

S2951 SAT-MPL-20160718-00063 IB2016001636
SES Satellites (Gibraltar) Limited
SES-15



File # SAT-MPL-20160718-00063
Call Sign S2951 Grant Date 12/14/16
(or other identifier)
Term Dates see
From 12/14/16 To: conditions
Approved: *Stephen J. Duall*
Stephen J. Duall
Chief, Satellite Policy Branch

Approved by OMB
3060-0678

Date & Time Filed: Jul 18 2016 9:47:15:063PM
File Number: SAT-MPL-20160718-00063

*with conditions

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:
Modification of SES-15 Market Access at 129.15 W.L. to Add a WAAS Payload

1-8. Legal Name of Applicant

Name:	SES Satellites (Gibraltar) Limited	Phone Number:	202-478-7143
DBA Name:		Fax Number:	
Street:	Suite 9A Leanse Place	E-Mail:	petra.vorwig@ses.com
City:	50 Town Range	State:	
Country:	Gibraltar	Zipcode:	-
Attention:	Petra Vorwig		

**ATTACHMENT TO GRANT
IBFS File No. SAT-MPL-20160718-00063**

IBFS File No(s):	SAT-MPL-20160718-00063	<p align="center">GRANTED – With Conditions</p>  <p align="center">International Bureau Satellite Division</p>
Licensee/Grantee:	SES Satellites (Gibraltar) Ltd.	
Call Sign:	S2951	
Satellite Name:	SES-15	
Orbital Location: (required station-keeping tolerance)	129.15° W.L. (+/- 0.05° east-west)	
Administration:	United Kingdom (Gibraltar)	
Nature of Service:	Fixed-Satellite Service (FSS), Direct-to-Home (DTH); Radionavigation satellite service	
Scope of Grant:	Modification of U.S. Market Access to include WAAS frequencies, feeder links, and tracking beacon.	
Previous Grant(s):	IBFS File No. SAT-PPL-20160126-00007 (granted July 12, 2016) (Grant of U.S. Market Access, including addition of SES-15 to the Permitted Space Station List and ECO-SAT determination in support of provision of DTH services in the 11.7-12.2 GHz (space-to-Earth) and 14.0-14.5 GHz (Earth-to-space) frequency bands within the United States and between United States and any of the following route markets: Gibraltar, the United Kingdom, Mexico, Netherlands Antilles, Guatemala, Honduras, Nicaragua, Bermuda, the British Virgin Islands, the Cayman Islands, Belize, Costa Rica, El Salvador, Panama, Antigua and Barbuda, the Bahamas, Barbados, the Turks and Caicos Islands, Anguilla, Montserrat, Dominica, the Dominican Republic, Grenada, Guadeloupe, Martinique, Saint Martin, Saint Barthelemy, Haiti, Jamaica, St. Vincent and the Grenadines, St. Kitts and Nevis, St. Lucia, and Trinidad and Tobago.)	
Service Area(s):	See Schedule S at Item S6 (SAT-PPL-20160126-00007) and accompanying .gxt files. For WAAS frequencies and feeder links: One earth station, granted contemporaneously. See SES-LIC-20160725-00674.	
Frequencies:	10.7-10.95 GHz (space-to-Earth) 10.95-11.2 GHz (space-to-Earth) 11.2-11.45 GHz (space-to-Earth) 11.45-11.7 GHz (space-to-Earth) 11.7-12.2 GHz (space-to-Earth) 14.0-14.5 GHz (Earth-to-space) 18.3-18.8 GHz (space-to-Earth) 19.7-20.2 GHz (space-to-Earth) 27.5-28.35 GHz (Earth-to-space) 28.35-28.6 GHz (Earth-to-space) 29.25-30.0 GHz (Earth-to-space) 10700.5 MHz, 12199.5 MHz, and 20199.5 MHz (space-to-Earth) 13999 MHz, 14001 MHz, and 14499 MHz (Earth-to-space) Federal Aviation Administration (FAA) Wide Area Augmentation System (WAAS) digital data 1165.45-1187.45 MHz (space-to-Earth) 1564.42-1586.42 MHz (space-to-Earth)	

