

SES Americom, Inc.

Approved by OMB  
3060-0678

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:  
SES STA Ku-band demo terminal

1. Applicant

<b>Name:</b>	SES Americom, Inc.	<b>Phone Number:</b>	571-229-0879
<b>DBA Name:</b>		<b>Fax Number:</b>	202-478-7111
<b>Street:</b>	1129 20th Street NW Suite 1000	<b>E-Mail:</b>	noah.cherry@ses.com
<b>City:</b>	Washington	<b>State:</b>	DC
<b>Country:</b>	USA	<b>Zipcode:</b>	20036
<b>Attention:</b>	Mr Noah Cherry		

*30 days*  
*"With conditions"*

File # SES-STA-20190812-01068

Call Sign N/A Grant Date 09/17/2019  
(or other identifier)

Team Dates  
From: 09/17/2019 To: 10/19/2019

Approved: [Signature]



<b>2. Contact</b>	
<b>Name:</b> Noah Cherry	<b>Phone Number:</b> 571-229-0879
<b>Company:</b> SES Americom, Inc.	<b>Fax Number:</b>
<b>Street:</b> 1129 20th Street NW Suite 1000	<b>E-Mail:</b> noah.cherry@ses.com
<b>City:</b> Washington	<b>State:</b> DC
<b>Country:</b> USA	<b>Zipcode:</b> 20036
<b>Attention:</b>	<b>Relationship:</b> Legal Counsel
(If your application is related to an application filed with the Commission, enter either the file number or the IB Submission ID of the related application. Please enter only one.)	
3. Reference File Number or Submission ID	
4a. Is a fee submitted with this application?	
<input checked="" 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). <input type="radio"/> Governmental Entity <input type="radio"/> Noncommercial educational licensee <input type="radio"/> Other (please explain):	
4b. Fee Classification   CGX – Fixed Satellite Transmit/Receive Earth Station	
5. Type Request	
<input checked="" type="radio"/> Use Prior to Grant <input type="radio"/> Change Station Location <input type="radio"/> Other	
6. Requested Use Prior Date 09/09/2019	
7. City/Port St. Lucie	
8. Latitude (dd mm ss.s h)   27 16 57.0 N	

9. State	FL	10. Longitude (dd mm ss.s h)	80 28 57.0 W
11. Please supply any need attachments.			
Attachment 1: Narrative	Attachment 2:	Attachment 3:	
12. Description. (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)			
<div style="border: 1px solid black; padding: 5px;"> <p>SES request Special Temporary Authority for 30 days from September 9, 2019 to test 131.2x 141.8 x 29.8 centimeter antenna designated Raysat ER7000 for compatibility with SES's satellites in the conventional Ku-band.</p> </div>			
13. 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.			
<p style="text-align: center;">Yes <input checked="" type="radio"/> No <input type="radio"/></p>			
14. Name of Person Signing	Noah Cherry	15. Title of Person Signing	Legal Counsel
<p style="text-align: center;">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).</p>			

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**THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104-13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.**

Applicant: SES Americom, Inc  
Call Sign: N/A  
File No.: SES-STA-20190812-01068  
Special Temporary Authority ("STA")

SES Americom, Inc. ("SES") is granted special temporary authorization for 30 days, beginning September 17, 2019 to test its RaySat ER7000 antenna(s) with SES-10 ("S2950") satellite at the 66.9 W orbital location to support testing of terminals used for mobile connectivity for ESIMs in the 14000-14500 MHz (Earth-to-space); and 10950-11200 MHz, and 11450 – 11700 MHz (space-to-Earth) frequency bands under the following conditions:

