

RADIO STATION AUTHORIZATION

Name: SES Americom, Inc. Call Sign: E980076

Authorization Type: Modification of License File Number: SES-MOD-20200825-00921

Non Common Carrier Grant date: 11/03/2020 Expiration Date: 01/23/2023

Nature of Service: 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) 1	8000 GAINSFORD CT BRISTOW, PRINCE WILLIAM, VA 20136	38°47'1.0"N	77°34'23.0"W	86.5	83
	Licensee certifies antenna(s)	comply with g	ain patterns sp	ecified 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 January 23, 2008 (3 AM Eastern Standard Time) and ending January 23, 2023 (3 AM Eastern Standard Time). The required date of completion of construction and commencement of operation is November 3, 2021 (3 AM Eastern Standard Time). 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.

For the text of these provisions, ref		Max EIRP	Max EIRP Density		Special Provisions			
Frequency # (MHz)	Polarizati Code	on Emission	Tx/Rx Mode	/Carrier	/Carrier	Associated Antenna	(Refer to Section H)	Modulation/ Services
1) 11701.0000-11701.0000	Н, V	NON	Rx			9.3M.		CW, Tracking beaon
2) 11452.0000-11452.0000	R	NON	Rx			9.3M.		CW, Tracking beaon
3) 11198.0000-11198.0000	R	NON	Rx			9.3M.		CW, Tracking beaon
4)6491.0000-6650.0000	L,R	72M0G7W	Tx	80.80	38.30	9.3M.		Digital data
5) 6491.0000-6650.0000	L,R	4M80G7D	Tx	74.10	43.30	9.3M.		Digital data
6) 6491.0000-6650.0000	L,R	43K8G7W	Tx	61.50	51.10	9.3M.		Digital data
7) 6491.0000-6650.0000	L,R	43K8G7D	Tx	53.70	43.30	9.3M.		Digital data
8) 6491.0000-6650.0000	L,R	72M0G7W	Tx	80.80	38.30	9.3M.		DIGITAL DATA
9) 6491.0000-6650.0000	L,R	4M80G7D	Tx	74.10	43.30	9.3M.		DIGITAL DATA

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The General Provision 1900 applies to all transmitting frequency bands.

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

For the t	ext of these provisions, re	ier to Section i	1.		Max	Max EIRP		Special	
#	Frequency (MHz)	Polarizatio Code	on Emission	Tx/Rx Mode	EIRP /Carrier (dBW)	Density /Carrier (dBW/4kHz)	Associated Antenna	Provisions (Refer to Section H)	Modulation/ Services
10) 649	1.0000-6650.0000	L,R	43K8G7W	Tx	61.50	51.10	9.3M.		DIGITAL DATA
11) 649	1.0000-6650.0000	L,R	43K8G7D	Tx	53.70	43.30	9.3M.		DIGITAL DATA
12) 649	1.0000-6650.0000	L,R	900KF1D	Tx	74.60	51.10	9.3M.		TELECOMMAND
13) 649	1.0000-6650.0000	L,R	NON	Tx	53.30	53.30	9.3M.		TEST CARRIER
14) 630	1.2900-6425.0000	L,R	43K8G7D-	Tx	53.70	43.30	9.3M.		Digital data
15) 617	5.5500-6177.0500	L	900KF1D	Tx	74.60	51.10	9.3M.		FM, Telecommand Frequency 2
16) 617	2.9500-6174.4500	L	900KF1D	Tx	74.60	51.10	9.3M.		FM, Telecommand Frequency
17) 592	5.0000-6425.0000	L,R	43K8G7W	Tx	61.50	51.10	9.3M.		Data
18) 592	5.0000-6425.0000	L,R	77M0G7W	Tx	80.80	38.80	9.3M.		Data
19) 592	5.0000-6425.0000	H, V, L, F	R 72M0G7W	Tx	80.80	38.30	9.3M.		DIGITAL DATA
20) 592	5.0000-6425.0000	H, V, L, F	R 4M80G7D	Tx	74.10	43.30	9.3M.		DIGITAL DATA
21) 592	5.0000-6425.0000	H, V, L, F	R 43K8G7W	Tx	61.50	51.10	9.3M.		DIGITAL DATA
22) 592	5.0000-6425.0000	H, V, L, F	R 43K8G7D	Tx	53.70	43.30	9.3M.		DIGITAL DATA
23) 592	5.0000-6425.0000	H, V, L, F	R 900KF1D	Tx	74.60	51.10	9.3M.		TELECOMMAND
24) 592	5.0000-6425.0000	H, V, L, F	RNON	Tx	53.30	53.30	9.3M.		TEST CARRIER
25) 592	5.0000-6271.0900	L,R	43K8G7D-	Tx	53.70	43.30	9.3M.		Digital data
26) 592	5.0000-6271.0900	L,R	4M80G7D	Tx	74.09	43.30	9.3M.		Digital data
27) 585	0.0000-5925.0000	L,R	72M0G7W	Tx	80.80	38.30	9.3M.		DIGITAL DATA
28) 585	0.0000-5925.0000	L,R	4M80G7D	Tx	74.10	43.30	9.3M.		DIGITAL DATA
29) 585	0.0000-5925.0000	L,R	43K8G7W	Tx	61.50	51.10	9.3M.		DIGITAL DATA
30) 585	0.0000-5925.0000	L,R	43K8G7D	Tx	53.70	43.30	9.3M.		DIGITAL DATA
31) 585	0.0000-5925.0000	L,R	900KF1D	Tx	74.60	51.10	9.3M.		TELECOMMAND
32) 585	0.0000-5925.0000	L,R	NON	Tx	53.30	53.30	9.3M.		TEST CARRIER

