ATLAS Space Operation, LLC
10850 E. Traverse Highway, Suite 3355
Traverse City, Michigan 49684-1363

May 26, 2026

TO: Ms. Marlene H. Dortch
Secretary, Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: Request for Special Temporary Authority

Dear Ms. Dortch,

Pursuant to Section 25.120 of the Commission's Rules, ATLAS Space Operations, Inc (ATLAS) requests Special Temporary Authority (STA) for One Hundred Eighty (180) days or until a fixed license is granted, commencing upon grant for the operation of our satellite earth station in Guam (call sign E190037) to communicate with the Planet IQ Gnomes 4 and 5 (call sign S3153 and S3185). This request is of a temporary nature to cover the period of time until a full earth station license modification can be submitted to add this point of communication.

Please note both S3153 and S3185 listed the ATLAS E190037 site as Harmon, Guam instead of the official licensed description of Dededo, Guam. Both of these names reference the same location and antenna.

S3153 SAT-MOD-20231222-00325, SAT-AMD20250604-00135 (common name Gnomes-4)
S3185 SAT-MOD-20250616-001461 (common name Gnomes-5)
Licensed: S3153 dated December 4, 2023
S3185 dated August 19, 2024
Launch date: currently on orbit
ATLAS earth station location: E190037 (Dededo, Guam).
Frequency Coordination:
S-band: report attached dated March 30, 2026 including coordination with Society of Broadcast Engineers.

S3153 and S3185

Transmission Direction	Satellite	Lower	Center Frequency (MHz)	Upper	Emission	Polarity	Max EIRP per carrier (dBW)	Max EIRP density per carrier (dBW/4kHz)
earth-to-space	S3153 S3185	2080.9	2081.0	2081.1	200KG1D	RHCP	52.4	35.4
space-to-earth	S3153 S3185	8250.0	8260.0	8270.0	20M0G1D	RHCP	-	-

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Operation of the Guam earth station will enable frequent, predictable contact with the spacecraft to support potential collision avoidance, perform orbit maintenance, and conduct payload operations.

If approved, communications will be on a secondary non-interference basis and we will discontinue operation in the event of any reported interference.

24 hour contact information for the Guam earth station is as follows: +1 231 598 6184 x222

Clint Schlegel, +1 231 631 5983, clint.schlegel@atlasspace.com

Operations Office - +1 231 598 6184 x 222 or
+1 877 392 8527 x 222
ops@atlasspace.com

Respectfully Submitted,

Clint Schlegel

Clint Schlegel
Head of Licensing and Regulatory
ATLAS Space Operations

Enclosure: 1) Guam frequency coordination report dated March 30, 2026
2) S3153 FCC grant dated Dec 4, 2023
3) S3185 FCC grant dated Aug 19, 2024

FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for
Atlas Space Operations, Inc.
DEDEDO, GU
Satellite Earth Station

Prepared By:
COMSEARCH
21515 Ridgetop Circle, Suite 300
Sterling, VA 20166
March 30, 2026

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1. CONCLUSIONS

An interference study considering all existing, proposed and prior coordinated microwave facilities within the coordination contours of the proposed earth station demonstrates that this site will operate satisfactorily with the common carrier microwave environment. Further, there will be no restrictions of its operation due to interference considerations.

2. SUMMARY OF RESULTS

A number of great circle interference cases were identified during the interference study of the proposed earth station. Each of the cases, which exceeded the interference objective on a line-of-sight basis, was profiled and the propagation losses estimated using NBS TN101 (Revised) techniques. The losses were found to be sufficient to reduce the signal levels to acceptable magnitudes in every case.

3. SUPPLEMENTAL SHOWING

Pursuant to Part 25.203(c) of the FCC Rules and Regulations, the satellite earth station proposed in this application was coordinated by Comsearch using computer techniques and in accordance with Part 25 of the FCC Rules and Regulations.

Coordination data for this earth station was sent to the below listed carriers with a letter dated 02/20/2026.

Company
3G Wireless, LLC
AERIAL VIDEO SYSTEMS
Borgeson, Tom R.
Broadcast Sports Inc.
Casper, John
Citywide News Network, Inc.
CP Communications, LLC
DCI II, INC.
Direct Broadcast Services, Inc.
Frontier California Inc.
Gray Televions Licensee, LLC (KTVF)
HF Enterprises, Inc
Hallco Unlimited, Inc.
Heiden, William
im360 Entertainment
Information & Display Systems, Inc.
Information Super Station, LLC
International Communications Group, Inc.
International Electronic Information Services, Inc.
Interlink Network Corp.
Loop, Inc.
MERCURY COMMUNICATIONS
Microwave Video systems, LLC
Moreen, Steven K
NSM Surveillance
Navajo Communications Company
Onboard Images
Penn Service Microwave Co., Inc.
Plateau Telecommunications, Inc.
Plum TV, LLC
Production & Satellite Services, Inc.
REMOTE FACILITIES CONSULTING SERVICES
RF Central, LLC
RF Film, Inc
Radiofone, Inc.
Randy Hermes Production
Remote Broadcasts, Inc.
SBE Coordinator
Speedshotz, Inc
TTWN Networks, LLC

Unisat, Inc.
Vitec Broadcast Services, Inc
Winged Vision Inc
Wolfe Air Aviation

4. EARTH STATION COORDINATION DATA

This section presents the data pertinent to frequency coordination of the proposed earth station that was circulated to all carriers within its coordination contours.

