

**** GRANT-IN-PART/DEFER IN PART ****

File # SAT-MPL-20200618-00078



Call Sign S3045 Grant Date May 14, 2021
(or other identifier)

Approved by OMB
3060-0678

Term Dates

From May 14, 2021 To: see conditions

Date & Time Filed: Jun 18 2020 4:37:16:750PM
File Number: SAT-MPL-20200618-00078

*with conditions

Approved: Merissa L. Velez
Merissa L. Velez
Chief, Satellite Policy Branch

FCC APPLICATION FOR SPACE AND EARTH STATION:MOD OR AMD – MAIN FORM	FCC Use Only
FCC 312 MAIN FORM FOR OFFICIAL USE ONLY	

APPLICANT INFORMATION


Enter a description of this application to identify it on the main menu:
MPL Filing for S3045 6/17/2020

1-8. Legal Name of Applicant			
Name:	Spire Global, Inc.	Phone Number:	2027346883
DBA Name:		Fax Number:	
Street:	251 Rhode Island Street Suite 150	E-Mail:	michelle.mcclure@spire.com
City:	San Francisco	State:	CA
Country:	USA	Zipcode:	94103 -
Attention:	Mrs Francisca F Adeuyi		

ATTACHMENT TO GRANT

Spire Global, Inc.

IBFS File Nos. SAT-PDR-20190321-00018 & SAT-MPL-20200618-00078

IBFS File No(s):	SAT-PDR-20190312-00018, SAT-MPL-20200618-00078 ¹	<p>GRANT IN PART / DEFER IN PART – With Conditions</p>  <p>International Bureau Satellite Division</p>
Licensee/Grantee:	Spire Global, Inc.	
Call Sign:	S3045	
Satellite Name:	MINAS constellation ²	
Orbital Location: (required station-keeping tolerance)	NGSO at altitudes up to 650 km (<i>see</i> scope of grant below)	
Administration:	Luxembourg	
Nature of Service:	Earth Exploration Satellite Service (EESS)	
Scope of Grant:	Modification of grant of U.S. market access to grant market access for one (1) additional satellite, ³ to be deployed to a circular orbit at an altitude of no greater than 550 km, prior to completion of the Commission’s review of the supplemented orbital debris mitigation plan, <i>see</i> condition 5, including for operations in the 2020-2025 MHz (space-to-Earth) frequency band.	

¹ *See Policy Branch Information, Applications Accepted for Filing*, Public Notice, Report No. SAT-01489 (IBFS File No. SAT-MPL-20200618-00078) (Aug. 14, 2020). This action addresses only one satellite, which is authorized pursuant to the same terms and conditions as the previous authorization for deployment of 18 satellites. *See* IBFS File No. SAT-PDR-20190312-00018; SAT-MPL-20200618-00078 (granted in part Oct. 30, 2020). This action does not address certain additional requests, which are either inapplicable to the satellite addressed by this grant, or are deferred for later consideration. *See* Letter from Michelle A. McClure, Regulatory and Legislative Affairs Counsel, Spire, Inc. to Marlene H. Dortch, Secretary, FCC (October 8, 2020) (requesting expedited consideration of portions of the pending modification application); Letter from Michelle A. McClure, Regulatory and Legislative Affairs Counsel, Spire Global, Inc., to Marlene H. Dortch, Secretary, FCC (October 15, 2020) (clarifying that the satellites covered by the request for expedited consideration will not include an inter-satellite link capability); Letter from Michelle A. McClure, Regulatory and Legislative Affairs Counsel, Spire, Inc. to Marlene H. Dortch, Secretary, FCC (March 10, 2021) (Spire March 10 Letter) (indicating that due to contract commitments and scheduling issues, Spire has an additional two satellites planned for launch in June 2021).

