

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of Applications by)	
)	
XM RADIO INC. and)	Call Signs S2786 & E040204
SIRIUS XM RADIO INC.)	Call Sign E080168
)	
For Special Temporary Authority to)	
Test XM-5 at 80° W.L.)	

REQUEST FOR SPECIAL TEMPORARY AUTHORITY

XM Radio Inc. (“XM Radio”) and Sirius XM Radio Inc. (“Sirius XM” and with XM Radio, the “Sirius XM Parties”), respectfully request space station and earth station special temporary authority (“STA”) for a period of up to 30 days to permit in-orbit testing (“IOT”) of the XM-5 space station at 80° W.L. using XM Radio’s and Sirius XM’s Ellenwood, Georgia earth stations. Specifically, the Sirius XM Parties request: (1) authority to perform Telemetry, Tracking and Control (“TT&C”) in order to position XM-5 at 80° W.L.; (2) authority to operate the TT&C and communications payloads of XM-5 at 80° W.L. during IOT; and (3) authority to perform TT&C in order to drift XM-5 to 85.2° W.L. following the completion of IOT. The call signs of the space station and earth stations for which STA is requested are listed in the caption above.

XM Radio is licensed to launch and operate XM-5 at 85.2° W.L. Grant of authority to perform IOT for XM-5 at 80° W.L. will serve the public interest by permitting testing to occur without disrupting existing services being provided from the nominal 85° W.L. orbital location. Launch of XM-5 is currently scheduled for October 14, and the Sirius XM Parties respectfully request action on the instant application to accommodate this schedule. The

Sirius XM Parties also request that the 30-day period of the STA commence ten days after launch of XM-5.

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-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.²

Testing of XM-5 will use XM Radio's earth station call sign E040204 on the frequencies for which the earth station and XM-5 are authorized, with uplinks in the X-band, 7056.8450-7074.8690 MHz, and downlinks in the S-band, 2332.5-2345.0 MHz.³ The payload testing transmissions from call sign E040204 will include intermittent use of an unmodulated carrier operating at the earth station's maximum authorized EIRP of 78 dBW.

Sirius XM's earth station call sign E080168 will be used to perform TT&C during the drifts to and from 80° W.L. and while XM-5 is being tested at that location. During the drift, the Sirius XM Parties will use only the TT&C frequencies authorized for XM-5.⁴ Because call sign E080168 is not currently authorized to operate on these specific frequencies, Sirius XM

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

² See *id.*

³ 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.

⁴ Telemetry carriers for XM-5 are at 2336.7, 2337.2, 2334.0, or 2342.5 MHz, RHCP, and command carriers are at 7043.0 MHz and 7074 MHz, LHCP.

requests special temporary authority to use these frequencies to communicate with XM-5 for the purposes of providing TT&C during the requested 30-day period.

The proposed TT&C and testing will not cause harmful interference to the operations of any other spacecraft. The Sirius XM Parties will follow industry practices for coordinating TT&C transmissions during relocation. If any interference occurs during the drift, the Sirius XM Parties will take all reasonable steps to eliminate it.

There are no satellites using either S-band or X-band frequencies within two degrees of 80° 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 and TT&C will also not result in harmful interference to regularly authorized terrestrial operations. Call sign E040204 has been fully coordinated with terrestrial licensees for the frequencies and EIRP levels proposed for use here, and the Sirius XM Parties will not exceed the previously-coordinated parameters during the proposed testing.

Call sign E080168 has been coordinated with terrestrial licensees for operations in the 7025-7072.5 MHz band with a geostationary satellite positioned at the nominal 96° W.L. orbital location. Although not contemplated in the original frequencies and orbital arc for which this station was coordinated, the temporary operation of call sign E080168 with XM-5 as proposed herein does not pose a material risk of interference. The E080168 antenna is located at the same facility in Ellenwood as call sign E040204, and as noted above, that station has been fully coordinated with terrestrial licensees for the frequencies and EIRP levels proposed for use here. The TT&C transmissions using the antenna licensed under E080168 will take place in frequencies and at power levels for which E040204 has been coordinated. Accordingly, no

additional coordination should be required to permit temporary use of the E080168 antenna during the brief period of the requested STA.⁵ In addition, and in any event, the Sirius XM Parties 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 and Sirius XM hereby certify 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.

⁵ To the extent necessary, the Sirius XM Parties seek a waiver of Section 25.203(c) to permit temporary use of call sign E080168 for TT&C operations with XM-5 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.

For the foregoing reasons, XM Radio and Sirius XM respectfully request special temporary authority for a period of up to 30 days commencing ten days after launch of XM-5 to test XM-5 and perform associated TT&C functions. 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

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