

\* Operational authority at 67° W.L.

E2135 SAT-STA-20100525-00108 IB2010001646  
SES Americom, Inc.

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Term Dates  
From 07/28/10 To: 09/09/10

Approved by OMB  
3060-0678

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



FEDERAL COMMUNICATIONS COMMISSION  
APPLICATION FOR SPACE STATION SPECIAL TEMPORARY AUTHORITY  
FOR OFFICIAL USE ONLY

APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:  
S2135 (AMC-4) Relocation to 67 W.L.

1. Applicant

Name:	SES Americom, Inc.	Phone Number:	(202) 478-7181
DBA Name:		Fax Number:	(202) 478-7101
Street:	2001 L Street, NW Suite 800	E-Mail:	suzanne.malloy@ses.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20036
Attention:	Suzanne H. Malloy		

**Attachment**  
**IBFS File No. SAT–STA–20100525-00108**  
**Call Sign S2135**  
**July 28, 2010**

The application of SES Americom, Inc. (SES Americom), for special temporary authority, IBFS File No. SAT–STA–20100525–00108, is GRANTED.<sup>1</sup> Accordingly, SES Americom is authorized effective upon grant through September 9, 2010, to operate the AMC-4 space station in the conventional Ku-band frequencies of 11.7-12.2 GHz (space-to-Earth) and 14.0-14.5 GHz (Earth-to-space) and in the extended Ku-band frequencies of 11.45-11.7 GHz (space-to-Earth) and 13.75-14.0 GHz (Earth-to-space) to provide fixed-satellite service (FSS) from the 67° W.L. orbital location. This authorization shall be in accordance with the technical specifications set forth in SES Americom's application, this Attachment, Federal Communication Commission (Commission) rules, and the conditions of this attachment:

1. All operations shall be on an unprotected and non-harmful interference basis, *i.e.*, the AMC-4 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 the AMC-4 space station at all times.
3. SES Americom shall maintain the AMC-4 space station within an east/west longitudinal station-keeping tolerance of  $\pm 0.05$  degrees of the 67° W.L. orbital location.
4. SES Americom must comply with the applicable laws, regulations, rules and authorization process of any country in which it seeks to provide service.
5. This authorization is issued with the understanding that the United States remains the licensing administration of the AMC-4 space station for purposes of International Telecommunication Union (ITU) Radio Regulation 18.1.
6. Operation of the AMC-4 space station at the 67° W.L. orbital location is pursuant to ITU Radio Regulation 4.4.
7. SES Americom shall prepare and submit to the Federal Communications Commission, within seven calendar days following this grant, materials for submission to the ITU, pursuant to Article 8.4 of the ITU Radio Regulations, in connection with the operations of AMC-4 space station at the 67° W.L. orbital location.
8. This authorization is issued with the understanding that with respect to its filings with the ITU for the 67° W.L. orbital location, the Colombian Administration, as Notifying Administration for the Andean Community, is not acting pursuant to Article 9 of the Radio Regulations on behalf of the United States Administration.

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<sup>1</sup> On July 12, 2010, the Satellite Division granted, with conditions, authority to SES Americom for a period of 60 days to conduct telemetry, tracking, and telecommand (TT&C) operations during the drift to, and while operating at, the 67° W.L. orbital position. The Satellite Division deferred the remainder of SES Americom's application.

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9. This authorization is issued with the understanding that this grant does not in any way express a view concerning, or agreement as to, the validity or lack of validity of any ITU filing at or within the vicinity of the 67° W.L. orbital location.

10. This authorization is issued on the understanding that, to the extent SES Americom and its affiliated companies, pursuant to any arrangement with the Colombian Administration, as Notifying Administration for the Andean Community, will conform its operations to any parameters agreed to in coordination agreements between the Colombian 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.

11. This authorization is issued with the understanding that this grant is not an approval of any specific arrangement entered into by SES Americom, its subsidiaries and affiliates, nor of any specific provision of any such arrangement concerning operation of the AMC-4 satellite, nor is this grant an approval of an arrangement/agreement concerning any related matter, nor of any specific provision of any such arrangement/agreement concerning any related matter.

