

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
SES Americom, Inc.)	File No. SAT-PPL-20180815-00062
)	Call Sign S3037
Request to Add NSS-11 to the Permitted)	
Space Station List for Ku-band Operations)	

COMMENTS OF EUTELSAT S.A.

Eutelsat S.A. (“Eutelsat”) hereby comments on the above-captioned petition in which SES Americom, Inc. (“SES”) seeks authority for the Gibraltar-licensed NSS-11 satellite to serve the U.S. market by adding it to the Commission’s Permitted Space Station List (“Permitted List”).¹ NSS-11 would provide fixed-satellite service (“FSS”) from the 176° E.L. orbital location in the 14.0-14.5 GHz (Earth-to-space) and 12.25-12.75 GHz (space-to-Earth) bands.

As discussed below, NSS-11 could be added to the Permitted List in the 14.0-14.5 GHz band but must be added to U.S. earth station licenses as an authorized point of communication to provide service using the 12.25-12.75 GHz downlink band. In addition, in the 12.7-12.75 GHz band, the NSS-11 should be limited to providing mobility services only. Finally, SES should revise and provide additional information regarding compatibility with the EUTELSAT 174A satellite at 174° E.L. before any potential Commission grant of the Petition.

I. Background

NSS-11 was launched in October 2000 and has been authorized by Gibraltar to operate at the 176° E.L. orbital location, where it currently provides service to Asia. SES seeks authority to operate its NSS-11 spacecraft to serve the U.S. market from the 176° E.L. location.

¹ See SES Americom, Inc., Petition, Call Sign S3037, File No. SAT-PPL-20180815-00062 (the “Petition”).

Eutelsat has a strong interest in the Petition because Eutelsat’s subsidiary, ES 172 LLC, operates the EUTELSAT 172B satellite at the 172° E.L. location² and the EUTELSAT 174A satellite at the 174° E.L. location.³ In its review of the Petition, Eutelsat has focused on whether the proposed operations pose a threat to the quality and continuity of the services provided by EUTELSAT 172B and EUTELSAT 174A, considering that NSS-11 operations have not been coordinated with either of these satellites.

II. Discussion

A. NSS-11 Cannot Be Added to the Permitted List in the 12.25-12.75 GHz Band

Section 25.103 of the Commission’s rules⁴ defines the Permitted Space Station List (“Permitted List”) as “a list of all U.S.-licensed geostationary-orbit space stations ...[and] non-U.S.-licensed geostationary-orbit space stations approved for U.S. market access to provide Fixed-Satellite Service in the conventional C band, conventional Ku band, or 18.3-18.8 GHz, 19.7-20.2 GHz, 28.35-28.6 GHz, and 29.25-30.0 GHz bands.”⁵ The Commission’s rules for Ku-band mobility services and the U.S. Table of Allocations expands Permitted List authority to include the extended Ku-band.⁶

The 12.25-12.75 GHz band is not included in the list of frequency bands eligible for Permitted List authority. Thus, a satellite cannot be added to the Permitted List in this band and instead must be added as an individual authorized point of communication to FCC earth station

² See ES 172 LLC, Call Sign S3021, File No. SAT-RPL-20170927-00136 (grant reissued April 25, 2018) (“EUTELSAT 172B Grant”).

³ See ES 172 LLC, Call Sign S2610, File No. SAT-RPL-20171122-00159 (granted February 14, 2018).

⁴ See 47 C.F.R. §25.103.

⁵ See *id.*

⁶ See Comprehensive Review of Licensing and Operating Rules for Satellite Services, Second Report and Order, IB Dkt. 12-267 (Dec. 17, 2015) at ¶249 (“Part 25 Second Report & Order”) (expanding the scope of Permitted List authority to the Extended Ku-band).

licenses to provide service in this band. Eutelsat is unaware of any precedent in which the Commission has added a satellite to the Permitted List for frequency bands outside of those identified in its rules.

B. NSS-11 Should Be Restricted to Providing Mobility Services in the United States in the 12.7-12.75 GHz Band

In the Petition, SES proposes to provide FSS services in the United States throughout the 12.25-12.75 GHz band. Although Eutelsat does not object to the proposal to conduct downlink operations throughout the band, subject to demonstrating spectrum compatibility, Eutelsat understands that operations in the 12.7-12.75 GHz band segment in the United States are limited to mobility applications rather than traditional fixed earth station operations.