ATTACHMENT TO GRANT
IBFS File No. SAT-MPL-20160718-00063

	<p>Feeder links: 6628.27-6650.27 MHz (Earth-to-space) 6679.42-6701.42 MHz (Earth-to-space)</p> <p>Tracking beacon: 3700.2 MHz (space-to-Earth)</p>
<p>Operations 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. Operations are also subject to the following conditions:</p> <ol style="list-style-type: none">1. Communications between U.S.-licensed earth stations and the SES-15 space station must comply with all existing and future space station coordination agreements reached between the United Kingdom and other administrations.¹2. SES must maintain its SES-15 space station with an east/west longitudinal station-keeping tolerance of ± 0.05 degrees of the 129.15° W.L. orbital location.3. SES's request for waiver of footnote NG52 of the United States Table of Allocations, 47 CFR § 2.106, NG52, to use the 10.7-11.7 GHz (space-to-Earth) frequency band to offer domestic services on an unprotected, non-interference basis in the United States is GRANTED, as conditioned. SES's request involves space-to-Earth transmissions that meet the power-flux-density (pfd) on the ground required to protect fixed-service stations in the 10.95-11.20 GHz (space-to-Earth) and 11.45-11.70 GHz (space-to-Earth) frequency bands.² SES has agreed to accept any level of interference from fixed stations, and operators of fixed stations will not be required to coordinate their operations with SES's receive earth stations. Under these circumstances, we determine that no additional coordination burden is placed upon fixed station operators and their ability to expand service in the future would not be restricted in any manner.³ Grant here is consistent with prior Commission precedent,⁴ and is subject to the following conditions:<ol style="list-style-type: none">a. SES's space-to-Earth transmissions in the 10.7-11.7 GHz (space-to-Earth) frequency band that provide domestic service are on an unprotected, non-harmful interference basis relative to fixed stations. As such, SES must not cause harmful interference to, or claim protection from, fixed stations to which frequencies in the 10.7-11.7 GHz (space-to-Earth) frequency band have either been already assigned, or to which frequencies in the 10.7-11.7 GHz (space-to-Earth) frequency band may be assigned at a later date.b. SES is required to inform its customers, in writing, including end-users receiving service from resellers accessing capacity on the SES-15 space station, that the service in the 10.7-11.7 GHz (space-to-Earth) frequency band with regard to domestic service is being provided on an unprotected basis,	

¹ Intelsat License LLC, together with JSAT International, Inc., filed comments but did not oppose grant of the application. Intelsat and JSAT ask us to impose a condition with respect to the ITU coordination process. We impose the above condition on SES's authorization and note that SES accepts this grant of market access subject to the international coordination process. *See Amendment of the Commission's Space Station Licensing Rules and Policies*, First Report and Order and Further Notice of Proposed Rulemaking, 18 FCC Rcd 10760, 10799-10800, para. 96 (2003). This grant is with respect to market access for communications with the United States, and therefore is limited accordingly.

² *See* 47 CFR § 25.208(b).

³ *PanAmSat Licensee Corp. Application for Authority to Use the Extended Ku-Band Frequencies for Domestic Service*, Order and Authorization, 20 FCC Rcd 14642, 14646 (Sat. Div., Int'l Bur., 2005).

⁴ For example, the Intelsat 29e space station, which is currently authorized to operate at 50.0° W.L, has a waiver of footnote NG52 for the 10.95-11.2 and 11.45-11.7 GHz frequency bands portion of the Ku-band as a condition of its current authorization. *See Policy Branch Information: Action Taken*, Public Notice, Report No. SAT-01086 (IBFS File No. SAT-LOA-20130722-00097, as amended by IBFS File No. SAT-AMD-20140718-00087 (May 22, 2015).

ATTACHMENT TO GRANT
IBFS File No. SAT-MPL-20160718-00063

and that the potential exists that future licensed fixed stations may cause harmful interference to these earth stations

