

File # SAT-MOD-20191217-00148

Call Sign 52862 Grant Date March 16, 2020

(or other identifier)

Term Dates

From see conditions To: see conditions

Approved by OMB  
3060-0678



Date & Time Filed: Dec 17 2019 5:26:40:060PM  
File Number: SAT-MOD-20191217-00148

Approved: [Signature]  
John W. Winkler  
Acting Chief  
Satellite Policy Branch

FCC APPLICATION FOR SPACE AND EARTH STATION:MOD OR AMD - MAIN FORM  
FCC Use Only

FCC 312 MAIN FORM FOR OFFICIAL USE ONLY

APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:  
Modify orbital location for SkySats 16-21 and orbital altitude for SkySat 3

1-8. Legal Name of Applicant

<b>Name:</b>	Planet Labs Inc.	<b>Phone Number:</b>	415-225-9550
<b>DBA Name:</b>		<b>Fax Number:</b>	
<b>Street:</b>	645 Harrison Street	<b>E-Mail:</b>	adonica.wada@planet.com
<b>City:</b>	San Francisco	<b>State:</b>	CA
<b>Country:</b>	USA	<b>Zipcode:</b>	94107
<b>Attention:</b>	Adonica Wada		-

## ATTACHMENT TO GRANT

Planet Labs Inc.

IBFS File No. SAT-MOD-20191217-00148

<b>IBFS File No(s):</b>	SAT-MOD-20191217-00148	<p><b>GRANTED – With Conditions</b></p>  <p><b>International Bureau Satellite Division</b></p>
<b>Licensee/Grantee:</b>	Planet Labs Inc.	
<b>Call Sign:</b>	S2862	
<b>Satellite Name:</b>	SkySat constellation	
<b>Orbital Location: (required station-keeping tolerance)<sup>1</sup></b>	NGSO at altitudes between 400 km and 630 km and inclinations between 85 and 100 degrees (SkySats 1 and 2), 97.0 and 97.9 degrees (SkySats 3-21); approximately 400 km to 420 km between 40.0 and 60.0 degrees (SkySats 16-21 alternative orbit).	
<b>Administration:</b>	United States of America	
<b>Nature of Service:</b>	Earth Exploration Satellite Service	
<b>Scope of Grant:</b>	<p>Modification of the specified operational orbital altitude range for SkySat-3 to include altitudes down to 400 km.</p> <p>Modification of the specified orbital locations for SkySat-16 to SkySat-21 satellites to include the inclination range of 40.0 degrees to 60.0 degrees in addition to the inclination range of 97.0 degrees and 97.9 degrees.</p>	
<b>Previous Grant(s):<sup>2</sup></b>	<p>Authority to construct, deploy and operate two satellites, SkySat-1 and SkySat-2, in high-inclination circular orbits. <i>See</i> IBFS File No. SAT-LOA-20120322-00058 (granted Sept. 20, 2012).</p> <p>Authority to construct, deploy, and operate SkySat-3. <i>See</i> IBFS File No. SAT-MOD-20150408-00019 (granted in part and deferred in part June 10, 2016).</p> <p>Authority to construct, deploy and operate 12 additional satellites, SkySat-4 through SkySat-15, in circular orbits with altitudes from 400 to 630 km, depending on the launch vehicle used, and with inclination ranging between 97 and 97.9 degrees. <i>See</i> IBFS File No. SAT-MOD-20150408-00019 (granted Aug. 31, 2016).</p> <p>Authorization to deploy and operate up to six additional non-geostationary orbit remote-sensing satellites, SkySat-16 through SkySat-21, in circular orbits with altitudes from 400 to 630 km, depending on the launch vehicle used, and with inclination ranging between 97 and 97.9 degrees. <i>See</i> IBFS File No. SAT-MOD-20170317-00053 (granted June 29, 2017).</p>	
<b>Service Area(s):</b>	Global. <i>See</i> Schedule S Tech Report and Exhibit 43 at 39-74.	
<b>Frequencies:</b>	8025-8400 MHz (space-to-Earth) (remote sensing data and telemetry) 2025-2110 MHz (Earth-to-space) (command)	

<sup>1</sup> The specified orbits are for the normal operating range for the SkySat satellites. This grant also includes authority for operations immediately post-launch, and for operations to raise the orbit to an orbit within the normal operating range. For SkySats 16-21 the specified initial orbit is at an approximate altitude of 190 by 380 kilometers. File No. SAT-MOD-20191217-00148, Exhibit A at 1-2. This grant also covers radio-frequency operations at altitudes below 400 km as necessary to complete post-mission disposal.

<sup>2</sup> This document is intended to supersede prior grant documents and serve as the current authorization for SkySats 1-21.

## ATTACHMENT TO GRANT

Planet Labs Inc.

