

S2434 SAT-STA-20110301-00043 IB2011000629
SES Americom, Inc.
AMC-9

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File Number: SAT-STA-20110301-00043
Callsign:



File # SAT-STA-20110301-00043
Call Sign S2434 Grant Date 03/25/11
(or other identifier)
Term Dates Period of
From 03/25/11 To 30 days
Approved: *Stephen J. Duall*
Stephen J. Duall
Chief, Satellite Policy Branch

Approved by OMB
3060-0678

FEDERAL COMMUNICATIONS COMMISSION
APPLICATION FOR SPACE STATION SPECIAL TEMPORARY AUTHORITY

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APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:
S2434 (AMC-9) STA Request to Alter C-Band Coverage

I. Applicant

Name:	SES Americom, Inc.	Phone Number:	(202) 478-7137
DBA Name:		Fax Number:	(202) 478-7101
Street:	2001 L Street, NW Suite 800	E-Mail:	daniel.mah@ses.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20036
Attention:	Daniel C. H. Mah		

Attachment to Grant
IBFS File No. SAT-STA-20110301-00043
Call Sign S2434
March 25, 2011


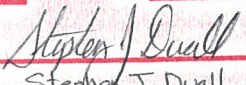
The request of SES Americom, Inc. (SES Americom) for special temporary authority, IBFS File No. SAT-STA-20110301-00043, for a period of 30 days in connection with the operations of the AMC-9 space station (Call Sign S2434) at the 83° W.L. orbital location in the 3700-4200 MHz (space-to-Earth) and 5925-6425 MHz (Earth-to-space) frequency bands IS GRANTED. Specifically, SES Americom is authorized to operate the AMC-9 space station with a 0.4-degree change in the north/south orientation of the C-band reflector from the orientation previously authorized.¹ This authorization shall be in accordance with the technical specifications set forth in SES Americom's application, Federal Communication Commission (Commission) rules, and is subject to the following conditions:

1. All operations pursuant this grant of special temporary authority shall be on an unprotected and non-harmful interference basis, *i.e.*, SES Americom shall not cause harmful interference to, and shall not claim protection from interference caused to it by, any other lawfully operating station.

2. In the event of any harmful interference caused by AMC-9 while operating pursuant to this grant of special temporary authority, SES Americom shall cease operations immediately upon notification of such interference, and shall inform the Commission, in writing, immediately of such an event.

3. 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.

4. This action is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. §2.261, and is effective immediately.

 GRANTED* International Bureau * with conditions	File #	SAT-STA-20110301-00043		
	Call Sign	S2434	Grant Date	03/25/11
	(or other identifier)		Term Dates	Period of
	From	03/25/11	To:	30 days
	Approved:	 Stephen J. Duall Chief, Satellite Policy Branch		

¹ See IBFS File Nos. SAT-LOA-20020114-00008 (granted June 15, 2004) & SAT-AMD-20040421-000084 (granted Sept. 3, 2004).

2. Contact	
Name:	Karis A. Hastings, Esq. Phone Number: (202) 637-5767
Company:	Hogan Lovells US LLP Fax Number: (202) 637-5910
Street:	555 Thirteenth Street, NW E-Mail: karis.hastings@hoganlovells.com
City:	Washington State: DC
Country:	USA Zipcode: 20004 -1109
Attention:	Relationship:
(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 checked="" 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 for a period of 30 days, commencing on or before March 4, 2011, to permit operation of the AMC-9 fixed-satellite space station with a 0.4 degree change in the north/south orientation of the C-band reflector to evaluate the feasibility of enhancing C-band coverage of the Southern United States,

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
Daniel C. H. Mah

11. Title of Person Signing
Regulatory Counsel

12. Please supply any need attachments.

Attachment 1: STA Narrative

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).

FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

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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.

