164)),¹⁷ to permit NGSO FSS downlink operations in the 18.6-18.8 GHz (space-to-Earth) band¹⁸ is GRANTED. Kuiper must operate in this band on an unprotected, non-interference basis, accept any interference from authorized services, and comply with the other conditions below regarding operations in this band. b. Kuiper's request for waiver of the U.S. Table, 47 CFR § 2.106(a), (d)(166),¹⁹ to permit the use of the 19.4-19.6 GHz band for FSS operations that are not limited to MSS feeder links is	

¹⁴ We authorize Kuiper to provide both FSS and MSS globally in the 19.7-20.2 GHz (space-to-Earth) and the 29.5-30.0 GHz (Earth-to-space) bands on the Gen2 and Polar systems. *See* Kuiper V-Band Amendment, Legal Narrative at 13.

¹⁵ We authorize Kuiper to provide both FSS and MSS globally in the 40.0-40.5 GHz (space-to-Earth) and 50.4-51.4 GHz (Earth-to-space) bands. *See* Kuiper V-Band Amendment, Legal Narrative at 13-14.

¹⁶ *See* Kuiper V-band Amendment, Legal Narrative at 7.

¹⁷ In the U.S. Table, FSS use of the 18.6-18.8 GHz (space-to-Earth) band is limited to GSO networks. 47 CFR § 2.106(a), (d)(164).

¹⁸ Kuiper V-Band Amendment, Legal Narrative at 9; *see also* 47 CFR § 2.106(a).

¹⁹ In the U.S. Table, NGSO FSS use of the 19.4-19.6 GHz band is limited to MSS feeder links. 47 CFR § 2.106(a), (d)(166).

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GRANTED.²⁰ Kuiper's operations under this waiver must be on an unprotected, non-interference basis, and Kuiper must accept any interference from authorized services and comply with the other conditions below regarding operations in this band.

- c. Operations in the 19.4-19.6 GHz band for FSS user links must be on an unprotected, non-interference basis to MSS feeder link operations.²¹ Kuiper may not commence FSS user link operations in this band until it completes coordination with authorized MSS users.
- d. MSS operations in the 19.7-20.2 GHz and 29.5-30 GHz bands shall be conducted on an unprotected, non-interference basis with respect to other FSS operations in these bands.
- e. Kuiper's request for authority to operate in the 20.2-21.2 GHz and 30.0-31.0 GHz bands is DEFERRED.

3. Kuiper's operations in V-band frequencies are subject to the following condition:

- a. Kuiper's request for waiver of the U.S. Table, 47 CFR § 2.106(a),²² to permit NGSO FSS uplink operations in the 51.4-52.4 GHz band is GRANTED.²³ Kuiper's operations under this waiver must be on an unprotected, non-interference basis, and Kuiper must accept any interference from authorized services and comply with the other conditions below regarding operations in this band. Kuiper's authorization is subject to any rules adopted as part of the *Satellite Spectrum Abundance* proceeding.²⁴

4. Kuiper's request for a waiver of sections 25.146(a)(2) and (c) of the Commission's rules to exceed applicable equivalent power flux density (EPFD) limits within the territories of the United States in the 17.3-17.8 GHz (space-to-Earth), 17.8-18.6 GHz (space-to-Earth), and 19.7-20.2 GHz (space-to-Earth) GHz bands²⁵ for the Gen1 satellites and the 10.7-12.7 GHz, 17.3-17.8 GHz, and 19.7-20.2 GHz (space-to-

²⁰ Kuiper V-Band Amendment, Legal Narrative at 10; *see also* 47 CFR § 2.106(a). We note that Iridium opposes Kuiper's intended use of the 19.4-19.6 GHz band for "FSS operations that are not limited to feeder links." Iridium Petition to Deny at 1-2. We have conditioned Kuiper's operations in this band to require coordination of its FSS operations not limited to MSS feeder links with MSS operators, including Iridium, prior to commencement of operations to protect MSS feeder link operations in this band, which we believe will sufficiently allay Iridium's concerns.

²¹ Kuiper is required to protect any future operators of MSS feeder links in this band operating in accordance with the U.S. Table.

