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File Number: SAT-MOD-20200615-00074



File # SAT-MOD-20200615-00074, as amended by
SAT-AMD-20200818-00098

Call Sign S2713 Grant Date 2/3/2021
(or other identifier)

Approved by OMB
3060-0678

Term Dates
From 2/3/2021 To 1/31/2022

Approved: Merissa L. Velez
Merissa L. Velez
Chief, Satellite Policy Branch

FCC APPLICATION FOR SPACE AND EARTH STATION:MOD OR AMD – MAIN FORM

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APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:
Modification to relocate AMC-18 to 83 W.L.


1-8. Legal Name of Applicant

Name:	SES Americom, Inc.	Phone Number:	202-478-7143
DBA Name:		Fax Number:	202-478-7111
Street:	1129 20th Street NW Suite 1000	E-Mail:	petra.vorwig@ses.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20036 –
Attention:	Ms Petra A Vorwig		

ATTACHMENT TO GRANT

SES Americom, Inc.

IBFS File Nos. SAT-MOD-20200615-00074; SAT-AMD-20200818-00098

IBFS File No(s):	SAT-MOD-20200615-00074, SAT-AMD-20200818-00098 ¹	GRANTED – With Conditions  International Bureau Satellite Division
Licensee/Grantee:	SES Americom, Inc.	
Call Sign:	S2713	
Satellite Name:	AMC-18	
Orbital Location: (required station-keeping tolerance)	83.0° W.L. (+/- 0.05 degrees east-west station keeping)	
Administration:	United States of America	
Nature of Service:	Fixed-Satellite Service (FSS)	
Scope of Grant:	Modification to specify operations of AMC-18 at the 83.0° W.L. orbital location instead of the previously authorized orbital location of 139.0° W.L., and to provide FSS at 83.0° W.L. ²	
Previous Grant(s):	Authority to drift and operate a C-band geostationary-orbit (GSO) space station, AMC-18, at the 139.0° W.L. orbital location, operating under a U.S. license, ³ IBFS File No. SAT-A/O-20171221-00174 (granted, Mar. 8, 2018). Grant of petition for declaratory ruling to add replacement satellite AMC-18 to the Commission’s Permitted Space Station List, operating in the FSS at the 104.95° W.L. orbital location, IBFS File No. SAT-PPL-20061006-00118 (granted, Dec. 7, 2006).	
Service Area(s):	See Technical Appendix at 1.	
Frequencies:	3700-4200 MHz (space-to-Earth) 5925-6425 MHz (Earth-to-space) Tracking, telemetry and command center frequencies: 3700.5 MHz; 4199.5 MHz (space-to-Earth) 6423.5 MHz (Earth-to-space)	
Unless otherwise specified herein, operations under this grant must comport with the legal and technical specifications set forth by the applicant or petitioner and with Federal Communication Commission’s rules not waived herein. This grant is also subject to the following conditions:		
1. SES must prepare the necessary information, as may be required, for submission to the International Telecommunication Union (ITU) to initiate and complete the advance publication, coordination, due diligence, and notification process of this space station, in accordance with the ITU Radio Regulations. SES will be held responsible for all cost-recovery fees associated with ITU filings. No protection from interference caused by radio stations authorized by other administrations is guaranteed unless coordination and notification procedures are timely completed or, with respect to individual		

¹ The modification application and the amendment were placed on Public Notice as accepted for filing on September 18, 2020. *See Satellite Policy Branch Information, Space Station Application Accepted for Filing*, Public Notice, Report No. SAT-01498 (Sept. 18, 2020).

² The Satellite Division previously granted two applications for special temporary authority to drift AMC-18 to the 83.0° W.L. orbital location. *See* IBFS File Nos. SAT-STA-20201022-00124 and SAT-STA-20201006-00122. On December 14, 2020, SES filed a letter to indicate that the AMC-18 space station had arrived at the 83° W.L. orbital location on December 4, 2020 and, therefore, drift authority was no longer requested as part of their modification application. *See* Letter from Petra A. Vorwig, SES Americom, Inc. to Marlene H. Dortch, Secretary, FCC (filed Dec. 14, 2020).

