Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
SES Americom, Inc.	)	SES-STA-_____-____
	)	Call sign E160022
Request for Special Temporary Authority to	)	
Conduct In-Orbit Testing of SES-15 at 137° W.L.	)	

REQUEST FOR SPECIAL TEMPORARY AUTHORITY

SES Americom, Inc. ("SES") respectfully requests Special Temporary Authority ("STA") to use its E160022 earth station located in its South Mountain, California teleport[1] to communicate with SES-15 at 137° W.L. in order to perform in-orbit testing ("IOT") of the satellite's Ka-band payload. Authority is sought for a period of up to 30 days, commencing on or around November 19, 2017. SES requests authority for the earth station to communicate with the Gibraltar-licensed SES-15 satellite to test the Ka-band payload.

SES Satellites (Gibraltar) Limited received market access to provide service into the United States from 129.15° W.L. using the Ku- and Ka-bands as well as to operate the WAAS payload in the L- and conventional and extended C-bands.[2] SES-15 was launched on May 18, 2017 and is currently en route to its test orbital location at 137° W.L. SES-15 will be located at 137° W.L. +/-0.1 degrees during IOT. The proposed stationkeeping volume will not

[1] SES Americom, Inc., Call Sign E160022, File No. SES-MOD-20170601-00617, granted September 13, 2017.

[2] SES Satellites (Gibraltar) Limited, (Call Sign S2951), File No. SAT-MPL-20160718-00063, granted Dec. 14, 2016; modifying File No. SAT-PPL-20160126-00007, granted July 12, 2016 ("SES-15 Grant").

overlap with any other satellite. SES seeks earth station STA to perform testing of the SES-15 Ka-band payload using the following frequency bands:

27.5-28.35 GHz	Uplink
28.35-28.6 GHz	Uplink
29.25-30.0 GHz	Uplink
18.3-18.8 GHz	Downlink
19.7-20.2 GHz	Downlink

As discussed below, performing IOT while SES-15 is at 137° W.L. rather than at 129.15° W.L. will permit testing to occur without disruption to existing customers at 129.15° W.L. and will not adversely affect the operation of any adjacent satellites.

Grant of STA Will Serve the Public Interest. Grant of SES's request to test the Ka-band payload on SES-15 at 137° W.L. is in the public interest. By testing SES-15 at this location, SES will minimize the risk of interference to other satellites operating at the nominal 129° W.L. orbital location. Testing will allow SES to ensure that the satellite's communications payload is fully operational at the time it arrives at its final orbital location, thereby avoiding any interruption in service that otherwise might be associated with spacecraft testing.

No Harmful Interference to Other Spacecraft. Testing the SES-15 Ka-band payload at 137° W.L. will not cause harmful interference to the operations of any other spacecraft due to orbital angular separation, frequency diversity and/or geographically diverse beam coverage. SES has also coordinated the proposed test operations with the Department of Defense, which operates Ka-band satellites near 137° W.L. Therefore, no harmful interference will be caused to nearby satellites.

No Harmful Interference to Terrestrial Services. Transmissions associated with IOT of SES-15 will not cause harmful interference to any terrestrial services in the 27.5-28.35 GHz band. The earth station was licensed to communicate with satellites located within an orbital arc of 97° W.L. to 135° W.L. based on a previously completed coordination notification. SES completed a supplemental coordination notification through Comsearch to extend the arc to 137° W.L. *See* Attachment 1.

Additionally, the earth station will not exceed the maximum output EIRP density specified in the license, except in the case of certain tests involving high-powered continuous wave ("CW") for a short duration of time lasting from 30 minutes to several hours. A detailed description of the proposed IOT activities is provided in Attachment 2. SES will conduct all IOT operations on a non-harmful interference basis and will cease transmissions promptly in the event SES receives a complaint of harmful interference regarding its operations.