12. SES Americom is granted waiver of Section 25.202(g) of the Commission's rules, 47 C.F.R. § 25.202(g). Section 25.202(g) requires "telemetry, tracking and telecommand (TT&C) functions for U.S. domestic satellites shall be conducted at either or both edges of the allocated band(s). Frequencies, polarization and coding shall be selected to minimize interference into other satellite networks and within their own satellite system." SES Americom proposes use of telecommand carriers in the C-band at 6423.5 MHz and telemetry beacons in the C-band at 3700.5 MHz, which occur at the band edges of an FSS band other than the Ku-band in which it is providing service. This waiver grant is based upon the following findings: (a) AMC-4 was designed to operate with both service links and TT&C functions in the C-band; (b) SES Americom has coordinated C-band TT&C operations with adjacent satellite operators operating in the C-band. As a condition of granting this waiver, SES Americom must accommodate future space station networks that are compliant with Section 25.202(g). Further, SES Americom must operate AMC-4 pursuant to any existing or future coordination agreements for this location.

13. SES Americom's use of the 11.45-11.7 GHz band (space-to-Earth) is subject to footnote US211 to the United States Table of Frequency Allocations, 47 C.F.R. § 2.106, US211, which urges applicants for airborne or space station assignments to take all practicable steps to protect radio astronomy observations in the adjacent bands from harmful interference, consistent with footnote US74.

14. The operation of the AMC-4 space station in the 11.45-11.7 GHz band (space-to-Earth) is limited to international operations in accordance with footnote NG104 to the United States Table of Frequency Allocations, 47 C.F.R. § 2.106, NG104, and footnote 2 of Section 25.202(a)(1) of the Commission's rules, 47 C.F.R. § 25.202(a)(1).

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15. Pursuant to footnote US337 of the United States Table of Frequency Allocations, 47 C.F.R. § 2.106, any earth station in the United States and its possessions communicating with the AMC-4 space station in the 13.75-14.0 GHz band (Earth-to-space) is required to coordinate through National Telecommunications and Information Administration's (NTIA's) Interdepartment Radio Advisory Committee's (IRAC's) Frequency Assignment Subcommittee (FAS) to minimize interference to the National Aeronautics and Space Administration Tracking and Data Relay Satellite System, including manned space flight.

16. Operations of any earth station in the United States and its possessions communicating with the AMC-4 space station in the 13.75-14.0 GHz band (Earth-to-space) shall comply with footnote US356 to United States Table of Frequency Allocations, 47 C.F.R. § 2.106, US356 which specifies a mandatory minimum antenna diameter of 4.5 meters and a non-mandatory minimum and maximum equivalent isotropically radiated power (e.i.r.p.). Operations of any earth station located outside the United States and its possessions communicating with the AMC-4 space station in the 13.75-14.0 GHz band (Earth-to-space) shall be consistent with footnote 5.502 to the ITU Radio Regulations, which allows a minimum antenna diameter of 1.2 meters for earth stations of a geostationary satellite orbit network and specifies mandatory power limits. In the 13.75-14.0 GHz band (Earth-to-space), receiving space stations in the fixed-satellite service shall not claim protection from radiolocation transmitting stations operating in accordance with the United States Table of Frequency Allocations.

17. Operations of any earth station in the United States and its possessions communicating with the AMC-4 space station in the 13770-13780 GHz band (Earth-to-space) shall comply with footnote US357 to United States Table of Frequency Allocations, 47 C.F.R. § 2.106, US357, which specifies that a required maximum e.i.r.p. density of emissions not exceed 71 dBW in any 6 MHz band for communications with a space station in geostationary-satellite orbit.<sup>2</sup> Operations of any earth station located outside the United States and its possessions communicating with the AMC-4 space station in the 13.770-13.78 GHz band (Earth-to-space) shall comply with footnote 5.503 to the ITU Radio Regulations, which specifies a required maximum e.i.r.p. density of emissions (limit is dependent on antenna diameter) for communications with a space station in geostationary-satellite orbit.

18. Operators of earth stations accessing the AMC-4 space station in the 13.75-14.0 GHz band are encouraged to cooperate voluntarily with the National Aeronautics and Space Administration (NASA) in order to facilitate continued operation of NASA's Tropical Rainfall Measuring Mission (TRMM) satellite.<sup>3</sup>

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<sup>2</sup> Footnote US357 places a restriction on FSS earth station operations in order to protect government operations in the band, including manned space flight. 47 C.F.R. § 2.106, US357.

<sup>3</sup> NASA's TRMM satellite system radar in the 13.793-13.805 GHz band remains operational and is a highly valuable and visible United States asset with a broad range of international users. Accordingly, NTIA has requested cooperation from the Commission and non-Federal Government entities in providing assistance in reducing interference with the TRMM radar. Specifically, NTIA requests that FSS earth stations in the 13.793 - 13.805 GHz band located south of 39° N. and east of 110° W. operate with emission levels below -150 dBW/600 kHz at the

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19. Pursuant to footnote US342 of the United States Table of Frequency Allocations, 47 C.F.R. § 2.106, services operating in the 14.47-14.5 GHz band shall take all practicable steps to protect the radio astronomy service from harmful interference.