² Spire currently holds a U.S. license (Call Sign S2946) for the LEMUR constellation, and it states that its MINAS satellites will operate together with the LEMUR constellation as a single system. *See* Petition for Declaratory Ruling at 1. For purposes of clarity, in this document all U.S.-licensed Spire satellites will be referred to as “LEMUR” satellites, including LEMUR Phase I, LEMUR Phase IB, LEMUR Phase IC, and LEMUR Phase II. The Luxembourg-licensed satellites granted U.S. market access herein will be referred to as “MINAS” satellites. Spire’s market access request is for no more than 636 MINAS satellites. *See* Letter from George John, Lead Legal & Regulatory Counsel, Spire Global, Inc., to Jose Albuquerque, Chief, Satellite Division, FCC, filed May 5, 2019. On August 28, 2020, Spire notified the Commission that a total of 12 Luxembourg-licensed MINAS satellites had been deployed, and that an additional MINAS satellite was scheduled for deployment on or after September 30, 2020 from Wallops, VA. *See* Spire – Intent to Deploy, Letter from Francisca Adeuyi, Spectrum Manager, Spire Global, Inc. to Marlene H. Dortch, Secretary, FCC (Aug. 28, 2020).

³ Spire previously indicated that four satellites would be deployed following launch on a Falcon 9 launch vehicle in June 2021, and that those satellites would be LEMUR satellites, which are authorized for deployment pursuant to IBFS File No. SAT-MOD-20200603-00065 (granted in part Oct. 30, 2020). *See* Letter from Michelle A. McClure, Regulatory and Legislative Affairs Counsel, Spire Global, Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission (Spire Oct. 30 Letter) (filed Oct. 30, 2020). In its letter dated March 10, 2021, Spire specifies that five LEMUR satellites are now planned for that launch, as well as one MINAS satellite. Spire March 10 Letter. Accordingly, we grant market access for one additional MINAS satellite.

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Previous Grant(s):	Grant of U.S. market access for up to 636 MINAS satellites, initially deployed to altitudes from 385 to 650 km with inclinations ranging from equatorial to polar sun-synchronous (98 degrees). ⁴ Modification to: (1) extend the deadline for cessation of operations in the 402-403 MHz frequency band; (2) grant market access for up to 18 additional satellites, deployed to circular orbits at an altitude of no greater than 550 km, prior to completion of the Commission’s review of the supplemented orbital debris mitigation plan, including for operations in the 2020-2025 MHz (space-to-Earth) frequency band. ⁵
Service Area(s):	Global. <i>See</i> Receiving and Transmitting Beam Attachments. ⁶
Frequencies:	8025-8400 MHz (space-to-Earth) (primary data downlink) 2020-2025 MHz (space-to-Earth) (data downlink) ⁷ 2025-2110 MHz (Earth-to-space) (primary data uplink) 402-403 MHz (Earth-to-space) (space-to-Earth (data back up only)) <u>Telemetry, Tracking, and Command:</u> 401-402 MHz (space-to-Earth) 402-403 MHz (Earth-to-space and space-to-Earth) 449.75-450.25 MHz (Earth-to-space) 2025-2110 MHz (Earth-to-space) 8025-8400 MHz (space-to-Earth)

⁴ *See Satellite Policy Branch Information Actions Taken*, Public Notice, Report No. SAT-01422 (Oct. 18, 2019). In the previous grant, we noted that Spire planned to host payloads on its satellites for educational, government, and commercial customers, and will work with the Commission for market access of such payloads when it has sufficient details. Petition for Declaratory Ruling at 17-18. Accordingly, Spire did not seek market access for satellites with hosted payloads as part of its application, and no market access was granted. Accordingly, our action there was with respect to satellites having a nominal mass configuration 4.5 kg, rather than the maximum mass of 6 kg that Spire contemplates for satellites with hosted payloads. In addition, we deferred action on Spire’s request for market access in the 399.9-400.05 MHz (Earth-to-space) frequency band, subject to the outcome of a processing round in this frequency band. *See Satellite Policy Branch Information: Myriota Pty. Petition Accepted for Filing*, IBFS File No. SAT-PDR-20190328-00020; *Cut-Off Established for Additional NVNG MSS Applications or Petitions for Operations in the 399.9-400/05 MHz and 400.15-401 MHz Bands*, Public Notice, DA 19-779 (Sat Div. rel. Aug. 15, 2019). Spire also did not seek market access for what it describes as Singapore-licensed COLUGA satellites (2 satellites launched January 20, 2018 from Mahia, New Zealand; 2 satellites launched November 11, 2018, from Mahia, New Zealand, and 4 satellites launched November 29, 2018, from Sriharikota, India), and no U.S. market access was granted. Petition for Declaratory Ruling at 1.

