

File # SAT-MOD-2011025-00209
Call Sign S2134 **Grant Date** 02/24/12
(or other identifier) **Term Dates**
From 02/24/12 **To** 05/31/16

Approved by OMB
3060-0678

Approved: Stephen J. Duall
 Stephen J. Duall
 Chief, Satellite Policy Branch



*with conditions

Date & Time Filed: Oct 25 2011 2:54:13:546PM
 File Number: SAT-MOD-2011025-00209

FCC APPLICATION FOR SPACE AND EARTH STATION:MOD OR AMD - MAIN FORM
 FCC Use Only

FCC 312 MAIN FORM FOR OFFICIAL USE ONLY

APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:
 AMC-2 (S2134) Mod to Reassign to 4.98 E.L., Extend License & Authorize Deorbit

1-8. Legal Name of Applicant

Name:	SES Americom, Inc.	Phone Number:	202-478-7137
DBA Name:		Fax Number:	202-478-7101
Street:	1129 20th Street NW Suite 1000	E-Mail:	daniel.mah@ses.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20036
Attention:	Mr. Daniel C.H. Mah		

**Attachment to Grant
SES Americom, Inc.
IBFS File No. SAT-MOD-20111025-00209
Call Sign S2134**

The application of SES Americom, Inc. (SES Americom), IBFS File No. SAT-MOD-20111025-00209, to modify the authorization for its geostationary-satellite orbit AMC-2 space station (Call Sign S2134), to specify authorization of AMC-2 at the 4.98° E.L. orbital location, rather than at its previously authorized location of 78.95° W.L., is GRANTED. Accordingly, SES Americom is authorized to provide Fixed-Satellite Service (FSS) at 4.98° E.L., including direct-to-home services, using the 3700-4200 MHz (space-to-Earth), 5925-6425 MHz (Earth-to-space), 11.7-12.2 GHz (space-to-Earth), and 14.0-14.5 GHz (Earth-to-space) frequency bands and to operate Telemetry, Tracking and Telecommand (TT&C) using the 6423.5 MHz (Earth-to-space; horizontal polarization), 3700.5 MHz and 4199.5 MHz (space-to-Earth; vertical polarization), and 12198.0 MHz (space-to-Earth; horizontal polarization).¹ In addition, we grant SES Americom's request to extend the license term of AMC-2 to May 31, 2016. This authorization is granted in accordance with the terms, conditions, and technical specifications set forth in SES Americom's application, the Commission's rules, and the following conditions:

1. All operations shall be on an unprotected and non-harmful interference basis, *i.e.*, the AMC-2 space station shall not cause harmful interference to, and shall not claim protection from interference caused to it by, any other lawfully operating station. In the event of any harmful interference, SES Americom shall cease operations immediately upon notification of such interference, and shall inform the Commission, in writing, immediately of such an event.
2. SES Americom shall maintain full operational control of AMC-2 at all times.
3. This authorization is issued with the understanding that the United States remains the licensing Administration of the AMC-2 space station and its communications payloads, for purposes of International Telecommunication Union (ITU) Radio Regulation 18.1, and that any operations of AMC-2 at the 4.98° E.L. orbital location are pursuant to ITU Radio 4.4.
4. This authorization is issued with the understanding that this grant is not an approval of any arrangement entered into by SES Americom, its subsidiaries and affiliates, nor of any specific provision of any such arrangement concerning operation of the AMC-2 space station, nor is this a grant of an approval of an arrangement/agreement concerning any related matter, or of any specific provision of any such arrangement/agreement concerning any related matter.

¹ AMC-2 departed from 78.95° W.L. on October 26, 2011. *See* Letter from Karis A. Hastings, Counsel for SES Americom, Inc. to Marlene H. Dortch, Secretary, FCC, dated Oct. 31, 2011 in IBFS File No. SAT-STA-20111017-00205. AMC-5 departed from 79.10° W.L. on November 21, 2011. *See* Letter from Karis A. Hastings, Counsel for SES Americom, Inc. to Marlene H. Dortch, Secretary, FCC, dated Nov. 21, 2011 in IBFS File No. SAT-STA-20110929-00191. Accordingly, as of November 21, 2011, SES Americom no longer operates a space station at the nominal 79° W.L. orbital location in the 3700-4200 MHz, 5925-6425 MHz, 11.7-12.2 GHz and 14.0-14.5 GHz frequency bands.