8. Description

SES Americom, Inc. seeks special temporary authority for a period of 30 days, commencing on or before March 4, 2011, to permit operation of the AMC-9 fixed-satellite space station with a 0.4 degree change in the north/south orientation of the C-band reflector to evaluate the feasibility of enhancing C-band coverage of the Southern United States, Mexico and Central America. No change in the orbital location of the satellite or the orientation of the Ku-band antenna is proposed.

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

In the Matter of)	
)	
SES AMERICOM, INC.)	File No. SAT-STA-_____
)	Call Sign S2434
Request for Special Temporary Authority to)	
Alter the C-band Coverage of AMC-9)	

REQUEST OF SES AMERICOM, INC.

SES Americom, Inc. (“SES Americom,” doing business as “SES WORLD SKIES”¹), hereby respectfully requests special temporary authority (“STA”) for a period of 30 days beginning on or before March 4, 2011, to permit operation of the AMC-9 fixed-satellite space station with a slightly altered C-band coverage pattern. Grant of the requested authority will enable SES WORLD SKIES to determine the feasibility of enhancing AMC-9’s C-band coverage of the Southern United States, Mexico and Central America.

AMC-9 is a C/Ku-band hybrid spacecraft launched in 2003 and operating at 83° W.L.² In response to the service requirements of a potential customer, SES WORLD SKIES is assessing a possible repointing of the satellite’s C-band reflector slightly southward. Specifically, SES WORLD SKIES is evaluating a .4 degree change in the north/south orientation

¹ SES WORLD SKIES is the commercial brand name for the integrated operations of two indirect subsidiaries of SES S.A.: SES Americom and New Skies Satellites B.V. (effective January 1, 2009). The brand name does not affect the underlying legal entities that hold Commission authorizations or U.S. market access rights.

² See Call Sign S2434, File Nos. SAT-LOA-20020114-00008 (grant-stamped June 15, 2004); SAT-AMD-20040319-00041 & SAT-AMD-20040421-00084 (grant-stamped Sept. 3, 2004).

of the C-band reflector in order to strengthen the C-band signal levels over the Southern United States, Mexico and Central America.

SES WORLD SKIES has performed calculations that indicate that the proposed repointing would improve coverage in the southern portions of the AMC-9 C-band beam without adversely affecting service to customers in the northern portions of the beam. However, before making a final determination on whether to seek Commission modification of the AMC-9 license to change the AMC-9 C-band reflector orientation, SES WORLD SKIES would like to confirm these predictions with real world testing, especially with respect to a U.S. government customer at the northeastern edge of the C-band coverage area. Accordingly, SES WORLD SKIES seeks authority to repoint the C-band reflector on a temporary basis. During the temporary repointing, SES WORLD SKIES will measure the effect of the southward shift of the reflector on sites in both the northern and southern portions of the new AMC-9 C-band service area.

The AMC-9 C-band and Ku-band reflectors are on different gimbals, and SES WORLD SKIES proposes to reorient only the C-band reflector. No change in the satellite's Ku-band footprint is planned.

Reorientation of the AMC-9 C-band reflector as proposed will not adversely affect any other operators. Contour maps showing the AMC-9 C-band coverage area with the proposed reorientation are included in the attached Technical Appendix. As the Technical Appendix demonstrates, the small proposed shift in AMC-9's C-band antenna coverage will have a negligible effect on the interference environment in which adjacent satellites operate. The closest operational C-band satellite to the west of AMC-9 is the Brazilian-licensed Brasilsat B4 spacecraft at 84° W.L., which has coverage of Brazil and parts of South America, but not of

Central America, Mexico, or the U.S.³ To the east of AMC-9, the closest C-band satellite is Intelsat 3R, which has been authorized by the Commission to operate temporarily at 81° W.L. pursuant to the International Telecommunication Union (“ITU”) filings of the Administration of Argentina.⁴ The operations of AMC-9, even with the slight change in pointing proposed in the instant STA request, will continue to be consistent with SES WORLD SKIES’ coordination agreements, including its agreements with Brazil and Argentina.