²² In the U.S. Table, the 51.4-52.4 GHz band is allocated to the Fixed and Mobile Services on a primary basis for Federal and non-Federal use. 47 CFR § 2.106(a).

²³ *See* Kuiper V-Band Amendment, Legal Narrative at 11.

²⁴ *See FCC Looks to Unleash More Spectrum for Satellite Spectrum Abundance*, Notice of Proposed Rulemaking, 40 FCC Red 3794 (2025) (*Spectrum Abundance NPRM*).

²⁵ *See* Kuiper EPFD Supplement at 1-2. The Commission replaced the EPFD framework for spectrum sharing between NGSO and GSO satellite systems with the adoption of the May 2026 *NGSO-GSO Spectrum Sharing Order*. In the *NGSO-GSO Spectrum Sharing Order*, the Commission directed that current licensees may submit a letter request to "modify particular conditions in their grants consistent with the rule changes." *NGSO-GSO Spectrum Sharing Order* at para. 81, n.285. We note that the rules adopted in the *NGSO-GSO Spectrum Sharing Order* are not yet effective, and Kuiper's operations in any applicable frequency band that exceed the EPFD limits in section 25.146 of the Commission's rules are subject to the conditions adopted in this authorization. 47 CFR § 25.146.

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Earth) bands for the Gen2 and polar satellites is GRANTED.²⁶ Kuiper's operations are subject to the following conditions:

- a. In the Ku-band, Kuiper may not use more than eight (8) satellite beams from any of its authorized satellites in the same frequency in the same or overlapping areas at a time.
- b. Kuiper must maintain a minimum GSO arc exclusion zone of at least three (3) degrees with respect to any operational co-frequency GSO space station serving the United States.²⁷
- c. Operations outside of the United States must comply with the EPFD limits in the Commission's rules, except to the extent another country has authorized different operational limits for communications from satellites to earth stations within that country.
- d. Kuiper's operations pursuant to this waiver must be conducted on an unprotected and non-interference basis.²⁸ In the event the Space Bureau notifies Kuiper of a determination that it has caused harmful interference, Kuiper must immediately return to operating in accordance with the Commission's EPFD limits in the affected frequency bands. Kuiper will also be required to communicate to its affected customers how it is rectifying the situation if mediation will affect their service. The Space Bureau will revoke the waiver in the event of unresolved harmful interference.
- e. We previously granted Kuiper a partial waiver of section 25.146(c) to allow it to begin operations prior to receiving a favorable or qualified favorable finding from the ITU.²⁹ Until Kuiper receives a favorable or qualified favorable finding from the ITU pursuant to 47 CFR § 25.146 for its Gen1, Gen2, and polar satellites, Kuiper must make available to any requesting party the data used as input to the ITU-approved validation software to demonstrate compliance with applicable EPFD limits for its operations outside the U.S., including the data that combine Kuiper's satellites into one consolidated file for each constellation.³⁰

²⁶ We acknowledge that multiple commenters objected to the initial grant of Kuiper's waiver request. *See, e.g., Viasat Petition to Deny at 2-13; Viasat Reply at 2-13; DIRECTV Comments; DIRECTV Reply; but see SpaceX Comments at 1* (supporting Kuiper's waiver request). We grant Kuiper's waiver request consistent with our recent grant of a similar waiver request for Space Exploration Holdings, LLC (SpaceX), and require Kuiper to comply with the same conditions. We also note that this waiver is subject to the rules adopted in the Commission's recent rulemaking on EPFD limits. *See NGSO-GSO Spectrum Sharing Order*. Kuiper must bring its operations into compliance with the new rules upon the effective date of those rules.

²⁷ *See NGSO-GSO Spectrum Sharing Order* at Appendix A, § 25.146(a)(3)(i)(D); Kuiper EPFD Supplement at 2.

