

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

In the Matter of	)	
	)	
SES AMERICOM, INC.	)	Call Sign E170089
	)	
Application for Special Temporary Authority to	)	
Perform TT&C for ASTRA 1D	)	

**REQUEST OF SES AMERICOM, INC.**

SES Americom, Inc. (“SES”) respectfully requests special temporary authority (“STA”) for a period of 30 days beginning no later than July 9, 2021 to permit SES to use earth station E170089 to communicate with the Luxembourg-authorized ASTRA 1D spacecraft solely for the purposes of providing Tracking, Telemetry and Command (“TT&C”) for the satellite, which is located at 73.0° W.L. (+/- 0.10° east/west station keeping), using conventional and extended Ku-band frequencies.<sup>1</sup>

SES’s affiliate, SES ASTRA S.A. (“ASTRA”), holds an authorization from the Luxembourg Ministry of State, Office of Media and Communications<sup>2</sup> for the ASTRA 1D spacecraft. SES ASTRA has requested that SES assist with providing TT&C to support the operation of ASTRA 1D at 73.0° W.L.

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<sup>1</sup> The ASTRA 1D TT&C frequencies are as follows:

Telecommand:	14013 MHz (omni) horizontal polarization
	14493 MHz (spot) vertical polarization
Telemetry:	11447.5 MHz (spot) horizontal polarization/ (omni) vertical polarization
	11454 MHz (spot, omni) vertical polarization

In compliance with Section 25.202(g)(1) of the Commission’s rules, the proposed TT&C operations will cause no greater interference and require no greater protection from harmful interference than would communications traffic in these bands.

<sup>2</sup> Ministère d’État, Service des Médias et des Communications of the Grand Duchy of Luxembourg.

The Commission recently granted SES authority to use its KA288<sup>3</sup> and E050287<sup>4</sup> earth stations to support TT&C services for ASTRA 1D. After the Commission granted these STAs, it was determined that the E050287 earth station would be temporarily needed to assist with retiring the AMC-16 satellite, beginning on August 10 until approximately August 30. While the E050287 earth station communicates with AMC-16, SES seeks authority to use the E170089 earth station to provide TT&C services for ASTRA 1D. Once the AMC-16 satellite has been successfully placed into disposal orbit, E050287 will resume providing TT&C services for the ASTRA 1D satellite, and E170089 will terminate communications with ASTRA 1D.

SES is not requesting U.S. market access or any other authorization from the Commission relating to the non-U.S.-licensed ASTRA 1D spacecraft, and therefore is not providing full technical information about the ASTRA 1D satellite as part of this application.<sup>5</sup> SES has previously filed a basic technical description of the satellite's proposed operations and an orbital debris mitigation statement for ASTRA 1D at 73° W.L.<sup>6</sup> As discussed below, communications with ASTRA 1D will not adversely affect the operation of any adjacent satellites.

***Additional Extended Ku-band Authority.*** SES requests authority to communicate at one frequency that is not covered by the E170089 license, 11447.5 MHz. ASTRA 1D has two telemetry frequencies in the extended Ku-band, at 11447.5 MHz and 11454 MHz. The

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<sup>3</sup> SES Americom, Inc., Call Sign KA288, File No. SES-STA-20210323-00561, granted June 8, 2021.

<sup>4</sup> SES Americom, Inc., Call Sign E050287, File No. SES-STA-20210323-00562, granted June 7, 2021.

<sup>5</sup> See Waiver Request, *infra*.

<sup>6</sup> Call Sign E110104, File No. SES-STA-20180129-00069, Attachments 2 and 3.

E170089 license authorizes use of the 11450-12200 MHz band, but does not include the adjacent 11200-11450 MHz band segment.

***Grant of this Application Will Serve the Public Interest.*** Grant of this request is in the public interest as the requested TT&C authority will facilitate the safe operation of ASTRA 1D at 73.0° W.L.

***No Harmful Interference to Other Spacecraft.*** Apart from SES's AMC-3 satellite at 72.0° W.L., the nearest satellite to 73.0° W.L. with overlapping Ku-band operations is ARSAT 1 operated at 71.8° W.L. by Empresa Argentina de Soluciones Satelitales Sociedad Anónima (ARSAT). SES has coordinated operations with ARSAT 1.

