

## **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

