

MODIFICATION OF EARTH STATION LICENSE

Pursuant to Section 25.117 of the Commission's Rules, SES Americom, Inc. ("SES") seeks modification of its E170143 earth station license at Laredo, TX (the "Laredo Gateway")¹ to allow the earth station to communicate with the SES-17 geostationary orbit ("GSO") fixed-satellite service ("FSS") spacecraft² in additional Ka-band frequencies.

Public Interest Showing

SES will use the Laredo Gateway to land data traffic from SES's next generation high-throughput GSO FSS spacecraft, SES-17. Granting the requested modification will serve the public interest by facilitating the deployment of new services, with an emphasis on the growing aeronautical market, to U.S. customers.

Frequency Plan

The Laredo Gateway is currently authorized to communicate with the Commission's Permitted Space Station List using the 28.35-28.6 GHz and 29.3-30 GHz uplink frequencies, and 17.8-18.8 GHz, 19.3-19.4 GHz and 19.6-20.2 GHz downlink frequencies. SES seeks to add the following frequencies to its authorization:

- 27.5-28.35 GHz (uplink)
- 28.6-29.3 GHz (uplink)
- 18.8-19.3 GHz (downlink)
- 19.4-19.6 GHz (downlink)

SES addresses each of these shared bands below.

27.5-28.35 GHz (Uplink)

In the 27.5-28.35 GHz band, the Upper Microwave Flexible Use Service ("UMFUS") has a primary allocation, and FSS operations are permitted on a secondary basis. Pursuant to Section 25.136(a), an earth station licensee may be authorized to operate in this band without providing interference protection to future UMFUS stations if certain requirements are met.³

¹ See Call Sign E170143, File No. SES-MOD-20220526-00593, granted July 25, 2022 ("Laredo Gateway License").

² See Call Sign S3043, File Nos. SAT-PDR-20190305-00014, granted May 8, 2020, & SAT-MPL-20200609-00070, granted July 30, 2020 (together, the "SES-17 Market Access Grant").

³ 47 C.F.R. § 25.136(a). See also *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 8014 (2016) at Appendix A.

Attachment A to this application demonstrates that the Laredo Gateway will meet all the criteria of Section 25.136(a)(4).

The Comsearch report included as Attachment B hereto demonstrates that SES can operate its Laredo Gateway without causing harmful interference to existing terrestrial deployments and confirms that SES's planned operations have been coordinated with any UMFUS licensees in compliance with 47 C.F.R. § 101.103(d). Comsearch sent a coordination notice to all existing terrestrial licensees within the coordination contours of the Laredo Gateway site. No objections were received from any of the licensees.

28.6-29.1 GHz (Uplink) and 18.8-19.3 GHz (Downlink)

The 28.6-29.1 GHz and 18.8-19.3 GHz bands are allocated to non-geostationary orbit ("NGSO") FSS systems on a sole primary basis. In the SES-17 Market Access Grant the Commission authorized SES-17 to operate in these frequencies subject to compliance with Footnote NG165 to Section 2.106 of the U.S. Table of Frequency allocations.⁴ SES will comply with this condition and will operate the Laredo Gateway in these bands on a secondary, non-protected, non-interference basis with respect to NGSO operations.

29.1-29.3 GHz (Uplink) and 19.4-19.6 GHz (Downlink)

SES requests authority to use the 29.1-29.3 GHz and 19.4-19.6 GHz bands. Feeder links for Mobile-Satellite Service ("MSS") NGSO networks and the Local Multipoint Distribution Service ("LMDS") operate on a primary basis in the 29.1-29.25 GHz band. The 29.25-29.3 GHz band has co-primary allocations for GSO FSS uplinks and NGSO MSS feeder links, pursuant to Commission rules including the earth station coordination requirements of Section 25.258. Terrestrial fixed service ("FS") networks and NGSO feeder links operate on a primary basis in the 19.4-19.6 GHz frequency band.

Grant of SES authority to operate the Laredo Gateway in these frequencies is consistent with Commission rules and the conditions set out in the SES-17 Market Access Grant.⁵ SES has successfully coordinated use of the 29.1-29.3 GHz and 19.4-19.6 GHz bands with Iridium, and SES has internally coordinated with its affiliate O3b Limited, which is authorized to use these band segments for NGSO MSS. SES's planned use of the 29.1-29.3 GHz and 19.4-19.6 GHz band segments does not require coordination with any other satellite operator.

The Comsearch coordination report discussed above addresses the 19.4-19.6 GHz and 29.1-29.3 GHz bands. Notices were sent to all existing terrestrial licensees within the coordination contours of the Laredo Gateway. No objections were received from any licensees.

⁴ See SES-17 Market Access Grant, Condition 11.

⁵ 47 C.F.R. 25.258; *see also* SES-17 Market Access Grant, Condition 12.

SES will operate on a non-protected, non-interference basis with respect to LMDS operators and will take any necessary steps to address concerns from LMDS operators regarding harmful interference.

Conclusion

For the foregoing reasons, SES respectfully requests that the Commission modify the E170143 license and allow SES to operate the Laredo Gateway as proposed herein.