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September 2, 2021

FILED ELECTRONICALLY

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
45 L Street N.E.
Washington, D.C. 20554

**Re: XM Radio LLC STA Request for Testing XM-5 in WCS Bands
Call Sign S2786, File No. SAT-STA-20210802-00093**

Dear Ms. Dortch:

XM Radio LLC (“XM Radio”), by its attorney and pursuant to Section 1.65 of the Commission’s rules, 47 C.F.R. § 1.65, hereby updates the record regarding the above-referenced request for special temporary authority (the “XM-5 STA Request”) by providing additional information regarding the proposed operations. As described herein, grant of the XM-5 STA Request will serve the public interest by facilitating evaluation of how XM-5 capacity can support delivery of public safety communications by the Federal Emergency Management Agency (“FEMA”) and validating XM Radio’s ability to provide this service once all regulatory approvals are obtained.

Background: XM Radio is seeking authority for XM-5, an in-orbit spare satellite digital audio radio service (“SDARS”) spacecraft at 85.15° W.L., to use the Wireless Communications Service (“WCS”) C and D Block spectrum that is immediately adjacent to the SDARS band, 2315-2320 MHz and 2345-2350 MHz. XM Radio’s modification application to add these WCS bands to the XM-5 license is pending before the Commission,¹ and no party has objected to that request. The testing that XM Radio will conduct under the XM-5 STA Request is necessary in advance of the service that XM Radio intends to provide to FEMA pursuant to the XM-5 Modification and is also wholly different from that service.

Both the XM-5 STA Request and XM-5 Modification relate to a transaction in which XM Radio’s parent company Sirius XM Radio Inc. (“Sirius XM”) has received Commission consent to acquire the WCS licenses for the C and D Block frequencies from AT&T Mobility Spectrum LLC and other affiliated entities (collectively, “AT&T”).² Sirius XM and AT&T explained that the license assignment would enable use of WCS spectrum to offer satellite capacity that public

¹ See XM Radio LLC, Call Sign S2786, File No. SAT-MOD-20210618-00082 (the “XM-5 Modification”). A public notice accepting the XM-5 Modification for filing was issued on July 9. See *Satellite Policy Branch Information, Space Station Applications Accepted for Filing*, Report No. SAT-01565, July 9, 2021. No comments were filed in response to this public notice.

² See *Sirius XM Radio Inc.*, ULS File Nos. 0009368515, 0009368531, and 0009368523 (consented to Jan. 19, 2020).

safety agencies such as FEMA can rely on to enhance their communications capabilities during and after natural disasters and other emergencies.

XM Radio previously requested and received authority to perform initial testing of XM-5's capabilities in order to validate the feasibility of the planned public safety offering.³ The testing performed under the XM-5 April STA allowed XM Radio to confirm that a single satellite could provide adequate coverage of the contiguous United States ("CONUS") by positioning receivers at select locations throughout CONUS. XM Radio did not receive any interference complaints or other indications that this initial testing caused concerns to any entity, either domestic or international.

At the time XM Radio conducted this initial testing, FEMA had not yet defined the specific objectives for its planned use of WCS spectrum capacity, nor had it communicated its desired operational configuration or receive locations. FEMA subsequently supplied XM Radio and the Commission with additional information regarding its short- and longer-term plans for providing a public safety service using satellite-based WCS transmissions, including service requirements and technical parameters. FEMA and XM Radio's technical teams have also been engaged in an ongoing dialogue to further ensure compatibility between FEMA's needs and XM Radio's capabilities for this service. Based on this additional information, XM Radio seeks grant of the XM-5 STA Request to allow it to conduct further testing in conjunction with FEMA so that XM Radio can better assess the feasibility of operating XM-5 in the configurations and to the locations that will satisfy FEMA's specifications for the public safety services that it hopes to provide using this satellite.

Scope and Timing of Planned Testing: FEMA's initial priority for use of the WCS spectrum is to supplement the Emergency Alert System ("EAS") by using satellite delivery of alerts to Primary Entry Point ("PEP") stations. To test this capability, XM Radio proposes to transmit FEMA-supplied content via XM-5 to up to ten PEP locations designated by FEMA that will be equipped with SDARS terminals that Sirius XM has specifically modified for this purpose. This end-to-end testing of the network will provide ground measurements to confirm that the XM-5 satellite transmissions and the modified receivers will fully support FEMA's service delivery requirements.

Sirius XM personnel needed to configure the XM-5 satellite network to perform the planned tests will next be available on or about September 22, once they have completed other time-critical work related to the recently launched SXM-8 spacecraft. XM Radio requests grant of the XM-5 STA Request by that date to permit testing of the public safety applications that XM-5 can support over WCS spectrum to proceed without unnecessary delay.

XM Radio has requested STA for a period of 60 days in order to provide flexibility given the need to accommodate FEMA's scheduling constraints, which are beyond XM Radio's control and are based in part on the availability of FEMA personnel in light of then-current emergency activities. However, XM Radio does not propose to operate for longer than 30 days once the testing is able to commence.

During the testing period, XM-5 will be transmitting the FEMA content to its WCS-enabled receivers on a 24/7 basis, which is necessary to develop valid test data. XM Radio will immediately turn off all operations, however, in the event that any party reports harmful

³ See XM Radio LLC, Call Sign S2786, File No. SAT-STA-20210406-00045, granted Apr. 29, 2021 (the "XM-5 April STA").

interference. In addition to confirming that XM-5 can meet FEMA's requirements for public safety service, XM Radio anticipates that the testing will provide additional empirical evidence that the WCS spectrum use can occur without creating harmful interference concerns. This information should also prove valuable to the Commission's ongoing efforts to obtain cross-border consents from Canada and Mexico in connection with this proposed service.

XM Radio requests that the Commission update its records to reflect this additional information regarding the parameters of the XM-5 STA Request and seeks expedited grant of the request to enable testing of critical public safety capabilities that can be supported by XM-5 operations.

Please address any questions regarding this matter to the undersigned.

Respectfully submitted,

/s/ Karis A. Hastings

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