***Waiver Requests.*** SES requests limited waivers of the Commission's requirements in connection with the instant request. Grant of these waivers 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.<sup>7</sup>

Request for Limited Waiver of International Service Restriction – SES acknowledges that use of the extended Ku-band frequencies in the United States is limited to international service only.<sup>8</sup> SES will abide by this restriction. However, to the extent that reception of telemetry at 11447.5 MHz and 11454 MHz to perform TT&C with ASTRA 1D constitutes a domestic (i.e. non-international) service, SES respectfully requests a limited waiver of the international-service-only restriction.

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<sup>7</sup> *PanAmSat Licensee Corp.*, 17 FCC Rcd 10483, 10492 (Sat. Div. 2002) (footnotes omitted).

<sup>8</sup> 47 C.F.R. § 2.106 NG52.

Such a waiver is warranted in the circumstances. As the Commission has recognized, TT&C operations generally require uplink and downlink capability from the same earth station. For this reason, the Commission has previously granted waivers of the international service restriction to enable TT&C to be performed in the U.S. using the extended Ku-band.<sup>9</sup>

Grant of the requested waiver would not undermine the purpose of the rule, which is to ensure that earth station deployments in the extended Ku-band do not negatively impact the deployment of fixed service (“FS”) in the same band or cause interference to such operations. The telemetry downlink from ASTRA 1D will comply with the power flux density limits in the Commission’s rules and, thus, will not interfere with FS station operations. Moreover, only a small number of U.S. earth stations will be used to perform TT&C with ASTRA 1D, which means that no significant restrictions will be placed on the deployment of FS in the same band.<sup>10</sup>

Sections 25.137 and 25.114. SES requests a waiver of Section 25.137 and the other Commission rules cross-referenced therein. SES seeks authority in connection with providing TT&C for ASTRA 1D, a foreign-licensed spacecraft. Section 25.137 requires that applicants proposing to use U.S.-licensed earth stations to communicate with foreign-licensed spacecraft demonstrate that the Commission’s policies for U.S. market access are satisfied.

Section 25.137 also incorporates by reference other requirements for Commission-licensed space stations, including the obligation to file detailed technical information as specified in Section 25.114.

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<sup>9</sup> See *EchoStar KuX Corporation*, 20 FCC Rcd 919 (Int’l Bur. 2004) (“*EchoStar 83W Order*”); *EchoStar Satellite LLC*, 20 FCC Rcd 930 (Int’l Bur. 2004) (“*EchoStar 109W Order*”); *EchoStar KuX Corporation*, 20 FCC Rcd 942 (2004).

<sup>10</sup> See *EchoStar 83W Order*, at ¶ 16 (“The Commission has waived this requirement [i.e. NG104] where the number of potential earth stations in a particular service is inherently small.”); *EchoStar 109W Order*, at ¶ 16 (same); *EchoStar 121W Order*, at ¶ 17 (same).

Waiving Section 25.137 is consistent with the purpose of the rule, which was intended to address situations in which a non-U.S.-licensed satellite is to be used to serve the United States. Here, the E170089 earth station will be used solely for TT&C, not for commercial operations. Thus, SES is not seeking authority to communicate with ASTRA 1D for purposes of providing U.S. service within the meaning of Section 25.137.

To the extent the Commission disagrees, SES requests a waiver of the market access and other requirements imposed in Section 25.137. Grant of a waiver will not undermine the objectives of these requirements. The market access test described in the rule is intended to ensure that U.S.-licensed systems have “effective competitive opportunities.”<sup>11</sup> Because SES is not seeking authority to provide commercial services in the United States, the requested modification does not raise any concerns about competitive equality.<sup>12</sup>

Strict adherence with Section 25.114’s requirements for detailed technical information is also unnecessary and would be unduly burdensome. SES is proposing to use the E170089 earth station only for the limited purpose of performing TT&C for ASTRA 1D located at 73.0° W.L. The relevant technical characteristics of those transmissions are provided in this application. In these circumstances, no valid purpose would be served by requiring a complete description of the ASTRA 1D spacecraft.