IBFS File No. SAT-MOD-20191217-00148

**Unless otherwise specified herein, operations under this grant must comport with the legal and technical specifications set forth by the applicant or petitioner and with Federal Communication Commission's rules not waived herein.**

1. Planet Labs must prepare the necessary information, as may be required, for submission to the International Telecommunication Union (ITU) to initiate and complete the advance publication, coordination, due diligence, and notification process for these space stations, in accordance with the ITU Radio Regulations. Planet Labs will be held responsible for all cost-recovery fees associated with ITU filings. No protection from interference caused by radio stations authorized by other administrations is guaranteed unless coordination and notification procedures are timely completed or, with respect to individual administrations, by successfully completing coordination agreements. Any radio station authorization for which coordination has not been completed may be subject to additional terms and conditions as required to effect coordination of the frequency assignments of other administrations. *See* 47 CFR § 25.111(b).
2. Power flux-density from operation of the SkySat-1 through SkySat-21 space stations in the 8025-8400 MHz band must not exceed the limits in No. 22.5 or Table 21-4 of the International Telecommunication Union's Radio Regulations or the limits in ITU-R Recommendation SA-1157. Planet Labs must also take into account the information in ITU-R Recommendation SA-1810.
3. Operations pursuant to this authorization must not cause harmful interference to stations operating in the 2025-2110 MHz band in accordance with the U.S. Table of Frequency Allocations. *See* 47 CFR § 2.106, Footnote US347.
4. Operations pursuant to this authorization must be in compliance with the terms of a Memorandum of Agreement between Planet Labs and the National Aeronautics and Space Administration (NASA) pertaining to operation in the frequency band 8025-8400 MHz.
5. Transmissions of remote-sensing and telemetry data in the 8025-8400 MHz frequency band may only be made to and when within line of sight of the earth stations approved for such transmissions under the existing Memorandum of Agreement between Planet Labs and NASA, or any successor agreement.
6. Given the opportunity for additional entrants to operate in Planet Labs' requested frequency bands, we grant Planet Labs' request for a waiver of the modified processing round requirements in 47 CFR §§ 25.156 and 25.157. *See DigitalGlobe, Inc.*, Order and Authorization, 20 FCC Red 15696 (Sat. Div., Int'l Bur. 2005) at ¶ 8.
7. Because Planet Labs must comply with technical requirements in Part 2 of the Commission's rules, which should prevent harmful interference to other operators in the band, we grant its request for a waiver of the default service rules in 47 CFR § 25.217 (b). *See DigitalGlobe, Inc.*, supra, at ¶ 15.
8. This authorization will become null and void if, at any time during the license term, there are no SkySat satellites operating.
9. Planet Labs was subject to milestone and bond obligations imposed as conditions to a previous grant of authority to operate the SkySat-3 satellite in the 2020-2025 MHz band. *See* IBFS File No. SAT-MOD-20150408-00019 (granted in part and deferred in part June 10, 2016). We find that, following the discharge of the bond requirement associated with this previous grant, warehousing concerns are addressed in this situation through the imposition of condition 8 above.
10. Within 30 days after launching each satellite authorized herein, Planet Labs must file a notification with the Commission specifying the satellite's orbital altitude and inclination. The license term ends December 16, 2028.

Licensee/grantee is afforded thirty (30) days from the date of release of this action to decline the grant as conditioned. Failure to respond within this period will constitute formal acceptance of the grant as conditioned.

**ATTACHMENT TO GRANT**  
Planet Labs Inc.  
IBFS File No. SAT-MOD-20191217-00148

This action is taken pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 CFR § 0.261, and is effective upon release.

Station licenses are subject to the conditions specified in Section 309(h) of the Communications Act of 1934, as amended, 47 U.S.C. § 309(h).

<b>Action Date:</b>	March 16, 2020	
<b>Term Dates</b>	<b>From:</b> see conditions	<b>To:</b> see conditions

**Approved:**



John W. Whaley  
Acting Chief, Satellite Policy Branch

9-16. Name of Contact Representative

**Name:** Planet Labs Inc. **Phone Number:** 415-225-9550  
**Company:** **Fax Number:**  
**Street:** 645 Harrison Street **E-Mail:** adonica.wada@planet.com  
**City:** San Francisco **State:** CA  
**Country:** USA **Zipcode:** 94107-  
**Attention:** **Relationship:**

CLASSIFICATION OF FILING

17. Choose the button next to the classification that applies to this filing for both questions a. and b. Choose only one for 17a and only one for 17b.