The Commission has generally permitted satellite operators the flexibility to design and modify their networks in response to customer requirements, absent compelling countervailing public interest considerations.⁵ Here, grant of the requested STA will assist SES WORLD SKIES in evaluating the feasibility and impact of changing the AMC-9 coverage pattern to respond to customer demand.

³ See http://www.lyngsat-maps.com/maps/brasilb4_national.html; <http://www.satbeams.com/footprints>.

⁴ See Call Sign PAS-2R, File No. SAT-STA-20100402-00063 (grant-stamped Aug. 3, 2010).

⁵ See, e.g. *AMSC Subsidiary Corporation*, 13 FCC Rcd 12316 at ¶ 8 (IB 1998) (the Commission generally leaves space station design decisions to the licensee “because the licensee is in a better position to determine how to tailor its system to meet the particular needs of its customers.”) (footnote omitted).

For the foregoing reasons, SES WORLD SKIES respectfully requests grant of special temporary authority to permit reorientation of the AMC-9 C-band reflector as described herein.

Respectfully submitted,

SES AMERICOM, INC.

By: /s/ Daniel C.H. Mah

Of Counsel

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Regulatory Counsel
SES Americom, Inc.
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Dated: March 1, 2011

TECHNICAL APPENDIX

An interference analysis was submitted to the Commission in connection with the initial operation of AMC-9 at 83° W.L. demonstrating that operation of AMC-9 was compatible with adjacent satellites and with the Commission's two-degree spacing requirements.¹ The analysis herein shows that the proposed repointing of the AMC-9 C-band antenna will have a negligible impact on the interference environment for adjacent satellites.

The C-band EIRP for AMC-9 over Mexico currently ranges from 36 to 40 dBW; with the proposed repointing the range will be 38 to 40.9 dBW. As a result, AMC-9's C-band EIRP over Mexico increases by a typical value of 1 dB, with an increase of 2 dB at the edge of Mexican coverage (from 36 to 38 dBW). To determine the effect of this 2 dB increase in the EIRP at the edge of coverage we have computed the C/I in a non-SES carrier from an orbital location that is two degrees away from 83° W.L., serving Mexico. The C/I computation is based on the following parameters:

- a) EIRP of the wanted (i.e., non-SES) satellite: 37 dBW
- b) EIRP of the interfering satellite: 36 dBW with current configuration of AMC-9, and 38 dBW with proposed repointing
- c) Receiver earth station diameter: 4.5m
- d) Wanted carrier threshold C/N: 8 dB
- e) C/I in the victim carrier with interference from AMC-9 current configuration: 23.1 dB
- f) C/I in the victim carrier with interference from AMC-9 after repointing: 21.1 dB
- g) C/N in victim carrier with interference from AMC-9 with current configuration: 7.87 dB
- h) C/N in victim carrier with interference from AMC-9 with re-pointing: 7.79 dB

The increase in the victim's system noise temperature due to AMC-9 with its current configuration is 0.13 dB, or 3%. If AMC-9 is repointed as proposed, the noise temperature increase is slightly degraded to 0.21 dB, or 5%. In both of these cases, the system noise temperature increase is less than the 6% DeltaT/T ITU coordination trigger criteria; *i.e.*, internationally, if a 6% increase in noise temperature is not exceeded, then coordination is not needed between the concerned networks.

¹ See Call Sign S2434, File No. SAT-AMD-20040421-00084, Technical Appendix, Attachment B.

