



File # SAT-STA-20120723-00120

Call Sign S2786 Grant Date 08/07/12
(or other identifier)

From 08/14/12 Term Dates period of To: 30 days

Approved by OMB
3060-0678

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

Date & Time Filed: Jul 23 2012 11:27:59:433AM
File Number: SAT-STA-20120723-00120
Callsign:

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:
XM-5 (Call sign 2786) 30 day STA to conduct performance tests Aug 2012

I. Applicant

Name:	XM Radio LLC	Phone Number:	202-380-4000
DBA Name:		Fax Number:	202-380-4500
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 S. Blitz		

XM Radio LLC
IBFS File No. SAT-STA-20120723-00120
Call Sign S2786

The application of XM Radio LLC (XM Radio) for special temporary authority (STA), IBFS File No. SAT-STA-20120723-00120, IS GRANTED. XM Radio is authorized, for a period of 30 days commencing on August 14, 2012, to activate the communications payload of its Satellite Digital Audio Radio Service (SDARS) space station, XM-5 (Call Sign S2786), at the 85.15° W.L orbital location for performance testing purposes in the 2332.5-2345.0 MHz (space-to-Earth) frequency band. Operations under this STA are 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 and do not include the provision of commercial services. Operations under this STA shall comply with conditions 5, 6, and 7 of the current authorization for the operations of XM-5 as an in-orbit spare at 85.15° W.L., IBFS File No. SAT-MOD-20101216-00264 (granted March 8, 2011). This action is taken pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective immediately.

 GRANTED* International Bureau *with conditions	File # <u>SAT-STA-20120723-00120</u>
	Call Sign <u>S2786</u> Grant Date <u>08/07/12</u> (or other identifier)
	Term Dates period of From <u>08/14/12</u> To: <u>30 days</u>
	Approved: <u><i>Stephen J. Duall</i></u> Stephen J. Duall Chief, Satellite Policy Branch

2. Contact	
Name: Karis A. Hastings	Phone Number: 202-599-0975
Company: SatCom Law LLC	Fax Number:
Street: 1317 F Street, NW Suite 400	E-Mail: karis@satcomlaw.com
City: Washington	State: DC
Country: USA	Zipcode: 20004 -
Attention:	Relationship: Legal Counsel
(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 LLC requests authority for 30 days beginning August 14, 2012, to activate the XM-5 communications payload in order to conduct performance testing.

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
James S. Blitz

11. Title of Person Signing
Vice President, Regulatory Counsel

12. Please supply any need attachments.

Attachment 1: STA Request

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

The public reporting for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the required data, and completing and reviewing the collection of information. If you have any comments on this burden estimate, or how we can improve the collection and reduce the burden it causes you, please write to the Federal Communications Commission, AMD-PERM, Paperwork Reduction Project (3060-0678), Washington, DC 20554. We will also accept your comments regarding the Paperwork Reduction Act aspects of this collection via the Internet if you send them to PRA@fcc.gov. PLEASE DO NOT SEND COMPLETED FORMS TO THIS ADDRESS.

Remember – You are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number or if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060-0678.

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 Applications by)
)
XM RADIO LLC) Call Signs S2786 & E040204
)
For Special Temporary Authority to)
Perform Tests with XM-5)

REQUEST FOR SPECIAL TEMPORARY AUTHORITY

XM Radio LLC (“XM Radio”) respectfully requests space station and earth station special temporary authority (“STA”) for a period of 30 days commencing on August 14, 2012, to permit testing of the XM-5 space station at 85.15° W.L. using an earth station in Ellenwood, Georgia. XM Radio seeks authority to test the performance of XM-5, an in-orbit spare spacecraft launched in October 2010, under a scenario in which XM-5 might be needed to provide primary service. Grant of the requested authority will serve the public interest by permitting XM Radio to better prepare for and respond to possible future circumstances that would require use of XM-5.

Specifically, XM Radio requests authority to operate the communications payloads of XM-5 at 85.15° W.L. and authority for XM Radio’s earth station E040204 to communicate with XM-5 for purposes of performing the tests. The tests will allow XM Radio to assess the transmission performance of XM-5 in the satellite frequency bands used for the legacy XM Radio terrestrial repeaters.

