

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

In the Matter of)	
)	
SES AMERICOM, INC.)	File No. SAT-AMD-_____
)	Call Sign S2135
Amendment to Application for Modification of)	
AMC-4 Fixed-Satellite Space Station License)	

AMENDMENT OF SES AMERICOM, INC.

SES Americom, Inc. (“SES Americom”) hereby amends its pending request for modification of its license for the AMC-4 fixed-satellite space station at 67° W.L.¹ The amendment seeks authority for AMC-4 to use an additional C-band beacon frequency. Grant of the requested authority will serve the public interest by facilitating safe operation of the AMC-4 satellite and will not adversely affect any other operator. A completed FCC Form 312 is attached, and SES Americom is providing information relating to the proposed amendment to the AMC-4 Modification in the attached Technical Appendix.

AMENDMENT

AMC-4 is a C/Ku-band hybrid spacecraft operating at 67° W.L. The spacecraft offers communications service in the Ku-band only pursuant to the International Telecommunication Union (“ITU”) filings of the Colombian Administration, as Notifying Administration for the Andean Community.² The satellite’s C-band payload is not used to

¹ File No. SAT-MOD-20110510-00086 (“AMC-4 Modification”). No comments were filed on the AMC-4 Modification, which was placed on public notice on May 13, 2011. *See* Report No. SAT-00778, *Public Notice: Policy Branch Information* (rel. May 13, 2011).

² *See* Call Sign S2135, File No. SAT-MOD-20100623-00144, grant-stamped Nov. 4, 2010 (“AMC-4 at 67° W.L. Grant”) (authorizing operations in the conventional Ku-band, 11.7-

provide service, but the Commission authorized specific frequencies for telemetry, tracking and command (“TT&C”) in both the C-band and the Ku-band.³

The pending AMC-4 Modification addresses a slight repointing of the satellite to improve service quality in the Caribbean and Central America. SES Americom has already implemented this change pursuant to a grant of Special Temporary Authority,⁴ and the modification requests authority to retain the altered coverage configuration on a long-term basis.

SES Americom now seeks to add a second C-band beacon frequency at 4199.5 MHz in order to enhance the reception of telemetry signals from the spacecraft. With the satellite’s original antenna orientation, SES Americom was able to receive C-band and Ku-band telemetry signals at both its Woodbine, NJ and South Mountain, CA earth stations. However, the change to the North American coverage has resulted in a loss of the Ku-band beacon signal at Woodbine. SES Americom seeks to add the 4199.5 MHz beacon to restore signal redundancy, as both Woodbine and South Mountain remain within the coverage area of the C-band telemetry beam.

Grant of the requested authority will not adversely affect any other operators. When SES Americom originally proposed relocating AMC-4 to 67° W.L., it coordinated its proposed C-band TT&C operations with Star One, which at the time operated StarOne B1 in the

12.2 GHz downlinks and 14.0-14.5 GHz uplinks, and extended Ku-band, 11.45-11.7 GHz downlinks and 13.75-14.0 GHz uplinks).

³ See *id.* (permitting use of C-band telecommand carrier at 6423.5 MHz, a C-band telemetry beacon at 3700.5 MHz, and two Ku-band telemetry beacons at 11.702 GHz and 12.198 GHz).

⁴ See Call Sign S2135, File Nos. SAT-STA-20110414-00072, grant-stamped Apr. 21, 2011; SAT-STA-20110510-00087, grant-stamped May 25, 2011.

C-band at 67.9° W.L.,⁵ as well as the StarOne C1 space station at 65° W.L. SES Americom has successfully coordinated the proposed additional C-band beacon at 4199.5 MHz with Star One.

WAIVER REQUEST

In connection with this amendment, SES Americom asks that the Commission grant any necessary waiver of Section 25.202(g) of the rules, which requires TT&C functions to be conducted at the edge of the allocated frequency band.⁶ When it authorized relocation of AMC-4 to 67° W.L., the Commission waived this rule with respect to the proposed C-band TT&C frequencies.⁷ The TT&C frequencies are at the edge of the C-band, but AMC-4 is not providing communications in the C-band at 67° W.L.⁸ SES Americom seeks authority to add the 4199.5 MHz C-band beacon pursuant to the same terms and conditions as specified in paragraph 15 of the AMC-4 at 67° W.L. Grant.