**CONTOUR MAPS FOR PROPOSED REORIENTATION OF
C-BAND ANTENNA ON AMC-9 SPACECRAFT AT 83° W.L.**

Figure 1: EIRP contour (dBW) for typical transponder with vertical downlink polarization

Figure 2: G/T contour (dB/°K) for typical transponder with horizontal uplink polarization

Figure 3: EIRP contour (dBW) for typical transponder with horizontal downlink polarization

Figure 4: G/T contour (dB/°K) for typical transponder with vertical uplink polarization

Figure 1

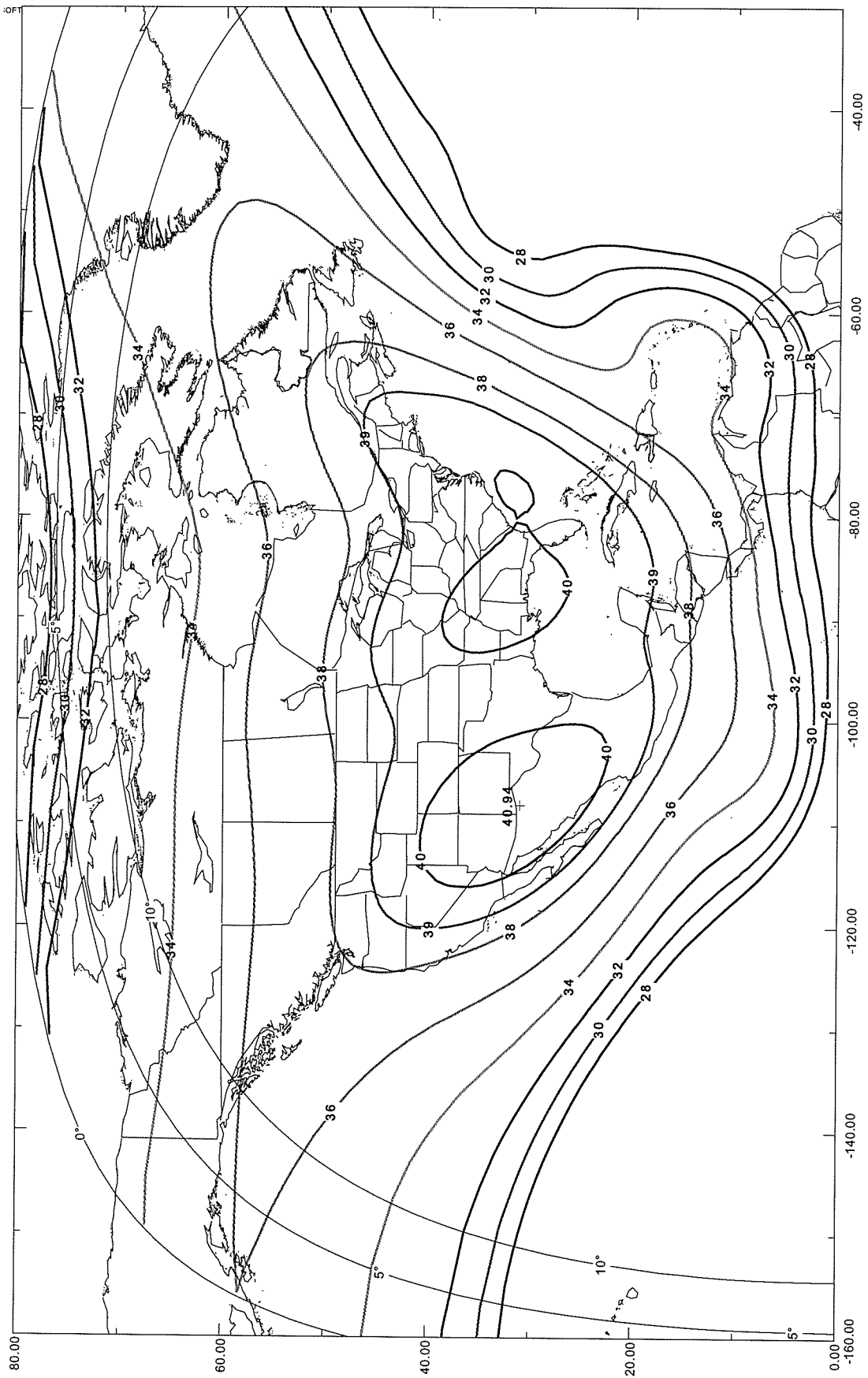


Figure 2

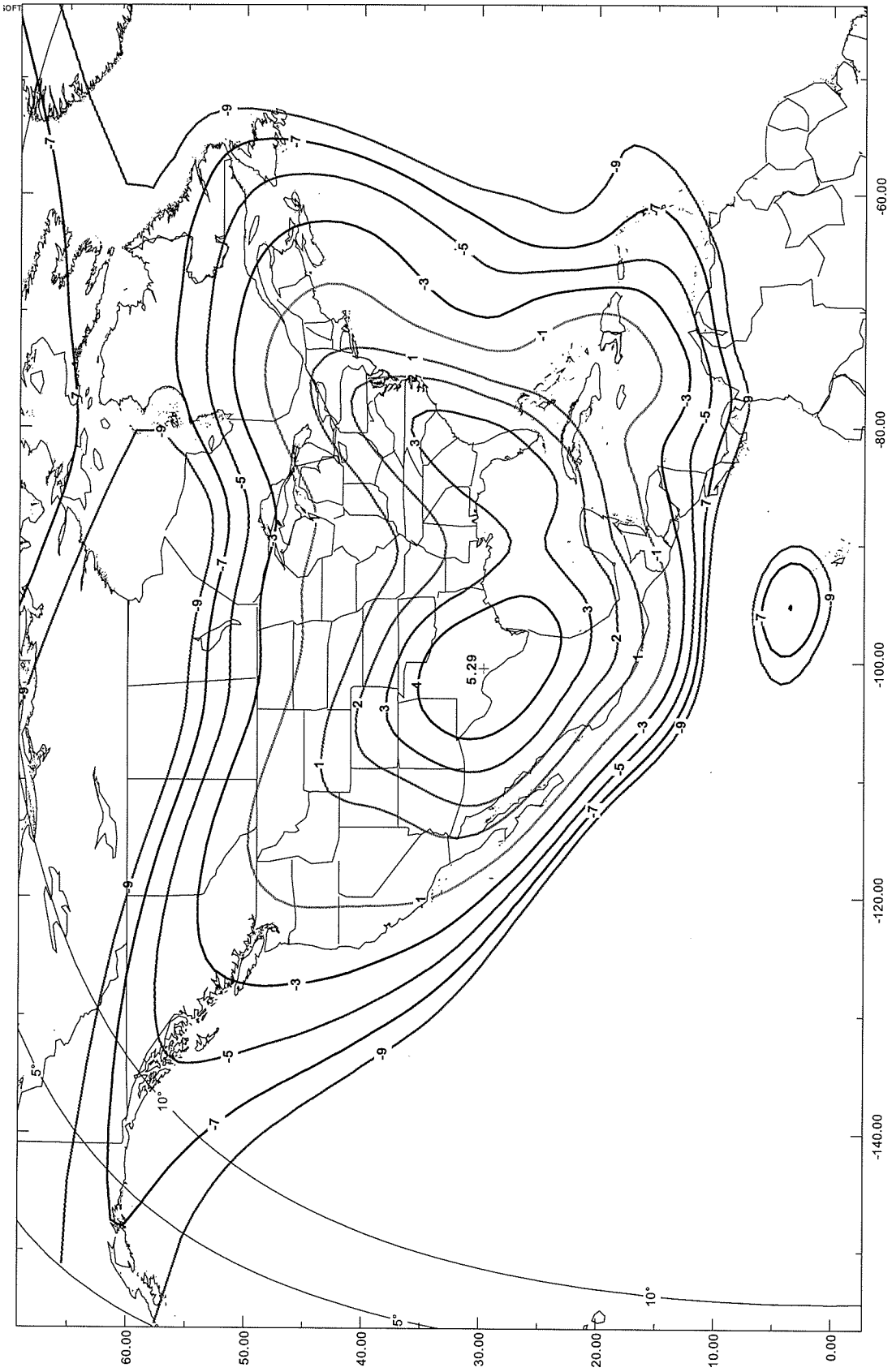


