

REQUEST FOR SPECIAL TEMPORARY AUTHORITY

Telesat Canada (“Telesat”), pursuant to Section 25.120 of the Commission’s rules, hereby requests an extension of Special Temporary Authority (“STA”),¹ for a period of one hundred and eighty (180) days, to operate two earth stations - one located in Pompano Beach, Florida and the other located in Melbourne, Florida - to conduct loop-back tests with Telesat’s non-geostationary orbit (“NGSO”) low earth orbit satellite, LEO 1.

LEO 1 was launched in January 2018 and is currently in its final mission orbit of 99.5° (circular) at an altitude of 1000 km. Telesat seeks to continue to operate pursuant to its STA and in accordance with the technical parameters that were specified in Telesat’s Petition for Declaratory Ruling to Grant Access to the U.S. Market for Telesat’s NGSO Constellation (“PDR”), including Schedule S thereto, which was granted by the Commission by *Order and Declaratory Ruling*, released November 3, 2017.² STA operations will be limited to two of the bands covered by the PDR, *i.e.*, 28.6-29.1 GHz (Earth-to-space) and 18.8-19.3 GHz (space-to-Earth), which the Commission’s Ka-band plan allocates on a primary basis to NGSO operations.

Operations pursuant to the original STA have provided valuable information, and Telesat seeks additional time to test, validate, and demonstrate certain design features of LEO-1, including antenna tracking, RF performance, and end-to-end network performance. These continued operations will set the stage for providing highly innovative broadband services in the United States. Grant of Telesat’s STA request, therefore, is in the public interest.

Telesat’s original application included a detailed orbital debris assessment report prepared by NXTRAC for LEO 1, confirming compliance with U.S. government orbit

¹ See *Telesat Canada, Request for Special Temporary Authority for 30 days to Test, Validate and Demonstrate Communications with LEO-1 Satellite*, IBFS File No. SES-STA-20190604-00724, granted August 7, 2019.

² FCC 17-147. Telesat’s PDR and the associated grant are hereby incorporated by reference.

lifetime and orbital debris mitigation regulations. It also included a radiation hazard study for each earth station. Both reports are incorporated herein by reference.³

As indicated above and in Telesat's original request, operations are limited to the portions of the Ka-band in which NGSO operations have primary status. Accordingly, EPFD limits are inapplicable. Telesat has completed coordination of its extended STA operations with the U.S. federal government under footnote US334⁴ of the United States Table of Frequency Allocations.⁵ Telesat will share ephemeris data in accordance with Section 25.146(e) of the Commission's rules. With regard to matters of physical coordination, there are no operators using similar orbits.

Accordingly, for good cause as shown herein, Telesat requests extension of its STA request.

³ See note 1 at Attachment 2 and 3.

⁴ Telesat continues to discuss the applicability of US334 with the Commission and is coordinating with the federal government out of an abundance of caution.

⁵ Telesat notes that it answered question E18 in the Schedule B provided in Attachment 2a and 2b of its original request as "No" (i.e., that frequency coordination is not required) based on its understanding that the question relates to non-federal government coordination requirements, if any.