

**REQUEST FOR SPECIAL TEMPORARY AUTHORITY**

XM Radio Inc. (“XM Radio”)<sup>1</sup>, a satellite digital audio radio service (“SDARS”) licensee, hereby requests special temporary authority (“STA”) for a period of 60 days to add the XM-5 satellite, Call Sign S2616, at 85.2° W.L.<sup>2</sup> as a point of communication for XM Radio’s Washington, D.C. and Ellenwood, Georgia earth stations, Call Signs E000158 and E040204 (the “XM Earth Stations”), and to permit the XM Earth Stations to communicate with the XM-2 satellite, Call Sign S2119, after the planned relocation of the spacecraft from 85.217° W.L. to 115.25° W.L.<sup>3</sup> STA is sought pending action on applications to modify the XM Earth Station licenses to add XM-5 as a point of communication and to reflect the planned relocations of XM-2 and other satellites in XM Radio’s fleet.<sup>4</sup> Grant of the STA will serve the public interest by facilitating XM Radio’s introduction of new back-up capacity to ensure service continuity. XM Radio seeks action on this request by November 22 to accommodate the schedule for deployment of XM-5.

XM-5 is licensed to serve as an in-orbit spare satellite for both the XM Radio and Sirius XM fleets. XM-5 was launched successfully on October 14, and is currently undergoing in-orbit testing (“IOT”) at 80° W.L.<sup>5</sup> Following the completion of IOT, the satellite will be

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<sup>1</sup> XM Radio is a wholly-owned subsidiary of Sirius XM Radio Inc. (“Sirius XM”).

<sup>2</sup> See File No. SAT-LOA-20090217-00025 (Call Sign S2786), grant-stamped Aug. 31, 2009.

<sup>3</sup> XM Radio’s application for modification of the XM-2 license to reassign the spacecraft to 115.25° W.L. is currently pending before the Commission. See File No. SAT-MOD-20101001-00205, Call Sign S2119 (the “XM-2 Modification”). The XM-2 Modification appeared on public notice as accepted for filing on October 8. See Report No. SAT-00726 (Oct. 8, 2010) at 1.

<sup>4</sup> See File Nos. SES-MOD-20101022-01323 (E000158) & SES-MOD-20101022-01324 (E040204).

<sup>5</sup> XM Radio received special temporary authority for its feeder link earth stations, Call Signs E000158 and E040204, to communicate with XM-5 for IOT and to perform TT&C while the

drifted to its assigned orbital location, 85.2° W.L. XM Radio currently expects the satellite to arrive at 85.2° W.L. no earlier than November 22.

XM-2 is an existing in-orbit spare for the XM Radio fleet positioned at 85.217° W.L. In connection with the launch of XM-5, XM Radio plans to rearrange its satellite fleet. Specifically, with the imminent deployment of XM-5 to 85.2° W.L. orbital location, XM Radio plans to relocate XM-2 from 85.217° W.L. to 115.25° W.L. The proposed relocation of XM-2 will eliminate any overlap of the assigned stationkeeping volumes of XM-5 and XM-2, facilitating safe operation of the spacecraft. At 115.25° W.L., XM-2 will be collocated with XM-4, and XM Radio will later be seeking authority to move its XM-1 spacecraft to 115.25° W.L. as well. XM Radio proposes to operate these three spacecraft in formation in an expanded stationkeeping volume at 115.25° W.L.<sup>6</sup> The fleet changes will allow XM Radio to efficiently use its spacecraft to ensure service reliability for over 35 million listeners to XM Radio and Sirius XM.

Accordingly, XM Radio requests that the Commission permit the XM Earth Stations to communicate as necessary for feeder link communications and Telemetry, Tracking and Control (“TT&C”) with XM-5 at 85.2° W.L. and with XM-2 after it arrives at 115.25° W.L. The Commission has generally permitted satellite operators the flexibility to design and modify their networks in response to customer requirements, provided there are no compelling

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satellite is located at 80° W.L. and during the drifts to and from the IOT location. *See* File Nos. SES-STA-20100917-01176 (E040204); SES-STA-20100917-01175 (E080168), both grant-stamped Oct. 13, 2010.

<sup>6</sup> The Commission has already authorized the relocation of XM-4 to 115.25° W.L. and its operation with a +/-0.1 degree east-west stationkeeping tolerance. *See* File No. SAT-MOD-20100722-00165 (Call Sign S2616), grant-stamped Oct. 14, 2010.

countervailing public interest considerations.<sup>7</sup> The requested STA will allow XM Radio to use the XM Earth Stations to communicate with XM-5 and with XM-2 after its proposed relocation, as part of a plan to enhance the overall reliability of the Sirius XM network.

Grant of the requested authority will not adversely affect other authorized communications systems. The S-band frequencies used by XM Radio are not shared with other licensees except for XM Radio's affiliate Satellite CD Radio. In the X-band frequencies, the XM Earth Stations have been fully coordinated with other spectrum users.<sup>8</sup>

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<sup>7</sup> See, e.g. *AMSC Subsidiary Corporation*, 13 FCC Rcd 12316 at ¶ 8 (IB 1998) (the Commission generally leaves space station design decisions to the licensee "because the licensee is in a better position to determine how to tailor its system to meet the particular needs of its customers.") (footnote omitted).

<sup>8</sup> Coordination reports were submitted in support of the applications for modification of the XM Earth Station licenses, File Nos SES-MOD-20101022-01323 (E000158) & SES-MOD-20101022-01324 (E040204).