

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of	)	File No. ____
	)	
Planet Labs PBC	)	Call Sign S2912
	)	
Application to Modify License	)	

APPLICATION FOR MODIFICATION

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MODIFICATION APPLICATION

Planet Labs PBC (“Planet”) hereby requests authority from the Federal Communications Commission (“Commission”), under 47 C.F.R. § 25.117, to modify Planet’s satellite license (Call Sign S2912) to include the launch and operation of Planet’s next-generation “Pelican” satellites to be operated in conjunction with Planet’s Skysat and Flock satellites.¹ Specifically, Planet requests authorization to launch and operate a fleet of up to thirty-two (32) technically identical, simultaneously operating satellites, and up to ninety-six (96) technically identical satellites over the course of a fifteen-year license term. The Pelican satellites will use the following frequencies:

- S-band (2025-2110 MHz Earth-to-space);
- X-band (8025-8400 MHz space-to-Earth);
- Ka-band (25.5-27.0 GHz space-to-Earth); and
- C-band (4000-4200 MHz space-to-space (GEO to LEO) and 6225-6425 MHz space-to-space (LEO to GEO)).

This application includes an ODAR, Schedule S, and Technical Appendix, which provide relevant technical information for the next-generation Pelican satellites.

¹ See Stamp Grant, IBFS File No. SAT-MOD-20200615-00076, Call Sign S2912 (granted Mar. 18, 2021); *see also* Stamp Grant, IBFS File No. SAT-MOD-20170713-00103, Call Sign S2912 (granted Jul. 19, 2018); Stamp Grant, IBFS File No. SAT-MOD-20170317-00053, Call Sign S2862 (granted Jun. 28, 2017).

Allowing Planet to supplement its imaging constellation with the next-generation Pelican satellites will enhance and extend the operations of the company's imaging capabilities and service and product offerings to customers. For these reasons, Planet submits that grant of the application is in the public interest and requests that the International Bureau ("Bureau") approve the application in time for the targeted launch date of the first Pelican satellite scheduled for early 2023.

Background

Planet is an integrated aerospace and data analytics company that operates a constellation of Earth-Exploration Satellite Service ("EESS") or Earth-imaging satellites collecting information about our changing planet. Planet is driven by its mission to image the entire Earth every day, and make global change visible, accessible, and actionable. Founded in 2010, Planet designs, builds, and operates small satellites, as well as online platforms that serve data to users, helping decision-makers solve our world's toughest challenges, and entrepreneurs to build new businesses. In December 2021, Planet completed a transaction which took the company public and provided access to hundreds of millions in additional funds, which will allow the company to further develop its satellite constellation and expand its satellite imaging products and services to better serve its commercial and government customers.² Planet is headquartered in San Francisco, California. For more information, visit <https://www.planet.com>.

As part of its satellite constellation, Planet operates the SkySat satellites. The satellites operate in the S-band (2025-2110 MHz Earth-to-space) and X-band (8025-8400 MHz space-to-

² See Stamp Grant, IBFS File No. SES-ASG-20211103-01792, Call Signs E140109, E150004, E150005, E150030 (granted Nov. 5, 2021); Stamp Grant, IBFS File No. SAT-ASG-20211102-00137, Call Sign S2912 (granted Nov. 5, 2021).

Earth) frequencies.³ Twenty-one SkySat satellites are currently in orbit, following the launch of SkySats 19-21 aboard the SpaceX Falcon 9 in August 2020.⁴ The SkySat satellites provide high-resolution (sub-meter) imagery and can provide regular, rapidly updated snapshots of select areas of the globe that can be used in applications for monitoring supply chain changes in commodities and shipping, or tracking mineral mining and extraction, among many other use cases.

Planet also operates a fleet of smaller 3U Flock satellites, which are authorized under the same license.⁵ The Flock satellites operate in the UHF (401-402 MHz space-to-Earth; 449.75-450.25 MHz Earth-to-space), S-band (2025-2110 MHz Earth-to-space), and X-band (8025-8400 MHz space-to-Earth) frequencies. The Flock satellites image the entire Earth daily, providing medium-resolution imagery that can be used in applications such as mapping and agricultural monitoring. Together, the complementary imagery and diverse capabilities of the SkySat and Flock satellites allow Planet to better serve the needs of its customers.