COMSEARCH

Earth Station Data Sheet

19700 Janelia Farm Boulevard, Ashburn, VA 20147
(703)726-5500 http://www.comsearch.com

Date: 03/30/2026
Job Number: 260220COMSGE06

Administrative Information

Status	ENGINEER PROPOSAL
Call Sign	E190037
Licensee Code	ATLSPC
Licensee Name	Atlas Space Operations, Inc.

Site Information — DEDEDO, GU

Venue Name	
Latitude (NAD 83)	13° 30' 48.8" N
Longitude (NAD 83)	144° 49' 31.1" E
Climate Zone	C
Rain Zone	4
Ground Elevation (AMSL)	181.5 m / 595.5 ft

Link Information

Satellite Type	Low Earth Orbit
Mode	TO - Transmit-Only
Modulation	Digital
Minimum Elevation Angle	5.0°
Azimuth Range	0.0° to 360°
Antenna Centerline (AGL)	4.7 m / 15.4 ft

Antenna Information — Transmit - FCC32

Manufacturer		Gaia
Model		3.7 meter
Gain / Diameter		35.0 dBi / 3.7 m
3-dB / 15-dB Beamwidth		2.77° / 5.00°
Max Available RF Power	(dBW/4 kHz)	13.4
	(dBW/MHz)	37.4
Maximum EIRP	(dBW/4 kHz)	48.4
	(dBW/MHz)	72.4
Interference Objectives:	Long Term	-154.0 dBW/4 kHz 20%
	Short Term	-131.0 dBW/4 kHz 0.0025%

Frequency Information — Transmit 2.0 GHz

Emission / Frequency Range (MHz)

4M50G1D / 2035.25 - 2039.75
40K0G1D / 2037.48 - 2037.52
2M66G1D / 2045.17 - 2047.83
1M33G1D / 2045.835 - 2047.165
170KG1D / 2046.415 - 2046.585
2M66G1D / 2047.97 - 2050.63
200KF1D / 2048.4 - 2048.6
10K0F1D / 2048.495 - 2048.505
1M00G1D / 2048.5 - 2049.5
2M00G1D / 2048.5 - 2050.5
1M33G1D / 2048.635 - 2049.965
700KG1D / 2048.65 - 2049.35
140KG1D / 2048.6796 - 2048.8204
1M50G1D / 2048.75 - 2050.25
140KG1D / 2048.7796 - 2048.9204
440KG1D / 2048.78 - 2049.22
140KG1D / 2048.8796 - 2049.0204
100KG1D / 2048.95 - 2049.05
140KG1D / 2048.9796 - 2049.1204
700KG1D / 2049.15 - 2049.85
170KG1D / 2049.215 - 2049.385
440KG1D / 2049.28 - 2049.72
240KG1D / 2049.38 - 2049.62

160KG1D / 2049.42 - 2049.58
80K0G1D / 2049.46 - 2049.54
1M00G1D / 2049.5 - 2050.5
700KG1D / 2049.65 - 2050.35
440KG1D / 2049.78 - 2050.22
140KG1D / 2049.8796 - 2050.0204
100KG1D / 2049.95 - 2050.05
140KG1D / 2049.9796 - 2050.1204
140KG1D / 2050.0796 - 2050.2204
140KG1D / 2050.1796 - 2050.3204
180KG1D / 2052.01 - 2052.19
120KG1D / 2052.04 - 2052.16
180KG1D / 2052.91 - 2053.09
120KG1D / 2052.94 - 2053.06
180KG1D / 2053.61 - 2053.79
120KG1D / 2053.64 - 2053.76
500KG1D / 2059.75 – 2060.25
2M66G1D / 2061.37 - 2064.03
1M33G1D / 2062.035 - 2063.365
170KG1D / 2062.615 - 2062.785
180KG1D / 2063.875 - 2064.055
120KG1D / 2063.905 - 2064.025
600KG1D / 2064.05 - 2064.65
180KG1D / 2064.875 - 2065.055
120KG1D / 2064.905 - 2065.025
180KG1D / 2065.875 - 2066.055
120KG1D / 2065.905 - 2066.025
2M66G1D / 2066.87 - 2069.53
120KG1D / 2067.29 - 2067.41
1M33G1D / 2067.535 - 2068.865
170KG1D / 2068.115 - 2068.285
675KG1D / 2068.6625 - 2069.3375
270KG1D / 2068.865 - 2069.135
135KG1D / 2068.9325 - 2069.0675
132KG1D / 2069.934 - 2070.066
99K0G1D / 2069.9505 - 2070.0495
200KF1D / 2071.775 - 2071.975
2M66G1D / 2073.67 - 2076.33
1M33G1D / 2074.335 - 2075.665
170KG1D / 2074.915 - 2075.085
2M66G1D / 2076.07 - 2078.73
1M33G1D / 2076.735 - 2078.065
170KG1D / 2077.315 - 2077.485
100KG7D / 2079.95 - 2080.05
200KG1D / 2080.9 - 2081.1
300KF1D / 2084.85 - 2085.15
300KG1D / 2084.85 - 2085.15
5M00G1D / 2095.0 - 2100.0
1M25G1D / 2095.875 - 2097.125
1M20G1D / 2095.9 - 2097.1
1M00G1D / 2097.0 - 2098.0
1M25G1D / 2097.875 - 2099.125
1M20G1D / 2097.9 - 2099.1
200KF1D / 2102.9 - 2103.1
10K0F1D / 2102.995 - 2103.005

Max Great Circle Coordination Distance	220.0 km / 136.7 mi
Precipitation Scatter Contour Radius	344.7 km / 214.2 mi

