

S2118 SAT-STA-20151006-00069 IB2015001833
XM Radio LLC
XM-1



File # SAT-STA-20151006-00069

Call Sign S2118 Grant Date 11/19/15

(or other identifier)

Term Dates period of
From 11/22/15 To: 180 days

Approved: *Stephen J. Duall*

Stephen J. Duall
Chief, Satellite Policy Branch

Approved by OMB
3060-0678

Date & Time Filed: Oct 6 2015 2:35:15:480PM
File Number: SAT-STA-20151006-00069
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-1 (S2118) Retirement STA Extension Oct 2015

1. Applicant

Name:	XM Radio LLC	Phone Number:	202-380-1383
DBA Name:		Fax Number:	202-380-4981
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-20151006-00069
Call Sign S2118

The application of XM Radio LLC (XM Radio) for special temporary authority, IBFS File No. SAT-STA-20151006-00069, is granted. Specifically, XM Radio is authorized, for a period of 180 days, commencing on November 22, 2015, to continue to conduct Telemetry, Tracking, and Command (TT&C) operations necessary to drift its Satellite Digital Audio Radio Service (SDARS) space station, XM-1 (Call Sign S2118), from its current orbital location of 115.25° W.L. to the 39.0° W.L. orbital location and to maintain it at that location with an east-west stationkeeping tolerance of +/- 0.1 degrees. XM Radio is authorized to conduct such TT&C operations using the following center frequencies: 2339.2 MHz, 2339.7 MHz, 2344.0 MHz, and 2344.5 MHz (space-to-Earth); 7049.0 MHz and 7074.0 MHz (Earth-to-space). Additionally, we grant XM Radio's request to operate beyond the current license term for the XM-1 space station during this 180-day period to allow XM Radio sufficient time to complete its planned maneuvers for XM-1 in preparation for the space station's removal to a disposal orbit.¹ All operations of the XM-1 space station must be in accordance with the technical specifications set forth in its application, XM-1's current authorization, the Commission's rules, and the conditions set forth below.

1. All operations under this grant of special temporary authority must be on an unprotected and non-harmful interference basis, i.e., XM Radio shall not cause harmful interference to, and must 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 under this grant of special temporary authority, XM Radio must cease operations immediately upon notification of such interference and shall immediately inform the Commission, in writing, of such an event.

3. XM Radio must coordinate the operations of XM-1 with existing geostationary space stations to ensure that no unacceptable interference results from its operations during drift to the 39.0° W.L. orbital location.

4. XM Radio must operate only the TT&C frequencies on XM-1 during the space station's drift to and operations at the 39.0° W.L. orbital location.

5. The Commission's previous grant of XM Radio's request for a waiver of Section 25.210(j) of the Commission's rules, 47 C.F.R. § 25.210, to allow operation of XM-1 at 39.0° W.L. with an east-west stationkeeping tolerance of +/- 0.1 degrees instead of the +/- 0.05 degree tolerance required by the rule will continue to apply for purposes of this special temporary authority. *See* IBFS File No.

¹ XM-1's authorization expired on May 31, 2014. XM Radio was previously granted special temporary authority for 180 days to perform these same maneuvers by drifting XM-1 to the 27.0° W.L. orbital position. *See* IBFS File No. SAT-STA-20140321-00033, granted Apr. 30, 2014. However, in light of the experience XM Radio gained while performing similar maneuvers for XM-1's companion space station, XM-2 (IBFS File No. SAT-STA-20140204-00018, granted Mar. 28, 2014), XM Radio proposed to drift XM-1 to 39° W.L. rather than 27° W.L., prior to commencing orbit raising maneuvers so that the westward drift of the space station that will occur during the planned orbit-raising maneuver will not take XM-1 out of the range of XM Radio's TT&C earth stations and thus lose control over the space station. *See* IBFS File No. SAT-STA-20141017-00110, granted Nov. 26, 2014, which also extended special temporary authority for 180 days to complete these orbit-raising maneuvers. XM-Radio requested and received another 180-day extension of that grant, which additionally sought authority to proceed with orbit-raising maneuvers pursuant to a revised orbital debris plan that is identical to the revised orbital debris plan proposed for the deorbit of its XM-2 space station. *See* IBFS File No. SAT-STA-20150317-00011, granted Apr. 30, 2015. *See also* IBFS File No. SAT-STA-20140922-00103, granted Sept. 26, 2014, wherein XM-2's revised orbital debris plan is detailed. We note that XM-2 has completed its deorbit maneuvers. *See* Letter from Karis A. Hastings, Counsel for XM Radio LLC, to Marlene H. Dortch, Secretary, FCC, (dated Oct. 30, 2014), available in IBFS File No. SAT-STA-20141017-00109. XM-Radio now requests a 180-day extension of the most recent grant of special temporary authority, IBFS File No. SAT-STA-20150317-00011, to complete these orbit-raising maneuvers, which were delayed due to earth station issues. *See* IBFS File No. SAT-STA-20151006-00069, Narrative at 2.