SES’s request is consistent with Commission precedent. In similar cases in which limited communications by U.S. earth stations with a foreign-licensed satellite were

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<sup>11</sup> 47 C.F.R. § 25.137(a).

<sup>12</sup> In any event, the ASTRA 1D spacecraft at 73.0° W.L. will be operating under the authority of Luxembourg, a World Trade Organization member country, and therefore is exempt from the requirement to make a showing of effective competitive opportunities. 47 C.F.R. § 25.137(a)(2).

proposed, the Commission has granted operational authority without requiring a market access showing under Section 25.137 or full technical data as required by Section 25.114.<sup>13</sup>

Section 25.210(j). The ASTRA 1D satellite is authorized by the Luxembourg Government to operate at 73.0° W.L. within a +/- 0.1 degrees east/west station keeping box. To the extent necessary, SES respectfully requests a waiver of Section 25.210(j) of the Commission's rules, which requires geostationary space stations to be operated within a +/- 0.05 degrees east/west station keeping box. The Commission has previously waived this rule based on a finding that allowing an increased station keeping volume would "not adversely affect the operations of other spacecraft, and would conserve fuel for future operations."<sup>14</sup>

The facts here fit squarely within this precedent. Allowing ASTRA 1D to be maintained within an increased station keeping volume will not harm other operators. ASTRA 1D's station keeping volume will not overlap with that of any other satellites. Under these circumstances, grant of any necessary waiver of Section 25.210(j) will serve the public interest.

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

For the foregoing reasons, SES seeks STA for its E170089 earth station license to communicate with ASTRA 1D beginning no later than July 9, 2021 to provide TT&C to the

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<sup>13</sup> See, e.g., Hawaii Pacific Teleport, L.P., File No. SES-STA-20131030-00914 (Call Sign E030115), granted Nov. 18, 2013 (granting authority for earth station to provide TT&C services to ASTRA 3A operating at 176.85° W.L.); PanAmSat Licensee Corp., File Nos. SES-STA20090922-01211 (Call Sign E4132) & SES-STA-20090922-01212 (Call Sign E040125), both grant-stamped Oct. 16, 2009 (granting authority for earth stations to communicate with foreign-licensed NSS-12 spacecraft for purposes of providing launch and early operations services).

<sup>14</sup> See, e.g., *SES Americom, Inc.*, File Nos. SAT-MOD-20080124-00030 & SAT-AMD-20080311-00070, grant-stamped May 19, 2008, Attachment at ¶ 1.

satellite as described herein. Grant of the requested authority will promote safe operation of the satellite.

SES AMERICOM, INC.

By: /s/ Petra A. Vorwig

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## **Attachment 1: TT&C Emission Characteristics for E170089 Antenna**

### **1. Site Location**

2323 Grimville Road  
(Woodbine)  
Mt. Airy, Carroll, MD, 21771

Latitude: 39° 22' 38.8" N  
Longitude: 77° 4' 53.0" W  
Elevation (meters): 194.0

Antenna ID: WDB K11  
Max Gains(s): 60.1dBi @ 14.125GHz, 58.5dBi @ 11.725GHz  
Maximum total input power at antenna flange (Watts): 3000  
Maximum aggregate output EIRP for all carriers (dBW): 94.87

### **2. Earth Station Transmission Characteristics**

Emission Designator: 800KF9W  
Max EIRP: 75.10 dBW  
Max EIRP Density: 46.00 dBW/4kHz  
These EIRP and EIRP density levels are within the maximum EIRP and EIRP density levels authorized in the current E170089 earth station license.

### **3. TT&C Frequencies**

Telecommand:	14013 MHz (omni) horizontal polarization
	14493 MHz (spot) vertical polarization
Telemetry:	11447.5 MHz (spot) horizontal polarization/ (omni) vertical polarization
	11454 MHz (spot, omni) vertical polarization

### **4. Points of Communication**

Common Name: ASTRA 1D  
Orbital Location: 73.0° W.L.  
ITU Name: GIBSAT-72.5W