Planet has commenced construction of its next-generation Pelican satellites. The Pelican satellites are designed to operate in very low-Earth-orbit (“VLEO”), *i.e.*, at an altitude around 325 km.⁶

³ See Stamp Grant, IBFS File No. SAT-MOD-20200615-00076, Call Sign S2912 (granted Mar. 18, 2021); *see also* Stamp Grant, IBFS File No. SAT-MOD-20170317-00053, Call Sign S2862 (granted Jun. 28, 2017).

⁴ See Mike Safyan, *SkySat Constellation Complete: SkySats 19-21 Successfully Launch Aboard The SpaceX Falcon 9* (Aug. 18, 2020), <https://www.planet.com/pulse/skysats-19-21-success-spacex-falcon-9/>.

⁵ See Stamp Grant, IBFS File No. SAT-MOD-20200615-00076, Call Sign S2912 (granted Mar. 18, 2021); *see also* Stamp Grant, IBFS File No. SAT-MOD-20170713-00103, Call Sign S2912 (granted Jul. 19, 2018).

⁶ As discussed in the Technical Appendix, the Pelicans will be launched as secondary payloads, and will generally operate for a brief period in the insertion/commissioning orbit before transitioning to the target operational orbit around 325 km. Technical Appendix at 1-2.

The Pelican fleet will improve upon and eventually replace Planet’s existing SkySat fleet as the new satellites come online and as the SkySats reach their end of life. With an operational fleet of Pelican satellites, Planet will have the capability to capture very high-resolution images with more frequent image revisit times and reduced reaction time and latency. The Pelican satellites will broaden Planet’s ability to capture quick, emerging events in finer detail and will be especially well suited for customers in sectors where fast, accurate insights matter most. The Pelican satellites will operate in the S-band (2025-2110 MHz Earth-to-space), X-band (8025-8400 MHz space-to-Earth), Ka-band (25.5-27.0 GHz space-to-Earth), and C-band (4000-4200 MHz and 6225-6425 MHz space-to-space) frequencies. Planet will operate a fleet of up to thirty-two (32) technically identical, simultaneously operating Pelican satellites, and up to ninety-six (96) technically identical Pelican satellites in total over the course of a fifteen-year license term.⁷

Planet plans to launch its first Pelican satellite in early 2023, with further launches likely to occur in batches. On July 20, 2020, Planet received a license from the National Oceanic and Atmospheric Administration (NOAA) for the remote sensing operations of the Pelican satellites.

Discussion

I. Request to Modify License to Include the Next-Generation Pelican Satellites

Planet requests authority to modify its license to allow for the launch and operation of the Pelican satellites. The Pelican satellites are non-geostationary orbit (“NGSO”), EESS satellites that function as part of an integrated satellite imaging system with Planet’s Skysat and Flock satellites.

⁷ Planet expects that the nominal lifetime for each Pelican satellite will be approximately five years.

A. Public Interest Considerations

Commission decisions provide satellite operators with significant flexibility to modify their operations. As the International Bureau has explained:

[T]he Commission attempts, when possible, to leave spacecraft design decisions to the space station licensee because the licensee is in a better position to determine how to tailor its system to meet the particular needs of its customers. Consequently[,] the Commission will generally grant a licensee's request to modify its system, provided there are no compelling countervailing public interest considerations.⁸

Here, grant of the requested modification will serve the public interest by allowing Planet to deploy new functionality for its imaging satellite system. Allowing the company to deploy its next-generation satellites and to use additional frequencies to support new capabilities will facilitate Planet's ability to provide better service and product offerings to its customers. With respect to the use of the C-band frequencies for intersatellite links ("ISLs"), as discussed herein, grant will greatly improve the image tasking responsiveness of the Pelican satellites and allow the company to meet the growing demand for time-sensitive, high-resolution imagery of emerging events around the world in a cost-effective manner. Such increased capabilities will also enhance competition and expand U.S. capabilities in the market for commercial remote sensing data.