- c. SES must terminate operations in the 10.7-11.7 GHz (space-to-Earth) frequency band upon notification that its operations are causing interference to fixed stations operating in this band, and must immediately inform the Commission, in writing, of such an event.
4. SES's use of the 10.7-11.7 GHz (space-to-Earth) frequency band is subject to footnote US211 to the United States Table of Frequency Allocations, 47 CFR § 2.106, US211, which urges applicants for airborne or space station assignments to take all practicable steps to protect radio astronomy observations in the adjacent bands from harmful interference, consistent with footnote US74.
5. SES's use of the 10.7-10.95 GHz (space-to-Earth) and 11.2-11.45 GHz (space-to-Earth) frequency bands is subject to footnote 5.441 to the United States Table of Frequency Allocations, 47 CFR § 2.106, 5.441, which states that operations in these bands shall be in accordance with the provisions of Appendix 30B.
6. SES's request for waiver of Section 25.202(g) of the Commission's rules is GRANTED, as conditioned. Section 25.202(g) requires in relevant part, that telemetry, tracking, and command signals be transmitted within the assigned bands. SES seeks waiver of this rule to operate SES-15's back-up command uplink at 13999 MHz, which is outside the frequency band in which SES-15 will be providing service,⁵ for on-station TT&C communications at the 129.15° W.L. orbital location. This waiver grant is based upon the following findings:
 - a. The 13999 MHz command frequency will be used only for back-up and will not be in regular operation;
 - b. No other satellite within two degrees of the nominal 129° W.L. orbital location currently operates in the 13.7-14.0 GHz band; and
 - c. As a condition of the grant of this waiver, SES shall coordinate TT&C operations of SES-15 at the 129.15° W.L. orbital location with all potentially affected operators of other communication systems. SES's TT&C operations at 13999 MHz shall be on a non-harmful interference basis (i.e., SES shall not cause harmful interference to, and shall not claim protection from interference caused to it by, any other lawfully operating radiocommunication system). Additionally, SES must accommodate future space station networks that are compliant with Section 25.202(g) of the Commission's rules.
7. SES's request for a waiver of Section 25.283(c) of the Commission's rules, 47 CFR § 25.283(c) is GRANTED. Section 25.283(c) specifies that space stations must discharge all stored energy sources at end-of-life of the space station. The SES-15 space station is a Boeing model 720SP spacecraft that uses a xenon ion propulsion system that will not be fully vented at the satellite's end-of-life. SES projects the amount of xenon remaining at end-of-life to be 4.2 kg, in a single tank with a volume of roughly 233 liters.⁶ We find that the measures described in the application for depletion of xenon are appropriate.
8. Operations of SES-15 in the 14.47-14.5 GHz (Earth-to-space) frequency bands are subject to the terms of footnotes 5.149 and US342 to the United States Table of Frequency Allocations, 47 CFR § 2.106, 5.149, US342, which urge applicants to take all practicable steps to protect the radio astronomy service from harmful interference.
9. Market access to provide DTH services is limited to operations in the 11.7-12.2 GHz (space-to-Earth) and 14.0-14.5 GHz (Earth-to-space) frequency bands.

⁵ See *Northrop Grumman Space & Mission Systems Corp.*, Order and Authorization, 21 FCC Rcd 2330, 2362, para. 94 (IB 2009).

⁶ SES states that the remaining xenon will be at a pressure of roughly 50 psi, at approximately 35 degrees Celsius, and that the burst pressure of the tank is 7500 psia.

