



**UNITED STATES OF AMERICA**  
**FEDERAL COMMUNICATIONS COMMISSION**  
**RADIO STATION AUTHORIZATION**

Name: SES Americom, Inc.

Call Sign: E020071

Authorization Type: Renewal of License

File Number: SES-RWL-20170224-00202

Non Common Carrier

Grant date: 02/24/2017

Expiration Date: 05/14/2032



Nature of Service: Domestic Fixed Satellite Service

Nature of Service: Direct to Home Fixed Satellite

Nature of Service: Fixed Satellite Service

Nature of Service: International Fixed Satellite Service

Class of Station: Fixed Earth Stations

**A) Site Location(s)**

#	Site ID	Address	Latitude	Longitude	Elevation (Meters)	Special Provisions NAD (Refer to Section H)
1)	Bristow	8000 Gainsford Ct Bristow, Prince William, VA 20136	38°47'1.8"N	77°34'23.0"W	85.4	83

Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209

*Subject to the provisions of the Communications Act of 1934, The Communications Satellite Act of 1962, subsequent acts and treaties, and all present and future regulations made by this Commission, and further subject to the conditions and requirements set forth in this license, the grantee is authorized to construct, use and operate the radio facilities described below for radio communications for the term beginning May 14, 2017 (3 AM Eastern Standard Time) and ending May 14, 2032 (3 AM Eastern Standard Time). The required date of completion of construction and commencement of operation is 00/00/0000. Grantee must file with the Commission a certification upon completion of construction and commencement of operation.*

**B) Particulars of Operations**

The General Provision 1010 applies to all receiving frequency bands.

The General Provision 1900 applies to all transmitting frequency bands.

For the text of these provisions, refer to Section H.

#	Frequency (MHz)	Polarization Code	Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services
1)	14498.0000-14499.0000	H,V	900KF1D	Tx	83.00	59.50	13 Meter		FM, TeleCommand Frequency2
2)	14495.0000-14500.0000	H,V	1M00F8D	Tx	79.88	55.90	13 Meter	6565	ANALOG TT&C
3)	14495.0000-14496.0000	H,V	900KF1D	Tx	83.00	59.50	13 Meter		FM, TeleCommand Frequency1
4)	14000.0000-14500.0000	H,V	36M0F3F	Rx	88.70	61.70	13 Meter		Standard Video
5)	14000.0000-14500.0000	H,V	15K2G7W -	Tx	55.70	49.90	13 Meter		BPSK, QPSK, 8PSK, 16QAM, FEC rates-1/2-7/8, various data rates 19kbps - 90Mbps, combination of digital services - data, compressed digital video, internet, etc.



