

June 12, 2019

BY ELECTRONIC FILING

Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, DC 20554

Re: *Space Exploration Holdings, LLC, IBFS File Nos. SAT-LOA-20161115-00118 and SAT-MOD-20181108-00083*

Dear Ms. Dortch,

This letter is to inform the Commission that SpaceX has initiated communications between spacecraft in its non-geostationary orbit (NGSO) satellite system and licensed earth stations located within the United States. As such, SpaceX has demonstrated that its NGSO satellite system is the first among those licensed in the Commission's recent Ku-/Ka-band processing round to have launched space stations capable of operating in the Ku- frequency band in the United States. Pursuant to the default procedures set out by the Commission in 47 C.F.R. §25.261, SpaceX has met the conditions for first choice in the U.S. for its Ku-band "home base" radio frequencies in the event of in-line interference with another NGSO operator. Moreover, SpaceX has also satisfied its International Telecommunication Union (ITU) requirements by requesting coordination from other NGSO systems operating in the Ku-band in the Commission's Ku-/Ka-band processing round.

SpaceX has First Choice of Home Base Spectrum During In-Line Events in the United States

SpaceX has satisfied the conditions set out in 47 C.F.R. §25.261 as the first Ku-band NGSO satellite system in the current Ku-/Ka-band processing round to operate, meaning that it now has first choice to select Ku- band frequencies during in-line events in the United States. Specifically, a SpaceX space station has communicated with its authorized earth stations with directional antennas in the United States.¹

The Commission directed as part of its *NGSO Update Order* that all NGSO operators should attempt good faith negotiations with an aim towards accommodating both systems.²

¹ As a preliminary step, SpaceX applied for and was granted on November 16, 2017, an experimental authorization for the launch and operation of two initial satellites (Microsat-2a and Microsat-2b) over the course of two years. See Call Sign WI2XTA, File No. 0298-EX-CN-2016 (granted Nov. 16, 2017). SpaceX has been in continuous contact with these satellites using Ku-band frequencies since launching these satellites on February 22, 2018.

² See *Update to Parts 2 and 25 Concerning Non-Geostationary, Fixed-Satellite Service Systems and Related Matters*, 32 FCC Rcd. 7809, ¶ 48 (2017).

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Accordingly, SpaceX has requested coordination from all other NGSOs operating in the Ku-band in its processing round. Should these coordination negotiations remain ongoing once both systems begin operating, the Commission requires spectrum band-splitting when the $\Delta T/T$ of an interfered link exceeds 6 percent. In those circumstances, the Commission specified that the system that has first choice of home base spectrum is the one that (1) has launched a space station, and (2) is capable of operating in the frequency band under consideration. Critically, the Commission limited the scope of this rule only to those NGSO FSS operators with earth stations with directional antennas anywhere in the world under a Commission license, or in the United States under a grant of U.S. market access. The scope of this rule makes clear that to be considered “capable of operating,” an operator must not only launch satellites but must also communicate with a U.S.-licensed earth station in the specific frequency band.

SpaceX is the first NGSO system to have satisfied both of the conditions of this rule with respect to the Ku-band, enabling it to select its frequencies first in the event of an in-line event with another NGSO system.

SpaceX has Satisfied its ITU Coordination Obligation by Requesting Coordination with NGSO Providers

SpaceX also confirms that it has requested coordination with all Ku-band NGSO systems in its processing round, meeting ITU coordination requirements. Specifically, the Rules of Procedure for Article 9 of the ITU Radio Regulations require that NGSO operators initiate coordination with earlier filed systems. These procedures referring to dates of filing and ITU “priority date” are sometimes incorrectly interpreted as conferring spectrum rights based on date of filing, but this claim is not reflected in actual ITU provisions.

SpaceX will notify all other NGSO systems licensed in the Ku-/Ka-band round and operating in Ku-band frequencies of its first-to-operate status in the U.S. SpaceX remains optimistic that all NGSO system operators will engage in good faith coordination in a timely manner. As a U.S. licensee, SpaceX intends to keep the Commission apprised of its progress in coordination discussions.

Please do not hesitate to contact me with any other questions.

Sincerely,



Patricia Cooper
Vice President, Satellite Government Affairs
Space Exploration Technologies Corp.