

## REQUEST FOR SPECIAL TEMPORARY AUTHORITY

SpaceX Services, Inc. (“SpaceX Services”), pursuant to Section 25.120 of the Commission’s rules, hereby requests Special Temporary Authority (“STA”) to operate its gateway earth station for up to 60 days to communicate with the second generation (“Gen2”) non-geostationary orbit (“NGSO”) satellite system operated by its sister company, Space Exploration Holdings, LLC (“SpaceX”). SpaceX Services currently has an application pending for one E-band earth station, located in Arvin, CA.<sup>1</sup> It would operate the earth station under the requested STA with the technical characteristics set forth in the associated pending application. The only frequencies used for these operations during the time the STA is in effect would be in the 71-76 and 81-86 GHz bands.

The requested STA would permit SpaceX Services to communicate with Gen2 satellites to test its gateway earth station to confirm its operational status; to evaluate the overall performance of the Gen2 network of space stations and earth stations; and to meet rapidly growing demand from consumers for high-speed, low-latency broadband service that can exceed existing Ka-band gateway capacity. Such operations will ensure that these critical facilities have been fully tested, integrated, and prepared to support the growing Gen2 system. Accordingly, the STA will serve the public interest by supporting the preparation and use of an integral component of an NGSO satellite system that can bring high-capacity, low-latency broadband service to underserved and unserved areas of the country.

SpaceX Services will operate on a non-interference basis. To protect existing terrestrial users in the band, SpaceX will observe the technical limits, including power flux-density (“PFD”) limits, set forth in the pending Gen2 space station application<sup>2</sup> and the underlying earth station application. Further, for the limited purpose of this STA, SpaceX will observe the interference criteria established in ITU-R RS.2017-0 for protection of passive systems in the 86.0-92.0 GHz band.<sup>3</sup> In this way, SpaceX will ensure that these temporary operations cause no material interference to government-operated EESS systems in adjacent bands. However, by adopting that limit for this STA, SpaceX does not concede that any specific out-of-band limit is the most efficient or appropriate mechanism to protect adjacent EESS systems.

In addition, SpaceX Services has completed frequency coordination for the proposed earth station site with non-federal terrestrial users, providing additional assurance that it can operate on a non-interference basis. In the extremely unlikely event that harmful interference should occur due to transmissions to or from its earth station, SpaceX Services will take all reasonable steps to

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<sup>1</sup> The IBFS file number for the earth station application is IB2022004357.

<sup>2</sup> See Application for Approval of Orbital Deployment and Operating Authority for the SpaceX Gen2 NGSO Satellite System, IBFS File No. SAT-LOA-20200526-00055, Attachment A and Schedule S (May 26, 2020); Amendment, IBFS File No. SAT-AMD-20210818-00105, Attachment A and Schedule S (Aug. 18, 2021).

<sup>3</sup> See *Performance and interference criteria for satellite passive remote sensing*, ITU-R RS.2017-0, Table 2 (Aug. 2012), [https://www.itu.int/dms\\_pubrec/itu-r/rec/rs/R-REC-RS.2017-0-201208-I!!PDF-E.pdf](https://www.itu.int/dms_pubrec/itu-r/rec/rs/R-REC-RS.2017-0-201208-I!!PDF-E.pdf).

eliminate the interference. Should an issue arise, SpaceX Services can be reached at [satellite-operators-pager@spacex.com](mailto:satellite-operators-pager@spacex.com), which links to the pagers of appropriate technical personnel 24/7.