²⁸ While Kuiper's compatibility showing remains pending before the Space Bureau, Kuiper must continue to operate under this waiver on an unprotected, non-interference basis with respect to any co-frequency GSO network with which coordination has not been completed. *See NGSO-GSO Spectrum Sharing Order* at paras. 77-78, Appendix A, § 25.146(a)(3)(ii). *See also* Kuiper EPFD Letter at 1-2; Kuiper EPFD Supplement at 2-3, 5, 6-7. Upon Commission approval of Kuiper's compatibility showing for the Gen1 satellite system, this condition will no longer apply and Kuiper may operate its Gen1 satellite system in the 17.3-17.8 GHz, 17.8-18.6 GHz, and 19.7-20.2 GHz bands consistent with the rules adopted in the *NGSO-GSO Spectrum Sharing Order* and the other conditions contained herein.

²⁹ *See generally Kuiper EPFD Modification Order*.

³⁰ We find this resolves Viasat's concerns regarding Kuiper's compliance with the Commission's EPFD limits in the uplink direction and in both directions outside the United States. *See Viasat Petition to Deny at 13-14; Viasat Reply at 13-15*. Viasat specifically requests the Commission require Kuiper to demonstrate that all three of its constellations combined comply with the EPFD limits in the aggregate, but Kuiper has clarified that its three constellations operate independently and serve different geographic regions, and we agree this distinct geographic separation makes demonstration of the joint compliance of all three systems unnecessary. *Id.*; *see also* Kuiper

(continued....)

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5. Kuiper's operations in the licensed 27.5-29.1 GHz (Earth-to-space), 29.1-30.0 GHz (Earth-to-space), and 42.0-42.5 GHz (space-to-Earth) bands shall not cause harmful interference to current and future operational U.S. Federal systems operating pursuant to primary Federal allocations. Kuiper shall coordinate through mutual exchange of system information, to the extent possible consistent with national security requirements, in good faith, and on an ongoing basis, with potentially affected U.S. Federal systems to ensure protection of operational U.S. Federal systems. In all cases, Kuiper must provide all necessary system information and technical parameters to the affected Federal entities to allow those entities to conduct their required interference analyses. Kuiper shall maintain sufficient information to timely investigate and resolve documented instances of harmful interference and make available such information to affected Federal entities upon request. Kuiper shall adjust its operations to accommodate future operational U.S. Federal systems and aggregate effects into U.S. Federal systems. Upon receiving a documented report of harmful interference from an affected U.S. Federal system, Kuiper shall immediately cease the operation causing the harmful interference until the issue is resolved and coordination with the affected Federal entity is complete.
6. Kuiper must complete coordination with potentially affected Federal Agencies and Services engaged in national security or safety-of-life services, through mutual exchange of system information, to the extent possible consistent with national security requirements, prior to operating in the 17.3-17.8 GHz (space-to-Earth), 17.8-18.6 GHz (space-to-Earth), 18.6-18.8 GHz (space-to-Earth), 18.8-19.3 GHz (space-to-Earth), 19.3-19.7 GHz (space-to-Earth), 19.7-20.2 GHz (space-to-Earth),³¹ 37.5-41.0 GHz (space-to-Earth), 47.2-50.2 GHz (Earth-to-space), and 50.4-52.4 GHz (Earth-to-space) bands, which are allocated on a primary basis to Federal services or are adjacent to primary Federal allocations. Kuiper shall notify the Commission within 30 days after completion of coordination, with a copy to NTIA and the relevant Federal entity. Notification shall be submitted via the FCC's ICFS. Two weeks prior to the start of any operations in such bands, Kuiper must provide contact information for a 24/7 point of contact for the resolution of any harmful interference to contacts provided by the NTIA.
7. Kuiper's MSS operations in the Ka- and V-bands must comply with the same technical parameters as its FSS operations.
8. Kuiper's request for waiver of section 25.146(a) of the Commission's rules for power flux-density (PFD) limits for its downlink TT&C operations for the Gen2 and Polar Systems is GRANTED.³² Specifically, Kuiper states that for elevation angles below 25° the maximum PFD levels for the 19.25-19.4 GHz band exceed the ITU PFD limits because the calculation used to determine the maximum PFD levels factors in the number of visible satellites from a ground station perspective.³³ Kuiper states that the number of satellites simultaneously operating TT&C in the 19.25-19.4 GHz band will be only a small percentage of the number of visible satellites and therefore the actual PFD will be within the ITU limits.³⁴ Due to the limited use of TT&C in this band, we find that grant of this waiver is in the public interest.