⁵ IBFS File Nos. SAT-PDR-20190321-00018; SAT-MPL-20200618-00078 (grant in part October 30, 2020). To date, Spire has deployed 14 of the 18 satellites described in this October 30, 2021 grant in part. All 18 of those satellites are LEMUR satellites, covered under Spire’s U.S. license. *See* Spire Oct. 30 Letter; IBFS File Nos. SAT-LOA-20151123-00078; SAT-MOD-20200603-00065 (granted in part Oct. 30, 2020).

⁶ In addition to the frequencies specified immediately below that will be used for communications between MINAS satellites and Spire’s U.S. earth stations, Spire plans to operate the MINAS constellation using additional frequencies that will be received at the MINAS satellites, in the same fashion as for the LEMUR satellites. These frequencies are: 156.7625-156.7875 MHz (Automatic Identification System (AIS) (AIS 3)); 156.8125-156.8375 MHz (AIS 4); 161.9625-161.9875 MHz (AIS 1); 162.0125-162.0375 MHz (AIS 2); 161.9375-161.9625 MHz (Application Specific Messages (ASM) (ASM 1)); 161.9875-162.0125 MHz (ASM 2); 1087.7-1092.3 MHz ((Earth-to-space) Automatic Dependent Surveillance-Broadcast (ADS-B)); 1559-1591 MHz (Galileo E1 signal); 1164-1219 MHz (Galileo E5 signal).

⁷ *See* condition 4 below.

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Unless otherwise specified herein, operations under this grant must comport with the legal and technical specifications set forth by the applicant or petitioner and with Federal Communication Commission's rules not waived herein. This grant is also subject to the following conditions:

1. Communications between U.S.-licensed earth stations and the MINAS space stations must comply with all existing and future space station coordination agreements reached between Luxembourg and other administrations, including U.S. Federal operators.
2. Upon receipt of a conjunction warning from the Joint Space Operation Center or other source, Spire must review the warning and take all possible steps to assess and, if necessary, to mitigate collision risk, including, but not limited to: contacting the operator of any active spacecraft involved in such warning; sharing ephemeris data and other appropriate operational information with any such operator; modifying spacecraft attitude and/or operations.
3. The number of simultaneously operational LEMUR, MINAS, and other satellites that are substantially technically identical to the satellites in the LEMUR constellation must not exceed 175.⁸
4. Market access for MINAS satellites operating in the 2020-2025 MHz band is limited to only as many satellites as will limit to 90 the combined number of LEMUR and MINAS satellites that have operated, operate, and will operate with U.S. earth stations.
5. The information provided by Spire supports a finding that market access for some portion of the requested number of satellites is in the public interest, but it does not resolve all material questions of fact concerning whether deployment of the full constellation would involve debris mitigation plans sufficient to support a finding that the full deployment is in the public interest.⁹ Accordingly, prior to deploying a combined total of LEMUR Phase II satellites, MINAS satellites, and other satellites that are substantially technically identical in excess of 120 satellites,¹⁰ Spire must supplement the information provided in its orbital debris mitigation plan and must obtain FCC approval of the supplemented orbital debris mitigation plan.¹¹ In particular, the supplement should clarify and expand the information provided regarding the aggregate collision risk for its proposed system at all altitudes requested, based on launches completed and planned.
6. Spire must comply with any new rules adopted by the Commission as a result of the rulemaking in IB Docket No. 18-313.¹²
7. Spire must notify the Commission in writing at least 30 days prior to launch of a satellite that will operate with and be substantially technically identical to satellites in the LEMUR constellation and that is

⁸ We note that the total number of simultaneously operational satellites refers specifically to those satellites operating in frequencies other than TT&C frequencies and does not include non-operational satellites that continue to operate in TT&C frequency bands as part of approved post-mission disposal plans.