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5. SES Americom shall provide the Commission with all information that may be necessary for submission to the ITU in connection with the operations of the AMC-2 space station at the 4.98° E.L. orbital location.

6. Operation of the AMC-2 space station at the 4.98° E.L. orbital location is pursuant to ITU Radio Regulation 4.4.

7. This authorization is issued with the understanding that, with respect to its filings with the ITU for the 4.98° E.L. orbital location, the Administration of Sweden is not acting pursuant to Article 9 of the Radio Regulations on behalf of the United States Administration.

8. This authorization is issued with the understanding that this grant does not in any way express a view concerning, or agreement to, the validity or lack of validity of any ITU filing at or within the vicinity of the 4.98° E.L. orbital location.

9. This authorization issued on the understanding that, to the extent SES Americom and its affiliated companies, pursuant to any agreement with the Swedish Administration will conform its operations to any parameters agreed to in the coordination agreements between the Swedish Administration and other Administrations, responsibility for both compliance with and enforcing compliance with, those arrangements and agreements is a matter that would arise under private law.

10. In connection with the provision of service in any particular country, SES Americom is obliged to comply with the applicable laws, regulations, rules, and licensing procedures of that country.

11. SES Americom is granted a waiver of Section 25.210(j) of the Commission's rules, 47 C.F.R. § 25.210(j). Section 25.210(j) specifies an East/West station-keeping tolerance of +/-0.05 degrees. SES Americom proposes to operate AMC-2 at the 4.98° E.L. orbital location with an East-West station-keeping tolerance of +/-0.1 degrees. SES Americom states that AMC-2's station-keeping volume will not overlap with any other space craft. It also states that this station-keeping tolerance will extend the fuel life of AMC-2 and will not affect any other operators. SES Americom may operate AMC-2 with +/-0.1 degree East/West tolerance station-keeping provided no other spacecraft is located within the station-keeping volume of AMC-2. This waiver and the operations it permits shall terminate in the event a satellite is launched or relocated into a location such that its station-keeping volume would overlap AMC-2's +/- 0.1 degree station-keeping volume, but not overlap AMC-2's +/-0.5 degree station-keeping volume, unless SES Americom successfully coordinates AMC-2's physical operations with those of other space craft.


12. SES Americom is granted a waiver of Section 25.114(d)(3) of the Commission's rules, 47 C.F.R. § 25.114(d)(3). This rule requires, for applications for geostationary orbit satellites, "predicted space station antenna gain contour(s) for each transmit and each receive antenna beam and nominal orbital location requested" to be provided in the .gxt format. In Section 4.0 of its Technical Annex, SES provides the antenna gain information in the required

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.gxt format, except for the gain characteristics for the global horn antenna because the .gxt data is not available from the spacecraft manufacturer. Instead, SES Americom provides gain verses off-set angle information in Annex 1 to the Technical Appendix. We find that the information in Annex 1 of the Technical Appendix, together with the characterization provided in Section 4.0 of the Technical Appendix of the application fulfills the requires of Section 25.114(d)(3).

13. SES Americom has 30 days from the date of this grant to decline this authorization as conditioned. Failure to respond within that period will constitute formal acceptance of the authorization as conditioned.

14. This action is issue pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective immediately. Petitions for Reconsideration under Section 1.106 or Applications for Review under Section 1.115 of the Commission's rules, 47 C.F.R. 1.106, 1.115, may be filed within 30 days of the date of the public notice indicating that this action was taken.