COMSEARCH

Earth Station Data Sheet

19700 Janelia Farm Boulevard, Ashburn, VA 20147
(703)726-5500 http://www.comsearch.com

Coordination Values	**DEDEDO, GU**
Licensee Name	Atlas Space Operations, Inc.
Latitude (NAD 83)	13° 30' 48.8" N
Longitude (NAD 83)	144° 49' 31.1" E
Ground Elevation (AMSL)	181.5 m / 595.5 ft
Antenna Centerline (AGL)	4.7 m / 15.4 ft
Antenna Model	3.7 meter
Antenna Mode	Transmit 2.0 GHz
Interference Objectives: Long Term	-154.0 dBW/4 kHz 20%
Short Term	-131.0 dBW/4 kHz 0.0025%
Max Available RF Power	13.4 (dBW/4 kHz)

		Transmit 2.0 GHz		
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	80.22	14.40	220.00
5	0.00	82.84	14.40	220.00
10	0.00	85.51	14.40	220.00
15	0.00	88.20	14.40	220.00
20	0.00	90.90	14.40	220.00
25	0.00	93.59	14.40	220.00
30	0.00	96.26	14.40	220.00
35	0.00	98.91	14.40	220.00
40	0.00	101.50	14.40	220.00
45	0.00	104.02	14.40	220.00
50	0.00	106.46	14.40	220.00
55	0.00	108.81	14.40	220.00
60	0.00	111.03	14.40	220.00
65	0.00	113.12	14.40	220.00
70	0.00	115.06	14.40	220.00
75	0.00	116.81	14.40	220.00
80	0.00	118.38	14.40	220.00
85	0.00	119.72	14.40	220.00
90	0.00	120.83	14.40	220.00
95	0.00	121.70	14.40	220.00
100	0.00	122.29	14.40	220.00
105	0.00	122.62	14.40	220.00
110	0.00	122.67	14.40	220.00
115	0.00	122.43	14.40	220.00
120	0.00	121.93	14.40	220.00
125	0.00	121.15	14.40	220.00
130	0.00	120.12	14.40	220.00
135	0.00	118.85	14.40	220.00
140	0.00	117.36	14.40	220.00
145	0.00	115.67	14.40	220.00
150	0.00	113.79	14.40	220.00
155	0.00	111.75	14.40	220.00
160	0.00	109.57	14.40	220.00
165	0.22	107.16	14.40	220.00
170	0.25	104.75	14.40	220.00
175	0.00	102.35	14.40	220.00
180	0.00	99.78	14.40	220.00
185	0.00	97.16	14.40	220.00

COMSEARCH

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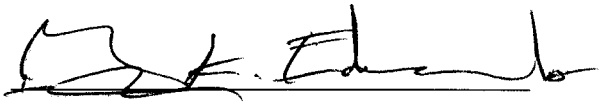
Short Term	-131.0 dBW/4 kHz 0.0025%
Max Available RF Power	13.4 (dBW/4 kHz)

			Transmit 2.0 GHz	
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	94.49	14.40	220.00
195	0.00	91.80	14.40	220.00
200	0.00	89.10	14.40	220.00
205	0.00	86.41	14.40	220.00
210	0.00	83.74	14.40	220.00
215	0.00	81.09	14.40	220.00
220	0.00	78.50	14.40	220.00
225	0.00	75.98	14.40	220.00
230	0.00	73.54	14.40	220.00
235	0.00	71.19	14.40	220.00
240	0.00	68.97	14.40	220.00
245	0.00	66.88	14.40	220.00
250	0.00	64.94	14.40	220.00
255	0.00	63.19	14.40	220.00
260	0.00	61.62	14.40	220.00
265	0.00	60.28	14.40	220.00
270	0.00	59.17	14.40	220.00
275	0.00	58.30	14.40	220.00
280	0.00	57.71	14.40	220.00
285	0.00	57.38	14.40	220.00
290	0.00	57.33	14.40	220.00
295	0.00	57.57	14.40	220.00
300	0.00	58.07	14.40	220.00
305	0.00	58.85	14.40	220.00
310	0.00	59.88	14.40	220.00
315	0.00	61.15	14.40	220.00
320	0.00	62.64	14.40	220.00
325	0.00	64.33	14.40	220.00
330	0.00	66.21	14.40	220.00
335	0.00	68.25	14.40	220.00
340	0.00	70.43	14.40	220.00
345	0.00	72.74	14.40	220.00
350	0.00	75.15	14.40	220.00
355	0.00	77.65	14.40	220.00

5. CERTIFICATION

I HEREBY CERTIFY THAT I AM THE TECHNICALLY QUALIFIED PERSON RESPONSIBLE FOR THE PREPARATION OF THE FREQUENCY COORDINATION DATA CONTAINED IN THIS APPLICATION, THAT I AM FAMILIAR WITH PARTS 101 AND 25 OF THE FCC RULES AND REGULATIONS, THAT I HAVE EITHER PREPARED OR REVIEWED THE FREQUENCY COORDINATION DATA SUBMITTED WITH THIS APPLICATION, AND THAT IT IS COMPLETE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

BY: _ 

Gary K. Edwards
Senior Manager
COMSEARCH
21515 Ridgetop Circle, Suite 300
Sterling, VA 20166

DATED: March 30, 2026

Applicant should complete a Schedule S, if required

FCC Form 312

FEDERAL COMMUNICATIONS COMMISSION

Application for Satellite Space Station Authorizations
FCC 312 Main Form

Approved by OMB No. 3060-0678
Estimated time per response: 0.5-80 hours
Edition date: August 2024