In the EUTELSAT 172B licensing proceeding, the Commission adopted certain conditions intended to preserve potential future terrestrial access to the 12.7-12.75 GHz band segment.⁷ Eutelsat filed a petition seeking clarification and elimination of the conditions given Eutelsat's use of the band segment for mobility operations, which do not adversely affect the potential for future terrestrial use because no fixed installations would operate in the spectrum.⁸ The Commission ultimately granted Eutelsat's petition and removed the conditions.

SES has not specified what FSS services it intends to provide in the 12.7-12.75 GHz band segment, and both traditional fixed and mobility applications can be considered applications of the FSS. Given the policy and precedent established in the EUTELSAT 172B proceeding, the Commission similarly should limit NSS-11's access to the 12.7-12.75 GHz band segment to

⁷ See, e.g., EUTELSAT 172B Grant at Condition 4.

⁸ See ES 172 LLC, Petition for Clarification or Reconsideration of License Conditions, and Request for Stay, Call Sign S3021, File No. SAT-RPL-20170927-00136 (granted September 5, 2018).

mobility applications such as earth stations onboard vessels (“ESVs”) and earth stations aboard aircraft (“ESAAs”).

C. SES Failed To Include Essential Elements in its Compatibility Analysis

The compatibility demonstration in the Petition with respect to EUTELSAT 174A operations at the 174° E.L. orbital location is neither accurate nor complete. As a result, it is not possible to fully assess the interference implications of the proposed NSS-11 operations at 176° E.L. Although Eutelsat does not suggest denying the Petition at this time as a result of these shortcomings, at a minimum SES should be required to file an updated compatibility demonstration and Eutelsat should be permitted to comment on that demonstration once filed.

First, the compatibility analysis provided in the Petition examines downlink interference in the 12.25-12.75 GHz band between NSS-11 at 176° E.L. and EUTELSAT 174A at 174° E.L. In this analysis, the computed *downlink* C/N+I ratio from NSS-11 into EUTELSAT 174A is compared with *overall* (combined uplink and downlink) minimum required C/N ratio for EUTELSAT 174A.⁹ This comparison is incorrect as it should compare the *overall* C/N+I ratio produced from NSS-11 into EUTELSAT 174A with the overall minimum required C/N ratio for EUTELSAT 174A.

Second, the compatibility study does not consider all relevant carriers operating with EUTELSAT 174A. The underlying EUTELSAT 174A modification application provides a representative set of carriers to be operated with this satellite, including links associated with 0.5 m earth stations that have not been considered in SES’s compatibility analysis.¹⁰ SES should

⁹ See Petition at Technical Appendix, Annex B.

¹⁰ See File No. SAT-MOD-20171122-00159, Call Sign S2610, Modification Application at Attachment C, Exhibits 1-3 (various link budgets with 0.5 m terminals).

include these links in its analysis because they represent an important small-terminal use case for EUTELSAT 174A.

Finally, the NSS-11 compatibility study does not assess the simultaneous interference coming from satellites at both the 174° E.L. and 178° E.L. orbital locations, but instead isolates and examines both sources of interference individually. Given the existing operations of EUTELSAT 174A and examination of a hypothetical satellite at 178° E.L., it would be relevant to demonstrate that the NSS-11 satellite can operate as expected if both neighboring positions are occupied and providing co-frequency services.

III. Conclusion

For the reasons stated above, the NSS-11 satellite is not eligible to be added to the Permitted List in the 12.25-12.75 band and use of the 12.7-12.75 GHz band segment in United States should be limited to mobility services. In addition, SES should be required to file an updated compatibility demonstration which addresses the issues identified above and Eutelsat should be permitted to comment on that demonstration once filed. Only after the record is complete with respect to these issues should the Commission consider ruling on the Petition.

Respectfully submitted,



Carlos M. Nalda
LMI Advisors, LLC
2550 M Street, NW, Suite 345
Washington, DC 20037

On behalf of Eutelsat S.A.

November 19, 2018

CERTIFICATE OF SERVICE

I, Jennifer White, do hereby certify that on November 19, 2018, I served a true and correct copy of these Comments by first-class mail on the following:

Petra A. Vorwig
Senior Legal and Regulatory Counsel
SES Americom, Inc.
1129 20th Street NW, Suite 1000
Washington, D.C. 20036

Karis A. Hastings
SatCom Law LLC
1317 F Street, NW, Suite 400
Washington, D.C. 20004



Jennifer White
LMI Advisors, LLC