³ In 2018, the Satellite Division granted a U.S. license for AMC-18 to operate at the 139.0° W.L. orbital location. The same space station call sign was maintained for purposes of administrative convenience and clarity.

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- administrations, coordination agreements are successfully completed. Any radio station authorization for which coordination has not been completed may be subject to additional terms and conditions as required to effect coordination of the frequency assignments of other administrations. *See* 47 CFR § 25.111.
2. SES must operate AMC-18 at the 83.0° W.L. orbital location in accordance with any existing or future coordination agreements for this location. In the absence of a coordination agreement, such operations must comply with applicable provisions of the ITU Radio Regulations as the Commission cannot guarantee the success of the required coordination.
 3. In connection with the provision of service in any particular country, SES is obliged to comply with the applicable laws, regulations, rules, and licensing procedures of that country.
 4. SES must maintain the AMC-18 space station within an east/west longitudinal station-keeping tolerance of ± 0.05 degrees at the 83.0° W.L. orbital location.
 5. The operations of AMC-18 in the 3700-4200 MHz band, within the contiguous United States, are subject to the terms of the *3.7-4.2 GHz Report and Order* (FCC 20-22), including section 2.106, footnote NG182 and footnote NG457A, future actions in the proceeding, and actions on delegated authority taken in accordance with the Commission's Order (*see, e.g.*, Public Notice DA 20-578, released June 1, 2020, announcing accelerated clearing in the 3.7 – 4.2 GHz band).
 6. The operations of AMC-18 and associated earth stations must comport with the applicable uplink and downlink limits in 47 CFR § 25.140(a)(3) of the Commission's rules, unless SES coordinates any non-conforming operations with the operations of U.S.-licensed geostationary orbit space stations within 6 degrees of the 83.0° W.L. orbital location. SES must also comport with the maximum power limits indicated in existing or future coordination agreements at 83.0° W.L. Non-conforming operation must also be coordinated with respect to those operations of non-U.S.-licensed space stations within 6 degrees of 83.0° W.L. involving approved communications with U.S.-licensed earth stations.
 7. The power flux-density (PFD) at the Earth's surface produced by the emissions from the AMC-18 space station, in the 3700-4200 MHz frequency band (space-to-Earth), must not exceed the applicable power flux-density limits contained in No. 21.16 in Article 21 of the ITU Radio Regulations.
 8. AMC-18's operations in the 5925-6425 MHz frequency band (Earth-to-space) are subject to No. 5.457A of the ITU Radio Regulations, which states that earth stations located on board vessels may communicate with space stations of the fixed-satellite service. Such use shall be in accordance with Resolution 902 (WRC-03).
 9. SES has been granted waiver of sections 25.114(d)(14)(ii) and 25.283(c) of the Commission's rules, 47 CFR §§ 25.114(d)(14)(ii), 25.283(c).⁴ Sections 25.114(d)(14)(ii) and 25.283(c) specify that space stations must discharge all stored energy sources at end-of-life of the space station. The AMC-18 space station is a Lockheed Martin model A2100A spacecraft with oxidizer tanks that were permanently sealed by firing pyrotechnic valves. As a result, residual pressure will remain at the space station's end of operational life. SES projects the amount of oxidizer remaining at end-of-life to be 7.2 kg, in each of the two tanks with a volume of roughly 229.1 liters per tank. This waiver is granted because modification of the spacecraft would present an undue hardship, since AMC-18 is an in-orbit space station and venting AMC-18's oxidizer tanks would require direct retrieval of the satellite, which is not currently possible. In making this determination, we note that the information submitted in the application is not sufficient to support a finding that the intent of the rule would be satisfied by the described procedures for sealing the oxidizer tanks.
 10. SES must maintain on file with the Commission the information required by section 25.172 of the Commission's rules, 47 CFR § 25.172.

⁴ *See* IBFS File No. SAT-A/O-20171221-00174, condition 6, granted, Mar. 8, 2018.