 GRANTED* International Bureau *with conditions	File # <u>SAT-MOD-20111025-00209</u>
	Call Sign <u>S2134</u> Grant Date <u>02/24/12</u> (or other identifier)
	Term Dates From <u>02/24/12</u> To: <u>05/31/16</u>
	Approved: <u>Stephen J. Duall</u> Stephen J. Duall Chief, Satellite Policy Branch

9-16. Name of Contact Representative

Name: Karis A. Hastings **Phone Number:** 202-599-0975
Company: SatCom Law LLC **Fax Number:**
Street: 1317 F Street, NW, Suite 400 **E-Mail:** karis@satcomlaw.com
City: Washington **State:** DC
Country: USA **Zipcode:** 20004-
Attention: **Relationship:** Legal Counsel

CLASSIFICATION OF FILING

17. Choose the button next to the classification that applies to this filing for both questions a. and b. Choose only one for 17a and only one for 17b.

- a1. Earth Station
- a2. Space Station

- (N/A) b1. Application for License of New Station
- (N/A) b2. Application for Registration of New Domestic Receive-Only Station
- b3. Amendment to a Pending Application
- b4. Modification of License or Registration
- b5. Assignment of License or Registration
- b6. Transfer of Control of License or Registration
- b7. Notification of Minor Modification
- (N/A) b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite
- (N/A) b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States
- (N/A) b10. Other (Please specify)
- (N/A) b11. Application for Earth Station to Access a Non-U.S. satellite Not Currently Authorized to Provide the Proposed Service in the Proposed Frequencies in the United States
- (N/A) b12. Application for Database Entry
- b13. Amendment to a Pending Database Entry Application
- b14. Modification of Database Entry

<p>17c. Is a fee submitted with this application? <input checked="" type="radio"/> If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114). <input type="radio"/> Governmental Entity <input type="radio"/> Noncommercial educational licensee <input type="radio"/> Other (please explain):</p>	<p>17d. Fee Classification BFY – Space Station Modification (Geostationary)</p>	<p>18. If this filing is in reference to an existing station, enter: (a) Call sign of station: S2134</p> <p>19. If this filing is an amendment to a pending application enter both fields, if this filing is a modification please enter only the file number: (a) Date pending application was filed: (b) File number: SATMOD2010121500261</p>
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TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provide or use the following type(s) of service(s): Select all that apply:

- a. Fixed Satellite
- b. Mobile Satellite
- c. Radiodetermination Satellite
- d. Earth Exploration Satellite
- e. Direct to Home Fixed Satellite
- f. Digital Audio Radio Service
- g. Other (please specify)

21. STATUS: Choose the button next to the applicable status. Choose only one.

- Common Carrier
- Non-Common Carrier

22. If earth station applicant, check all that apply.

- Using U.S. licensed satellites
- Using Non-U.S. licensed satellites

23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities:

- Connected to a Public Switched Network
- Not connected to a Public Switched Network
- N/A

24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all applicable frequency band(s).

- a. C-Band (4/6 GHz)
- b. Ku-Band (12/14 GHz)
- c. Other (Please specify upper and lower frequencies in MHz.)

Frequency Lower: Frequency Upper: (Please specify additional frequencies in an attachment)

TYPE OF STATION

25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.

- a. Fixed Earth Station
- b. Temporary-Fixed Earth Station
- c. 12/14 GHz VSAT Network
- d. Mobile Earth Station
- e. Geostationary Space Station
- f. Non-Geostationary Space Station
- g. Other (please specify)

26. TYPE OF EARTH STATION FACILITY:

- Transmit/Receive
- Transmit-Only
- Receive-Only
- N/A

"For Space Station applications, select N/A."

PURPOSE OF MODIFICATION

27. The purpose of this proposed modification is to: (Place an 'X' in the box(es) next to all that apply.)

- a --- authorization to add new emission designator and related service
- b --- authorization to change emission designator and related service
- c --- authorization to increase EIRP and EIRP density
- d --- authorization to replace antenna
- e --- authorization to add antenna
- f --- authorization to relocate fixed station
- g --- authorization to change frequency(ies)
- h --- authorization to add frequency
- i --- authorization to add Points of Communication (satellites & countries)
- j --- authorization to change Points of Communication (satellites & countries)
- k --- authorization for facilities for which environmental assessment and radiation hazard reporting is required
- l --- authorization to change orbit location
- m --- authorization to perform fleet management
- n --- authorization to extend milestones
- o --- Other (Please specify)

ENVIRONMENTAL POLICY

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. 1.1308 and 1.1311, as an exhibit to this application. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments.