See Instructions

*Corrected 9/30/2025

GRANTED*
Space Bureau
*with conditions

File # SAT-MOD-20231222-00325; SAT-AMD-20250604-00135
Call Sign S3153 (or other identifier) Grant Date 09/29/2025*
From: 12/04/2023 To: 12/04/2029
Approved Jonathan R Markman
Acting Division Chief
Satellite Programs and Policy Division

Applicant Information (Q1 - 16)

Applicant

Enter a description of this application to identify it on the main menu:

Applicant requests authority to operate

FRN

0024840688

Name

Space Sciences & Engineering LLC

Attention

Mr Chris C McCormick

Doing Business As (DBA)

Title

Street Address

15000 W. 6th Ave., Ste 202

Phone

+17204279711

Street Address 2

Fax

+1

City

Golden

Email

cmccormick@planetiq.com

State

CO

Zip Code/Postal Code

80401-

Country

United States of America

☐ Contact Same as Applicant

Contact

FRN

Name

Tony Lin

Attention

Tony Lin

Doing Business As (DBA)

Title

Street Address

1299 Pennsylvania Avenue NW Suite 700

Phone

+12027287130

Street Address 2

Fax

+1

City

Washington

Email

tlin@cooley.com

State

DC

Relationship

Legal Counsel

Zip Code/Postal Code

20004-2400

Country

United States of America

ATTACHMENT TO GRANT

Space Sciences & Engineering LLC
ICFS File Nos. SAT-MOD-20231222-00325, SAT-AMD-20250604-00135

ICFS File No(s):	SAT-MOD-20231222-00325, SAT-AMD-20250604-00135[1]	**GRANTED - With Conditions** **Space Bureau** **Satellite Programs and Policy Division**
Licensee/Grantee:	Space Sciences & Engineering LLC (PlanetiQ)	
Call Sign:	S3153	
Satellite Name:	GNOMES-4[2]	
Orbital Location: (required station-keeping tolerance)	Non-geostationary satellite orbit (NGSO). Deployed between 557 km (+/- 25 km) at an inclination between 97-98 degrees. Operations at altitudes from approximately 575 km (+/- 10 km) down to approximately 350 km (+/- 10 km), and at an inclination of 97.6 degrees (+/- 0.5 degrees) in sun-synchronous orbit. Local Time of Descending Node (LTDN) of 7:00.	
Administration:	United States of America	
Nature of Service:	Earth Exploration Satellite Service (EESS)	
Scope of Grant:	Authorization to operate between 575 km (+/- 10 km) and 350 km (+/- 10 km).	
Previous Grant(s):	Authority to construct, deploy, and operate one non-geostationary orbit (NGSO) satellite.[3]	
Service Area(s):	See condition 7 and Appendix A.	
Frequencies:[4]	EESS: 8025-8400 MHz (center frequency 8260.0 MHz, bandwidth 20.0 MHz) (space-to-Earth) 2025-2110 MHz (center frequency 2081.0 MHz, bandwidth 0.2 MHz) (Earth-to-space) Telemetry, tracking, and command (TT&C): 8025-8400 MHz (center frequency 8260.0 MHz, bandwidth 20.0 MHz) (space-to-Earth) 2025-2110 MHz (center frequency 2081.0 MHz, bandwidth 0.2 MHz) (Earth-to-space) Reception of radionavigation satellite service (RNSS) signals for radio occultation and position, navigation, and timing[5]:	

[1] This application was placed on Public Notice as accepted for filing on August 1, 2025. *Satellite Licensing Division and Satellite Programs and Policy Division Information, Space Station Applications Accepted for Filing*, Report No. SAT-01938 (Aug. 1, 2025).

[2] PlanetiQ originally requested authority to launch and operate the GNOMES-4 satellite in low-Earth orbit (LEO) noting that it intends to operate a constellation of Global Navigation Satellite System (GNSS) Navigation and Occultation Measurement Satellites (GNOMES). *See* ICFS File No. SAT-LOA-20220921-00113, Legal Narrative at 1-2. In a separate modification application, PlanetiQ has requested authority to operate at orbital altitudes of up to 560 km, instead of up to 525 km. *See* ICFS File No. SAT-MOD-20231222-00325, Legal Narrative at 1.

[3] *Space Sciences & Engineering LLC*, Grant Stamp ICFS File No. SAT-LOA-20220921-00113 (Granted-with conditions Nov. 6, 2023) (granting authority to construct, deploy, and operate one satellite in NGSO.)

[4] With respect to those frequency bands shared with Federal spectrum users, Federal operators have indicated that Federal missions brought into use after issuance of this grant may prevent future modification or renewal.

[5] PlanetiQ states that it will perform conventional orbit determination for GNOMES-4 and on-board scheduling using GPS data and data from the Galileo Global Navigation Satellite System (GNSS), as needed. *See* ICFS File No. SAT-LOA-20220921-00113, Legal Narrative at 8; *see also* condition 3.