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IBFS File Nos. SAT-MOD-20200615-00074; SAT-AMD-20200818-00098

11. Within 30 days of completion of the end-of-life maneuvers, SES must send a letter to the Chief, Satellite Division, International Bureau, indicating the apogee and perigee of the AMC-18 space station disposal orbit.
12. Grant of this application does not change the license term for the AMC-18 space station, which expires on January 31, 2022.⁵

Licensee/grantee is afforded thirty (30) days from the date of release of this action to decline the grant as conditioned. Failure to respond within this period will constitute formal acceptance of the grant as conditioned.

This action is taken pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 CFR § 0.261, and is effective upon release.

Station licenses are subject to the conditions specified in Section 309(h) of the Communications Act of 1934, as amended, 47 U.S.C. § 309(h).

Action Date:	February 3, 2021	
Term Dates	From: February 3, 2021	To: January 31, 2022

Approved:



Merissa L. Velez
Chief, Satellite Policy Branch

⁵ See IBFS File No. SAT-PPL-20061006-00118 (grant stamp, Dec. 7, 2006).

9–16. Name of Contact Representative

Name:	Karis Hastings	Phone Number:	202–599–0975
Company:	SatCom Law LLC	Fax Number:	
Street:	1317 F Street, N.W. 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?</p> <p><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).</p> <p><input type="radio"/> Governmental Entity <input type="radio"/> Noncommercial educational licensee</p> <p><input type="radio"/> Other(please explain):</p>	
<p>17d.</p> <p>Fee Classification BFY – Space Station Modification(Geostationary)</p>	
<p>18. If this filing is in reference to an existing station, enter:</p> <p>(a) Call sign of station: S2713</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:</p> <p>(a) Date pending application was filed: (b) File number:</p> <p> SATA/O2017122100174</p>

TYPE OF SERVICE

<p>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:</p> <p><input checked="" type="checkbox"/> a. Fixed Satellite</p> <p><input type="checkbox"/> b. Mobile Satellite</p> <p><input type="checkbox"/> c. Radiodetermination Satellite</p> <p><input type="checkbox"/> d. Earth Exploration Satellite</p> <p><input type="checkbox"/> e. Direct to Home Fixed Satellite</p> <p><input type="checkbox"/> f. Digital Audio Radio Service</p> <p><input type="checkbox"/> g. Other (please specify)</p>		
<p>21. STATUS: Choose the button next to the applicable status. Choose only one.</p> <p><input type="radio"/> Common Carrier <input checked="" type="radio"/> Non-Common Carrier</p>	<p>22. If earth station applicant, check all that apply.</p> <p><input type="checkbox"/> Using U.S. licensed satellites</p> <p><input type="checkbox"/> Using Non-U.S. licensed satellites</p>	
<p>23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities:</p> <p><input type="radio"/> Connected to a Public Switched Network <input type="radio"/> Not connected to a Public Switched Network <input checked="" type="radio"/> N/A</p>		
<p>24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all applicable frequency band(s).</p> <p><input checked="" type="checkbox"/> a. C-Band (4/6 GHz) <input type="checkbox"/> b. Ku-Band (12/14 GHz)</p> <p><input type="checkbox"/> c. Other (Please specify upper and lower frequencies in MHz.)</p> <p>Frequency Lower: Frequency Upper: (Please specify additional frequencies in an attachment)</p>		

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

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?

☒ Yes ☐ No ☐ N/A

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.

Ownership Exhibit

BASIC QUALIFICATIONS

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.

☐ Yes ☒ No

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.

☐ Yes ☒ No

<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><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><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><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>	

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.

☒ Yes ☐ No

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.

☐ Yes ☒ No

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?

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.)

SES Americom, Inc. hereby requests modification of its license for the AMC-18 satellite (call sign S2713) to relocate the spacecraft to 83.0 W.L. Please see the attached narrative.

Narrative

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
Petra A. Vorwig

46. Title of Person Signing
Vice President, Legal & Regulatory Affairs

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(U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION
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