20. Grant of this special temporary authority is without prejudice to any action on IBFS File No. SAT-MOD-20100623-00144.

21. Any action taken or expense incurred as a result of operations pursuant to this special temporary authority is solely at SES Americom's own risk.

22. This action is issued 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.

\* Operational authority at 67° W.L.



\*with conditions

File # SAT-STA-20100525-00108

Call Sign S2135 Grant Date 07/28/10  
(or other identifier)

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

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TRMM space station receiver. Letter from Frederick R. Wentland, Acting Associate Administrator, Office of Spectrum Management, NTIA, to Don Abelson, Chief, International Bureau, FCC (February 28, 2002). Considering the secondary nature of the TRMM operation, NTIA's request is not a condition of this authorization. The Commission, however, urges all operators of earth stations accessing the AMC-4 space station in the 13.75 - 14.0 GHz band to cooperate voluntarily with NASA in order to facilitate continued operation of the TRMM satellite.

2. Contact	
<b>Name:</b>	Karis A. Hastings
<b>Company:</b>	Hogan Lovells US LLP
<b>Street:</b>	555 Thirteenth Street, NW
<b>Phone Number:</b>	(202) 637-5767
<b>Fax Number:</b>	(202) 637-5910
<b>E-Mail:</b>	karis.hastings@hoganlovells.com
<b>City:</b>	Washington
<b>State:</b>	DC
<b>Country:</b>	USA
<b>Zipcode:</b>	20004 -1109
<b>Attention:</b>	
<b>Relationship:</b>	
(If your application is related to an application filed with the Commission, enter either the file number or the IB Submission ID of the related application. Please enter only one.)	
3. Reference File Number or Submission ID	
4a. 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):	
4b. Fee Classification CRY - Space Station (Geostationary)	
5. Type Request	
<input type="radio"/> Change Station Location	<input type="radio"/> Extend Expiration Date
	<input checked="" type="radio"/> Other
6. Temporary Orbit Location	
7. Requested Extended Expiration Date	

8. Description (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. seeks special temporary authority to relocate satellite AMC-4, call sign S2135, to 67 WL and to operate it at that location in the Ku-band for a period of 60 days starting no later than June 17, 2010.

9. 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

10. Name of Person Signing  
Suzanne H. Malloy

11. Title of Person Signing  
Executive Dir., International & Regulatory Affairs

12. Please supply any need attachments.  
Attachment 1: Attachment 1  
Attachment 2:  
Attachment 3:

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.**



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

In the Matter of Application of	)	
	)	
SES AMERICOM, INC.	)	File No. SAT-STA-_____
	)	Call Sign S2135
For Special Temporary Authority to	)	
Relocate AMC-4 to 67° W.L.	)	

*EXPEDITED ACTION REQUESTED*

**APPLICATION OF SES AMERICOM, INC.**

SES Americom, Inc. (“SES Americom,” doing business as “SES WORLD SKIES”<sup>1</sup>) hereby respectfully requests special temporary authority for a period of sixty days to relocate the AMC-4 C/Ku-band hybrid satellite from 101° W.L. to 67° W.L. and operate the satellite at that location in the Ku-band. Grant of the requested authority will serve the public interest by allowing SES WORLD SKIES to use AMC-4 to introduce new Ku-band service at 67° W.L. and by simplifying stationkeeping at the nominal 101° W.L. orbital location. SES WORLD SKIES respectfully requests action on this STA request by June 17, 2010.

In April, SES WORLD SKIES filed an application to reassign AMC-4 to 67° W.L. and commence Ku-band services there in accordance with the International Telecommunication Union (“ITU”) filings of the Colombian Administration, as Notifying Administration for the Andean Community (“CAN”).<sup>2</sup> As SES WORLD SKIES explained, AMC-4 currently operates

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<sup>1</sup> On September 7, 2009, SES S.A. announced that the newly integrated operations of its two indirect subsidiaries, New Skies Satellites B.V. and SES Americom would be conducted under a single brand name, SES WORLD SKIES. The new brand name does not affect the underlying legal entities that hold Commission authorizations or U.S. market access rights.