B. Spectrum Use

i. S-band/X-band/Ka-band EESS Frequencies

The S-band (2025-2110 MHz), X-band (8025-8400 MHz), and Ka-band (25.5-27.0 GHz) frequency bands each have allocations internationally and in the U.S. for EESS use. Specifically, the 2025-2110 MHz (Earth-to-space) band is allocated for non-Federal EESS use, subject to conditions as may be applied on a case-by-case basis and the limitation that any use

⁸ *AMSC Subsidiary Corp., Order and Authorization*, 13 FCC Rcd. 12,316, 12,318 ¶ 8 (IB 1998) (footnote omitted).

may not cause harmful interference to authorized Federal and non-Federal operations.⁹ The 8025-8400 MHz (space-to-Earth) band is allocated for non-Federal EESS use on a primary basis. The 25.5-27.0 GHz (space-to-Earth) band is similarly allocated for non-Federal EESS use on a primary basis.¹⁰ Because the Pelican satellites are Earth imaging satellites, use of these frequency bands is consistent with the international and domestic frequency allocations. Indeed, Planet's current system comprised of the SkySat and Flock satellites is authorized to operate on the S-band and X-band EESS frequencies.¹¹

Spectrum sharing in the proposed EESS frequencies will be possible because the Pelican satellites and satellites in other similar systems transmit/receive only in short periods of time while visible to a receiving/transmitting earth station. For harmful interference to occur, satellites belonging to the different systems would have to be visible to the Earth station and transmitting or receiving using the same frequencies at the exact same time. In such an unlikely event, the resulting inline interference could be avoided by coordinating the satellite transmissions so that they do not occur simultaneously. Accordingly, there is no mutual exclusivity between the Pelican satellites and other EESS (or similar) systems using the same frequency bands.

⁹ See 47 C.F.R. § 2.106 n.US347. The 2025-2110 MHz (Earth-to-space) band is also allocated to space operations internationally. 47 C.F.R. § 2.106.

¹⁰ The 8025-8400 MHz and 25.5-27.0 GHz (space-to-Earth) frequency bands are subject to an electromagnetic compatibility analysis as may be applied on a case-by-case basis. 47 C.F.R. § 2.106 n.US258.

¹¹ Planet's S-band and X-band operations for Pelican will be on different channels than those used for SkySat and Flock operations in order to avoid self-interference and facilitate simultaneous operation of multiple satellites over the same ground station where relevant.

As described in the attached Technical Appendix, Planet will also comply with technical requirements in Part 2 of the Commission's rules and applicable ITU rules and complete coordination with the Federal operators as required.¹²

ii. C-band Intersatellite Links

Planet requests authority to include supplementary image tasking and confirmation communications links on the Pelican satellites using the conventional C-band Fixed Satellite Service ("FSS") frequencies on a non-conforming basis. Specifically, Planet requests to use the 4000-4200 MHz link for transmissions from geostationary orbit ("GSO") FSS satellites to the Pelican satellites (GEO to LEO), and the 6225-6425 MHz link for transmission from the Pelican satellites to the GSO FSS satellites (LEO to GEO). The frequencies requested are allocated for primary use for FSS (space-to-Earth) and FSS (Earth-to-space), respectively, by non-Federal operators. The Pelican satellites will communicate with existing and authorized C-band GSO FSS satellites operated by SES, an authorized GSO satellite operator. As discussed below, Planet requests a waiver of the Commission's rules to use these frequencies.

These links will enable Planet to implement a near real-time satellite image tasking capability (*i.e.*, the ability to instruct satellites to capture images and then to transmit those images to the ground in near real-time) to complement its regular tasking operations in other frequencies, greatly enhancing the image tasking responsiveness (on the order of minutes rather than hours) of the Pelican satellites and allowing the company to meet the growing demand for time-sensitive, high-resolution imagery of emerging events around the world in a cost-effective manner. As discussed in the Technical Appendix, Planet's proposed C-band use is limited and

¹² See Technical Appendix at 12-22.

will not cause harmful interference to authorized operations, and Planet will accept any interference from existing and future systems authorized to use the C-band spectrum.¹³

C. Orbital Debris Mitigation

Planet has conducted an Orbital Debris Assessment Report (“ODAR”) in compliance with NASA-STD-8719.14, which is attached as a separate exhibit (Exhibit D). As discussed in the submitted ODAR, the Pelican system is compliant with all applicable orbital debris requirements.

