

From: Steven Hemple

To: Leann Nguyen

Date: May 14, 2021

Subject: Request for Info - File # 0264-EX-ST-2021

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Message:

The requested antenna patterns have been submitted as Exhibit G to the application. However, a clarification of the application of 25.209 to earth stations in an NGSO system is requested since the rule states in (a) the earth stations described are operating in the FSS and transmitting to a GSO satellite. This request for STA applies to earth stations communicating only to satellites in an NGSO system.

With respect to protecting other satellite systems in the 28.6 – 29.1 GHz band as stated in Section III (24) of the “Order and Declaratory Ruling” for IBFS file number SAT-PDR-20161115-00108, Telesat’s NGSO system and by extension the associated earth stations operating in the network:

“...permit avoidance of interference to other NGSO FSS systems in the 18.8-19.3 GHz, and 28.6-29.1 GHz bands, also permit avoidance of interference in the 17.8-18.6 GHz, 19.7-20.2 GHz, 27.5-28.6 GHz, and 29.5-30 GHz bands. Thus, because Telesat’s particular system design enables sharing by avoiding interference events in all requested bands, division of available spectrum would be unnecessarily restrictive. Grant of a waiver in this instance will not undermine the purpose of section 25.157(e), since we recently adopted changes to the Commission’s rules that will apply a spectrum sharing mechanism to all NGSO FSS systems that have sharing capabilities (e.g., directional earth station antennas), regardless of the frequency bands used.”

Further, the GAT 5530 antenna will, per Section V (27)(a) of the “Order and Declaratory Ruling”, “...comport with all existing and future space station coordination agreements reached between Canada and other administrations. In the absence of a coordination agreement, such communications [will] comport with applicable provisions of the ITU Radio Regulations.”

With regard to the operation of the GAT 5530 in the skew plane, we request additional clarification. In a general sense, the skew plane is typically measured with respect to the GSO arc. In this request the earth stations will be communicating with NGSO satellites which are primary in the band. However, at all times the earth station will operate in accordance with any coordination agreement reached between Canada and other administrations’ GSO satellites.