	Center frequencies 1575.42 MHz and 1227.6 MHz (from Global Positioning System (GPS)) Center frequencies 1575.42 MHz and 1207.14 MHz (from Galileo)[6] Reception of other RNSS signals limited to use for radio occultation only[7]: Center frequencies 1602 MHz and 1246 MHz Center frequencies 1575.42 MHz and 1207.14 MHz

Operations under this grant must comport with the legal and technical specifications 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 following conditions:

1. We previously granted PlanetiQ's request for its application to be processed under the rules for streamlined licensing of small satellites. We found that the operations requested in this application meet the criteria listed in section 25.122 of the Commission's rules, 47 CFR § 25.122, for streamlined small satellite applicants.[8] We concluded that the PlanetiQ operations are compatible with existing operations in the requested frequency bands and will not materially constrain future space station entrants from using the requested frequency bands.[9]
2. Space-to-Earth and Earth-to-space operations shall be strictly limited to durations when the PlanetiQ space station referenced within this license is visible to the corresponding earth station locations listed in Appendix A of this grant, noting any additional restrictions within this grant.
3. Any reception by GNOMES-4 of GNSS signals transmitted by foreign systems other than the Galileo E1 and E5 signals[10] must be strictly limited to use for radio occultation (RO) data collection only. This includes reception of signals from GLONASS and Beidou systems with center frequencies of 1602 MHz and 1246 MHz, and 1575.42 MHz and 1207.14 MHz, respectively.[11] RO is a remote sensing technique used for measuring the physical properties of the atmosphere. It relies on the detection of a change in a radio signal as it passes through a planet's atmosphere. PlanetiQ intends to conduct radio occultation for purposes of weather forecasting and space weather forecasts and analyses.[12] Foreign GNSS signals, other than Galileo E1 and E5, may not be utilized to determine satellite positioning or be used in connection with

[6] *See also Waiver of Part 25 Licensing Requirements for Receive-Only Earth Stations Operating with the Galileo Radionavigation-Satellite Service*, Order, 33 FCC Rcd 11322 (2018) (*Galileo Order*) (granting waiver of certain Commission requirements to allow for non-Federal receiver operations in the United States with two of the Galileo signals, E1 and E5).

[7] *See* condition 3.

[8] *See* 47 CFR § 25.122; *see also* ICFS File No. SAT-LOA-20220921-00113, Legal Narrative at 8-12 (specifying compliance with the qualifying criteria in 47 CFR § 25.122(c)).

[9] *See* 47 CFR § 25.122(c)(9), (d)(3). In the 8025-8400 MHz and 2025-2110 MHz bands, GNOMES-4 will transmit and receive only in short periods of time while visible to a receiving or transmitting earth station. PlanetiQ will coordinate the satellite transmissions so that they do not occur simultaneously with other systems' transmissions. PlanetiQ will also complete coordination with Federal spectrum users to ensure compatibility. *See* ICFS File No. SAT-LOA-20220921-00113, Legal Narrative at 6.

[10] *See generally Galileo Order*.

[11] *See, e.g.*, National Oceanic and Atmospheric Administration, National Environmental Satellite, Data, and Information Service, Commercial Weather Data Program Radio Occultation Data Buy II (RODB) – 2, Request for Proposal Amendment 0002 at 9 (2022), https://sam.gov/api/prod/opps/v3/opportunities/resources/files/e926bcdec66a458385d7c87c4d99dd2d/download?&status=archived&token= ("RO soundings shall be from GPS, GLONASS, Galileo, or BeiDou GNSS satellites.").

[12] *See* ICFS File No. SAT-LOA-20220921-00113, Legal Narrative at 1.

any position, navigation, and timing (PNT) functions, including value-added services, augmentations, or other global navigation and timing goods. This license is limited to these specific space station operations and does not authorize any earth station operations involving reception of non-U.S. GNSS signals.

4. Operations pursuant to this authorization must not cause harmful interference to stations operating in the 2025-2110 MHz band in accordance with the U.S. Table of Frequency Allocations. *See* 47 CFR § 2.106(a), (c)(347).

5. Earth station transmissions from the United States to the GNOMES-4 satellite in the 2025-2110 MHz band must be coordinated with fixed and mobile stations in the 2025-2110 MHz band (e.g., via the Society of Broadcast Engineers (SBE)).

6. Transmissions in the 2025-2110 and 8025-8400 MHz frequency bands may only be made to/from Federal earth stations or earth stations coordinated with the National Aeronautics and Space Administration (NASA), the Air Force Spectrum Management Office (AFSMO), DOC/the National Oceanic and Atmospheric Administration (NOAA), and the Department of the Navy (DON). Any use of Federal or government-sponsored ground stations shall be coordinated by PlanetiQ's federal government customers with AFSMO (jimmy.nguyen@us.af.mil), NASA (HQ-SatCoord@mail.nasa.gov) and DOC/NOAA (spectrum.coordinator@noaa.gov). A list of coordinated non-Federal earth stations is attached as Appendix A. PlanetiQ shall provide the FCC with an updated list of coordinated non-Federal earth stations within ten business days following any changes to this list.[13]

7. Power flux-density levels from operation in the 8025-8400 MHz band must satisfy the limits in No. 22.5 and Table 21-4 of the ITU Radio Regulations. PlanetiQ operations in the 8025-8400 MHz band shall satisfy the protection criteria in Recommendation ITU-R SA.1157-1, and PlanetiQ shall follow the guidelines in Recommendation ITU-R SA. 1810. Because PlanetiQ's GNOMES satellites exceed the deep space protection criteria in ITU-R SA.1157-1, PlanetiQ shall cease space-to-Earth transmissions centered at 8260.0 MHz when the spacecraft is within radio line-of-sight of the earth station locations listed in Table 3 of Recommendation ITU-R SA.1014-4 (or current in-force SA.1014). Any alternative mitigation techniques to achieve the deep space interference protection criteria shall be successfully coordinated with NASA prior to departure from the radio line-of-sight restriction. PlanetiQ shall provide the FCC, with copy to NASA, the specific alternative mitigation technique(s) to protect the deep space stations within ten business days of the conclusion of the coordination with NASA. PlanetiQ shall reduce downlink power proportional to the decrease in path loss as the spacecraft altitude decreases below the originally authorized minimum altitude of 430 km.

