

WAIVER REQUESTS

Pursuant to Section 1.3 of the Commission’s rules, the Commission may waive its rules for good cause shown.¹ “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,” including “more effective implementation of overall policy.”² In determining whether waiver is appropriate, the Commission should “take into account considerations of hardship, equity, or more effective implementation of overall policy.”³ As shown below, there is good cause for the Commission to grant a waiver, to the extent necessary, of Section 25.114(a)(1) due to various limitations in the Commission’s Schedule S.

As required by the Commission’s rules,⁴ SpaceX has submitted with this application a completed Schedule S, which contains certain technical information in a prescribed form. However, SpaceX has found that it cannot accurately describe its system in certain respects due to limitations in Schedule S itself. Below we discuss five aspects of the proposed modified V-band system and how the Schedule S was completed under these constraints. To the extent necessary, SpaceX requests that the Commission waive these aspects of Schedule S in light of these limitations.⁵

First, it is impracticable to submit complete orbital parameter data for the proposed modified V-band system using the Schedule S web form. Moreover, and notably, SpaceX does

¹ 47 C.F.R. § 1.3. *See also WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969); *Ne. Cellular Tel. Co. v. FCC*, 897 F.2d 1164 (D.C. Cir. 1990).

² *GE American Communications, Inc.*, 16 FCC Rcd. 11038, ¶ 9 (IB 2001) (quoting *WAIT Radio*, 418 F.2d at 1159).

³ *WAIT Radio*, 418 F.2d at 1159.

⁴ *See* 47 C.F.R. § 25.114(a)(1).

⁵ The Commission has previously granted similar requests where SpaceX implemented a workaround for each of the limitations it identified in Schedule S. *See, e.g., Space Exploration Holdings, LLC*, 34 FCC Rcd. 12307, ¶ 17 (IB 2019).

not seek to change the orbital characteristics of the satellites on which the V-band payloads will be deployed, namely the satellites in the currently authorized second-generation non-geostationary orbit (“NGSO”) Fixed-Satellite Service (“FSS”) system (“Gen2 system”).⁶ Accordingly, SpaceX has provided only a sample of its information in the electronic version of Schedule S for inclusion in the record of this application for modification.

Second, Section 25.114(c)(4)(v) requires both the minimum and maximum saturation flux density (“SFD”) values for each space station receive antenna that is connected to transponders. The concept of SFD only applies to “bent pipe” satellite systems, and thus is not relevant to the V-band system. However, the Schedule S software does not allow an entry of “not applicable.” Instead, it requires a numerical entry for SFD, which must be different for the maximum and minimum values. In order to accommodate this requirement, SpaceX has entered values of “0” and “-0.1” in Schedule S with respect to these parameters.

Third, Schedule S requires entry of the begin and end angle for the active service arc with respect to the ascending node for each orbital plane. All satellites in the proposed V-band system will be active for their entire orbital period. However, Schedule S does not permit entry of more than two digits for the active service arc end angle, making it impossible to enter the correct value of 360 degrees. Accordingly, SpaceX has entered a value of “0” to denote full-arc service.

Fourth, SpaceX intends to operate at three different orbital altitudes. However, the very limited range of orbital altitudes would not yield materially different contours. Accordingly, rather than provide all possible contours as contemplated by Section 25.114(c)(4)(vi)(B), SpaceX has provided a set of representative contours for satellites at an operating altitude of 530 km. SpaceX can supply the remaining contours to the Commission upon request.

⁶ See *Space Exploration Holdings, LLC*, FCC 22-91 (rel. Dec. 1, 2022) (“Gen2 Authorization”). To the extent necessary, SpaceX hereby incorporates by reference the relevant orbital parameters from that application.

Fifth, V-band beams used by SpaceX satellites will be divided into small channels that, depending on utilization and other factors, may be bonded into larger channels. However, Schedule S only permits entry of a single, static channel plan. Accordingly, SpaceX has provided an example of one possible channel plan on Schedule S.