⁹ See condition 4, IBFS File No. SAT-AMD-20180102-00001 (granted in part Nov. 29, 2018).

¹⁰ We increase the number of Phase II satellites specified in this condition from 118 to 120, based on a finding that the addition of two satellites is a sufficiently small increase in the number of requested satellites to warrant authorization pending the Commission's review of the supplemental orbital debris information submitted by Spire. See Spire Global Inc., Exhibit B – Orbital Debris Risk Mitigation Plan (filed July 22, 2020); Spire Global, Inc., Exhibit C – ODAR (filed July 22, 2020). This does not constitute a finding with respect to the adequacy of Spire's supplemental orbital debris mitigation plan or a finding that the full deployment is in the public interest. We note that this condition takes into account the Spire U.S.-licensed LEMUR satellites (Call Sign S2946), and accordingly reflects two additional satellites, rather than one. See IBFS File Nos. SAT-LOA-20151123-00078; SAT-MOD-20200603-000065; Spire March 10 Letter.

¹¹ If there are more than 120 operational satellites and this condition has not been met, this market access grant will be limited to a number of non-U.S. licensed satellites that keeps the total number of satellites operating with U.S. earth stations to 120.

¹² See *Mitigation of Orbital Debris in the New Space Age, Notice of Proposed Rulemaking*, FCC 18-159, 33 FCC Rcd 11352 (2018); *Mitigation of Orbital Debris in the New Space Age, Report and Order and Further Notice of Proposed Rulemaking*, FCC 20-54, 35 FCC Rcd 4156 (2020).

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licensed by Luxembourg or an Administration other than the United States. This notification must include the name of the Administration that has licensed the satellite, the anticipated launch date and launch vehicle, as well as the apogee, perigee, and inclination of the satellite, as intended to be deployed and intended to be operated. Any such satellite will count towards the number of satellites specified in this market access grant, the maximum number of simultaneously operational satellites specified under condition 3 of this grant, and toward the maximum number of satellites that may be deployed prior to the additional approval specified in condition 5 of this grant.

8. Satellites deployed into an orbit with an inclination of 51.6 degrees, plus or minus 0.1 degree, other than directly from the ISS, will be granted market access only if launched on Cygnus re-supply missions and are subject to the following:

a. Deployment shall be into an orbit that, if from below the ISS altitude, is not closer than 15 km below and 15 km in front of ISS and, if above the ISS altitude, is to an orbit acceptable to NASA, which is currently defined as a co-elliptic orbit above the ISS semi-major axis with a relative perigee greater than 45 km. If deployment is planned from an altitude above the ISS, not later than 10 business days prior to launch of the resupply mission, Spire shall provide documentation from NASA confirming that deployment from the Cygnus capsule is acceptable to NASA.

b. Deployment above the ISS altitude may proceed only if it is confirmed in a manner acceptable to NASA that, following launch and docking operations, there is sufficient fuel on Cygnus to execute both the planned satellite deployment and planned Cygnus disposal operations.

9. Spire's request for waiver of the U.S. Table of Frequency Allocations, Section 2.106, to receive ASM transmissions from U.S.-licensed stations in the 161.9375-161.9625 MHz (ASM 1), and 161.9875-162.0125 MHz (ASM 2), frequency bands, on a non-conforming, non-harmful interference basis, IS GRANTED. Reception in this band must comport with the requirements on unauthorized publication or use of communications in Section 705 of the Communications Act of 1934, as amended.¹³ This U.S. market access grant does not constitute an "authorization" with respect to the activities specified in section 705 of the Communications Act or in related provisions of chapter 119, Title 18, United States Code.