8. The PlanetiQ STOP BUZZER POC information for operations in the 8025-8400 MHz band shall be provided to NTIA (ravery@ntia.gov) and NASA (HQ-SatCoord@mail.nasa.gov).

9. We previously granted waiver of the U.S. Table of Frequency Allocations, 47 CFR § 2.106(a), for PlanetiQ to collect RO data utilizing RNSS signals.[14] RO operations are not an allocated service under either the U.S. or the International Table of Frequency Allocations. In this particular case, PlanetiQ has a contract with NOAA for the provision of RO data.[15] PlanetiQ will collect data, i.e., an RO sounding, from publicly available GNSS signals.[16] The collection of such data is critical to weather forecasting and climate monitoring, and having more sources of data helps improve such efforts and sustains the long-term supply

[13] *See* ICFS File No. SAT-LOA-20220921-00113, Tech Annex at 14-15.

[14] *See* ICFS File No. SAT-LOA-20220921-00113, Legal Narrative at 13.

[15] *See id.* at 2.

[16] *See id.* at 8.

of data vital to forecast accuracy.[17] Moreover, conducting RO sounding cannot cause harmful interference or otherwise exclude other users from using those same signals.[18] As such, we find grant of this waiver in the public interest. PlanetiQ's reception of RNSS signals for radio occultation purposes is authorized on a non-conforming, non-harmful interference, and unprotected basis. PlanetiQ shall not claim protection from any authorized users of the band operating consistent with the allocation, and must immediately terminate non-conforming operations upon notification of harmful interference.

10. PlanetiQ must maintain for any satellite in sun synchronous orbit, the LTDN of 7:00 time value to not be in-phase with Federal agencies satellite systems.[19] In the event changes to the LTDN or other orbit are required, PlanetiQ must complete coordination before making any changes with DOC/NOAA, AFSMO, and NASA, and notify the FCC of the update within five business days of making the change.
11. PlanetiQ must coordinate physical operations of spacecraft with any operator using similar orbits, for the purpose of eliminating collision risk and minimizing operational impacts. The orbital parameters specified in this grant are subject to change based on such coordination.

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:	September 29, 2025	
Term Dates	**From:** December 4, 2023	**To:** December 4, 2029

Approved:

Jonathan R. Markman
Acting Chief, Satellite Programs and Policy Division

[17] *See id.* at 3.

[18] *See id.* at 8.

[19] *See* ICFS File No. SAT-LOA-20220921-00113, Tech Annex at 6.

Appendix A:
Earth Station Locations[20]
Coordinated with Federal Agencies

1. Svalbard, Norway
2. Troll, Antarctica
3. Inuvik, Canada
4. Hartebeesthoek, S. Africa
5. Punta Arenas, Chile
6. Jeju, S. Korea
7. Maui, Hawaii
8. Harmon, Guam
9. Dubai, UAE
10. Chitose, Japan
11. Utqiagvik (Barrow), AK

[20] *See* ICFS File No. SAT-LOA-20220921-00113, Tech Annex at 14-15.

FCC Form 312

FEDERAL COMMUNICATIONS COMMISSION

Application for Space Station Special Temporary Authority

FOR OFFICIAL USE ONLY

Approved by OMB No. 3060-0678
Estimated time per response: 0.5-80 hours
Edition date: August 2024

See Instructions

GRANTED*
Space
Bureau

File # SAT-MOD-20250616-00146
Call Sign S3185 Grant Date 09/29/2025
(or other identifier)
From: 08/19/2024 To: 08/19/2030
Approved Jonathan R Markman
Acting Division Chief
Satellite Programs and Policy Division

*with conditions

Applicant Information (Q1 - 16)

Applicant

Enter a description of this application to identify it on the main menu:

Applicant requests authority to operate

FRN: 0024840688

Name: Space Sciences & Engineering LLC

Doing Business As (DBA):

Street Address: 15000 W. 6th Ave., Ste 202

Street Address 2:

City: Golden

State: CO

Zip Code/Postal Code: 80401-

Country: United States of America

Attention: Mr Chris C McCormick

Title:

Phone: +17204279711

Fax: +1

Email: cmccormick@planetiq.com

☐ Contact Same as Applicant

Contact

FRN:

Name: Tony Lin

Doing Business As (DBA):

Street Address: 1299 Pennsylvania Avenue NW Suite 700

Street Address 2:

City: Washington

State: DC

Zip Code/Postal Code: 20004-2400

Country: United States of America

Attention: Tony Lin

Title:

Phone: +12027287130

Fax: +1

Email: tlin@cooley.com

Relationship: Legal Counsel

Classification of Filing

ATTACHMENT TO GRANT
Space Sciences & Engineering LLC
ICFS File No. SAT-MOD-20250616-00146