<sup>2</sup> File No. SAT-MOD-20100421-00081 (Call Sign S2135) (the “AMC-4 Modification”). This application has not yet appeared on public notice.

at 101° W.L.,<sup>3</sup> where it is collocated with SES WORLD SKIES' AMC-2 spacecraft.<sup>4</sup> SES WORLD SKIES has launched a C/Ku-band replacement satellite, SES-1, which is licensed to operate at 101° W.L.<sup>5</sup> Following the recent completion of in-orbit testing, SES-1 is expected to arrive at 101° W.L. in mid-June.

Pending action on the AMC-4 Modification, SES WORLD SKIES proposes to commence relocation of AMC-4 to 67° W.L. once SES-1 has arrived at 101° W.L. and AMC-4's traffic has been transferred to SES-1. Specifically, SES WORLD SKIES requests authority to perform Tracking, Telemetry, Command, and Monitoring ("TTC&M") in order to relocate AMC-4 from 101° W.L. to 67° W.L. and authority to operate both the TTC&M and Ku-band communications payloads on AMC-4 after it has arrived at 67° W.L.

Relocation of AMC-4 to 67° W.L. as proposed herein will not harm adjacent satellite operators. The AMC-4 Modification includes a full technical showing regarding the proposed operations of AMC-4 at 67° W.L. That information, which SES WORLD SKIES incorporates by reference herein, demonstrates that operation of AMC-4 at 67° W.L. will conform to Commission policies, including requirements regarding compatibility with adjacent satellites in a two-degree spacing environment and mitigation of orbital debris.<sup>6</sup> During the drift,

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<sup>3</sup> AMC-4 Modification, Narrative at 2. AMC-4 is licensed to operate in the conventional C-band (3700-4200 MHz and 5925-6425 MHz), conventional Ku-band (11.7-12.2 GHz and 14.0-14.5 GHz), and extended Ku-band (11.45-11.7 GHz and 13.75-14.0 GHz) frequencies.

<sup>4</sup> See File Nos. SAT-MOD-20080314-00072, SAT-MOD-20080124-00030, and SAT-AMD-20080311-00070, all grant-stamped May 19, 2008.

<sup>5</sup> See File Nos. SAT-RPL-20100120-00014; SAT-AMD-20100309-00040 (Call Sign S2807), grant-stamped Apr. 20, 2010.

<sup>6</sup> AMC-4 Modification, Technical Appendix.

SES WORLD SKIES will use only the satellite's TTC&M frequencies<sup>7</sup> and will follow industry practices for coordinating TTC&M transmissions during relocation.

Upon arrival at 67° W.L., AMC-4 will operate in the conventional Ku-band (11.7-12.2 GHz downlinks and 14.0-14.5 GHz uplinks) and the extended Ku-band (11.45-11.7 GHz downlinks and 13.75-14.0 GHz downlinks) with coverage of North and South America.<sup>8</sup>

Operations will conform to the ITU filings and coordination agreements of the Administration of Colombia, as Notifying Administration for the Andean Community.

Grant of the requested authority will serve the public interest by allowing SES WORLD SKIES to use AMC-4 to initiate new service from the 67° W.L. orbital location. In addition, by permitting relocation of AMC-4 away from 101° W.L., the requested STA will simplify stationkeeping at 101° W.L. following the arrival of SES-1.

SES WORLD SKIES hereby certifies that no party to this application is subject to a denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 862.

SES WORLD SKIES 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.

For the foregoing reasons, SES WORLD SKIES seeks temporary authority for a period of up to 60 days to relocate AMC-4 to 67° W.L., to operate the TTC&M payload during

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<sup>7</sup> See *id.*, Technical Appendix at 2 (specifying use of telemetry carriers at 11702.0 MHz and 12198.0 MHz and telecommand carriers at 6423.5 MHz; SES WORLD SKIES has also coordinated use of a telemetry carrier at 3700.5 MHz).

<sup>8</sup> See *id.*, Technical Appendix & Annex 1 (coverage maps).

the drift to that location, and to operate the TTC&M and Ku-band communications payloads upon arrival of AMC-4 at 67° W.L.

Respectfully submitted,

SES AMERICOM, INC.

By: /s/ Suzanne H. Malloy

Of Counsel

Karis A. Hastings  
Hogan Lovells US LLP  
555 13<sup>th</sup> Street, N.W.  
Washington, D.C. 20004-1109  
Tel: (202) 637-5600

Suzanne H. Malloy  
Executive Director, International and  
Regulatory Affairs  
SES WORLD SKIES  
2001 L Street, NW, Suite 800  
Washington, DC 20036

Dated: May 25, 2010