Planet confirms that the Pelican satellites will not undergo any planned release of debris during normal operations. In addition, all separation and deployment mechanisms and any other potential source of debris, will be retained by the spacecraft. Planet has also assessed the probability of the space station becoming a source of debris by collision with small debris or meteoroids of less than one centimeter in diameter that could cause loss of control and prevent post-mission disposal. Planet has taken steps to limit the effects of such collisions through shielding, the placement of components, and the use of redundant systems and concludes that small debris penetration will not cause the satellite to break up. Planet also concludes that, even if a satellite lost function due to small debris penetration, the risk to other operators is low given that the spacecraft will re-enter in less than 13 years in all cases for all proposed altitudes even from an inert, uncontrolled state, and in less than 1 year from the nominal operational altitude of 325 km (which is below the International Space Station).

Planet has assessed and limited the probability of accidental explosions during and after completion of mission operations through a failure-mode verification analysis. As part of the satellite manufacturing process, Planet has taken steps to ensure that debris generation will not

¹³ See *id.* at 9-12, 16-17, 19-22.

result from the conversion of energy sources on board the satellite into energy that fragments the satellite. All sources of stored energy onboard the spacecraft will have been depleted or safely contained when no longer required for mission operations or post-mission disposal.

Planet has assessed and limited the probability of the space station becoming a source of debris by collisions with large debris or other operational spacecraft to less than 0.001 using the DAS v3.2.1 and calculation methods provided in NASA-STD-8719.14C, section 4.5.4. Planet will work closely with its launch providers to ensure that the satellite is deployed in such a way as to minimize the potential for in-plane collision. This specifically includes minimizing the potential for collision with crewed spacecraft.

Planet has routinely worked with the relevant International Space Station parties to assess and manage close approaches for many years and anticipates continuing to do so for Pelican flight operations. Planet has established automated processes that monitor conjunction data messages for potential close approaches that initiate collision avoidance maneuver planning. Planet also routinely screens and adjusts all maneuvers to minimize conjunction probability prior to scheduling their upload and execution on spacecraft. The ODAR demonstrates that the Pelican satellites will successfully deorbit naturally by atmospheric re-entry within 13 years from any planned orbit, and less than 1 year for the planned operational orbit, well within the 25-year guideline.

Additionally, the Pelican satellites will maintain a propulsion system and have the ability to make collision avoidance and deorbit maneuvers using propulsion. Planet certifies that upon receipt of a space situational awareness conjunction warning, Planet will review and take all possible steps to assess the collision risk, and will mitigate the collision risk if necessary, including contacting the operator of any active spacecraft involved in such a warning; sharing

ephemeris data and other appropriate operational information with any such operator; and modifying space station attitude and/or operations. Planet works with launch vehicle providers to obtain early injection vectors to positively identify spacecraft. It also relies on active tracking data from the 18th Space Control Squadron (“18SPCS”) and LeoLabs for early operational identification. During routine operations, Pelican will perform orbit determination autonomously and transmit its ephemeris and identification to the ground.

In support of Planet’s in-orbit actions, Planet works closely with the 18SPCS for space situational awareness (“SSA”) and the mitigation of potential conjunction events, including discussions in advance of satellite deployments and other activities. Planet receives conjunction data messages (“CDMs”) from the 18SPCS for potential collision events, which includes a time of closest approach (“TCA”) estimate, a miss distance estimate, state vector and covariance information, from which a probability of a collision (“PoC”) and uncertainty can be determined. Planet also has a SSA Sharing Agreement with USSTRATCOM, which results in expanded screening volumes for any 18SPCS warnings. Further, Planet actively participates in the Space Data Association, which assesses all conjunction warnings from the 18SPCS for satellites belonging to member organizations. These proactive efforts to share information facilitate the ability of others to assess potential conjunctions and further minimize collision risk.

Planet’s ODAR is attached as Exhibit D. The disclosure of the orbital deployment parameters, orbital plane inclination, and the orbital period to be used can assist third parties in identifying potential problems. This information also lends itself to coordination between Planet and other operators located in similar orbits to Planet’s satellites.

II. Waiver Requests

The Commission may waive any of its rules if there is “good cause” to do so.¹⁴ In general, waiver is appropriate if: (1) “special circumstances warrant a deviation from the general rule;” and (2) “such deviation would better serve the public interest than would strict adherence to the rule.”¹⁵ Generally, the Commission will 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.¹⁶ For the reasons stated below, Planet submits that good cause exists to waive the following rules or requirements.