ATTACHMENT TO GRANT
IBFS File No. SAT-MPL-20160718-00063

10. SES-15 must coordinate its space-to-Earth operations in the 18.3-18.8 GHz and 19.7-20.2 GHz frequency bands with U.S. Federal systems, including Federal operations to earth stations in foreign countries, in accordance with footnote US334 to the United States Table of Frequency Allocations, 47 CFR § 2.106.
11. The power-flux density (pfd) at the Earth's surface produced by the emissions from the SES-15 space station for all atmospheric conditions, and for all methods of modulation in the 18.3-18.8 and 19.7-20.2 GHz frequency bands (space-to-Earth), must not exceed a level of -118 dBW/m²/MHz at any angle of arrival.⁷
12. The 29.25-29.5 GHz band is designated for uplinks for FSS systems using geostationary satellites and for feeder uplinks for Mobile Satellite Systems using non-geostationary orbit satellites on a co-primary basis. SES-15's operations in the 29.25-29.5 GHz band must comply with Section 25.258 of the Commission's rules. 47 CFR § 25.258.
13. Communications between U.S.-licensed earth stations and SES-15 in the 27.5-28.35 GHz (Earth-to-space) frequency band are on a secondary basis with respect to LMDS until the provisions adopted in FCC 16-89 go into force. After that, communications between U.S.-licensed earth stations and SES-15 in this band are secondary with respect to Upper Microwave Flexible Use Service (UMFUS) operations, except for FSS operations associated with earth stations authorized pursuant to 47 CFR § 25.136.
14. The operations of SES-15 to and from the United States and associated earth stations must comport with the applicable uplink and downlink limits in 47 CFR § 25.140(a)(3) of the Commission's rules, unless SES coordinates any non-conforming operations with the operations of U.S.-licensed geostationary orbit space stations within 6 degrees of the 129.15° W.L. orbital location. SES must also comport with the maximum power limits indicated in its application. Non-conforming operation must also be coordinated with respect to those operations of non-U.S.-licensed space stations within 6 degrees of 129.15° W.L. involving approved communications with U.S.-licensed earth stations.
15. SES-15 is a replacement for the AMC-1 space station (Call Signs S2445) at the 129.15° W.L. location in the 11.7-12.2 GHz (space-to-Earth) and 14.0-14.5 GHz (Earth-to-space) frequency bands. SES-15 must begin providing service to the United States at the 129.15° W.L. orbital location in the 11.7-12.2 GHz (space-to-Earth) and 14.0-14.5 GHz (Earth-to-space) frequency bands before the AMC-1 discontinues service at 129.15° W.L. Failure to meet this condition shall render this grant of market access in the 11.7-12.2 GHz (space-to-Earth) and 14.0-14.5 GHz (Earth-to-space) frequency bands NULL and VOID, with no further action on the Commission's part.
16. This grant of market access for the SES-15 space station in the 10.7-10.95 GHz, 10.95-11.2 GHz, 11.2-11.45 GHz, 11.45-11.7 GHz, 18.3-18.8 GHz, and 19.7-20.2 GHz (space-to-Earth); and in the 27.5-28.6 GHz and 29.25-30.0 GHz (Earth-to-space) frequency bands will be null and void with no further action on the Commission's part if the space station is not constructed, deployed, and placed into operation in accordance with the milestone schedule in Section 25.164 and the bond requirement in Section 25.165 of the Commission's rules following the date of grant as follows:
 - a. SES must file a bond with the Commission in the amount of \$3 million, pursuant to the procedures set forth in 47 CFR § 25.165, within 30 days of this grant of U.S. market access (August 11, 2016);
 - b. Enter into a binding non-contingent contract to construct SES-15 within one year (July 12, 2017);
 - c. Complete critical design review within two years (July 12, 2018);
 - d. Commence construction within three years (July 12, 2019);
 - e. Launch and begin operations within five years (July 12, 2021).
17. This grant of market access will terminate in the event that the SES-15 space station is relocated from the

⁷ Footnote US255 to the U.S. Table of Frequency Allocations, 47 CFR § 1.206, requires that the pfd across the 200 megahertz of the 18.6-18.8 GHz band not exceed -95 dBW/m²/200 MHz. SES proposes to operate the SES-15 space station with a maximum pfd lower than -118dBW/m²/MHz. This level corresponds to a maximum PFD below -95 dBW/m²/200 MHz. Consequently, SES-15's proposed operations meet the pfd limit in US255. SES's operations also meet other pfd limits for transmitting in Ka-band frequencies. See 47 CFR §§ 25.138(a)(6), 25.208(c), 25.208(d), and 25.208(e).

ATTACHMENT TO GRANT
IBFS File No. SAT-MPL-20160718-00063

129.15° W.L. orbital location or ceases to operate. In either case, SES-15 will be removed from the Permitted List. If SES wishes to provide service to the U.S. using another space station, it must file a new application to have that space station placed on the Permitted List.


18. SES's request for waiver of Section 25.202(g) of the Commission's rules is GRANTED, as conditioned. Section 25.202(g) requires, in relevant part, that telemetry, tracking, and command signals be transmitted within the assigned bands. SES seeks waiver of this rule to operate a beacon at 3700.2 MHz, which is outside the C-band frequencies otherwise used on the satellite, to perform satellite tracking for antennas using the WAAS. This waiver grant is based upon the following findings and conclusions:
- a. The 3700.2 MHz frequency will be used only for satellite tracking by antennas using the WAAS;
 - b. No other satellite within two degrees of the nominal 129° W.L. orbital location currently operates with frequencies that overlap the 3700.2 MHz beacon;
 - c. As a condition of the grant of this waiver, SES shall coordinate TT&C operations of SES-15 at the 129.15° W.L. orbital location with all potentially affected operators of other communication systems. SES's TT&C operations at 3700.2 MHz shall be on a non-harmful interference basis (i.e., SES shall not cause harmful interference to, and shall not claim protection from interference caused to it by, any other lawfully operating radiocommunication system). Additionally, SES must accommodate future space station networks that are compliant with Section 25.202(g) of the Commission's rules.
19. SES's request for a waiver of Section 25.210(f) of the Commission's rules, 47 C.F.R. § 25.210(f) is GRANTED.⁸ Section 25.210(f) requires that Fixed-Satellite Service (FSS) space stations employ full frequency re-use either through orthogonal polarization in the same beam and/or the use of spatially independent beams. The purpose of the rule, applicable only to SES's use of the C-band frequencies which operate in an FSS frequency allocation, is to ensure that space stations maximize the use of the spectrum. Granting SES a waiver of Section 25.210(f) would not prevent other licensees' use of the same spectrum through orthogonal polarization, preserving the maximum utilization of the spectrum.