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6)	14000.0000-14500.0000	H,V	36M0G7W	Tx	85.60	46.10	13 Meter		BPSK, QPSK, 8PSK, 16QAM, FEC rates-1/2-7/8, various data rates 19kbps - 90Mbps, combination of digital services - data, compressed digital video, internet, etc.
7)	14000.0000-14005.0000	H,V	1M00F8D	Tx	79.88	55.90	13 Meter	6565	ANALOG TT&C
8)	13780.0000-14000.0000	H,V	1M00D7W	Tx	73.88	49.90	13 Meter		DIGITAL DATA
9)	13780.0000-14000.0000	H,V	1M00G7W	Tx	73.88	49.90	13 Meter		DIGITAL DATA
10)	13780.0000-14000.0000	H,V	36M0D7W	Tx	84.44	44.90	13 Meter		DIGITAL DATA
11)	13780.0000-14000.0000	H,V	36M0G7W	Tx	84.44	44.90	13 Meter		DIGITAL DATA
12)	13780.0000-14000.0000	H,V	77M0D7W	Tx	84.74	41.90	13 Meter		DIGITAL DATA
13)	13780.0000-14000.0000	H,V	77M0G7W	Tx	84.74	41.90	13 Meter		DIGITAL DATA
14)	13770.0000-13780.0000	H,V	10M0D7W	Tx	73.21	39.23	13 Meter		DIGITAL DATA
15)	13770.0000-13780.0000	H,V	10M0G7W	Tx	73.21	39.23	13 Meter		DIGITAL DATA
16)	13770.0000-13780.0000	H,V	4M00D7W	Tx	69.23	39.23	13 Meter		DIGITAL DATA
17)	13770.0000-13780.0000	H,V	4M00G7W	Tx	69.23	39.23	13 Meter		DIGITAL DATA
18)	13750.0000-14000.0000	H,V	36M0D7W	Tx	78.77	39.23	13 Meter		DIGITAL DATA
19)	13750.0000-14000.0000	H,V	36M0G7W	Tx	78.77	39.23	13 Meter		DIGITAL DATA
20)	13750.0000-14000.0000	H,V	77M0D7W	Tx	82.07	39.23	13 Meter		DIGITAL DATA
21)	13750.0000-14000.0000	H,V	77M0G7W	Tx	82.07	39.23	13 Meter		DIGITAL DATA
22)	13750.0000-13770.0000	H,V	1M00D7W	Tx	73.88	49.90	13 Meter		DIGITAL DATA
23)	13750.0000-13770.0000	H,V	1M00G7W	Tx	73.88	49.90	13 Meter		DIGITAL DATA
24)	13750.0000-13770.0000	H,V	500KD7W	Tx	70.87	49.90	13 Meter		DIGITAL DATA
25)	13750.0000-13770.0000	H,V	500KG7W	Tx	70.87	49.90	13 Meter		DIGITAL DATA
26)	11701.0000-11701.0000	H,V	NON	Rx			13 Meter		CW, Tracking Beacon



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#	Frequency (MHz)	Polarization Code	Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services
27)	11700.0000-12200.0000	H,V	36M0F3F	Rx			13 Meter		Standard Video
28)	11700.0000-12200.0000	H,V	500KD7W	Rx			13 Meter		DIGITAL DATA
29)	11700.0000-12200.0000	H,V	500KG7W	Rx			13 Meter		DIGITAL DATA
30)	11700.0000-12200.0000	H,V	77M0D7W	Rx			13 Meter		DIGITAL DATA
31)	11700.0000-12200.0000	H,V	77M0G7W	Rx			13 Meter		DIGITAL DATA
32)	11700.0000-12200.0000	H,V	1M00F8D	Rx			13 Meter	6565	Analog TT&C
33)	11698.0000-11699.0000	H,V	500KG7D	Rx			13 Meter		PM, Telemetry Tracking Beacon3
34)	11453.0000-11454.0000	H,V	500KG7D	Rx			13 Meter		PM, Telemetry Tracking Beacon2
35)	11453.0000-11454.0000	H,V	500KG7D	Rx			13 Meter		PM, Telemetry Tracking Beacon2
36)	11452.0000-11452.0000	H,V	N0N	Rx			13 Meter		CW, Tracking Beacon
37)	11450.0000-12200.0000	H,V	15K2G7W -	Rx	0.00	0.00	13 Meter		BPSK, QPSK, 8PSK, 16QAM, FEC rates-1/2-7/8, various data rates 19kbps - 90Mbps, combination of digital services - data, compressed digital video, internet, etc.
38)	11450.0000-12200.0000	H,V	36M0G7W	Rx	0.00	0.00	13 Meter		BPSK, QPSK, 8PSK, 16QAM, FEC rates-1/2-7/8, various data rates 19kbps - 90Mbps, combination of digital services - data, compressed digital video, internet, etc.
39)	11450.0000-11700.0000	H,V	36M0F3F	Rx			13 Meter		Standard Video
40)	11450.0000-11700.0000	H,V	500KD7W	Rx			13 Meter		DIGITAL DATA
41)	11450.0000-11700.0000	H,V	500KG7W	Rx			13 Meter		DIGITAL DATA
42)	11450.0000-11700.0000	H,V	77M0D7W	Rx			13 Meter		DIGITAL DATA
43)	11450.0000-11700.0000	H,V	77M0G7W	Rx			13 Meter		DIGITAL DATA
44)	11450.0000-11700.0000	H,V	1M00F8D	Rx			13 Meter	6565	ANALOG TT&C



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For the text of these provisions, refer to Section H.