A. C-band Frequencies (4000-4200 MHz space-to-space (GEO to LEO) and 6225-6425 MHz space-to-space (LEO to GEO))

Planet requests any necessary waiver of the U.S. Table of Frequency Allocations¹⁷ to permit use of C-band FSS frequencies on a non-conforming basis for intersatellite service (“ISS”), as described above. Waivers of the U.S. Table of Frequency Allocations are generally granted “when there is little potential for interference into any service authorized under the Table of Frequency Allocations and when the nonconforming operator accepts any interference from authorized services.”¹⁸ As discussed in the Technical Appendix, Planet’s proposed use of the C-band frequencies in VLEO is limited to space-to-space communications and will not cause

¹⁴ See 47 C.F.R. § 1.3; *Northeast Cellular Tel. Co. v. FCC*, 897 F.2d 1164 (D.C. Cir. 1990); *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969).

¹⁵ See, e.g., *GE American Communications, Inc.*, 16 FCC Rcd. 11,038, at 11,041 ¶ 9 (IB 2001).

¹⁶ See, e.g., *WAIT Radio*, 418 F.2d at 1157.

¹⁷ 47 C.F.R. § 2.106.

¹⁸ *The Boeing Company, Order and Authorization*, 16 FCC Rcd. 22,645, at 22,651 ¶ 12 & n.48 (IB & OET 2001) (citing *Fugro-Chance, Inc., Order and Authorization*, 10 FCC Rcd. 2860, at 2860 ¶ 2 (IB 1995); *Motorola Satellite Communications, Inc., Order and Authorization*, 11 FCC Rcd. 13,952, at 13,956 ¶ 11 (IB 1996)).

harmful interference to existing or future authorized operations on the ground or in orbit. In addition, Planet will accept any interference from existing and future systems authorized to use the C-band spectrum. Grant of the waiver and this application will enhance Planet's ability to respond more quickly to image tasking requests in a cost-effective manner. Accordingly, grant of a waiver to allow use of C-band frequencies for ISS, as proposed in this application, is warranted.

i. C-band Downlink Filing Freeze

Planet requests any required waiver of the Commission's public notice and/or C-band order placing a filing freeze on C-band space-to-Earth applications.¹⁹ The purpose of the filing prohibition is to avoid complicating the transition process with respect to the reallocation of a portion of the conventional C-band frequencies from FSS to mobile services.²⁰ Planet's proposed use of the C-band downlink frequencies will be for GEO-to-LEO transmissions, and as demonstrated in the Technical Appendix, will not impact the terrestrial transition. Further, Planet will operate only in spectrum allocated for satellite use (*i.e.*, 4000-4200 MHz and 6225-6425 MHz) on SES's C-band GSO FSS satellites already authorized or granted market access by the Commission. For these reasons, the proposed use will not cause harmful interference to any authorized users.²¹ In any event, Planet's use will also be on an unprotected, non-interference basis with respect to authorized C-band operations, and Planet will cease transmissions upon notice of any harmful interference from its proposed operations. Accordingly, the purpose of the

¹⁹ See *Notification of Temporary Filing Freeze on New Fixed-Satellite Service Space Station Applications in the 3.7-4.2 GHz Band*, Final Action, 83 Fed. Reg. 40155 (Aug. 14, 2018); *Expanding Flexible Use of the 3.7 to 4.2 GHz Band*, Report and Order and Order of Proposed Modification, 35 FCC Rcd. 2343, at 2407-08 ¶¶ 150-152 (rel. March 3, 2020) ("*C-band Order*").

²⁰ See *C-band Order* ¶ 152.

²¹ See Technical Appendix at 16-17, 19-22.

filing freeze would not be undermined by grant of this waiver request and approval of the modification application.²²

ii. Use of C-band Frequencies for Image Tasking Commands and Confirmation

As discussed in the Technical Appendix, Planet will use the C-band FSS frequencies for image tasking commands and confirmation responses, not to control and monitor the positioning of the Pelican satellites. However, in the event that the Commission considers these image tasking-related functions as telemetry, tracking, and command (“TT&C”) operations, Planet requests any necessary waiver of Section 25.202(g), which limits space station operators to TT&C links in the same frequency bands as their primary service operations.²³ The Commission has explained that its TT&C placement policy is intended “to simplify the coordination process for satellite systems, to provide an incentive for an operator to maximize the efficiency of its system’s TT&C operations, and to minimize the constraints placed on other satellite operations.”²⁴ The proposed C-band use will conform to the coordination agreements applicable to the geostationary satellites used and will not limit use of the frequencies by other authorized operators. Under these circumstances, grant of any required waiver of Section 25.202(g) is justified.