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 C.F.R. § 0.261, and is effective upon release.

Action Date:	December 14, 2106	
Term Dates	From: December 14, 2016	To: see conditions

Approved:


 Stephen J. Duall
 Chief, Satellite Policy Branch

⁸ SES also requested a waiver of Section 25.210(i)(1) of the Commission's rules, 47 CFR § 25.210(i)(1). This waiver request is no longer necessary. At the time SES submitted its application, Section 25.210(i)(1) required space station antennas in the FSS to be designed to meet a cross-polarization isolation of at least 30 dB within the primary coverage area of the antenna. This provision was eliminated as part of a recent Commission-level order streamlining Part 25 rules governing satellite communications. *Comprehensive Review of Licensing and Operating Rules for Satellite Services*, IB Docket No. 12-267, Second Report and Order, 30 FCC Rcd. 14713, 14817, para. 333 (2015), published at 81 FR 55316 (Aug. 18, 2016).

ATTACHMENT TO GRANT
IBFS File No. SAT-MPL-20160718-00063

SES's request for a waiver of Section 25.131(j) of the Commission's rules, 47 C.F.R. § 25.131(j), to permit radionavigation satellite service (RNSS) terminals to receive transmissions over L1 and L5 GPS frequencies (1564.42-1586.42 MHz and 1165.45-1187.45 MHz, respectively) from the WAAS transmitter on the SES-15 satellite, without obtaining a U.S. license, is GRANTED. This action is based on the following findings and conclusions:

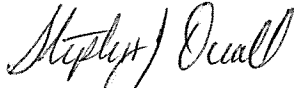
- a. The RNSS signals offered by this non-U.S.-licensed satellite are provided pursuant to a contract with the FAA for use in connection with the FAA's WAAS, and will further the FAA's goals of improving functionality and reliability of the Global Positioning System.
- b. This action has been coordinated with the National Telecommunications and Information Administration.

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 C.F.R. § 0.261, and is effective upon release.

Action Date:	December 14, 2016
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Approved:



Stephen J. Duall
Chief, Satellite Policy Branch

9-16. Name of Contact Representative

Name:	Karis Hastings	Phone Number:	202-599-0975
Company:	SatCom Law LLC	Fax Number:	
Street:	1317 F St, NW Suite 400	E-Mail:	karis@satcomlaw.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20004-
Attention:		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): Modification of Market Access Request</p>	
<p>17d.</p> <p>Fee Classification</p>	
<p>18. If this filing is in reference to an existing station, enter:</p> <p>(a) Call sign of station: S2951</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: SATPPL2016012600007</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 checked="" type="checkbox"/> a. Fixed Satellite <input type="checkbox"/> b. Mobile Satellite <input type="checkbox"/> c. Radiodetermination Satellite <input type="checkbox"/> d. Earth Exploration Satellite <input type="checkbox"/> e. Direct to Home Fixed Satellite <input type="checkbox"/> f. Digital Audio Radio Service <input type="checkbox"/> g. Other (please specify)</p>	
<p>21. STATUS: Choose the button next to the applicable status. Choose only one. <input checked="" type="radio"/> Common Carrier <input checked="" type="radio"/> Non-Common Carrier</p>	<p>22. If earth station applicant, check all that apply. <input type="checkbox"/> Using U.S. licensed satellites <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: <input checked="" 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). <input checked="" type="checkbox"/> a. C-Band (4/6 GHz) <input checked="" type="checkbox"/> b. Ku-Band (12/14 GHz) <input checked="" type="checkbox"/> c. Other (Please specify upper and lower frequencies in MHz.) Frequency Lower: Frequency Upper: (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?	<input type="radio"/> Yes <input checked="" type="radio"/> No
30. Is the applicant an alien or the representative of an alien?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> 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?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> 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.

Exhibit A

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?Gibraltar

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.)

SES Satellites (Gibraltar) seeks to modify its authority to access the US using the Gibraltar-licensed SES-15 satellite to include the extended C- and L-band frequencies used by the Wide Area Augmentation System (WAAS)payload included on the satellite. The satellite will operate at 129.15 W.L.

Narrative

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
Petra A. Vorwig

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46. Title of Person Signing
Senior Legal & Regulatory Counsel

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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