ICFS File No(s):	SAT-MOD-20250616-00146[1]	**GRANTED - With Conditions** **Space Bureau Satellite Programs and Policy Division**
Licensee/Grantee:	Space Sciences & Engineering LLC (PlanetiQ)	
Call Sign:	S3185	
Satellite Name:	GNOMES-5[2]	
Orbital Location: (required station-keeping tolerance)	Non-geostationary satellite orbit (NGSO). Deployed at 590 km (+/- 25 km) at an inclination of 97.6 degrees (+/- 0.5 degrees). Operations at altitudes from approximately 575 km (+/- 10 km) down to approximately 350 km (+/- 10 km), with a nominal operating altitude between 525 and 575 km, and at an inclination of 97.6 degrees (+/- 0.5 degrees) in sun-synchronous orbit. Local Time of Ascending Node (LTAN) of 22:00 (+60/-0).	
Administration:	United States of America	
Nature of Service:	Earth Exploration Satellite Service (EESS)	
Scope of Grant:	Modification of license to operate between 575 km (+/- 10 km) and 350 km (+/- 10 km).	
Previous Grant(s):	Authority to construct, deploy, and operate one non-geostationary orbit (NGSO) satellite.[3]	
Service Area(s):	See condition 7 and Appendix A.	
Frequencies:[4]	EESS: 8025-8400 MHz (center frequency 8260.0 MHz, bandwidth 20.0 MHz) (space-to-Earth) 2025-2110 MHz (center frequency 2081.0 MHz, bandwidth 0.2 MHz) (Earth-to-space) Telemetry, tracking, and command (TT&C): 8025-8400 MHz (center frequency 8260.0 MHz, bandwidth 20.0 MHz) (space-to-Earth) 2025-2110 MHz (center frequency 2081.0 MHz, bandwidth 0.2 MHz) (Earth-to-space) Reception of radionavigation satellite service (RNSS) signals for radio occultation and position, navigation, and timing[5]:	

[1] This application was placed on Public Notice as accepted for filing on August 1, 2025. *Satellite Licensing Division and Satellite Programs and Policy Division Information, Space Station Applications Accepted for Filing*, Report No. SAT-01938 (Aug. 1, 2025).

[2] PlanetiQ originally requested authority to launch and operate the GNOMES-5 satellite in low-Earth orbit (LEO) noting that it intends to operate a constellation of Global Navigation Satellite System (GNSS) Navigation and Occultation Measurement Satellites (GNOMES). *See* ICFS File No. SAT-LOA-20240205-00023, Legal Narrative at 1-2. In the amendment to its original application, PlanetiQ updated the Schedule S to reflect the 2025-2110 MHz band as Earth Exploration-Satellite Service (EESS) use.

[3] *Space Sciences & Engineering LLC*, Grant Stamp ICFS File Nos. SAT-LOA-20240205-00023 and SAT-AMD-20240524-00111 (Granted-with conditions June 5, 2024) (granting authority to construct, deploy, and operate one satellite in NGSO.)

[4] With respect to those frequency bands shared with Federal spectrum users, Federal operators have indicated that Federal missions brought into use after issuance of this grant may prevent future modification or renewal.

[5] PlanetiQ states that it will perform conventional orbit determination for GNOMES-5 and on-board scheduling using GPS data and data from the Galileo Global Navigation Satellite System (GNSS), as needed. *See* ICFS File No. SAT-LOA-20240205-00023, Legal Narrative at 9; *see also* condition 3.

	Center frequencies 1575.42 MHz and 1227.6 MHz (from Global Positioning System (GPS)) Center frequencies 1575.42 MHz and 1207.14 MHz (from Galileo)[6] Reception of other RNSS signals limited to use for radio occultation only[7]: Center frequencies 1602 MHz and 1246 MHz Center frequencies 1575.42 MHz and 1207.14 MHz

Operations under this grant must comport with the legal and technical specifications 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 following conditions:

1. We previously granted PlanetiQ's request for its application to be processed under the rules for streamlined licensing of small satellites. We found that the operations requested in this application meet the criteria listed in section 25.122 of the Commission's rules, 47 CFR § 25.122, for streamlined small satellite applicants.[8] We concluded that the PlanetiQ operations are compatible with existing operations in the requested frequency bands and will not materially constrain future space station entrants from using the requested frequency bands.[9]
2. Space-to-Earth and Earth-to-space operations shall be strictly limited to durations when the PlanetiQ space station referenced within this license is visible to the corresponding earth station locations listed in Appendix A of this grant, noting any additional restrictions within this grant.
3. Any reception by GNOMES-5 of GNSS signals transmitted by foreign systems other than the Galileo E1 and E5 signals[10] must be strictly limited to use for radio occultation (RO) data collection only. This includes reception of signals from GLONASS and Beidou systems with center frequencies of 1602 MHz and 1246 MHz, and 1575.42 MHz and 1207.14 MHz, respectively.[11] RO is a remote sensing technique used for measuring the physical properties of the atmosphere. It relies on the detection of a change in a radio signal as it passes through a planet's atmosphere. PlanetiQ intends to conduct radio occultation for

[6] *See also Waiver of Part 25 Licensing Requirements for Receive-Only Earth Stations Operating with the Galileo Radionavigation-Satellite Service*, Order, 33 FCC Rcd 11322 (2018) (*Galileo Order*) (granting waiver of certain Commission requirements to allow for non-Federal receiver operations in the United States with two of the Galileo signals, E1 and E5).

[7] *See* condition 3.

[8] *See* 47 CFR § 25.122; *see also* ICFS File No. SAT-LOA-20240205-00023, Legal Narrative at 9-11 (specifying compliance with the qualifying criteria in 47 CFR § 25.122(c)).

[9] *See* 47 CFR § 25.122(c)(9), (d)(3). In the 8025-8400 MHz and 2025-2110 MHz bands, GNOMES-5 will transmit and receive only in short periods of time while visible to a receiving or transmitting earth station. PlanetiQ will coordinate the satellite transmissions so that they do not occur simultaneously with other systems' transmissions. PlanetiQ will also complete coordination with Federal spectrum users to ensure compatibility. *See* ICFS File No. SAT-LOA-20240205-00023, Legal Narrative at 7.