#	Frequency (MHz)	Polarization Code	Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services
45)	11450.0000-11451.0000	H,V	500KG7D	Rx			13 Meter		PM, Telemetry Beacon1
46)	11450.0000-11451.0000	H,V	500KG7D	Rx			13 Meter		PM, Telemetry Tracking Beacon1
47)	11198.0000-11198.0000	H,V	N0N	Rx			13 Meter		CW, Tracking Beacon
48)	10950.0000-11200.0000	H,V	36M0F3F	Rx			13 Meter		Standard Video
49)	10950.0000-11200.0000	H,V	15K2G7W -	Rx	0.00	0.00	13 Meter		BPSK, QPSK, 8PSK, 16QAM, FEC rates-1/2-7/8, various data rates 19kbps - 90Mbps, combination of digital services - data, compressed digital video, internet, etc.
50)	10950.0000-11200.0000	H,V	36M0G7W	Rx	0.00	0.00	13 Meter		BPSK, QPSK, 8PSK, 16QAM, FEC rates-1/2-7/8, various data rates 19kbps - 90Mbps, combination of digital services - data, compressed digital video, internet, etc.
51)	10950.0000-11200.0000	H,V	500KD7W	Rx			13 Meter		DIGITAL DATA
52)	10950.0000-11200.0000	H,V	500KG7W	Rx			13 Meter		DIGITAL DATA
53)	10950.0000-11200.0000	H,V	77M0D7W	Rx			13 Meter		DIGITAL DATA
54)	10950.0000-11200.0000	H,V	77M0G7W	Rx			13 Meter		DIGITAL DATA
55)	10950.0000-11200.0000	H,V	1M00F8D	Rx			13 Meter	6565	Analog TT&C

## C) Frequency Coordination Limits

#	Frequency Limits (MHz)	Satellite Arc (Deg. Long.)		Elevation (Degrees)		Azimuth (Degrees)		Max EIRP Density toward Horizon (dBW/4kHz)	Associated Antenna(s)
		East Limit	West Limit	East Limit	West Limit	East Limit	West Limit		
1)	14000.0000-14500.0000	6.0W	149.0W	05.6	05.7	101.8	258.1	7.9	13 Meter
2)	11700.0000-12200.0000	6.0W	149.0W	05.6	05.7	101.8	258.1	0	13 Meter
3)	11450.0000-11700.0000	6.0W	149.0W	05.6	05.7	101.8	258.1	0	13 Meter
4)	10950.0000-11200.0000	6.0W	149.0W	05.6	05.7	101.8	258.1	0	13 Meter



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## H) Special and General Provisions

A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:

- 1010 --- Applicable to all receiving frequency bands. Emission designator indicates the maximum bandwidth of received signal at associated station(s). Maximum EIRP and maximum EIRP density are not applicable to receive operations.
- 1900 --- Applicable to all transmitting frequency bands. Authority is granted to transmit any number of RF carriers with the specified parameters on any discrete frequencies within associated band in accordance with the other terms and conditions of this authorization, subject to any additional limitations that may be required to avoid unacceptable levels of inter-satellite interference.
- 2010 --- This authorization is issued pursuant to the Commission's Second Report and Order adopted June 16, 1972 (35 FCC 2d 844) and Memorandum, Opinion and Order adopted December 21, 1972 (38 FCC 2d 665) in Docket No. 16495 and is subject to the policies adopted in that proceeding.
- 2454 --- All satellite uplink transmissions carrying broadband video information shall comply with the Automatic Transmitter Identification System (ATIS) requirements of Section 25.281 of the Rules, as modified by FCC Report No. DS-1066, released on April 3, 1991.
- 2916 --- Transmitter(s) must be turned off during antenna maintenance to ensure compliance with the FCC-specified safety guidelines for human exposure to radiofrequency radiation in the region between the antenna feed and the reflector. Appropriate measures must also be taken to restrict access to other regions in which the earth station's power flux density levels exceed the specified guidelines.
- 3219 --- All existing transmitting facilities, operations and devices regulated by the Commission must be in compliance with the Commission's radiofrequency (RF) exposure guidelines, pursuant to Section 1.1307(b)(1) through (b)(3) of the Commission's rules, or if not in compliance, file an Environmental Assessment (EA) as specified in Section 1.1311. See 47 CFR § 1.1307 (b) (5).
- 5011 --- The Licensee(s) shall maintain on file with the Commission a current list or plan of the precise frequencies in use at the station, specifying for each frequency the RF center frequency, polarization, emission designator, nominal EIRP (in dBW) and maximum EIRP density (in dBW/4kHz). This list or plan may be submitted either on a station-by-station basis or on a system-wide basis and shall be updated within seven (7) days of any changes in frequency usage at this station. The Licensee(s) need not notify the Commission of temporary usage of frequencies for periods of less than seven (7) days. However, the Licensee(s) shall maintain accurate station records of the times and particulars of such temporary frequency usage.
- 5012 --- The authority granted here is limited to the operation of the facilities described above and does not include any authority to install and operate channelizing equipment or any other authority under Section 214 of the Communications Act of 1934, as amended, to establish channels of communications.
- 5013 --- In the event of the failure of a satellite with which operations are authorized in Section D of this license, operations are authorized in conjunction with the authorized INTELSAT satellite in the affected Ocean Region that provides the services authorized herein in order to maintain the continuity of commercial service; provided that the licensee(s) immediately notify the Commission of the nature of this emergency and its expected duration; and provided that the operational limits of elevation angle and azimuth range specified in Section C of this license are not exceeded. In the event that such emergency operations require emissions not specified in Section B of this license, such emissions may be utilized provided that the EIRP's of such emissions do not exceed the limits set forth in this license.



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A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:

- 5014 --- With respect to potential co-channel interference to or from terrestrial microwave radio stations, the transmit and receive frequency bands listed in this license have been cleared for transmissions to and from satellites located in the geostationary or non-geostationary orbit for the emissions designated in Section B of this license.
- 5015 --- Upon completion of construction, each licensee must file with the Commission a certification including the following information: name of the licensee, file number of the application, call sign of the antenna, date of the license and certification that the facility as authorized has been completed, that each antenna facility has been tested and is within 2 dB of the pattern specified in Section 25.209 and that the station is operational including the date of commencement of service and will remain operational during the license period unless the license is submitted for cancellation.
- 5017 --- Operation of this station is governed by the terms, conditions and limitations in Part 25 of the Commission's Rules and Regulations and the following additional conditions: 1. This license shall not vest in the Licensee(s) any right to operate the station or any right in the use of the frequencies designated in the license beyond its term or in any other manner than authorized in the license; 2. Neither the license nor the right granted under it shall be assigned or otherwise transferred in violation of the Commission's Rules and Regulations issued under it; and 3. This station is subject to the right of use or control conferred by Section 706 of the Communications Act of 1934, as amended.
- 5018 --- This license shall be forfeited automatically if this station is not ready for operation within the time specified unless, prior to the expiration date of this license, the Commission receives an Application for Additional Time to Construct a Radio Station (FCC Form 701) filed by the Licensee(s) showing good cause why the Licensee(s) could not complete construction on time.
- 5216 --- All operations shall be on a non-common carrier basis.
- 5225 --- This action constitutes the final step with respect to the provision of the services only insofar as the US regulatory process is concerned. However, this authority shall not be construed as authorizing the distribution of programming where the appropriate copyright clearances have not been obtained or where the U.S. Government has determined that appropriate copyright protection does not otherwise exist.
- 5630 --- International services shall be consistent with this emission designator, the underlying title III application(s) and the acquisition of any necessary Section 214 authority.
- 5736 --- Licensee is authorized to provide fixed-satellite service other than Direct-to-Home service via non-U.S. licensed satellites.
- 5738 --- This authorization is subject to the conditions and terms set forth in the Commission's Order and Authorization, FCC 99-210, released August 6, 1999, and Memorandum Opinion and Order, FCC 01-107, released March 29, 2001, and New Skies Satellites N.V., Petition for Declaratory Ruling, Order, DA 01-513 (Int'l Bureau, Satellite and Radiocommunication Division, released Mar. 29, 2001)
- 5781 --- Operation of the authorized earth station having Level 3 direct access to the INTELSAT space segment must comply with the INTELSAT EARTH STANDARDS (IESS) 207, 208 or 601, as appropriate, and all applicable Federal Communications Commission (FCC) rules and regulations.