Consolidated Reply at 3-4. Consistent with prior orders regarding the Kuiper system, we maintain the requirement that Kuiper demonstrate that each system as a whole complies with the EPFD limits outside the United States. *See generally Kuiper EPFD Modification Order.*

³¹ Space-to-Earth operation in the 17.8-20.2 GHz bands must complete coordination with U.S. Federal systems prior to the commencement of operations, in accordance with footnote US334 to the U.S. Table, 47 CFR § 2.106(c)(334).

³² *See* Kuiper V-Band Amendment, Legal Narrative at 14-15; 47 CFR § 25.146(a)(1).

³³ *See* Kuiper V-Band Amendment, Gen2 Technical Attachment at 11; Polar Technical Attachment at 10.

³⁴ *See* Kuiper V-Band Amendment, Gen2 Technical Attachment at 11; Polar Technical Attachment at 10. In Figure 3 on page 11 of the Gen2 Technical Attachment and page 10 of the Polar Technical Attachment, Kuiper demonstrates that it will meet the PFD limits in the 19.25-19.4 GHz band with 10 simultaneously operating satellites.

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9. Kuiper's request for waiver of section 25.157 of the Commission's processing round rules for certain new frequencies in the Ka- and V-bands is GRANTED.³⁵ We also waive section 25.157 of the Commission's processing round rules on our own motion for certain new frequencies in the Ku-, Ka-, and V-bands.³⁶ Kuiper must coordinate with any and all existing and future FSS operators in these bands and comply with any sharing requirements that may be adopted as part of a future processing round in these bands.
10. Kuiper's orbital debris mitigation plan is approved.³⁷ Kuiper must provide a semi-annual report, by January 1 and July 1 each year, covering the preceding six-month period, respectively, from June 1 to November 30 and December 1 to May 31, and covering all three systems. The report should include the following information:³⁸
- a. The number of conjunction events identified for Kuiper satellites during the reporting period, and the number of events that resulted in an action (maneuver or coordination with another operator), as well as any difficulties encountered in connection with the collision avoidance process and any measures taken to address those difficulties.
 - b. Satellites that, for purposes of disposal, were removed from operation or screened from further deployment at any time following initial deployment, and identifying whether this occurred less than five years after the satellite began regular operations or were available for use as an on-orbit replacement satellite.
 - c. Satellites that re-entered the atmosphere.
 - d. Satellites for which there was a disposal failure, i.e., a satellite that loses the capability to maneuver effectively after being raised from its injection, including a discussion of any assessed cause of the failure and remedial actions.
 - e. Identification of any collision avoidance system outages or unavailability, either on a system-

³⁵ See Kuiper V-Band Amendment, Legal Narrative at 11-13; 47 CFR § 25.157. Specifically, Kuiper requests a waiver for its use of the 17.3-17.8 GHz, 18.6-18.8 GHz, 19.4-19.6 GHz, and 51.4-52.4 GHz bands. See Kuiper V-Band Amendment, Legal Narrative at 11-12. We note that the 37.5-42.0 GHz, 47.2-50.2 GHz, and 50.4-51.4 GHz bands are part of the Second V-Band Processing Round. See *Cut-Off Established for Additional NGSO-Like Satellite Systems in the 37.5-40.0 GHz, 40.0-42.0 GHz, 47.2-50.2 GHz, and 50.4-51.4 GHz Bands*, Public Notice, Report No. SPB-288, DA 21-941 (rel. Aug. 4, 2021).

³⁶ Kuiper originally requested that its application for Ku-band frequencies be treated as a lead application for the purpose of initiating a new processing round. See Kuiper V-Band Application, Legal Narrative at 1, n.1, ICFS File No. SAT-LOA-20211104-00145. Specifically, we waive the processing round rules for the 10.7-12.7 GHz, 12.75-13.25 GHz, 14.0-14.5 GHz, 17.8-18.6 GHz, 18.8-19.4 GHz, 19.6-20.2 GHz, 27.5-30.0 GHz, and 42.0-42.5 GHz bands.