Waiver Request. SES seeks any necessary waiver of Section 25.210(j) of the Commission's rules in order to permit communications with SES-15 at 137° W.L. with an east-west stationkeeping tolerance of +/- 0.1 degree during the IOT operations. Grant of this waiver is consistent with Commission policy:

> The Commission may waive a rule for good cause shown. Waiver is appropriate if special circumstances warrant a deviation from the general rule and such deviation would better serve the public interest than would strict adherence to the general rule. Generally, the Commission may grant a waiver of its rules in a particular case if the relief requested would not undermine the policy objective of the rule in question and would otherwise serve the public interest.[3]

[3] *PanAmSat Licensee Corp.*, 17 FCC Rcd 10483, 10492 (Sat. Div. 2002) (footnotes omitted).

Section 25.210(j) specifies that geostationary space stations "must be maintained within 0.05° of their assigned orbital location in the east/west direction, unless specifically authorized by the Commission to operate with a different longitudinal tolerance."[4] Here, SES is seeking authority to communicate with SES-15 while the satellite is maintained with a +/- 0.1 degree stationkeeping tolerance during the limited period of IOT operations. The relaxed stationkeeping tolerance will minimize interruptions to the payload testing operations due to stationkeeping maneuvers, which would delay the satellite's on-station start of operations. It will also conserve fuel for future satellite operations. Furthermore, the SES-15 stationkeeping volume will not overlap with that of other satellites near 137° W.L. and therefore there will be no adverse effect on the operations of other spacecraft.

Protective Conditions. SES will coordinate its test operations with all potentially affected operating satellite networks. All testing will be conducted on an unprotected, non-harmful interference basis, and SES operations will cease immediately upon notification of harmful interference.[5]

SES hereby certifies that no party to this application is subject to a denial of benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 862.

[4] 47 C.F.R. § 25.210(j).

[5] The 24/7 point of contact for SES during IOT is Payload Management Operations Center Level 1, +1 410 970 7570; +1 800 772 2363; pmocl1@ses.com.

For the foregoing reasons, SES respectfully requests special temporary authority to operate its E160022 earth station to test the Ka-band payload on SES-15 at 137° W.L. for a period of up to 30 days commencing on or around November 19, 2017. Grant of the requested authority will permit testing of the spacecraft without affecting services to customers and will permit a seamless transition of services.

Respectfully submitted,
SES Americom, Inc.

By: */s/ Petra A. Vorwig*

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Tel: (202) 599-0975

Dated: November 3, 2017

Attachment 1
Supplemental Coordination Notification Report

FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for
SES Americom, Inc.
SOUTH MTN, CA
Satellite Earth Station

Prepared By:
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147
October 30, 2017

TABLE OF CONTENTS

1. CONCLUSIONS

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

2. SUMMARY OF RESULTS

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

3. SUPPLEMENTAL SHOWING

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

Coordination data for this earth station was sent to the below listed carriers with a letter dated 09/20/2017.

Company
ABC Holding Company Inc.
AT&T Corp.
AT&T Mobility Spectrum LLC - Southern CA
Aera Energy LLC
Aerioconnect Inc
Aerioconnect, Inc.
Aerionet, Inc.
Antelecom, Inc.
Antelope Valley College
BP West Coast Products LLC
Bel Air Internet, LLC
Beverly Hills, City of
British American Communications Inc
Burbank, City of
CBS Broadcasting Inc
CBS Communications Services Inc
CBS Radio Inc. of Los Angeles
California Internet, L.P.
California Resources Corporation
California, State of
Castaic Lake Water Agency
City of Culver City
City of Downey
City of Los Angeles Dept Water & Power
City of Montebello
City of Pasadena, California
City of San Buenaventura Police Dept
City of Santa Barbara Fire Department
City of Torrance
City of Whittier
Clearwire Spectrum Holdings III, LLC
Communication Services
Communication Services, Inc.
Community Memorial Health System
El Monte Police Department
Embee Technologies
Federal Communication Commission
Fireline Network Solutions Inc.
Foothill Transit
Fox Television Stations, LLC