1. Operations must comply the existing station authorization.
2. Operations shall comply pursuant to 47 C.F.R. § 25.212(c)(2).
3. All operations shall be on an unprotected and non-harmful interference basis, SES, shall not cause harmful interference to, and shall not claim protection from, interference caused to it by any other lawfully operating station and it shall cease transmission(s) immediately upon notice of such interference and must inform the Commission, in writing, immediately of such an event.
4. All operators of satellites will be provided with an emergency phone number where the licensee can be reached in the event that harmful interference occurs, Currently the 24x7 contact information for the SES-10 satellite testing mission is as follows: Ph.: (410) 970-7580- SES Network Operation Center. NOC Email: [PMOC@ses.com](mailto:PMOC@ses.com)
5. Grant of this STA is without prejudice to any determination that the Commission may make regarding pending or future SES applications.
6. Any action taken or expense incurred as a result of operations pursuant to this STA is solely at SES's risk.

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



File # SES-STA-20190812-01068

Call Sign N/A Grant Date 09/17/2019  
(or other identifier)

Term Dates  
From: 09/17/2019 To: 10/17/2019

Approved: Paul E. Haeb

"with conditions"

## **REQUEST FOR SPECIAL TEMPORARY AUTHORITY**

SES Americom, Inc. ("SES") respectfully requests earth station Special Temporary Authority ("STA") for 30 days to test 131.2x 141.8 x 29.8 centimeter antenna designated RaySat ER7000 for compatibility with SES's satellites in the conventional Ku-band.<sup>1</sup> The testing will occur in Port St. Lucie, FL, USA, and the antenna will communicate with the SES-10 spacecraft at 66.9W (Call Sign S2950).<sup>2</sup> SES seeks STA to conduct the testing beginning September 9, 2019 and asks for Commission action consistent with that timing. Grant of the requested STA is in the public interest because it will accelerate testing of a terminal used for mobile connectivity for ESIMs in remote areas, specifically for railway connectivity in Alaska. Furthermore, the proposed testing in the conventional Ku-band will be limited and will not cause harmful interference to any terrestrial or satellite operators. SES will also conduct operations on an unprotected, non-interference basis. For the foregoing reasons, SES Americom respectfully requests that the Commission grant it a 30-day STA to test its RaySat ER7000 antenna with SES-10 in the conventional Ku-band beginning September 9, 2019.

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<sup>1</sup> The proposed operations are summarized in Attachment 1.

<sup>2</sup> New Skies Satellites B.V., Call Sign S2950 (modification granted Mar. 10, 2017).

## **Attachment 1**

**Call Sign: New Antenna**

**Contact Information:**

Mike Hance  
+1 (321) 586-7253

**Address:**

1129 20<sup>th</sup> Street, NW, Suite 1000  
Washington, DC 20036

**Site Details**

**Geographic Coordinates (WGS84):<sup>3</sup>**

Latitude: 27.282479 deg      Longitude: -80.482403 deg

**Site Elevation:**

38ft

**Antenna ID: RaySat1**

**Manufacture/Model: RaySat ER7000**

**Antenna Size: 131.2 x 141.8 x 29.8 cm**

**Antenna Gain Transmit: 36 dBi at 14.25GHz**

**Antenna Gain Receive: 35.7 dBi at 11.85GHz**

**Height Above Ground Level: 5ft**

**Height Above Sea Level: 33ft**

**Total Input Power at the Flange: 32W**

**Total EIRP for all Carriers: 51.05 dBW**

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<sup>3</sup> See attached Google Map screenshot.

#### Operational Details<sup>4</sup>

Frequency (MHz)	Transmit/Receive	Polarization	Emissions Designator	Max EIRP per Carrier (dBW)	Max EIRP Density per Carrier (dBW/4kHz)
14000-14500	T	Vertical	10M0G2D	51.05	17.02
10950-11700	R	Horizontal	33M0G2D	47.31	8.92

#### Frequency Coordination

Range of Satellite Arc	Azimuth	Elevation Angle	Maximum EIRP Density Toward the Horizon
020.5 W-130.5 W	152.2	54.8	21.98

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<sup>4</sup> SES confirms that the antenna will operate in compliance with Section 25.209 of the Commission's rules.



# Map Screen Shot