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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 te	ext of these provisions, re	fer to Section H	I.		Max	Max EIRP		Special	
#	Frequency (MHz)	Polarizatio Code	n Emission	Tx/Rx Mode	EIRP /Carrier (dBW)	Density /Carrier (dBW/4kHz)	Associated Antenna	Provisions (Refer to Section H)	Modulation/ Services
33) 3952	.2500-3952.7500	R	500KG7D	Rx			9.3M.		PM, Telemetry Beacon 2 (Beacon 2 and 2A not simultaneous)
34) 3952	.2500-3952.7500	R	500KG7D	Rx			9.3M.		PM, Telemetry Beacon 2 (Beacon 2 and 2A not simultaneous)
35) 3951	.7500-3952.2500	R	500KG7D	Rx			9.3M.		PM, Telemetry Beacon 2 (Beacon 2 and 2A not simultaneous)
36) 3947	7.7500-3948.2500	R	500KG7D	Rx			9.3M.		PM, Telemetry Beacon 1 (Beacon 1 and 1A not simultaneous)
37) 3947	2.2500-3947.7500	R	500KG7D	Rx			9.3M.		PM, Telemetry Beacon 1 (Beacon 1 and 1A not simultaneous)
38) 3700	.0000-4200.0000	L,R	43K8G7D-	Rx			9.3M.		Digital data
39) 3700	.0000-4200.0000	L,R	4M80G7D	Rx			9.3M.		Digital data
40) 3700	.0000-4200.0000	L,R	43K8G7W	Rx			9.3M.		Digital data
41) 3700	.0000-4200.0000	L,R	77M0G7W	Rx			9.3M.		Digital data
42) 3700	.0000-4200.0000	H,V,L,R	. NON	Rx			9.3M.		CW, TRACKING BEACON
43) 3700	.0000-4200.0000	H,V,L,R	.72M0G7W	Rx			9.3M.		DIGITAL DATA
44) 3700	.0000-4200.0000	H,V,L,R	4M80G7D	Rx			9.3M.		DIGITAL DATA
45) 3700	.0000-4200.0000	H,V,L,R	.43K8G7W	Rx			9.3M.		DIGITAL DATA
46) 3700	.0000-4200.0000	H,V,L,R	. 43K8G7D	Rx			9.3M.		DIGITAL DATA
47) 3625	.0000-3700.0000	L,R	NON	Rx			9.3M.		CW, TRACKING BEACON
48) 3625	0.0000-3700.0000	L,R	72M0G7W	Rx			9.3M.		DIGITAL DATA
49) 3625	0.0000-3700.0000	L,R	4M80G7D	Rx			9.3M.		DIGITAL DATA
50) 3625	5.0000-3700.0000	L,R	43K8G7W	Rx			9.3M.		DIGITAL DATA
51) 3625	.0000-3700.0000	L,R	43K8G7D	Rx			9.3M.		DIGITAL DATA
52) 6301	.2900-6425.0000	L,R	4M80G7D	Тx	74.09	43.30	9.3M.		Digital data