⁵ StarOne B1 has subsequently been retired and removed to a disposal orbit.

⁶ 47 C.F.R. § 25.202(g).

⁷ AMC-4 at 67° W.L. Grant, Attachment to Grant, ¶ 15.

⁸ *Id.*

CONCLUSION

SES Americom respectfully requests grant of the requested modification as amended to permit SES Americom to enhance its telemetry reception and operate AMC-4 with a coverage pattern that has been adjusted to respond to customer demand.

Respectfully submitted,

SES AMERICOM, INC.

By: /s/ Suzanne H. Malloy

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Dated: August 2, 2011

Technical Appendix

1. Introduction

This technical appendix is submitted in support of the amendment of SES Americom to its pending application for modification of the license for the AMC-4 spacecraft at 67° W.L. to add a C-band telemetry beacon at 4199.5 MHz. SES Americom incorporates by reference herein the technical information it has already provided with respect to AMC-4,¹ and provides here technical information that is changing as a result of the proposed amendment.

2. Gain Contours

SES Americom previously submitted contour maps showing the original and revised C-band and Ku-band EIRP patterns for typical horizontally and vertically polarized transponders of AMC-4 at 67° W.L.² The C-band maps show the coverage of the telemetry beam.

3. Link Budgets and Interference Analysis

SES Americom submitted an interference analysis to the Commission in connection with the initial operation of AMC-4 at 67° W.L. demonstrating that operation of AMC-4 is compatible with adjacent satellites and with the Commission's two-degree spacing requirements.³ That analysis addressed the TT&C operations as well. Additional information was provided with the AMC-4 Modification to show that the revised pointing of the AMC-4 North American beam has a negligible impact on the interference environment for adjacent satellites.⁴ SES Americom incorporates this interference analysis by reference herein. The added beacon frequency proposed in this amendment has also been coordinated with adjacent satellites.

4. Schedule S

As discussed above, the proposed modification of the AMC-4 license as amended will not result in any material changes to the spacecraft's operating characteristics or to the interference environment. As a result, the information requested in Schedule S duplicates information that is already on file with the Commission concerning the technical parameters of AMC-4's operation. In similar cases involving requests for minor operational changes, such as slight offsets from the nominal orbital position, the

¹ See File Nos. SAT-LOA-19940310-00007; SAT-AMD-19941114-00064; SAT-MOD-19970130-00012; SAT-MOD-19981023-00076; SAT-MOD-20080314-00072; SAT-MOD-20100623-00144; & SAT-MOD-20110510-00086.

² See File No. SAT-MOD-20110510-00086, Figures 1 to 8.

³ See Call Sign S2434, File No. SAT-MOD-20100623-00144, Technical Appendix, Annex 2.

⁴ See File No. SAT-MOD-20110510-00086, Technical Appendix, Section 3.

Satellite Division has not required the submission of a new Schedule S.⁵ Accordingly, SES Americom is not filing a new Schedule S with this application. SES Americom will nevertheless prepare and submit a Schedule S if requested to do so by the Satellite Division.

5. Orbital Debris Mitigation Statement

The information required under Section 25.114(d)(14) of the Commission's Rules regarding operations of AMC-4 at 67° W.L. is already on file with the Commission,⁶ and the proposed amendment does not alter the information previously provided.

⁵ See, e.g., File No. SAT-MOD-20040405-00076 (PanAmSat request for authority to operate SBS-6 at 74.05° W.L. rather than 74.0° W.L.).

⁶ See Call Sign S2434, File No. SAT-MOD-20100623-00144, Technical Appendix, Section 8.

DECLARATION OF KRISH JONNALAGADDA

I, Krish Jonnalagadda, hereby certify under penalty of perjury that I am the technically qualified person responsible for preparation of the technical information contained in the foregoing exhibit; that I am familiar with the technical requirements of Part 25; and that I either prepared or reviewed the technical information contained in the exhibit and that it is complete and accurate to the best of my knowledge, information and belief.

/s/ Krish Jonnalagadda
SES Americom, Inc.

Dated: August 2, 2011