Frontier California Inc.
Gilcomm LLC
Glaser, Mike
Glendale City California
Global Telecom & Technology Americas
Iberdrola Renewables, LLC
KAZN-TV Licensee LLC
KTLA, LLC
Kern Ed Telecom Consortium
Kern, County of
LT-WR, LLC
Las Virgenes Unified School District
Long Beach, City of (WCD)
Los Angeles City Info Technology Agency
Los Angeles County Dept of Public Works
Los Angeles County FCC Licensing Section
Los Angeles County Metro Transit Auth
Los Angeles Regional Interoperable Comm
Los Angeles SMSA Ltd. Partnership
Los Angeles, City of
Metropolitan Water Dist of So California
Mobile Relay Associates Inc.
Monrovia, City of
NBC Telemundo License LLC
New Cingular Wireless PCS - Los Angeles
Nextel of California Inc.
Nextlink Wireless, LLC
Nextweb Inc
Olympic Wireless, LLC
Pacific Bell Tel Com dba AT&T California
Pueblo Radiology
Redondo Beach Police Department
Regents of the University of California
Santa Barbara Cellular Systems, Ltd.
Santa Barbara, County of
Skyriver Communications
SmartSky Networks, LLC
South Bay Regional Public Comm Authority
Southern California Gas Company
Spectrum Link, Inc.
Sprint Spectrum L.P.
Sprint Telephony PCS, L.P.
T-Mobile License LLC
THUMS Long Beach Company
Tejon Ranch Co
Tesoro Companies, Inc
Towerstream Corp.
Turn Wireless, LLC
Union Pacific Railroad Company
Vectus, Inc
Ventura County Office of Education
Ventura, County of
Verizon Wireless (VAW) LLC (Southern CA)
Verizon Wireless (VAW) LLC-N CA/NV
Wiline Spectrum Holdings LLC
XO Communications, LLC

4. EARTH STATION COORDINATION DATA

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

COMSEARCH

Earth Station Data Sheet

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

Date:	10/30/2017
Job Number:	170920COMSGE02

Administrative Information

Status	TEMPORARY (Operation from 11/20/2017 to 12/22/2017)
Call Sign	E160022
Licensee Code	P3210
Licensee Name	SES Americom, Inc.

Site Information — SOUTH MTN, CA

Venue Name	
Latitude (NAD 83)	34° 19' 31.9" N
Longitude (NAD 83)	118° 59' 41.4" W
Climate Zone	A
Rain Zone	4
Ground Elevation (AMSL)	312.12 m / 1024.0 ft

Link Information

Satellite Type	Geostationary
Mode	TR - Transmit-Receive
Modulation	Digital
Satellite Arc	97° W to 137° West Longitude
Azimuth Range	144.4° to 210.0°
Corresponding Elevation Angles	43.7° / 45.7°
Antenna Centerline (AGL)	5.49 m / 18.0 ft

Antenna Information		Receive - FCC32		Transmit - FCC32	
Manufacturer		SES		SES	
Model		9.2 meter		9.2 meter	
Gain / Diameter		62.2 dBi / 9.2 m		65.5 dBi / 9.2 m	
3-dB / 15-dB Beamwidth		0.13° / 0.26°		0.10° / 0.20°	
Max Available RF Power	(dBW/4 kHz)			-25.0	
	(dBW/MHz)			-1.0	
Maximum EIRP	(dBW/4 kHz)			40.5	
	(dBW/MHz)			64.5	
Interference Objectives:	Long Term	-156.0 dBW/MHz	20%	-151.0 dBW/4 kHz	20%
	Short Term	-146.0 dBW/MHz	0.01%	-128.0 dBW/4 kHz	0.0025%

Frequency Information	Receive 18.0 GHz	Transmit 28.0 GHz
Emission / Frequency Range (MHz)	100KG7D - 250MG7D / 18300.0 - 18800.0 100KG7N - 250MG7N / 19700.0 - 20200.0 100KG7W - 250MG7W / 19700.0 - 20200.0	100KG7D - 250MG7D / 27500.0 - 28600.0 100KG7N - 250MG7N / 29250.0 - 30000.0 100KG7W - 250MG7W / 29250.0 - 30000.0
Max Great Circle Coordination Distance	136.4 km / 84.7 mi	100.0 km / 62.1 mi
Precipitation Scatter Contour Radius	100.0 km / 62.1 mi	100.0 km / 62.1 mi