B. Modified Processing Round Rules

Planet requests that this application be processed pursuant to the first-come, first-served procedure adopted for “GSO-like satellite systems” under Section 25.158 of the Commission’s

²² See, e.g., Stamp Grant, Space Logistics, LLC, IBFS File No. SAT-LOA-20191210-00144 (granted March 25, 2020) (granting Space Logistics LLC a waiver of C-band filing freeze, *inter alia*, because the proposed use does not implicate the concerns that prompted the freeze).

²³ 47 C.F.R. § 25.202(g).

²⁴ *Orbcomm License Corp.*, 23 FCC Rcd. 4804, 4811 ¶ 20 (IB & OET 2008).

rules.²⁵ To the extent necessary to allow for such processing, Planet also requests waiver of Sections 25.156 and 25.157 of the Commission’s rules, which stipulate the processing of “NGSO-like satellite systems” under a modified processing round framework.²⁶

The Commission previously granted waiver of the modified processing round requirement with respect to Planet’s SkySat and Flock satellites,²⁷ as well as with respect to numerous other EESS operators.²⁸ The Commission concluded that authorizing Planet to operate in its requested EESS frequency bands would not preclude other NGSO operators from operating in those bands.²⁹ Even though this modification requests additional EESS spectrum use in the Ka-band, other operators are not precluded from using the frequency band under the same sharing and coordination conditions as with the current authorization, and therefore, the Commission should similarly grant Planet a waiver of Sections 25.156 and 25.157 for the modifications proposed herein.³⁰ With respect to the proposed use of the C-band frequencies for ISS, Planet will use the frequencies as a customer of the authorized operator and, accordingly, initiating a processing round would be unnecessary and inappropriate.

²⁵ 47 C.F.R. § 25.158.

²⁶ 47 C.F.R. §§ 25.156 and 25.157.

²⁷ See Stamp Grant, Planet Labs Inc., IBFS File No. SAT-MOD-20200615-00076 (granted Mar. 18, 2021); Stamp Grant, Planet Labs Inc., IBFS File No. SAT-MOD-20170713-00103 (granted Jul. 18, 2019); Stamp Grant, Skybox Imaging, Inc., IBFS File No. SAT-LOA-20120322-00058 (granted Sept. 20, 2012); Stamp Grant, Skybox Imaging Inc., IBFS File No. SAT-MOD-20150408-00019 (granted Aug. 31, 2016); Stamp Grant, Planet Labs Inc., IBFS File No. SAT-MOD-20150802-00053 (granted Sept. 15, 2016); see also *DigitalGlobe, Inc.*, 20 FCC Rcd. 15696, 15701 (2005).

²⁸ See, e.g., Stamp Grant, Astro Digital U.S., Inc., IBFS File No. SAT-LOA-20170508-00071 (granted in part Aug. 1, 2018); Stamp Grant, Astro Digital U.S., Inc., IBFS File No. SAT-LOA-20170508-00071 (granted in part Dec. 14, 2017).

²⁹ See *supra* note 27.

³⁰ See *supra* note 27.

C. Default Service Rules

Planet requests a waiver of the default service rules under Section 25.217(b) of the Commission's rules.³¹ The Commission has not adopted band-specific rules for the services Planet proposes to provide. Additionally, the Commission has previously granted a waiver of the default service rules to NGSO EESS applicants based on the fact that the operators are required to comply with technical requirements in Part 2 of the Commission's rules and applicable ITU rules.³² In these cases, the Commission concluded that, because the cited requirements had been sufficient to prevent harmful interference, there was no need to impose additional technical requirements on operations in that band and, therefore, granted the waiver requests. These same reasons warrant waiver of the default service rules here.

