

WAIVER REQUEST

Section 25.264(c) requires licensees of and applicants for 17/24 GHz BSS space stations to submit measured transmitting antenna off-axis antenna gain information over the angular ranges and frequencies as specified in 25.264(a) no later than nine months prior to launch. Measured data is to be collected under conditions as close to flight configuration as possible, though the Commission has specifically recognized that this exercise may be conducted with “the use of simulated spacecraft components.”¹ In addition, Section 25.264(d) provides that, no later than nine months prior to launch, a 17/24 GHz BSS applicant or licensee must provide PFD calculations based upon the measured transmitting antenna off-axis gain information.

To the extent necessary, DIRECTV hereby requests a waiver of these requirements.

Granting the requested waiver would be consistent with Commission policy.

The Commission may waive a rule for good cause shown. Waiver is appropriate if special circumstances warrant a deviation from the general rule and such deviation would better serve the public interest than would strict adherence to the general rule. Generally, the Commission may grant a waiver of its rules in a particular case if the relief requested would not undermine the policy objective of the rule in question and would otherwise serve the public interest.²

The criteria justifying a waiver are clearly present in this case. First, the spacecraft carrying DIRECTV RB-79W is scheduled to be launched next month. Accordingly, because DIRECTV did not previously seek a license to operate in this frequency band, it

¹ See 47 C.F.R. § 25.264(a); *Establishment of Policies and Service Rules for the Broadcasting-Satellite Service at the 17.3-17.7 GHz Frequency Band and at the 17.7-17.8 GHz Frequency Band Internationally, and at the 24.75-25.25 GHz Frequency Band for Fixed Satellite Services Providing Feeder Links to the Broadcasting-Satellite Service and for the Satellite Services Operating Bi-directionally in the 17.3-17.8 GHz Frequency Band*, 26 FCC Rcd. 8927, ¶ 50 (2011).

² *PanAmSat Licensee Corp.*, 17 FCC Rcd. 10483, ¶ 22 (Int’l Bur. 2002) (footnotes omitted).

could not have presented the measured data and performed the associated PFD calculation more than nine months prior to launch.³

Second, the measured data was obtained by the satellite manufacturer, Orbital ATK, using the actual measured performance of the transmit feed, the known characteristics of the actual transmit antenna, and the known characteristics of the east side spacecraft panel as inputs to a detailed scattering analysis to generate measured far off-axis performance results. Unlike far off-axis measurements taken for other 17/24 GHz BSS space stations, this approach avoided mechanical restrictions that in past cases have prevented satellite manufacturers from providing data over the entire angular range specified in Section 25.264. In addition, DIRECTV notes that it now has experience with multiple spacecraft manufacturers, all of whom maintain that, at the far off-axis angles specified in Section 25.264, the antenna feed itself is the main contributor to radiation. The fact that the initially predicted performance agrees so well with the measured performance generated through use of feed measurements and a detailed scattering analysis supports this contention.

Accordingly, grant of the requested waiver would not undermine the policy objective of the rule in either sense, and would serve the public interest by enabling DIRECTV to make immediate productive use of valuable spectrum and orbital resources using a 17/24 GHz BSS payload that is already constructed and nearing launch. For the foregoing reasons, DIRECTV

³ DIRECTV notes that in connection with securing authority to construct and launch this reverse band payload on the DIRECTV KU-79W satellite, it presented worst-case calculations to show that the likely off-axis gain and resulting PFD levels would comply with the Commission's requirements. *See* Grant Stamp, IBFS File No. SAT-MOD-20130718-00096, at 2-3 (Mar. 12, 2014). At that time, the Commission granted a waiver and recognized that DIRECTV would have to supply all information necessary to comply with Section 25.264 in the event that it sought operational authority for the 17/24 GHz BSS payload. *Id.*

requests that it be granted a waiver of Section 25.264 of the Commission's rules to the extent necessary.