COMSEARCH

Earth Station Data Sheet

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

Coordination Values	**SOUTH MTN, CA**			
Licensee Name	SES Americom, Inc.			
Latitude (NAD 83)	34° 19' 31.9" N			
Longitude (NAD 83)	118° 59' 41.4" W			
Ground Elevation (AMSL)	312.12 m / 1024.0 ft			
Antenna Centerline (AGL)	5.49 m / 18.0 ft			
Antenna Model	SES 9.2 meter			
Antenna Mode	Receive 18.0 GHz		Transmit 28.0 GHz	
Interference Objectives: Long Term	-156.0 dBW/MHz	20%	-151.0 dBW/4 kHz	20%
Short Term	-146.0 dBW/MHz	0.01%	-128.0 dBW/4 kHz	0.0025%
Max Available RF Power			-25.0 (dBW/4 kHz)	

			Receive 18.0 GHz		Transmit 28.0 GHz	
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	14.35	135.13	-10.00	100.00	-10.00	100.00
5	14.21	131.36	-10.00	100.00	-10.00	100.00
10	14.39	127.59	-10.00	100.00	-10.00	100.00
15	13.49	123.26	-10.00	100.00	-10.00	100.00
20	13.83	119.33	-10.00	100.00	-10.00	100.00
25	13.95	115.22	-10.00	100.00	-10.00	100.00
30	12.49	110.68	-10.00	100.00	-10.00	100.00
35	12.30	106.46	-10.00	100.00	-10.00	100.00
40	13.68	102.43	-10.00	100.00	-10.00	100.00
45	14.45	98.18	-10.00	100.00	-10.00	100.00
50	15.10	93.85	-10.00	100.00	-10.00	100.00
55	15.64	89.46	-10.00	100.00	-10.00	100.00
60	16.43	85.01	-10.00	100.00	-10.00	100.00
65	15.98	80.62	-10.00	100.00	-10.00	100.00
70	17.38	76.04	-10.00	100.00	-10.00	100.00
75	17.26	71.63	-10.00	100.00	-10.00	100.00
80	17.32	67.22	-10.00	100.00	-10.00	100.00
85	16.05	63.19	-10.00	100.00	-10.00	100.00
90	16.12	58.93	-10.00	100.00	-10.00	100.00
95	16.24	54.72	-10.00	100.00	-10.00	100.00
100	15.78	50.84	-10.00	100.00	-10.00	100.00
105	13.37	48.15	-10.00	100.00	-10.00	100.00
110	10.54	46.30	-9.64	100.00	-9.64	100.00
115	8.54	44.57	-9.23	100.00	-9.23	100.00
120	7.23	42.91	-8.81	100.00	-8.81	100.00
125	6.12	41.61	-8.48	100.00	-8.48	100.00
130	5.67	40.27	-8.12	100.00	-8.12	100.00
135	4.75	39.89	-8.02	100.00	-8.02	100.00
140	3.77	40.13	-8.09	100.00	-8.09	100.00
145	5.15	38.55	-7.65	100.00	-7.65	100.00
150	5.95	38.10	-7.52	100.00	-7.52	100.00
155	6.77	38.21	-7.56	100.00	-7.56	100.00
160	5.74	40.59	-8.21	100.00	-8.21	100.00
165	6.69	41.33	-8.41	100.00	-8.41	100.00
170	6.82	42.37	-8.68	100.00	-8.68	100.00
175	7.89	42.00	-8.58	100.00	-8.58	100.00
180	6.70	43.41	-8.94	100.00	-8.94	100.00
185	4.10	45.76	-9.51	100.00	-9.51	100.00

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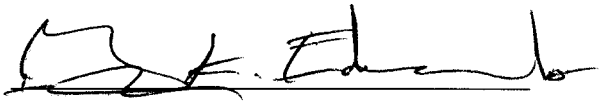
Antenna Centerline (AGL)	5.49 m / 18.0 ft			
Antenna Model	SES 9.2 meter			
Antenna Mode	Receive 18.0 GHz		Transmit 28.0 GHz	
Interference Objectives: Long Term	-156.0 dBW/MHz	20%	-151.0 dBW/4 kHz	20%
Short Term	-146.0 dBW/MHz	0.01%	-128.0 dBW/4 kHz	0.0025%
Max Available RF Power			-25.0 (dBW/4 kHz)	