[10] *See generally Galileo Order*.

[11] *See, e.g.*, National Oceanic and Atmospheric Administration, National Environmental Satellite, Data, and Information Service, Commercial Weather Data Program Radio Occultation Data Buy II (RODB) – 2, Request for Proposal Amendment 0002 at 9 (2022), https://sam.gov/api/prod/opps/v3/opportunities/resources/files/e926bcdec66a458385d7c87c4d99dd2d/download?&status=archived&token= ("RO soundings shall be from GPS, GLONASS, Galileo, or BeiDou GNSS satellites.").

purposes of weather forecasting and space weather forecasts and analyses.[12] Foreign GNSS signals, other than Galileo E1 and E5, may not be utilized to determine satellite positioning or be used in connection with any position, navigation, and timing (PNT) functions, including value-added services, augmentations, or other global navigation and timing goods. This license is limited to these specific space station operations and does not authorize any earth station operations involving reception of non-U.S. GNSS signals.

4. Operations pursuant to this authorization must not cause harmful interference to stations operating in the 2025-2110 MHz band in accordance with the U.S. Table of Frequency Allocations. *See* 47 CFR § 2.106(a), (c)(347).

5. Earth station transmissions from the United States to the GNOMES-5 satellite in the 2025-2110 MHz band must be coordinated with fixed and mobile stations in the 2025-2110 MHz band (e.g., via the Society of Broadcast Engineers (SBE)).

6. Transmissions in the 2025-2110 and 8025-8400 MHz frequency bands may only be made to/from Federal earth stations or earth stations coordinated with the National Aeronautics and Space Administration (NASA), the Air Force Spectrum Management Office (AFSMO), DOC/the National Oceanic and Atmospheric Administration (NOAA), and the Department of the Navy (DON). Any use of Federal or government-sponsored ground stations shall be coordinated by PlanetiQ's federal government customers with AFSMO (jimmy.nguyen@us.af.mil), NASA (HQ-SatCoord@mail.nasa.gov) and DOC/NOAA (spectrum.coordinator@noaa.gov). A list of coordinated non-Federal earth stations is attached as Appendix A. PlanetiQ shall provide the FCC with an updated list of coordinated non-Federal earth stations within ten business days following any changes to this list.[13]

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8. The PlanetiQ STOP BUZZER POC information for operations in the 8025-8400 MHz band shall be provided to NTIA (ravery@ntia.gov) and NASA (HQ-SatCoord@mail.nasa.gov).

9. We previously granted waiver of the U.S. Table of Frequency Allocations, 47 CFR § 2.106(a), for PlanetiQ to collect RO data utilizing RNSS signals.[14] RO operations are not an allocated service under either the U.S. or the International Table of Frequency Allocations. In this particular case, PlanetiQ has a contract with NOAA for the provision of RO data.[15] PlanetiQ will collect data, i.e., an RO sounding, from publicly

[12] *See* ICFS File No. SAT-LOA-20240205-00023, Legal Narrative at 1.

[13] *See* ICFS File No. SAT-LOA-20240205-00023, Exh. D.

[14] *See* ICFS File No. SAT-LOA-20240205-00023, Legal Narrative at 13.

[15] *See id.* at 2.

available GNSS signals.[16] The collection of such data is critical to weather forecasting and climate monitoring, and having more sources of data helps improve such efforts and sustains the long-term supply of data vital to forecast accuracy.[17] Moreover, conducting RO sounding cannot cause harmful interference or otherwise exclude other users from using those same signals.[18] As such, we found grant of this waiver in the public interest. PlanetiQ's reception of RNSS signals for radio occultation purposes is authorized on a non-conforming, non-harmful interference, and unprotected basis. PlanetiQ shall not claim protection from any authorized users of the band operating consistent with the allocation, and must immediately terminate non-conforming operations upon notification of harmful interference.

10. PlanetiQ must maintain for any satellite in sun synchronous orbit, the LTAN of 22:00 (+60/-0) time value to not be in-phase with Federal agencies satellite systems.[19] In the event changes to the LTAN or other orbit are required, PlanetiQ must complete coordination before making any changes with DOC/NOAA, AFSMO, and NASA, and notify the FCC of the update within five business days of making the change.
11. PlanetiQ must coordinate physical operations of spacecraft with any operator using similar orbits, for the purpose of eliminating collision risk and minimizing operational impacts. The orbital parameters specified in this grant are subject to change based on such coordination.

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:	September 29, 2025	
Term Dates	**From:** August 19, 2024	**To:** August 19, 2030

Approved:

Jonathan R. Markman
Acting Chief, Satellite Programs and Policy Division

[16] *See id.* at 8.

[17] *See id.* at 3.

[18] *See id.* at 8.

[19] *See* ICFS File No. SAT-LOA-20240205-00023, Tech Annex at 2.

ATTACHMENT TO GRANT
Space Sciences & Engineering LLC
ICFS File No. SAT-MOD-20250616-00146

Appendix A:
Earth Station Locations[20]
Coordinated with Federal Agencies

1. Svalbard, Norway
2. Troll, Antarctica
3. Inuvik, Canada
4. Hartebeesthoek, S. Africa
5. Punta Arenas, Chile
6. Jeju, S. Korea
7. Maui, Hawaii
8. Harmon, Guam
9. Dubai, UAE
10. Chitose, Japan
11. Utqiagvik (Barrow), AK

[20] *See* ICFS File No. SAT-LOA-20240205-00023, Exh. D.