

E080168 SES-STA-20140915-00731 IB2014001831
Sirius XM Radio Inc.

Approved by OMB
3060-0678

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:
E080168 Ellenwood GA STA for XM-2 TTC

1. Applicant

Name:	Sirius XM Radio Inc.	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		

File # SES-STA-20140915-00731

Call Sign E080168 **Grant Date** 12-18-14
(or other identifier)

Term Dates
From 12-18-14 **To:** 1-17-15

Approved: *James S. Blitz*

GRANTED
International Bureau

Applicant: Sirius XM Radio Inc.
Call Sign: E080168
File No.: SES-STA-20140915-00731
Special Temporary Authority (STA)

The stamp is a rectangular red ink stamp from the FCC International Bureau. It contains the following information: 'File No.' followed by 'SES-STA-20140915-00731' in blue ink; 'Call Sign' followed by 'E080168' in blue ink; '(or other identifier)'; 'Grant Date' followed by '12-18-14' in blue ink; 'Term Dates' followed by 'From 12-18-14' and 'To 1-17-15' in blue ink; and 'Approver's' followed by a handwritten signature in blue ink. The stamp also features the FCC seal and the words 'GRANTED International Bureau'.

Sirius XM Radio Inc. (Sirius XM) is granted STA for 30 days, under the following conditions, to temporary operate earth station, Call Sign E080168, which is co-located with earth station, Call Sign E040204, at Ellenwood, Georgia, located at 33° 39' 51.0" NL and 084° 16' 24.0" WL to conduct telemetry, tracking and control (TT&C) for XM Radio's XM-2 satellite (Calls Sign S2119) in preparation for removal to a disposal orbit. XM-2 satellite's permanent orbital location is 27° W.L. :

1. Command operation will be on 7049.0 MHz and 7074.0 MHz is subject to coordinated emission and power limits.
2. Telemetry operation will be on 2339.2 MHz, 2339.7 MHz, 2344.0 MHz, and 2344.5 MHz.
3. Sirius XM and XM radio will coordinate the XM-2 TT&C operations to ensure that no interference is caused to any of the companies' other in-orbit satellites.
4. Operations under this authority are on a non-interference basis only.
5. Operations under this authority are on a non-protected basis only.
6. Current 24/7 contact person for the XM-2 mission is: Intelsat Long Beach Satellite Operations Center: (310) 525-5590.
7. In the event that there is a report of interference, Sirius XM must immediately terminate transmissions and notify the FCC in writing.
8. Grant of this STA is without prejudice to any determination that the Commission may make regarding pending or future Sirius XM's applications.
9. Any action taken or expense incurred as a result of operations pursuant to this STA is solely at Sirius XM's risk.
10. Grant of this STA is without prejudice to any future FCC enforcement action in connection with any unauthorized operation of radio facilities.
11. 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.

2. Contact	
Name: Karis A. Hastings	Phone Number: 202-599-0975
Company: SatCom Law LLC	Fax Number:
Street: 1317 F Street, N.W., 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 CGX - Fixed Satellite Transmit/Receive Earth Station	
5. Type Request	
<input type="radio"/> Use Prior to Grant <input type="radio"/> Change Station Location <input checked="" type="radio"/> Other	
6. Requested Use Prior Date	
7. City: Ellenwood	
8. Latitude (dd mm ss.s h) 33 39 51.0 N	

9. State GA	10. Longitude (dd mm ss.h) 84 16 24.0 W
11. Please supply any need attachments. Attachment 1: STA 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.) Sirius XM Radio Inc. requests special temporary authority to use its Ellenwood, Georgia earth station (call sign E080168) to provide telemetry, tracking and control for the XM-2 satellite (call sign S2119).	
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. <input checked="" type="radio"/> Yes <input type="radio"/> 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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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.

REQUEST FOR SPECIAL TEMPORARY AUTHORITY

Sirius XM Radio Inc. (“Sirius XM”) hereby requests special temporary authority (“STA”) for a period of 30 days to permit its Ellenwood, Georgia earth station (Call Sign E080168) to provide telemetry, tracking and control (“TT&C”) for the XM-2 satellite licensed to Sirius XM’s affiliate, XM Radio LLC (“XM Radio”). Pursuant to Commission authority, XM-2 has been relocated to 27° W.L. in preparation for removal to a disposal orbit.¹ XM Radio expected to rely on Canadian-licensed earth stations in connection with this process but due to performance issues with those facilities, Sirius XM has had to use the E080168 antenna to communicate with XM-2. STA is required since that station’s license does not provide authority for all the frequencies required for the necessary operations. Continued use of the E089168 facility at the requested frequencies is critical to support the TT&C functionality needed to safely maintain XM-2 at its current position and to support orbit-raising in accordance with Commission requirements. Accordingly, Sirius XM seeks expedited action on this request.