10. Spire may claim protection for reception in the 156.7625-162.0375 MHz or 1087.7-1092.3 MHz bands only to the extent permitted under the U.S. Table of Frequency Allocations for domestic operations or the ITU Radio Regulations for international operations, as of the time of operation. Operations in the 156.7625-162.0375 MHz and 1087.7-1092.3 MHz bands must be in accordance with any Commission rulemakings subsequent to the release of this market access grant that implement any new domestic allocations or service rules for these bands.¹⁴

11. Spire's request for a waiver of the United States Table of Frequency Allocations, 47 CFR § 2.106, is GRANTED to permit operations in the 402-403 MHz (Earth-to-space and space-to-Earth (TT&C and data back up only)) and 2020-2025 MHz (space-to-Earth) frequency bands subject to the condition that it may not cause harmful interference to and must accept interference from authorized users. Spire must immediately terminate non-conforming operations upon notification of harmful interference.

12. Operations in the 449.75-450.25 MHz band may be used for space telecommand (Earth-to-space) at specific locations, subject to conditions as may be applied on a case-by-case basis, pursuant to US87 of the U.S. Table of Frequency Allocations, 47 CFR § 2.106. Spire must take all practical steps to keep the carrier frequency between 450.15 and 450.25 MHz.

13. Spire must maintain a U.S. point of contact available by telephone 24 hours per day, seven days per week, with the authority and ability to terminate operations that are the subject of this market access grant.

¹³ 47 U.S.C. § 605.

¹⁴ *Iridium Order and Authorization*, 31 FCC Rcd at 8689, para. 50.

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The telephone number for this U.S. point of contact must be provided to NTIA (ravery@ntia.gov) and DOC/NOAA (david.franc@noaa.gov).

14. Operations in the 402.6-402.8 MHz frequency band must not exceed the long-term interference criteria specified in Table 2 (Type C) of Recommendation ITU-R RS.1263-2 in order to protect DOC/NOAA radiosondes operations in the United States. Operations in the 402.6-402.8 MHz frequency band shall be limited to a single center frequency of 402.79 MHz with a single emission bandwidth of 15 kilohertz by October 31, 2022. Spire must transition all operations out of the 402.6-402.8 MHz band by October 31, 2025.¹⁵

15. Operations pursuant to this grant of market access 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, footnote US347.

16. Spire's request for a waiver of the U.S. Table of Frequency Allocations, 47 CFR § 2.106, to permit United States and Possessions (US&P) operations in the 2200-2290 MHz (space-to-Earth) frequency band is DEFERRED.

17. Transmissions of remote sensing data in the 8025-8400 MHz frequency band may only be made to earth stations coordinated with the National Aeronautics and Space Administration (NASA) and Air Force Spectrum Management Office. Spire shall provide the FCC with an updated list of coordinated earth stations within ten business days following any changes to that list.

18. Power flux-density limits from operation in the 8025-8400 MHz band must not exceed the limits in No. 22.5 and Table 21-4 of the International Telecommunication Union's Radio Regulations, the limits/protection criteria in Recommendation ITU-R SA.1157-1 must be met, and the guidelines in Recommendation ITU-R SA.1810 must be followed.

19. This grant of market access will become null and void if, at any time, there are no MINAS satellites operating.

20. Within 30 days after deployment of each MINAS satellite pursuant to this grant of market access, Spire must file a notification with the Commission specifying its apogee and perigee altitudes and orbital inclination.

21. Spire's request for a waiver of Section 25.114(c) of the Commission's rules, 47 CFR § 25.114(c), to the extent described in its application with respect to certain information to be provided in the Schedule S, IS GRANTED. We find that a waiver is warranted for the requirement for orbital information on the Schedule S for each satellite because the information Spire provided in its Petition for Declaratory Ruling is sufficient to fulfill the relevant informational requirements.

22. Spire's request for waiver of Sections 25.156 and 25.157 of the Commission's rules IS GRANTED.

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.

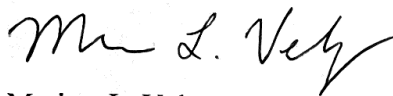
This action is taken pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 CFR § 0.261, and is effective upon release.

¹⁵ For some satellites under this grant of market access, the center frequency may not comport with this condition following a software re-set. These satellites, to the extent they remain in operation, are required to operate within the 402.6-402.8 MHz band, except as necessary for a satellite software reset, resulting in satellite transmissions returning to default transmission channels that does not comply with this condition, to allow for the retuning of transmissions to a compliant frequency, or unless otherwise agreed in a Memorandum of Agreement with DOC/NOAA.