Yes No

ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeronautical en route or aeronautical fixed radio station services are not required to respond to Items 30-34.

29. Is the applicant a foreign government or the representative of any foreign government?

Yes No

30. Is the applicant an alien or the representative of an alien?

Yes No N/A

31. Is the applicant a corporation organized under the laws of any foreign government?

Yes No N/A

32. Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?

Yes No N/A

<p>33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A</p>
<p>34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit an identification of the aliens or foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.</p>	<p>Exhibits A and B</p>

BASIC QUALIFICATIONS

<p>35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules? If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No</p>
<p>36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explanation of circumstances.</p>	<p><input type="radio"/> Yes <input checked="" type="radio"/> No</p>

<p>37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explanation of circumstances.</p>	<p style="text-align: center;"> <input type="radio"/> Yes <input checked="" type="radio"/> No </p>
<p>38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances</p>	<p style="text-align: center;"> <input type="radio"/> Yes <input checked="" type="radio"/> No </p>
<p>39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhibit, an explanation of the circumstances.</p>	<p style="text-align: center;"> <input type="radio"/> Yes <input checked="" type="radio"/> No </p>
<p>40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, address, and citizenship of those stockholders owning a record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer.</p>	

<p>41. By checking Yes, the undersigned certifies, that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application"; for these purposes.</p>	<p style="text-align: right;"> <input checked="" type="radio"/> Yes <input type="radio"/> No </p>
<p>42a. Does the applicant intend to use a non-U.S. licensed satellite to provide service in the United States? If Yes, answer 42b and attach an exhibit providing the information specified in 47 C.F.R. 25.137, as appropriate. If No, proceed to question 43.</p>	<p style="text-align: right;"> <input type="radio"/> Yes <input checked="" type="radio"/> No </p>
<p>42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, what administration has coordinated or is in the process of coordinating the space station?</p>	
<p>43. Description. (Summarize the nature of the application and the services to be provided). (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>SES Americom, Inc. ('SES') hereby seeks a modification of the license for AMC-2, call sign S2134, to reassign the satellite to 4.98 deg. E.L. with an east-west stationkeeping tolerance of +/-0.1 degrees. At that location, AMC-2 will operate pursuant to Swedish ITU filings. SES also seeks extension of the AMC-2 license term to May 31, 2016, and</p> </div> <p>Narr and Tech App</p>	

43a. Geographic Service Rule Certification

By selecting A, the undersigned certifies that the applicant is not subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25.

A

By selecting B, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will comply with such requirements.

B

By selecting C, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will not comply with such requirements because it is not feasible as a technical matter to do so, or that, while technically feasible, such services would require so many compromises in satellite design and operation as to make it economically unreasonable. A narrative description and technical analysis demonstrating this claim are attached.

C

CERTIFICATION

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The applicant certifies that grant of this application would not cause the applicant to be in violation of the spectrum aggregation limit in 47 CFR Part 20. All statements made in exhibits are a material part hereof and are incorporated herein as if set out in full in this application. The undersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are true, complete and correct to the best of his or her knowledge and belief, and are made in good faith.

44. Applicant is a (an): (Choose the button next to applicable response.)

- Individual
- Unincorporated Association
- Partnership
- Corporation
- Governmental Entity
- Other (please specify)

45. Name of Person Signing
Daniel C.H. Mah

—>

46. Title of Person Signing
Regulatory Counsel

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT
(U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION
(U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).

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THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104-13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.

43. Description. (Summarize the nature of the application and the services to be provided).

SES Americom, Inc. ('SES') hereby seeks a modification of the license for AMC-2, call sign S2134, to reassign the satellite to 4.98 deg. E.L. with an east-west stationkeeping tolerance of +/-0.1 degrees. At that location, AMC-2 will operate pursuant to Swedish ITU filings. SES also seeks extension of the AMC-2 license term to May 31, 2016, and authority to deorbit the satellite at its end of life.