Sirius XM will conduct TT&C operations for XM-2 in the satellite’s authorized bands:

Command: 7049.0 MHz and 7074.0 MHz

Telemetry: 2339.2 MHz, 2339.7 MHz, 2344.0 MHz, and 2344.5 MHz

In the XM-2 STA Request, XM Radio advised the Commission that it intended to rely on Canadian-licensed earth stations to perform TT&C during and after the satellite’s relocation to 27° W.L.² However, beginning soon after the relocation started in May, performance issues

¹ See *XM Radio LLC*, File No. SAT-STA-20140204-00018, Call Sign S2119 (“XM-2 STA Request”), grant-stamped Mar. 28, 2014 (authorizing extension of the XM-2 license term and permitting relocation of the satellite from 115.25° W.L. to 27° W.L. to prepare for orbit-raising maneuvers).

² See XM-2 STA Request, Narrative at 4.

arose with the Canadian antenna, and that facility was unable to provide the automated tracking capability needed to supply accurate ranging data from the satellite. This capability failed entirely in early June. Since these problems began, Sirius XM has been using the E080168 antenna to ensure that the XM-2 ranging information is correct. This involves transmitting to XM-2 on the command frequencies and receiving on the telemetry frequencies in order to accurately determine the satellite's position. At the time it commenced use of the antenna in May, Sirius XM believed that such operations were consistent with the terms of the E080168 license and only recently learned that was not the case.

Grant of the requested STA will not result in harmful interference to other authorized communications systems. Sirius XM and XM Radio hold exclusive rights to the S-band satellite digital audio radio service ("SDARS") frequencies used for telemetry. Sirius XM and XM Radio will coordinate the XM-2 TT&C operations internally to ensure that no interference is caused to any of the companies' other in-orbit satellites. No other satellite operators have been or will be affected by the proposed use of these telemetry frequencies.

Similarly, grant of this request should not cause harmful interference to existing or proposed terrestrial facilities operating in the X-band frequencies. The E080168 earth station has been fully coordinated in the X-band with terrestrial users. However, the upper command frequency for XM-2, 7074.0 MHz, is 1.5 MHz beyond the upper bound of the frequency range for which E080168 was coordinated, 7072.5 MHz. Although E080168 has not been coordinated for this frequency, the E080168 antenna is located at the same facility in Ellenwood as XM Radio's E040204 earth station,³ and the latter earth station has been coordinated with terrestrial licensees for the XM-2 TT&C frequencies proposed for use here. Accordingly, no additional

³ The coordinates for E080168 and E040204 are the same, and the E080168 antenna proposed for TT&C use is within approximately 80 meters of the closest E040204 antenna at the facility.

coordination should be required to permit temporary use of the E080168 antenna during the brief period of the requested STA.⁴

Sirius XM has previously used the E080168 antenna to communicate with satellites in the Sirius XM and XM Radio fleets, including using the 7074.0 MHz upper command frequency, to provide launch and early orbit phase (“LEOP”) services⁵ and has never received a complaint of interference from these operations. In the extremely unlikely event that harmful interference should occur due to transmissions to or from its earth station, Sirius XM will take all reasonable steps to eliminate the interference. The 24/7 contact person for the XM-2 mission is:

Intelsat Long Beach Satellite Operations Center: (310) 525-5590

Sirius XM 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, Sirius XM respectfully requests expedited grant of authority for use of the E080168 earth station to provide TT&C for XM-2.

⁴ To the extent necessary, Sirius XM seeks a waiver of Section 25.203(c) to permit temporary use of call sign E080168 for TT&C operations with XM-2 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 is co-located with facilities that have previously been coordinated with terrestrial licensees for the frequencies and power levels proposed.

⁵ *See, e.g., Sirius XM Radio Inc.*, File No. SES-STA-20101012-01280, Call Sign E080168, grant-stamped Oct. 14, 2010 (authorizing use of antenna to support LEOP services for XM-5 using TT&C frequencies that included 7074 MHz); *Sirius XM Radio Inc.*, File No. SES-STA-20130701-00562, Call Sign E080168, grant-stamped Sept. 27, 2013 (authorizing use of antenna to support LEOP services for FM-6).