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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:	May 14, 2021	
Term Dates	From: May 14, 2021	To: See conditions
Approved:  Merissa L. Velez Chief, Satellite Policy Branch		

9-16. Name of Contact Representative

Name:	Michelle McClure	Phone Number:	2027346883
Company:	Spire Global, Inc.	Fax Number:	
Street:	8000 Towers Crescent Dr Ste 12	E-Mail:	michelle.mcclure@spire.com
City:	Vienna	State:	VA
Country:	USA	Zipcode:	22182-
Attention:	Michelle A. McClure	Relationship:	Legal Counsel

CLASSIFICATION OF FILING

17. Choose the button next to the classification that applies to this filing for both questions a. and b. Choose only one for 17a and only one for 17b.

- a1. Earth Station
- a2. Space Station

- (N/A) b1. Application for License of New Station
- (N/A) b2. Application for Registration of New Domestic Receive-Only Station
- b3. Amendment to a Pending Application
- b4. Modification of License or Registration
- b5. Assignment of License or Registration
- b6. Transfer of Control of License or Registration
- b7. Notification of Minor Modification
- (N/A) b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite
- (N/A) b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States
- (N/A) b10. Other (Please specify)
- (N/A) b11. Application for Earth Station to Access a Non-U.S. satellite Not Currently Authorized to Provide the Proposed Service in the Proposed Frequencies in the United States
- (N/A) b12. Application for Database Entry
- b13. Amendment to a Pending Database Entry Application
- b14. Modification of Database Entry

<p>17c. Is a fee submitted with this application?</p> <p><input type="radio"/> If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114).</p> <p><input type="radio"/> Governmental Entity <input type="radio"/> Noncommercial educational licensee</p> <p><input checked="" type="radio"/> Other(please explain): Permitted Filing No Fee Required</p>	
<p>17d.</p> <p>Fee Classification CGW – Space Station Modification(Non–Geostationary)</p>	
<p>18. If this filing is in reference to an existing station, enter:</p> <p>(a) Call sign of station: S3045</p>	<p>19. If this filing is an amendment to a pending application enter both fields, if this filing is a modification please enter only the file number:</p> <p>(a) Date pending application was filed:</p> <p>(b) File number: SATPDR2019032100018</p>

TYPE OF SERVICE

<p>20. NATURE OF SERVICE: This filing is for an authorization to provide or use the following type(s) of service(s): Select all that apply:</p> <p><input type="checkbox"/> a. Fixed Satellite</p> <p><input checked="" type="checkbox"/> b. Mobile Satellite</p> <p><input type="checkbox"/> c. Radiodetermination Satellite</p> <p><input checked="" type="checkbox"/> d. Earth Exploration Satellite</p> <p><input type="checkbox"/> e. Direct to Home Fixed Satellite</p> <p><input type="checkbox"/> f. Digital Audio Radio Service</p> <p><input checked="" type="checkbox"/> g. Other (please specify) METS, Space Ops, and ISLs</p>	
<p>21. STATUS: Choose the button next to the applicable status. Choose only one.</p> <p><input type="radio"/> Common Carrier <input checked="" type="radio"/> Non-Common Carrier</p>	<p>22. If earth station applicant, check all that apply.</p> <p><input checked="" type="checkbox"/> Using U.S. licensed satellites</p> <p><input type="checkbox"/> Using Non-U.S. licensed satellites</p>
<p>23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities:</p> <p><input type="radio"/> Connected to a Public Switched Network <input type="radio"/> Not connected to a Public Switched Network <input checked="" type="radio"/> N/A</p>	
<p>24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all applicable frequency band(s).</p> <p><input type="checkbox"/> a. C-Band (4/6 GHz) <input type="checkbox"/> b. Ku-Band (12/14 GHz)</p> <p><input checked="" type="checkbox"/> c. Other (Please specify upper and lower frequencies in MHz.)</p> <p> Frequency Lower: 399.9 Frequency Upper: 10550 (Please specify additional frequencies in an attachment)</p>	

TYPE OF STATION

25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.