			Receive 18.0 GHz		Transmit 28.0 GHz	
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
190	1.86	47.14	-9.83	100.00	-9.83	100.00
195	0.00	47.56	-9.93	136.37	-9.93	100.00
200	1.29	45.28	-9.40	100.00	-9.40	100.00
205	2.18	43.74	-9.02	100.00	-9.02	100.00
210	1.95	43.74	-9.02	100.00	-9.02	100.00
215	2.49	43.44	-8.95	100.00	-8.95	100.00
220	2.85	43.78	-9.03	100.00	-9.03	100.00
225	2.32	45.42	-9.43	100.00	-9.43	100.00
230	0.46	48.58	-10.00	117.03	-10.00	100.00
235	1.89	49.17	-10.00	100.00	-10.00	100.00
240	3.10	50.41	-10.00	100.00	-10.00	100.00
245	4.45	52.01	-10.00	100.00	-10.00	100.00
250	3.95	55.17	-10.00	100.00	-10.00	100.00
255	4.59	57.83	-10.00	100.00	-10.00	100.00
260	5.91	60.43	-10.00	100.00	-10.00	100.00
265	5.27	64.14	-10.00	100.00	-10.00	100.00
270	6.36	67.28	-10.00	100.00	-10.00	100.00
275	8.17	70.45	-10.00	100.00	-10.00	100.00
280	9.55	74.00	-10.00	100.00	-10.00	100.00
285	9.89	77.92	-10.00	100.00	-10.00	100.00
290	11.20	81.81	-10.00	100.00	-10.00	100.00
295	11.13	85.92	-10.00	100.00	-10.00	100.00
300	11.98	90.04	-10.00	100.00	-10.00	100.00
305	11.46	94.17	-10.00	100.00	-10.00	100.00
310	11.47	98.29	-10.00	100.00	-10.00	100.00
315	12.16	102.50	-10.00	100.00	-10.00	100.00
320	13.46	106.85	-10.00	100.00	-10.00	100.00
325	14.47	111.22	-10.00	100.00	-10.00	100.00
330	14.49	115.36	-10.00	100.00	-10.00	100.00
335	13.75	119.16	-10.00	100.00	-10.00	100.00
340	14.26	123.29	-10.00	100.00	-10.00	100.00
345	15.66	127.78	-10.00	100.00	-10.00	100.00
350	16.71	132.11	-10.00	100.00	-10.00	100.00
355	14.43	134.47	-10.00	100.00	-10.00	100.00

5. CERTIFICATION

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

BY: _ 

Gary K. Edwards
Senior Manager
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147

DATED: October 30, 2017

Attachment 2

Call Sign: E160022

Site Details

Contact Information:
David Coyle
805-386-2712

Address:
5990 Solano Verde Dr.
Somis, California 93066

Geographic Coordinates:
Latitude: 34° 19’ 31.9" N

Longitude: 118° 59’ 41.4" W

Site Elevation:
312.1 meters

Antenna Details

Antenna ID:	1
Manufacture/Model:	SES/9.2 Meter
Antenna Size:	9.2 meters
Antenna Gain Transmit:	65.5 dBi at 28.0 GHz 69.1 dBi at 30.0 GHz
Antenna Gain Receive:	62.2 dBi at 18.0 GHz
Height Above Ground Level:	11.05 meters
Height Above Sea Level:	323.15 meters
Total Input Power at the Flange:	371.5 watts
Total EIRP for the test Carrier:	91.19 dBW

IOT Operational Details

Frequency (MHz)	**Transmit /Receive**	**Polarization**	**Emission Designator**	**Max EIRP per Carrier (dBW)**	**Max EIRP Density per Carrier (dBw/4kHz)**
18.3-18.8	R	Right and Left Circular	N0N	0.0	0.0
19.7-20.2	R	Right and Left Circular	N0N	0.0	0.0
27.5-28.35	T	Right and Left Circular	N0N	87.5	87.5
28.35-28.6	T	Right and Left Circular	N0N	87.5	87.5
29.25-30.0	T	Right and Left Circular	N0N	87.5	87.5