Figure 3

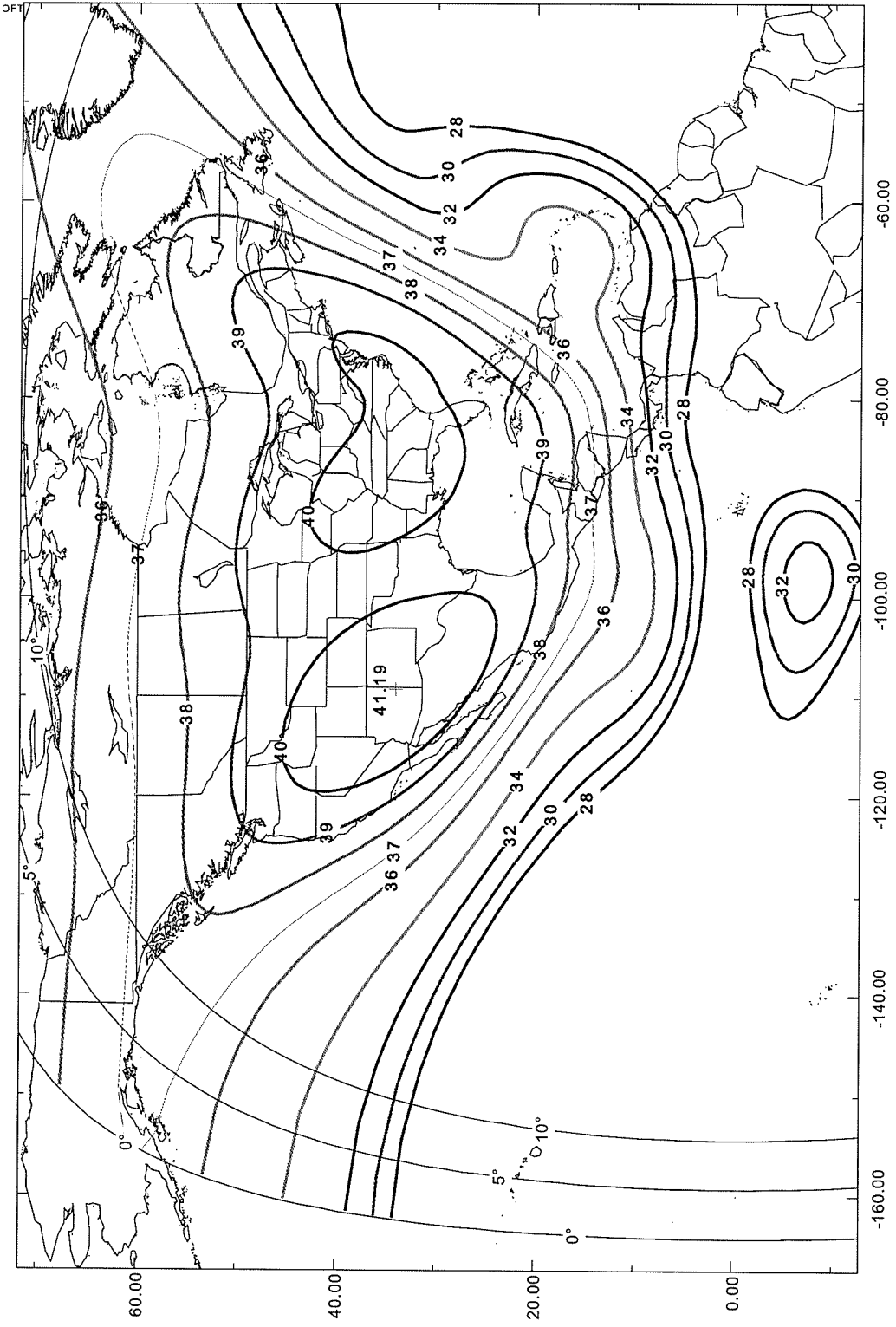
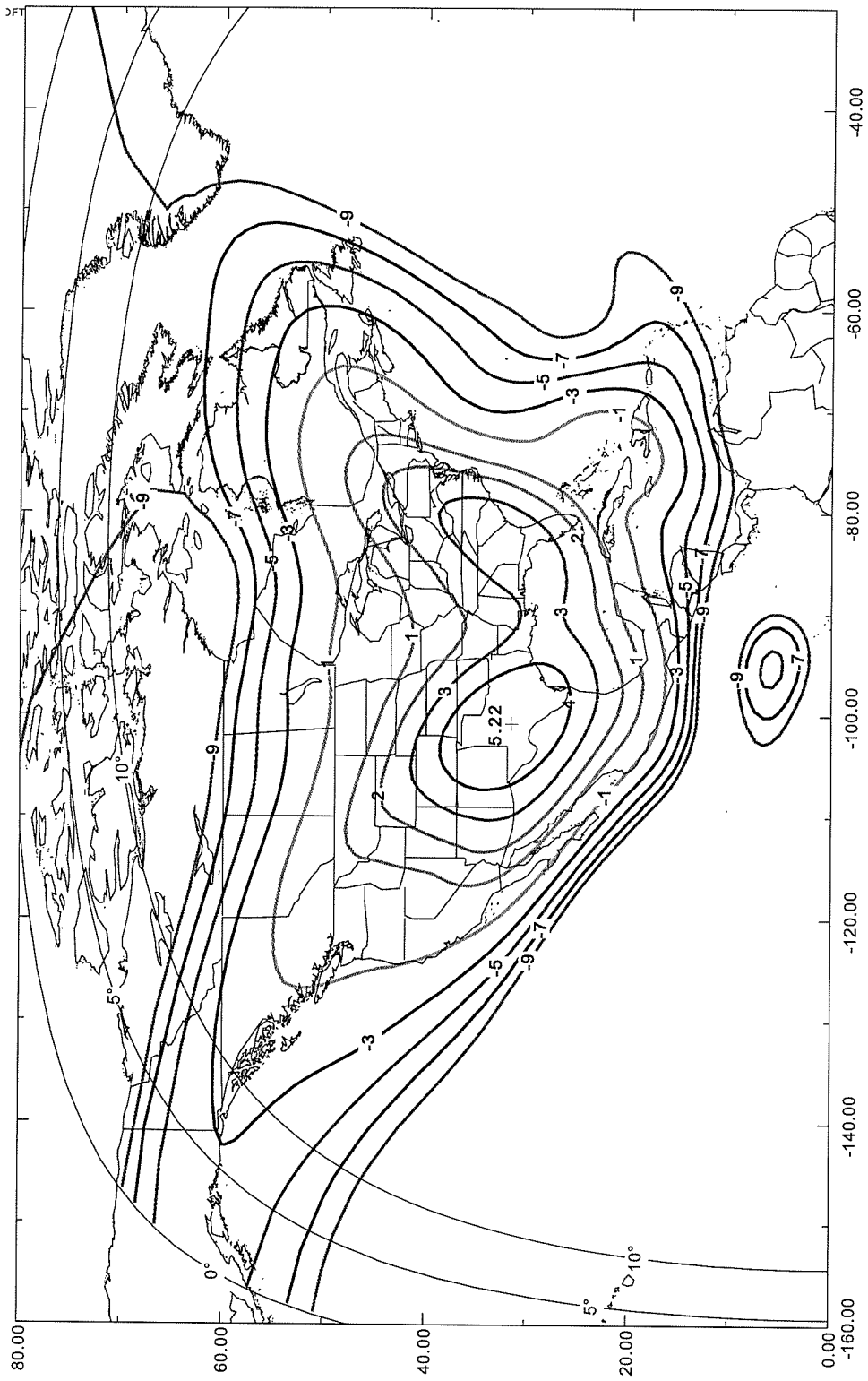


Figure 4



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: March 1, 2011