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C) Frequency Coordination Limits

#	Frequency Limits (MHz)	Satellite Arc (Deg. Long.) East West Limit Limit	Elevation (Degrees) East West Limit Limit	Azimuth (Degrees) East West Limit Limit	Max EIRP Density toward Horizon (dBW/4kHz)	Associated Antenna(s)
1)	3700.0000-4200.0000	20.0W-60.0W	16.4-41.5	111.7-153.2		9.3M.
2)	5925.0000-6425.0000	20.0W-60.0W	16.4-41.5	111.7-153.2	-13.74	9.3M.
3)	5925.0000-6271.0900	20.0W-60.0W	16.4-41.5	111.7-153.2	-8.9	9.3M.
4)	6301.2900-6425.0000	20.0W-60.0W	16.4-41.5	111.7-153.2	-8.9	9.3M.
5)	3700.0000-4200.0000	20.0W-60.0W	16.4-41.5	111.7-153.2		9.3M.
6)	11701.0000-11701.0000	21.5W-21.5W	17.5-17.5	112.5-112.5		9.3M.
7)	11452.0000-11452.0000	21.5W-21.5W	17.5-17.5	112.5-112.5		9.3M.
8)	11198.0000-11198.0000	21.5W-21.5W	17.5-17.5	112.5-112.5		9.3M.
9)	3950.0000-3950.0000	21.5W-21.5W	17.5-17.5	112.8-112.8		9.3M.
10)	3952.2500-3952.7500	21.5W-21.5W	17.5-17.5	112.8-112.8		9.3M.
11)	3951.7500-3952.2500	21.5W-21.5W	17.5-17.5	112.8-112.8		9.3M.
12)	3947.7500-3948.2800	21.5W-21.5W	17.5-17.5	112.8-112.8		9.3M.
13)	3947.2500-3947.7500	21.5W-21.5W	17.5-17.5	112.8-112.8		9.3M.
14)	6175.5500-6177.0500	21.5W-21.5W	17.5-17.5	112.8-112.8	6.55	9.3M.
15)	6172.9500-6174.4500	21.5W-21.5W	17.5-17.5	112.8-112.8	6.55	9.3M.
16)	6491.0000-6650.0000	10.0W-60.0W	08.7-41.5	104.5-153.2	8.57	9.3M.
17)	5925.0000-6425.0000	10.0W-139.0W	08.7-13.4	104.5-251.2	8.57	9.3M.
18)	5850.0000-5925.0000	10.0W-60.0W	08.7-41.5	104.5-153.2	8.57	9.3M.
19)	3700.0000-4200.0000	10.0W-139.0W	08.7-13.4	104.5-251.2		9.3M.
20)	3625.0000-3700.0000	10.0W-60.0W	08.7-41.5	104.5-153.2		9.3M.

D) Points of Communications

The following stations located in the Satellite orbits consistent with Sections B and C of this Entry:

- 1) 1 to Permitted Space Station List
- 2) 1 to New Skies Satellite, N.V. 7 (S2463) @ 20 W.L. (Netherlands-licensed)
- 3) 1 to SES-4 (S2828) @ 22 degrees W.L. (Netherlands-licensed)
- 4) 1 to SES-6 (S2870) @ 40.5 degrees W.L. (Netherlands-licensed)
- 5) 1 to SES-14 (S2974)@47.5 degrees W.L. (Brazil & Netherlands licensed)
- 6) 1 to INTELSAT 11 @ 43.0 W.L. satellite(s) of the INTELSAT system (U.S.-licensed)

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E) Antenna Facilities

	Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model nu	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
1		9.3M.	1	9.3	VERTEX CORPORAT	ION 9.3M.	KPC 86.5	10.2 AGL/ 96.6 AMS	
	Max	Gains(s): 12.0	50.5 0000 GH:	dBi @ z	4.0000 GHz	53.8 dBi @	6.0000 GHz	58.6 dBi @	
	Maximum total input power at antenna flange (Watts) = 835.00								
	Maxi	imum aggregate d	output I	EIRP for a	all carriers (dBW)	= 83	3.02		

G) Antenna Structure marking and lighting requirements:

None unless otherwise specified under Special and General Provisions

H) Special and General Provisions

- A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:
 - 4 --- Licensee must ensure that a current listing of the name, title, mailing address, email address, and telephone number of the responsible point of contact are on file at the FCC. Any changes must be filed electronically in the International Bureau Filing System (MyIBFS) using the "Pleadings and Comments" link on the MyIBFS homepage within 10 days of the change.
 - 6 --- Licensee must comply with the license modification and notification requirements of 47 CFR § 25.118 to change the coordinates of its authorized earth station.
 - 8 --- Licensee must notify the Commission when all earth stations operating under this authorization are no longer operational or when they have not been used to provide any service during any 6-month operation.
 - 3212 --- The licensee shall take extraordinary measures to ensure that multiple antennas co-located at the same site do not create potential exposure to radiofrequency radiation in excess of FCC safety guidelines. Antennas shall be surrounded by a fence, at least 2 meters tall with a locked gate, to prevent human exposure in excess of the FCC-specified safety limit of 1 mW/cm2. Warning signs, such as those discussed in the FCC's OET Bulletin 65, shall be posted informing members of the public to keep outside the locked area. All operations must be in compliance with Section 1.1307 (b)(3) of the Commission's Rules. (See 47 CFR 1.1307 (b) (3)).
 - 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)
 - 9981 --- Emissions in the 6491-6650 MHz frequency band are limited operations with the NSS-806 (S2591) at the 47.5° W.L orbital location.

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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:
 - 9982 --- This license, which was filed after December 12, 2012, is granted, on a secondary basis, authorization to operate in the 3625-3700 MHz frequency band pursuant to FCC Order 12-148, para 168, in that this earth station is within 10 miles of a Grandfather earth station, call sign E000152. Protection of this station from interference is limited to the frequency coordinated agreements established for call sign E000152. Subsequent modification of this earth station that results in a change of location beyond a distance of 10 miles from the grandfather earth station will result in surrender of the 3625-3700 MHz portion of this authorization.
- 90398 --- Changes to previously authorized transmitting facilities, operations and devices regulated by the Commission that may have significant environmental impact, and are not excluded by §1.1306, require the preparation of an Environmental Assessment (EA) by the licensee. (See 47 C.F.R. §§1.1307, 1.1308 and 1.1311)
- 90399 --- The licensee shall, at all times, take all necessary measures to ensure that operation of this (these) authorized earth station(s) does not create potential exposure of humans to radiofrequency radiation in excess of the FCC exposure limits defined in 47 CFR §§ 1.1307(b) and 1.1310. Physical measures must be taken to ensure compliance with limits for both occupational/controlled exposure and for general population/uncontrolled exposure, as defined in these rule sections. Compliance can be accomplished in most cases by appropriate restrictions, such as fencing. Requirements for restrictions can be determined by predictions based on calculations, modeling, or by field measurements. The FCC's OET Bulletin 65 (available on-line at www.fcc.gov/oet/rfsafety) provides information on predicting exposure levels and on methods for ensuring compliance, including the use of warning and alerting signs and protective equipment for workers.
- 90405 --- Operations with PERMITTED LIST satellite must comply with §25.212 levels and operations above these levels must coordinate with satellite operators prior to operations.
- 900407 --- The Permitted Space Station List (Permitted List) is a list of all geostationary space stations providing fixed-satellite service pursuant to a Commission license or grant of U.S. market access. The Permitted List currently includes the following frequency bands per §25.103 and §25.115(k)(1):

3600-4200 MHz (space-to-Earth) 5850-6725 MHz (Earth-to-space) 10.95-11.2 GHz (space-to-Earth) 11.45-12.2 GHz (space-to-Earth) 13.75-14.5 GHz (Earth-to-space) 18.3-18.8 GHz (space-to-Earth) 19.7-20.2 GHz (space-to-Earth) 24.75-25.25 GHz (Earth-to-space) 28.35-28.6 GHz (Earth-to-space) 29.25-30.0 GHz (Earth-to-space).

Earth stations with "Permitted List" designated as a point of communication may access any space station on the Permitted List, provided the operations comply with the applicable "routine" uplink and downlink limits, are within the specific frequency bands authorized in the earth station license, have completed coordination with terrestrial stations pursuant to §25.203, and otherwise comply with all terms and conditions of both the earth station license and the space station grant.

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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 does not meet each required construction deadline by the required date of completion unless, before such date(s), a specific application is timely filed to request an extension of the construction deadline(s), supported with good cause why that failure to construct 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 regulates 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.

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