The Commission authorized XM-5 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-channel audio service throughout the United States.¹ 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 LLC.² 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."³

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.⁴ Further tests were performed last year to allow evaluation of XM-5's ability to provide substitute capacity in the event of an anomaly affecting XM-3⁵ or one affecting the FM-5 space station or the Sirius XM HEO constellation.⁶ Tests were also performed to evaluate the transmission performance of XM-5 in the satellite frequency bands used for the legacy XM Radio terrestrial repeaters.⁷

¹ See File No. SAT-LOA-20090217-00025 (Call Sign S2786), grant-stamped Aug. 31, 2009.

² See *id.*

³ *Id.*, Attachment at ¶ 2.

⁴ See File No. SAT-STA-20100917-00194, grant-stamped Oct. 22, 2010 (authorizing positioning of XM-5 at 80° W.L. and testing at that location).

⁵ See File Nos. SAT-STA-20110103-00001, grant-stamped Jan. 13, 2011 & SAT-STA-20110624-00121, grant-stamped July 14, 2011.

⁶ See File Nos. SAT-STA-20110919-00184, grant-stamped Oct. 6, 2011, & SAT-STA-20111104-00212, grant-stamped Nov. 9, 2011.

⁷ See *id.*

XM Radio now proposes to conduct further tests of XM-5's performance in the bands used for the terrestrial repeater network. The uplink signals for these tests will originate from the XM Radio earth station in Ellenwood (Call Sign E040204), which is authorized to communicate with XM-5. The frequencies, power levels, and other technical parameters of the satellite and earth station operations for the tests will be consistent with those set forth in the XM-5 and E040204 licenses with one exception: for one set of tests, the audio uplink signal from E040204 will be at 7055.89 MHz. That frequency is just below the range of frequencies in which E040204 is authorized to transmit audio content.⁸

The proposed testing will not cause harmful interference to the operations of any other spacecraft. XM Radio operates the only satellites authorized to use either S-band or X-band frequencies located within two degrees of 85.15° 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 should also not result in harmful interference to regularly authorized terrestrial operations. The E040204 earth station has been coordinated with terrestrial licensees. As noted above, the E040204 license does not authorize transmission of an audio signal below 7056.8450 MHz, but transmission of a satellite command signal was coordinated and is authorized for frequencies in the 7042.6-7074.4 MHz range.⁹ XM Radio will not exceed the previously-coordinated power density parameters during the proposed testing.

⁸ See File No. SES-MOD-20101022-01324, grant-stamped Jan. 4, 2011, at Section B (authorizing transmissions of audio content and ancillary data in the frequency range 7056.8450-7074.8690 MHz).

⁹ See *id.* at Sections B and C.

Accordingly, no additional coordination should be required to permit earth station E040204 to temporarily use the 7055.89 MHz frequency for transmission of audio content during the brief period of the requested STA.¹⁰ In addition, and in any event, XM Radio will conduct all testing on a non-harmful interference basis, and will cease transmissions promptly in the event any harmful interference is caused by such operations.

XM Radio 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.

For the foregoing reasons, XM Radio respectfully requests special temporary authority for a period of 30 days commencing on August 14, 2012, to conduct the tests described herein. Grant of the requested authority will serve the public interest by facilitating XM Radio's

¹⁰ To the extent necessary, XM Radio seeks a waiver of Section 25.203(c) to permit temporary use of the 7055.89 MHz frequency for station E040204 to transmit audio content as described herein without the requirement to conduct a prior coordination with terrestrial licensees or applicants. Grant of a waiver is justified here because it would not conflict with the underlying purpose of the rule's coordination requirement. *See PanAmSat Licensee Corp.*, 17 FCC Rcd 10483, 10492 (Sat. Div. 2002) ("the Commission may grant a waiver of its rules in a particular case if the relief requested would not undermine the policy objective of the rule in question and would otherwise serve the public interest") (footnotes omitted). Here, the purpose of the rule is to avoid interference to terrestrial licensees, and that purpose is achieved because the antenna to be used has previously been coordinated with terrestrial licensees for the frequencies and power density levels proposed.

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 LLC

/s/ James S. Blitz

James S. Blitz

Vice President, Regulatory Counsel

XM Radio LLC

1500 Eckington Place, N.E.

Washington, D.C. 20002

(202) 380-4000

Of Counsel

Karis A. Hastings

SatCom Law LLC

1317 F Street, N.W., Suite 400

Washington, D.C. 20004

(202) 599-0975

Dated: July 23, 2012