³⁷ SpaceX and Viasat raised concerns that Kuiper's original application, as amended, did not provide sufficient information regarding its orbital debris mitigation plans. See SpaceX Comments at 2; Viasat Petition to Deny at 14-15; Viasat Reply at 15. Kuiper has since supplemented its application with additional orbital debris mitigation information. See Letter from David Kaufman, Senior Manager, Regulatory Policy and Analysis, Kuiper Systems LLC, to Marlene H. Dortch, Secretary, FCC, ICFS File Nos. SAT-LOA-20211104-00145 and SAT-AMD-20250311-00068 (filed Jun. 27, 2025); Letter from Michael J. Carlson, Senior Corporate Counsel, Kuiper Systems LLC, to Marlene H. Dortch, Secretary, FCC, ICFS File Nos. SAT-LOA-20211104-00145 and SAT-AMD-20250311-00068 (filed Jan. 12, 2026); Ex Parte Presentation of Kuiper Systems LLC, ICFS File Nos. SAT-LOA-20211104-00145 and SAT-AMD-20250311-00068 (filed Jan. 23, 2026). The Space Bureau has reviewed this information, and we find that Kuiper's proposed operations comply with the Commission's orbital debris mitigation rules. We also find this resolves Viasat's concerns regarding the public interest benefits of the Kuiper systems.

³⁸ We note that proposed reporting requirements for satellite systems are included in an ongoing rulemaking. See *Space Modernization for the 21st Century*, Notice of Proposed Rulemaking, FCC 25-69, SB Docket No. 25-306 (rel. Oct. 29, 2025) (*Space Modernization NPRM*). This condition is subject to the outcome of that rulemaking.

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wide basis or for individual satellites. An “outage” would include any individual satellite anomaly that results in a satellite not achieving targeted risk mitigation via maneuver.

11. Kuiper must also provide a report if, during any continuous one-year period, there are two or more satellite disposal failures across all three systems combined. Such report shall be filed not later than 10 days following the second disposal failure and must either state the assessed cause of the failure and remedial actions for each of the disposal failures during the period, if available, or provide a schedule for completion of a process for doing so.
12. This authorization is also subject to the following milestone requirements:
 - a. Applicable to Kuiper Gen1 satellites:³⁹
 - i. Kuiper must launch 50% of the maximum number of authorized space stations, place them in the assigned orbits, and operate them in accordance with the station authorization no later than July 30, 2026, and Kuiper must launch the remaining space stations necessary to complete its authorized service constellation, place them in their assigned orbits, and operate each of them in accordance with the authorization no later than July 30, 2029.⁴⁰
 - ii. The 15-year license term for the Gen1 satellites will end on October 6, 2038.⁴¹
 - b. Applicable to Kuiper Gen2 satellites:⁴²
 - i. Kuiper must launch 50 percent of the maximum number of authorized space stations, place them in the assigned orbits, and operate them in accordance with this grant no later than February 9, 2032, and must launch the remaining space stations necessary to complete its authorized Gen2 system, place them in their assigned orbits, and operate them in accordance with the authorization no later than February 9, 2035.⁴³

³⁹ We note that although we authorize Kuiper to operate in additional frequencies in the Ka-band and V-band on its Gen1 satellites, we retain the current milestones for the Gen1 system. See 47 CFR § 25.164(h). Kuiper filed an application requesting to extend or waive the July 30, 2026 interim milestone requirement. See ICFS File No. SAT-MOD-20260129-00065, SAT-MOD-20210806-00095 (filed Jan. 30, 2026). Kuiper’s Gen1 system operations are subject to the additional requirements and conditions adopted in the Bureau’s June 2026 Order, addressing the requested waiver of the Commission’s milestone rules. See *Kuiper Systems LLC, Application for Extension or Waiver of the Milestone Deadline*, Order, DA 26-553, ICFS File No. SAT-MOD-20260129-00065 (SB rel. June 5, 2026) (*Kuiper Milestone Order*). To the extent any such requirements or conditions in the *Kuiper Milestone Order* conflict with the conditions originally set forth in this authorization, the terms of the *Kuiper Milestone Order* take precedence.

