



Federal Communications Commission
Washington, DC 20554

International Bureau

September 22, 2011

Joslyn Read
Vice President, Regulatory Affairs, SES NEW SKIES
2001 L Street, N.W., Suite 800
Washington, D.C. 20036

Re: SES Americom, Inc., 17/24 GHz Broadcast-Satellite Service,
IBFS File No. SAT-LOA-20080910-00173 (Call Sign: S2763)

Dear Ms. Read:

This letter refers the application of SES Americom Inc. (SES Americom) to provide Broadcast-Satellite Service (BSS) in the 17/24 GHz frequency bands.¹ To complete our review of this application, we request the following additional information, pursuant to Section 25.111(a)² of the Commission's rules:

1) On page 18 of the Technical Appendix, SES Americom states that after the satellite has reached its final disposal orbit, on-board sources of stored energy will be depleted or secured, and the batteries will be discharged. Please clarify that SES Americom will comply fully with Section 25.283(c) of the Commission's rules, *i.e.*, that all stored energy sources on board the satellite will be discharged, by venting excess propellant, discharging batteries, relieving pressure vessels, and other appropriate measures.

2) The labels for the antenna beam contour information included in Schedule S of SES Americom's application are unclear because they lack key information in the title blocks.³ In addition, the files are not properly formatted to pass GIMS error-checking. Accordingly, please review the predicted space station antenna beam contour information provided in both the Technical Appendix and Schedule S for consistency and resubmit properly formatted and labeled antenna contour diagram information within the Schedule S .gxt files. The labels for the resubmitted antenna beam contour diagrams should, at a minimum, contain the following key information in the title blocks of the diagrams: (a) beam ID, (b) polarization, (c) antenna gain, and (d) service area. Please also ensure that the contour lines are filtered to pass GIMS error-checking.⁴

¹ IBFS File No. SAT-LOA-20080910-00173 (Call Sign: S2763).

² 47 C.F.R. § 25.111(a).

³ In addition to unclear labeling, certain beams may be mislabeled. For example, with regard to both the CONUS and Brazilian beams, the title blocks for the emission/reception field (E or R) suggests that three downlink and one uplink beam diagrams have been provided for each beam pair.

⁴ Execution of the validate command within the GIMS program should generate no error messages.

3) SES Americom seeks a limited waiver⁵ of our requirement to provide predicted antenna gain contour information for each transmit and receive beam in .gxt format.⁶ To support this request, SES Americom states that the satellite manufacturer has not yet supplied a single valid .gxt file containing all the required contours for the South American (non-Brazilian) beams. SES Americom states further that while there is data to create a .gxt file, the number of contours exceeds the limit for standard .gxt files.⁷ Accordingly, for the South American (non-Brazilian) beams, SES Americom provides only the downlink beam diagrams in .gxt format.⁸ For the RSL and RSR uplink beams, SES Americom instead provides maps demonstrating the required contours, as well as four separate .txt files providing data for the contours.⁹ Please indicate whether the .gxt formatted files for the South American (except Brazil) uplink beams are now available. If so, please provide this information.

4) In Item S6(d) of Schedule S, SES Americom describes the C-DL service area as “CONUS, -6 dB”.¹⁰ The C-DL service area is associated with the TCL and TCR downlink beams.¹¹ The Technical Appendix of the application describes the same service area simply as “CONUS.”¹² We note, however, that only the -8 dB contour appears to encompass the contiguous United States.¹³ In addition, the link budgets provided in Tables 7, 8 and 9, as well as the interference analysis provided in Table 13 of the Technical Appendix, include cities such as Los Angeles, Seattle, and Denver that appear to be well outside of the indicated -6 dB downlink contour. We ask SES Americom to clarify how the service areas for the TCL and TCR downlink beams serving the United States are to be defined.

5) For item S7(n) of Schedule S, please verify that the correct system noise temperature for the RCR beam is indeed 60 K as indicated, and if so, please clarify how the G/T_{\max} value of 6 dB/K was calculated using the peak gain 33.9 dBi.

6) SES Americom lists analog emission designator 300KF9D in Item S12(a) of Schedule S. Please indicate where this transmission should be included in Table S13 of Schedule S.

⁵ Section 2.8 of the Technical Appendix.

⁶ This requirement is contained in 47 C.F.R. § 25.114(d)(3).

⁷ Section 2.8 of the Technical Appendix.

⁸ These diagrams are provided in the data files SPANISH_DL_LHCP.gxt and SPANISH_DL_RHCP.gxt.

⁹ This information is provided in Figures 13 and 14 of the Technical Appendix and in Exhibits 1-4 (separate from Schedule S) of the application.

¹⁰ We note that the corresponding uplink service area is defined as “CONUS, -8 dB.”

¹¹ Schedule S, Items S7(a) and (j).

¹² Technical Appendix at 2 (Section 1.0, “Overall Description”)

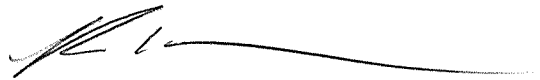
¹³ Antenna Gain Contour Data (gxt files) CON_DL_LHCP.gxt and CON_DL_RHCP.gxt.

7) SES Americom provides an interference analyses in Table 13 of the Technical Appendix. In its analyses, SES Americom considers only downlink interference into its own network from assumed pairs of adjacent satellites with 4° and 8° of orbital separation from SES Americom's proposed space station. In considering interference into adjacent satellite networks from its own network, SES Americom states that if the adjacent satellites have power levels similar to those of the AMC-22 satellite, interference into the adjacent satellite networks would be acceptable.¹⁴ In its analyses, however, SES Americom only considered receiving earth stations with diameters of 0.51 meters, although Section 25.224(a) of our rules protects receiving earth stations with diameters as small as 0.45 meters.¹⁵ Please augment the interference analysis to consider interference from SES Americom's system into those of adjacent networks using receiving antennas as small as 0.45 meters in diameter. SES Americom should also include the contributions of the uplink transmissions in the overall link performance analyses.

SES Americom is directed to file its response as an amendment to its application within 30 days of the date of this letter. Failure to do so may result in the dismissal of SES Americom's application pursuant to Section 25.112(c) and 25.152(b) of the Commission's rules.¹⁶

Although not required at this time, as part of its amendment, SES Americom may file either the predicted or measured transmitting antenna off-axis gain data specified in Section 25.264 of the Commission's rules.¹⁷

Sincerely,



Robert G. Nelson
Chief, Satellite Division
International Bureau

cc: Karis Hastings, Esq.
Counsel to SES Americom Inc.

¹⁴ Technical Appendix at 15.

¹⁵ 47 C.F.R. § 25.224(a).

¹⁶ 47 C.F.R. §§ 25.112(a) and 25.152(b).

¹⁷ *Establishment of Policies and Service Rules for the Broadcasting-Satellite Service at the 17.3-17.7 GHz Frequency Band and at the 17.7-17.8 GHz Frequency Band Internationally, and at the 24.75-25.25 GHz Frequency Band for Fixed Satellite Services Providing Feeder Links to the Broadcasting-Satellite Service and for the Satellite Services Operating Bi-directionally in the 17.3-17.8 GHz Frequency Band*, IB Docket No. 06-123, Second Report and Order, FCC 11-93 at ¶ 66 n.184 (rel. June 14, 2011).