

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

In the Matter of Application by	)	
	)	
SES AMERICOM, INC.	)	Call Sign E050287
	)	
To Amend its Earth Station License to	)	
Perform TT&C for ASTRA 1D	)	

AMENDMENT

By this application, SES Americom, Inc. (“SES”) respectfully respectfully amends its pending application for modification of its E050287 earth station license.¹ Specifically, SES seeks authority to add the Luxembourg-authorized ASTRA 1D spacecraft as a point of communications 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.²

SES’s affiliate, SES ASTRA S.A. (“ASTRA”), holds an authorization from the Luxembourg Ministry of State, Office of Media and Communications³ 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. ASTRA 1D is operating in inclined orbit.

¹ SES Americom, Inc., Call Sign E050287, File No. SES-MFS-20191105-01403.

² 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.

³ Ministère d’État, Service des Médias et des Communications of the Grand Duchy of Luxembourg.

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.⁴ 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.⁵ 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 add the 11200-11450 MHz downlink frequency band to the E050287 earth station license to support TT&C for the ASTRA 1D satellite. ASTRA 1D has two telemetry frequencies in the extended Ku-band, at 11447.5 MHz and 11454 MHz. The E050287 license authorizes use of the 11450-12200 MHz band, but does not include the adjacent 11200-11450 MHz band segment. On March 19, 2021, Comsearch submitted a frequency coordination notice on behalf of SES to all existing terrestrial licensees within the coordination contours of the E050287 antenna. Once the final report is issued, SES will file the report as a supplement to this application.

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.

⁴ See Waiver Request, *infra*.

⁵ Call Sign E110104, File No. SES-STA-20180129-00069, Attachments 2 and 3.

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.⁶

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.⁷ SES will abide by this restriction. However, to the extent that use of a portion of this band 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.

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.⁸

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

⁶ *PanAmSat Licensee Corp.*, 17 FCC Rcd 10483, 10492 (Sat. Div. 2002) (footnotes omitted).

⁷ 47 C.F.R. § 2.106 NG52.

⁸ 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) ("*EchoStar109W Order*"); *EchoStar KuX Corporation*, 20 FCC Rcd 942 (2004).

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.⁹

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.

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 E050287 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."¹⁰ Because SES

⁹ 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).

¹⁰ 47 C.F.R. § 25.137(a).

is not seeking authority to provide commercial services in the United States, the requested modification does not raise any concerns about competitive equality.¹¹

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 E050287 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 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 25.114.¹²

Section 2.106 Footnote NG52. To the extent that reception of telemetry at 11447.5 MHz and 11454 MHz constitutes a domestic (i.e., non-international) service, SES respectfully requests a limited waiver of the international-service-only restriction.¹³ Such a waiver is warranted in the circumstances for the limited purpose of TT&C. 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

¹¹ 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).

¹² 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).

¹³ 47 U.S.C. § 2.106 Footnote NG52.

granted waivers of the international service restriction to enable TT&C to be performed in the U.S. using the extended Ku-band frequencies.¹⁴

Grant of the requested waiver would not undermine the purpose of the restriction, 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 signals from ASTRA 1D in the extended Ku-band are narrow in bandwidth, and will comply with the power flux density limits in the Commission’s rules and, thus, will not interfere with FS station operations. Moreover, only two U.S. earth stations will be used to perform TT&C in the extended Ku-band.¹⁵ SES will provide TT&C using call sign KA288 and E050287. As a result, there will be no restrictions placed on the deployment of FS in this band.

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.”¹⁶

¹⁴ See, e.g., *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) (“*EchoStar 121W Order*”). These decisions granted waivers of the international only restriction in Footnote NG104, which has been replaced by Footnote NG52.

¹⁵ See *EchoStar 83W Order*, at ¶ 16 (“The Commission has waived this [international only] requirement 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).

¹⁶ See, e.g., *SES Americom, Inc.*, File Nos. SAT-MOD-20080124-00030 & SAT-AMD-20080311-00070, grant-stamped May 19, 2008, Attachment at ¶ 1.

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. In addition, allowing ASTRA 1D to be flown at 73.0° W.L. in an expanded east-west station keeping volume of +/-0.1 degrees will result in fuel savings for the spacecraft. This will prolong the time during which ASTRA 1D will be available to provide service. 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 amends its pending modification application to seek authority for its E050287 earth station license to communicate with ASTRA 1D in order to provide TT&C to the satellite as described herein. Grant of the requested authority will promote safe operation of the satellite.

Respectfully submitted,

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