⁴⁰ 47 CFR § 25.164(b). Kuiper posted the surety bond for its Gen1 satellites operating in the Ka-band frequencies. See Letter from Michael J. Carlson, Senior Corporate Counsel, Kuiper Systems, LLC to Marlene H. Dortch, Secretary, FCC, Surety Bond Rider Submission, ICFS File Nos. SAT-LOA-20190704-00057, SAT-MOD-20211207-00186 (July 11, 2025).

⁴¹ See 47 CFR § 25.121. The first two satellites launched and operated as part of Kuiper’s Gen1 satellite system were initially authorized under a part 5 experimental license. See Kuiper Systems, LLC, ELS File No. 0956-EX-CN-2021 (granted June 9, 2022); ELS File No. 0108-EX-CM-2023 (granted Sept. 1, 2023). These satellites were later included as part of Kuiper’s part 25 authorization. See *Kuiper Orbital Parameters Modification Order*. These satellites were launched and began operating on October 6, 2023. See Kuiper Systems LLC, Required Satellite Status Notification, ELS File No. 0108-EX-CM-2023 (granted Sept. 1, 2023).

⁴² This milestone is applicable to all Gen2 satellites operating in the Ku-, Ka-, and V-band frequencies authorized in this grant.

⁴³ 47 CFR § 25.164(b).

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ii. Kuiper must post a surety bond for the Gen2 system in satisfaction of 47 CFR §§ 25.165(a)(1) & (b) no later than March 11, 2026, and thereafter maintain on file a surety bond requiring payment in the event of a default in an amount, at minimum, determined according to the formula set forth in 47 CFR § 25.165(a)(1). iii. The license term is 15 years and will begin at 3 a.m. EST on the date that Kuiper certifies to the Commission that the first Gen2 satellite has been successfully placed into orbit and its operations fully conform to the terms and conditions of this authorization. Kuiper must file such certification within five (5) business days of placing the first Gen2 satellite into operation. c. Applicable to Kuiper Polar satellites:⁴⁴ i. Kuiper must launch 50 percent of the maximum number of authorized space stations, place them in the assigned orbits, and operate them in accordance with this grant no later than February 9, 2032, and must launch the remaining space stations necessary to complete its authorized Gen2 system, place them in their assigned orbits, and operate them in accordance with the authorization no later than February 9, 2035.⁴⁵ ii. Kuiper must post a surety bond for the Polar system in satisfaction of 47 CFR §§ 25.165(a)(1) & (b) no later than March 11, 2026, and thereafter maintain on file a surety bond requiring payment in the event of a default in an amount, at minimum, determined according to the formula set forth in 47 CFR § 25.165(a)(1). iii. The license term is 15 years and will begin at 3 a.m. EST on the date that Kuiper certifies to the Commission that the first Polar satellite has been successfully placed into orbit and its operations fully conform to the terms and conditions of this authorization. Kuiper must file such certification within five (5) business days of placing the first Polar satellite into operation. 13. Kuiper's request to waive part of section 25.114(a)(1) of the Commission's rules due to various limitations in the Schedule S software is GRANTED.⁴⁶ 14. IT IS FURTHER ORDERED that the Petition to Dismiss or Deny of Iridium Constellation LLC is DENIED. 15. IT IS FURTHER ORDERED that the Petition to Deny of Viasat, Inc. is DENIED.		
Licensee/grantee is afforded thirty (30) days from the date of release of this action to decline the grant as conditioned. Failure to respond within this period will constitute formal acceptance of the grant as conditioned. This action is taken pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 CFR § 0.261, and is effective upon release. Station licenses are subject to the conditions specified in Section 309(h) of the Communications Act of 1934, as amended, 47 U.S.C. § 309(h).		
Action Date:	August 21, 2026	
Term Dates:	From: see conditions	To: see conditions

⁴⁴ This milestone is applicable to all Polar satellites operating in the Ku-, Ka-, and V-band frequencies authorized in this grant.

⁴⁵ 47 CFR § 25.164(b).

⁴⁶ Kuiper V-band Amendment, Legal Narrative at 2, n. 3.

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Approved:

Jennifer M. Gilsenan
Acting Chief, Space Bureau