

S2786 SAT-STA-20110103-00001 IB2011000002
XM Radio Inc.
XM-5

File # SAT-STA-20110103-00001

Call Sign S2786 Grant Date 01/13/11

(or other identifier)

Term Dates Period of
From 01/13/11 To: 30 days

Approved by OMB
3060-0678

Date & Time Filed: Jan 3 2011 2:56:36:436PM
File Number: SAT-STA-20110103-00001
Callsign:

Approved: *Stephen J. Duall*

Stephen J. Duall
Chief, Satellite Policy Branch



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:
XM-5 (Call Sign S2786) 30-Day STA to Activate Communications Payload


I. Applicant

Name:	XM Radio Inc.	Phone Number:	202-380-4000
DBA Name:		Fax Number:	202-380-4981
Street:	1500 Eckington Place, NE	E-Mail:	James.Blitz@siriusxm.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20002
Attention:	James S. Blitz		-

Attachment to Grant
Application of XM Radio Inc. for Special Temporary Authority
IBFS File No. SAT-STA-20110103-00001

The request of XM Radio Inc. (XM Radio) for special temporary authority (STA), File No. SAT-STA-20110103-00001, to activate the communications payload of the XM-5 space station (Call Sign S2786), an in-orbit spare, at the 85.2° W.L orbital location for testing purposes is granted for a period of up to 30 days, commencing on January 13, 2011. Accordingly, XM Radio is authorized to operate the communications payload on XM-5 to provide Satellite Digital Audio Radio Service (SDARS) using the 2332.5-2345.0 MHz (space-to-Earth) frequency band. Operation under this STA is for the sole purpose of evaluating XM-5's ability to provide replacement capacity in the event of an outage of the primary space stations that it supports. This authorization is granted subject to the technical parameters specified in XM's application, the rules of the Federal Communication Commission (Commission), and the following conditions.

1. All operations shall be on an unprotected and non-harmful interference basis, *i.e.*, XM Radio shall not cause harmful interference to, and shall not claim protection from interference caused to it by, any other lawfully operating radiocommunication system.
2. In the event of any harmful interference as a result of the operations of XM -5 at the 85.2° W.L. orbital location, XM Radio shall cease operations immediately upon notification of such interference and shall inform the Commission, in writing, immediately of such an event.
3. XM Radio shall coordinate its operations of XM-5 with existing geostationary satellites to ensure that no unacceptable interference results from its operations at the 85.2° W.L orbital location.
4. XM Radio shall maintain the XM-5 space station within an east/west longitudinal station-keeping tolerance of ± 0.05 degrees of the 85.2° W.L. orbital location.
5. XM Radio is afforded 30 days from the date of release of this grant and authorization to decline this authorization as conditioned. Failure to respond within this period will constitute formal acceptance of the authorization as conditioned.
6. 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.

 GRANTED* International Bureau *with conditions	File # <u>SAT-STA-20110103-00001</u>
	Call Sign <u>S2786</u> Grant Date <u>01/13/11</u> (or other identifier)
	Term Dates <u>period of</u> From <u>01/13/11</u> To: <u>30 days</u>
	Approved: <u>Stephen J. Duall</u> Stephen J. Duall Chief, Satellite Policy Branch

2. Contact	
Name:	Karis A. Hastings, Esq.
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Street:	555 Thirteenth Street, NW
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Attention:	
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E-Mail:	karis.hastings@hoganlovells.com
State:	DC
Zipcode:	20004 -1109
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 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.)

XM Radio Inc. requests a 30-day STA, commencing January 13, 2011, to activate the communications payload of XM-5 (Call Sign S2786) at 85.2 W.L.

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"; party to the application; for these purposes.

Yes No

10. Name of Person Signing
James S. Blitz

11. Title of Person Signing
Vice President, Regulatory Counsel

12. Please supply any need attachments.

Attachment 1: 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).

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services of XM Radio's affiliate, Satellite CD Radio.³ The XM-5 license authorizes activation of the satellite's communications payloads only "in the event of a service outage of the XM-3 (Call Sign: S2617), XM-4 (Call Sign: S2616), FM-1, FM-2, FM-3 (Call Sign: S2105), or FM-5 (Call Sign: S2710) space stations."⁴

Immediately following launch, XM Radio performed a series of in-orbit payload tests of XM-5 while the satellite was temporarily located at 80° W.L. to assess the spacecraft's performance characteristics.⁵ Now that XM-5 is positioned at 85.2° W.L., its licensed location adjacent to XM-3's position at 85.083° W.L., XM Radio proposes to test XM-5's performance in a situation that accurately tracks the conditions that would apply in the event XM-5 was needed to restore capacity because of a problem with XM-3. By performing these tests, XM Radio will be better prepared if a future outage requires activation of the XM-5 satellite.

During the testing period, XM Radio's existing feeder link earth stations in Washington, D.C. (Call Sign E000158) and Ellenwood, GA (Call Sign E040204) will transmit

³ *See id.*

⁴ *Id.*, Attachment at ¶ 2.

⁵ *See* File No. SAT-STA-20100917-00194, grant-stamped Oct. 22, 2010 (authorizing positioning of XM-5 at 80° W.L., testing at that location, and drift to 85.2° W.L. following completion of testing).

programming to XM-5 rather than to XM-3.⁶ The temporary change is expected to have no impact on listeners of XM Radio's satellite radio network.⁷

The proposed testing will not cause harmful interference to the operations of any other spacecraft. There are no satellites using either S-band or X-band frequencies within two degrees of 85.2° W.L. XM Radio does not share S-band spectrum with other satellite systems (except its affiliate, Satellite CD Radio), and the SDARS downlink frequencies are not subject to two degree spacing rules.

The proposed testing will also not result in harmful interference to regularly authorized terrestrial operations. The feeder link earth stations that will be communicating with XM-5 have been coordinated with terrestrial licensees for the frequencies and EIRP levels proposed for use here, and the coordination covers a range of orbital locations that includes 85.2° W.L.⁸ XM Radio will not exceed the previously-coordinated parameters during the proposed testing; its feeder link earth stations will simply be communicating with XM-5 for a brief period instead of the neighboring XM-3 spacecraft.

For the foregoing reasons, XM Radio respectfully requests special temporary authority for a period of up to 30 days commencing January 13, 2011 to activate the XM-5

⁶ XM Radio has sought modification of the licenses for the feeder link sites in order to add XM-5 at 85.2° W.L., among other changes. *See* File Nos. SES-MOD-20101022-01323 (E000158) & SES-MOD-20101022-01324 (E040204). Those applications appeared on public notice as accepted for filing on November 24, 2010, *see* Report No. SES-01297 (Nov. 24, 2010) at 9-11, and no party filed comments on the applications.

⁷ This test involves only temporary substitution of XM-5 for XM-3 using the SDARS frequencies assigned to XM-3. XM Radio is not seeking authority here to operate XM-5 on the frequencies assigned to the Satellite CD Radio fleet.

⁸ *See* Exhibit B to File Nos. SES-MOD-20101022-01323 (E000158) & SES-MOD-20101022-01324 (E040204).

communications payloads to provide service in lieu of XM-3. Grant of the requested authority will serve the public interest by facilitating XM Radio's ability to evaluate the performance of the XM-5 space station and will not result in harmful interference to any other regularly authorized operations.

Respectfully submitted,

XM Radio Inc.

/s/ James S. Blitz

James S. Blitz

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January 3, 2011