- a. Fixed Earth Station
- b. Temporary–Fixed Earth Station
- c. 12/14 GHz VSAT Network
- d. Mobile Earth Station
- e. Geostationary Space Station
- f. Non–Geostationary Space Station
- g. Other (please specify)

26. TYPE OF EARTH STATION FACILITY:

- Transmit/Receive Transmit–Only Receive–Only N/A

"For Space Station applications, select N/A."

PURPOSE OF MODIFICATION

27. The purpose of this proposed modification is to: (Place an 'X' in the box(es) next to all that apply.)

- a -- authorization to add new emission designator and related service
- b -- authorization to change emission designator and related service
- c -- authorization to increase EIRP and EIRP density
- d -- authorization to replace antenna
- e -- authorization to add antenna
- f -- authorization to relocate fixed station
- g -- authorization to change frequency(ies)
- h -- authorization to add frequency
- i -- authorization to add Points of Communication (satellites & countries)
- j -- authorization to change Points of Communication (satellites & countries)
- k -- authorization for facilities for which environmental assessment and radiation hazard reporting is required
- l -- authorization to change orbit location
- m -- authorization to perform fleet management
- n -- authorization to extend milestones
- o -- Other (Please specify)

ENVIRONMENTAL POLICY

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission’s rules, 47 C.F.R. 1.1308 and 1.1311, as an exhibit to this application. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments. Yes No

ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeronautical en route or aeronautical fixed radio station services are not required to respond to Items 30–34.

29. Is the applicant a foreign government or the representative of any foreign government? Yes No

30. Is the applicant an alien or the representative of an alien? Yes No N/A

31. Is the applicant a corporation organized under the laws of any foreign government? Yes No N/A

32. Is the applicant a corporation of which more than one–fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country? Yes No N/A

33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?

Yes No N/A

34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit an identification of the aliens or foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.

BASIC QUALIFICATIONS

35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules?
If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.

Yes No

36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explanation of circumstances.

Yes No

37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explanation of circumstances.

Yes No

38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances

Yes No

39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhibit, an explanation of the circumstances.

Yes No

40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, address, and citizenship of those stockholders owning a record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer.

41. By checking Yes, the undersigned certifies, that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application" for these purposes.

Yes No

42a. Does the applicant intend to use a non-U.S. licensed satellite to provide service in the United States? If Yes, answer 42b and attach an exhibit providing the information specified in 47 C.F.R. 25.137, as appropriate. If No, proceed to question 43.

Yes No

42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, what administration has coordinated or is in the process of coordinating the space station?

43. Description. (Summarize the nature of the application and the services to be provided). (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

Applicant is filing this application in response to staff request with respect to the market access grant associated with the modification application filed for S2946, File No. SES-MOD-20200603-00065. All exhibits and information provided as part of the S2946 modification application, File No. SES-MOD-20200603-00065 is hereby incorporated by

43a. Geographic Service Rule Certification

By selecting A, the undersigned certifies that the applicant is not subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25.

A

By selecting B, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will comply with such requirements.

B

By selecting C, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will not comply with such requirements because it is not feasible as a technical matter to do so, or that, while technically feasible, such services would require so many compromises in satellite design and operation as to make it economically unreasonable. A narrative description and technical analysis demonstrating this claim are attached.

C

CERTIFICATION

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The applicant certifies that grant of this application would not cause the applicant to be in violation of the spectrum aggregation limit in 47 CFR Part 20. All statements made in exhibits are a material part hereof and are incorporated herein as if set out in full in this application. The undersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are true, complete and correct to the best of his or her knowledge and belief, and are made in good faith.

44. Applicant is a (an): (Choose the button next to applicable response.)

- Individual
- Unincorporated Association
- Partnership
- Corporation
- Governmental Entity
- Other (please specify)

45. Name of Person Signing Ananda Martin	46. Title of Person Signing General Counsel
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WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT
(U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION
(U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).

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43. Description. (Summarize the nature of the application and the services to be provided).

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