D. Milestone and Bond Requirements

Planet requests waiver of the Commission's milestone and bond requirements for NGSO systems.³³ Planet already operates a fleet of both Flock and SkySat satellites operating on nearly all of the same frequencies, and accordingly there should be no concerns regarding speculation or spectrum warehousing. Further, Planet anticipates launch for its first Pelican satellite in early 2023, and additional satellites are expected to be deployed in blocks thereafter. Finally, Planet does not seek mutually exclusive use of the spectrum used, as discussed above. Accordingly,

³¹ 47 C.F.R. § 25.217.

³² See *Space Imaging, LLC, Declaratory Order and Order and Authorization*, 20 FCC Rcd. 11,964 ¶¶ 26-31 (2005); *DigitalGlobe, Inc., Order and Authorization*, 20 FCC Rcd. 15696 ¶¶ 1, 15 (2005); see also Stamp Grant, Planet Labs Inc., IBFS File No. SAT-MOD-20170713-00103 (granted Jul. 18, 2019); Stamp Grant, Planet Labs Inc., IBFS File No. SAT-MOD-20150802-00053 (granted Sept. 15, 2016); Stamp Grant, Planet Labs, Inc., IBFS File No. SAT-LOA-20130626-00087 (granted Dec. 3, 2013); Stamp Grant, Skybox Imaging, Inc., IBFS File No. SAT-LOA-20120322-00058 (granted Sept. 20, 2012); Stamp Grant, Spire Global Inc., IBFS File No. SAT-LOA-20151123-00078 (granted in part Mar. 18, 2016).

³³ See 47 C.F.R. §§ 25.164, 25.165.

there can be no concerns about speculation or spectrum warehousing, and there is no basis to impose the milestone or bond requirements.

In similar situations for many EESS or similar providers, the Commission has waived the milestone and bond requirements and conditioned such licenses on the authorization with respect to the applicable satellites becoming null and void if at any time after the initial deployment of satellites there are no satellites operating as part of the authorized constellation.³⁴ Planet would accept a license grant with such a condition applicable to the Pelican fleet.

For these reasons, Planet submits that waiver of the milestone and bond requirements is justified.³⁵

E. Form 312 Schedule S Requirements

Planet requests a limited waiver of section 25.114(c) of the Commission's rules, which requires certain information to be filed in the Schedule S. Some of these categories (*e.g.*, max/min saturation flux density, antenna pointing error, and antenna rotational error) are inapplicable and/or do not permit the entry of correct values. In such cases, Planet has provided placeholder data (*i.e.*, "0.0" or "-999.9") in the Schedule S to complete the form. Strict application of the rules here is unnecessary to serve the purposes of the rules, which is to ensure that the Commission has all the relevant information necessary to evaluate the application.

³⁴ See, *e.g.*, Stamp Grant, Planet Labs Inc., IBFS File No. SAT-MOD-20200615-00076, at Condition 13 (granted Mar. 18, 2021); Stamp Grant, Planet Labs Inc., IBFS File No. SAT-MOD-20170713-00103, at Condition 14 (granted Jul. 18, 2019); Stamp Grant, Planet Labs Inc., IBFS File No. SAT-MOD-20150802-00053, at Condition 14 (granted Sept. 15, 2016); Stamp Grant, Spire Global, Inc., IBFS File No. SAT-LOA-20151123-00078, at Conditions 6-7 (granted in part Jun. 16, 2016).

³⁵ In the event the Commission denies this waiver request, Planet affirms that it will comply with the bond requirement.

Given that Planet has provided all relevant information in the narrative, Technical Appendix, and Schedule S, waiver of certain Schedule S requirements is appropriate.³⁶

III. International Telecommunication Union Filing

Planet is preparing the International Telecommunication Union Advance Publication Information submission for the proposed modification of its system and will provide an electronic file with this information to the Bureau. Attached as Exhibit B is an ITU cost-recovery letter associated with this application.

³⁶ See 47 C.F.R. § 1.3; *see, e.g.*, Stamp Grant, ViaSat, Inc., SAT-LOI-20140204-00013 (granted Jun. 18, 2014) (waiving Schedule S requirements because they were found to be unnecessary for the space station application).

Conclusion

For the reasons set out above, Planet respectfully requests modification of its license, as discussed above.

Respectfully submitted,

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