E040204 SES-STA-20110425-00502 IB2011001193
XM Radio Inc.

Approved by OMB
3060–0678

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATIONEnter a description of this application to identify it on the main menu:
E040204 30–Day STA Request to permit testing of XM–5 (Call Sign S2786)

1. Applicant

Name:	XM Radio Inc.	**Phone Number:**	212–584–5100
DBA Name:		**Fax Number:**	212–584–5353
Street:	1221 Avenue of the Americas 36th Floor	**E–Mail:**	James.Blitz@siriusxm.com
City:	New York	**State:**	NY
Country:	USA	**Zipcode:**	10020 –
Attention:	James Blitz		

with condition

FEDERAL COMMUNICATIONS COMMISSION
GRANTED
International Bureau

File # SES-STA-20110425-00502
Call Sign E040204 Grant Date 5/6/2011
(or other identifier)
Term Dates
From 5/9/2011 To: 6/7/2011
Approved: Paul E Blais

Conditions of Grant of
SES-STA-20110425-00502 for call sign E040204 and
SES-STA-20110425-00501 for call sign E000158

XM must comply with Condition 6 of SAT-MOD-20101216-00264 which is quoted below.

> "6. XM Radio Inc. is authorized to operate XM-5 at the 85.15° W.L. orbital location with the capability of operating in the 7025-7075 MHz frequency band (Earth-to-space) designated for SDARS feeder-link use, in accordance with the technical specifications set forth in IBFS File No. SAT-LOA-20090217-00025 and consistent with our rules. Prior to operating XM-5 in the 7025-7075 MHz band at 85.15° W.L., XM Radio must successfully coordinate these operations with Fixed and Mobile service stations that are lawfully operating in this band."

Condition

FEDERAL COMMUNICATIONS COMMISSION

GRANTED

International Bureau

File # SES-STA-20110425-00502

Call Sign E040204 Grant Date 5/6/2011
(or other identifier)

Term Dates
From 5/9/2011 To: 6/7/2011

Approved: Paul E Blaney

2. Contact

Name:	Karis A. Hastings, Esq.	**Phone Number:**	202-637-5767
Company:	Hogan Lovells US LLP	**Fax Number:**	202-637-5911
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?
◉ If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114).
○ Governmental Entity ○ Noncommercial educational licensee
○ Other(please explain):

4b. Fee Classification CGX – Fixed Satellite Transmit/Receive Earth Station

5. Type Request

○ Use Prior to Grant ○ Change Station Location ◉ Other

6. Requested Use Prior Date	

7. CityEllenwood	8. Latitude (dd mm ss.s h) 33 39 51.0 N
9. State GA	10. Longitude (dd mm ss.s h) 84 16 24.0 W

11. Please supply any need attachments.

Attachment 1: Narrative Attachment 2: Attachment 3:

12. 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 special temporary authority for 30 days beginning May 9 for its Ellenwood, Georgia earth station (Call Sign E040204) to communicate with XM-5 (Call Sign S2786) to conduct performance testing.

13. 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

14. Name of Person Signing James S. Blitz	15. Title of Person Signing Vice President, 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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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of Application by	)	
	)	
XM RADIO INC.	)	Call Signs S2786, E000158, & E040204
	)	
For Special Temporary Authority to Activate XM-5 for Performance Testing	)	

REQUEST FOR SPECIAL TEMPORARY AUTHORITY

By this application, XM Radio Inc. ("XM Radio"),[1] respectfully requests special temporary authority ("STA") for a period of up to 30 days, commencing May 9, 2011, to permit XM Radio to activate the communications payload of its XM-5 satellite[2] and transmit to the satellite using XM Radio's Washington, D.C. and Ellenwood, GA feeder link earth stations. XM-5 is an in-orbit spare spacecraft that was launched in October 2010. XM Radio proposes to activate XM-5 for a limited period to conduct additional performance tests on the XM-5 payload. Grant of the requested authority will permit XM Radio to make more detailed assessment of the performance characteristics of XM-5 and evaluate its ability to provide replacement capacity in the event XM-5 is needed for primary service in response to an anomaly with an operating satellite. The call signs of the space station and earth stations for which STA is requested are listed in the caption above.

XM-5 is authorized to serve as an in-orbit spare for XM Radio's fleet of satellite digital audio radio service ("SDARS") spacecraft that provide a high-quality, continuous, multi-

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1 XM Radio is a wholly-owned subsidiary of Sirius XM Radio Inc. ("Sirius XM").

2 The Commission recently authorized XM Radio to relocate XM-5 to 85.15° W.L. and operate it there with +/- 0.1 degree east-west stationkeeping. *See* File No. SAT-MOD-20101216-00264 (Call Sign S2786), grant-stamped Mar. 8, 2011.

channel audio service throughout the United States.[3] XM-5 is also equipped with frequencies allowing it to serve as back-up capacity for the SDARS services of XM Radio's affiliate, Satellite CD Radio.[4] 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."[5]

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.[6] XM Radio requests authority to conduct additional tests of XM-5's performance now at its operating orbital position in order to be better prepared if a future anomaly in an operating satellite 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 to XM-5.[7] Testing will use the frequencies for which the earth stations and XM-5 are authorized, with uplinks in the X-band, 7056.8450-7074.8690 MHz, and downlinks in the S-band, 2332.5-

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3 *See* File No. SAT-LOA-20090217-00025 (Call Sign S2786), grant-stamped Aug. 31, 2009.

4. *See id.*

5 *Id.*, Attachment at ¶ 2.

6 *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).

7 These earth stations are authorized to communicate with XM-5. *See* File Nos. SES-MOD-20101022-01323 (E000158) & SES-MOD-20101022-01324 (E040204), both granted Jan. 4, 2011.

2345.0 MHz.[8] The testing transmissions from the feeder link earth stations will include the authorized modulated carrier or an unmodulated carrier operating at or below the earth stations' maximum authorized EIRP of 78 dBW. In all other respects, the transmissions for purposes of testing will conform to the technical specifications of the earth stations' licenses.

The temporary testing is expected to have no impact on listeners of XM Radio's satellite radio network. Furthermore, 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. other than satellites licensed to XM Radio. 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 arc includes the XM-5 orbital location.[9] XM Radio will not exceed the previously-coordinated parameters during the proposed testing.

For the foregoing reasons, XM Radio respectfully requests special temporary authority for a period of up to 30 days commencing May 9, 2011 to activate the XM-5 communications payload and transmit to the satellite using XM Radio's feeder link earth stations. Grant of the requested authority will serve the public interest by facilitating XM

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[8] As noted above, XM-5 is also capable of operating in the S-band frequencies authorized to Satellite CD Radio, 2320-2332.5 MHz, but no testing of this portion of the XM-5 payload is planned during the period of the requested STA.

[9] *See* Exhibit B to File Nos. SES-MOD-20101022-01323 (E000158) (eastern limit of the coordination arc is 85.0° W.L.) & SES-MOD-20101022-01324 (E040204) (eastern limit of the coordination arc is 80.0° W.L.).

Radio's ability to better 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
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April 25, 2011