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A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:

6565 --- Telemetry, tracking and telecommand (TT&C) operations identified in part B, Particulars of Operation in this authorization shall be conducted at either or both edges, in accordance with 47 C.F.R. 25.202 (g). Frequencies, polarization and coding shall be selected to minimize interference into other satellite networks. Transmission and reception of TT&C signals not at a band edge is granted only if a waiver of 47 C.F.R. § 25.202(g) has been granted for the specific satellite and the satellite operator agrees.

90032 --- Waiver of 47 C.F.R. § 2.106 footnote NG 104 is granted for no more than two U.S. earth stations to perform TT&C with SES-4 (S2828) per grant of SAT-PPL-20110620-00112. This waiver is granted to Earth Stations E020071 and E110104.



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**B) This RADIO STATION AUTHORIZATION is granted subject to the additional conditions specified below:**

This authorization is issued on the grantee's representation that the statements contained in the application are true and that the undertakings described will be carried out in good faith.

This authorization shall not be construed in any manner as a finding by the Commission on the question of marking or lighting of the antenna system should future conditions require. The grantee expressly agrees to install such marking or lighting as the Commission may require under the provisions of Section 303(q) of the Communications Act. 47 U.S.C. § 303(q).

Neither this authorization nor the right granted by this authorization shall be assigned or otherwise transferred to any person, firm, company or corporation without the written consent of the Commission. This authorization is subject to the right of use or control by the government of the United States conferred by Section 706 of the Communications Act. 47 U.S.C. § 706. Operation of this station is governed by Part 25 of the Commission's Rules. 47 C.F.R. Part 25.

This authorization shall not vest in the licensee any right to operate this station nor any right in the use of the designated frequencies beyond the term of this license, nor in any other manner than authorized herein.

This authorization is issued on the grantee's representation that the station is in compliance with environmental requirements set forth in Section 1.1307 of the Commission's Rules. 47 C.F.R. § 1.1307.

This authorization is issued on the grantee's representation that the station is in compliance with the Federal Aviation Administration (FAA) requirements as set forth in Section 17.4 of the Commission's Rules. 47 C.F.R. § 17.4.

The following condition applies when this authorization permits construction of or modifies the construction permit of a radio station.

This authorization shall be automatically forfeited if the station is not ready for operation by the required date of completion of construction unless an application for modification of authorization to request additional time to complete construction is filed by that date, together with a showing that failure to complete construction by the required date was due to factors not under control of the grantee.

**Licensees are required to pay annual regulatory fees related to this authorization. The requirement to collect annual regulatory fees from regulatees is contained in Public Law 103-66, "The Omnibus Budget Reconciliation Act of 1993." These regulatory fees, which are likely to change each fiscal year, are used to offset costs associated with the Commission's enforcement, public service, international and policy and rulemaking activities. The Commission issues a Report and Order each year, setting the new regulatory fee rates. Receive only earth stations are exempt from payment of regulatory fees.**