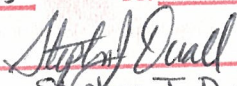
XM Radio LLC
IBFS File No. SAT-STA-20151006-00069
Call Sign S2118

SAT-STA-20141017-00110, granted Nov. 26, 2014. XM Radio was originally granted a waiver of Section 25.210(j) to permit XM-1 to operate with an east-west stationkeeping tolerance of +/- 0.1 degrees at 115.25° W.L. See IBFS File No. SAT-MOD-20101216-00262, granted Mar. 8, 2011. We grant this waiver for the same reasons as provided for the original grant at 115.25 W.L.

6. The Commission's previous grant of XM Radio's request for a waiver of Section 25.283(c) to operate XM-1 under a revised orbital debris mitigation plan will continue to apply for purposes of this special temporary authority. See IBFS File No. SAT-STA-20141017-00110, granted Nov. 26, 2014. We grant this waiver for the same reasons as provided for the previous grant.

7. Any action taken or expense incurred as a result of operations pursuant to this grant of special temporary authority is at XM Radio's own risk.

8. This action is taken on delegated authority pursuant to 47 C.F.R. § 0.261 and is effective upon release. Petitions for reconsideration under 47 C.F.R. § 1.106 or applications for review under 47 C.F.R. § 1.115 may be filed within 30 days of the date of the Public Notice announcing this action.

 GRANTED* International Bureau *with conditions	File # <u>SAT-STA-20151006-00069</u>
	Call Sign <u>S2118</u> Grant Date <u>11/18/15</u> (or other identifier)
	Term Dates <u>period of</u> From <u>11/22/15</u> To: <u>180 days</u>
	Approved: <u></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, 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 SATSTA2015031700011 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 checked="" type="radio"/> Extend Expiration Date <input type="radio"/> Other	
6. Temporary Orbit Location	7. Requested Extended Expiration Date 2016-05-20 00:00:00.0

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 extension of the special temporary authority it was granted in File No. SAT-STA-20150317-00011 to further extend the license term for the XM-1 (S2118) space station and permit maneuvers in preparation for retirement of the satellite.

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 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

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 Request of)
)
XM RADIO LLC) Call Sign S2118
)
For Extension of Special Temporary Authority)
For the XM-1 Space Station)

REQUEST FOR EXTENSION OF STA

XM Radio LLC (“XM Radio”) respectfully requests a 180-day extension, through May 20, 2016, of the special temporary authority (“STA”) granted in File No. SAT-STA-20150317-00011,¹ which extended the XM-1 satellite’s license term, authorized relocation of XM-1 in preparation for its retirement, and approved a revised orbital debris mitigation plan for the satellite. Grant of the requested authority will serve the public interest by facilitating the orderly retirement of XM-1.

In its request for the XM-1 STA, XM Radio described its plan to drift the satellite from 115.25° W.L. to 39° W.L., maintain the satellite temporarily at that location with an east-west stationkeeping tolerance of +/- 0.1 degrees while venting excess xenon and bi-propellant, and then raise the satellite to a disposal orbit.² XM Radio explained that under the projected schedule for these maneuvers, the drift of the satellite was expected to begin in mid-June 2015, and the orbit-raising maneuvers would then occur starting in mid-October 2015.³

¹ See *XM Radio LLC*, Call Sign S2118, File No. SAT-STA-20150317-00011 (the “XM-1 STA”), grant-stamped Apr. 30, 2015.

² See *XM Radio LLC*, Call Sign S2118, File No. SAT-STA-20150317-00011, Narrative at 3-4.

³ See *id.*

XM Radio was not able to maintain that schedule, however, due to circumstances beyond its control. As it has previously explained, XM Radio has access to limited ground resources that are equipped to communicate with its satellite fleet and have the tracking capabilities needed to support the satellite orbit raising and decommissioning process.⁴ As the scheduled date to begin the XM-1 drift approached, issues arose with earth stations outside the U.S. that XM Radio and its affiliates had planned on using to support fleet management and free up a tracking antenna for use with the XM-1 relocation. These issues could not be resolved in time to meet the scheduled date for the XM-1 drift commencement. As a result, the drift was rescheduled to start in October following completion of the fall eclipse season.

Pursuant to the updated schedule, XM Radio now plans to begin relocating XM-1 to 39° W.L. on or about October 15. Depending on how long the propellant venting takes, orbit raising maneuvers will begin between late February and late April 2016. The orbit raising is expected to take approximately two weeks.

⁴ See *XM Radio LLC*, Call Sign S2118, File No. SAT-STA-20141017-00110, Narrative at 2, grant-stamped Nov. 26, 2014.

In light of this delay in its plans for retirement of XM-1, XM Radio requests extension of the XM-1 STA for a further 180-day period. Grant of the requested extension of the XM-1 license term and relocation authority will allow XM Radio to relocate the spacecraft eastward, vent excess propellant, and remove the satellite to a disposal orbit. The current term of the XM-1 STA expires on November 22, 2015, and XM Radio requests action on this extension request in advance of that date, with authority for the period from November 22, 2015 to May 20, 2016.

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: October 6, 2015