- a1. Earth Station
- a2. Space Station

- (N/A) b1. Application for License of New Station
- (N/A) b2. Application for Registration of New Domestic Receive-Only Station
- b3. Amendment to a Pending Application
- b4. Modification of License or Registration
- b5. Assignment of License or Registration
- b6. Transfer of Control of License or Registration
- b7. Notification of Minor Modification
- (N/A) b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite
- (N/A) b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States
- (N/A) b10. Other (Please specify)
- (N/A) b11. Application for Earth Station to Access a Non-U.S. satellite Not Currently Authorized to Provide the Proposed Service in the Proposed Frequencies in the United States
- (N/A) b12. Application for Database Entry
- b13. Amendment to a Pending Database Entry Application
- b14. Modification of Database Entry

<p>17c. Is a fee submitted with this application?  <input checked="" type="radio"/> If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).  <input type="radio"/> Governmental Entity    <input type="radio"/> Noncommercial educational licensee  <input type="radio"/> Other (please explain):</p>	
<p>17d.          Fee Classification CGW – Space Station Modification (Non-Geostationary)</p>	
<p>18. If this filing is in reference to an existing station, enter:          (a) Call sign of station:          S2862</p>	<p>19. If this filing is an amendment to a pending application enter both fields, if this filing is a modification please enter only the file number:          (a) Date pending application was filed:          (b) File number:          SATMOD2017031700053</p>

**TYPE OF SERVICE**

20. NATURE OF SERVICE: This filing is for an authorization to provide or use the following type(s) of service(s): Select all that apply:

- a. Fixed Satellite
- b. Mobile Satellite
- c. Radiodetermination Satellite
- d. Earth Exploration Satellite
- e. Direct to Home Fixed Satellite
- f. Digital Audio Radio Service
- g. Other (please specify)

21. STATUS: Choose the button next to the applicable status. Choose only one.

- Common Carrier
- Non-Common Carrier

22. If earth station applicant, check all that apply.

- Using U.S. licensed satellites
- Using Non-U.S. licensed satellites

23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities:

- Connected to a Public Switched Network
- Not connected to a Public Switched Network
- N/A

24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all applicable frequency band(s).

- a. C-Band (4/6 GHz)
- b. Ku-Band (12/14 GHz)
- c. Other (Please specify upper and lower frequencies in MHz.)  
 Frequency Lower: 2025      Frequency Upper: 8400  
 (Please specify additional frequencies in an attachment)

TYPE OF STATION

25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.

- a. Fixed Earth Station
- b. Temporary-Fixed Earth Station
- c. 12/14 GHz VSAT Network
- d. Mobile Earth Station
- e. Geostationary Space Station
- f. Non-Geostationary Space Station
- g. Other (please specify)

26. TYPE OF EARTH STATION FACILITY:

- Transmit/Receive
- Transmit-Only
- Receive-Only
- N/A

"For Space Station applications, select N/A."

PURPOSE OF MODIFICATION

27. The purpose of this proposed modification is to: (Place an 'X' in the box(es) next to all that apply.)

- a --- authorization to add new emission designator and related service
- b --- authorization to change emission designator and related service
- c --- authorization to increase EIRP and EIRP density
- d --- authorization to replace antenna
- e --- authorization to add antenna
- f --- authorization to relocate fixed station
- g --- authorization to change frequency(ies)
- h --- authorization to add frequency
- i --- authorization to add Points of Communication (satellites & countries)
- j --- authorization to change Points of Communication (satellites & countries)
- k --- authorization for facilities for which environmental assessment and radiation hazard reporting is required
- l --- authorization to change orbit location
- m --- authorization to perform fleet management
- n --- authorization to extend milestones
- o --- Other (Please specify)

ENVIRONMENTAL POLICY

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. 1.1308 and 1.1311, as an exhibit to this application. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments.

Yes  No

ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeronautical en route or aeronautical fixed radio station services are not required to respond to Items 30-34.

29. Is the applicant a foreign government or the representative of any foreign government?

Yes  No

30. Is the applicant an alien or the representative of an alien?

Yes  No  N/A

31. Is the applicant a corporation organized under the laws of any foreign government?

Yes  No  N/A

32. Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?

Yes  No  N/A

<p>33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned or voted by aliens, their representatives, or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?</p>	<p> <input type="radio"/> Yes    <input checked="" type="radio"/> No    <input type="radio"/> N/A </p>
<p>34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit an identification of the aliens or foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.</p>	

**BASIC QUALIFICATIONS**

<p>35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules? If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.</p>	<p> <input type="radio"/> Yes    <input checked="" type="radio"/> No </p>
<p>36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explanation of circumstances.</p>	<p> <input type="radio"/> Yes    <input checked="" type="radio"/> No </p>

<p>37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explanation of circumstances.</p>	<p style="text-align: right;"> <input type="radio"/> Yes      <input checked="" type="radio"/> No         </p>
<p>38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances</p>	<p style="text-align: right;"> <input type="radio"/> Yes      <input checked="" type="radio"/> No         </p>
<p>39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhibit, an explanation of the circumstances.</p>	<p style="text-align: right;"> <input type="radio"/> Yes      <input checked="" type="radio"/> No         </p>
<p>40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, address, and citizenship of those stockholders owning a record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer.</p>	

<p>41. By checking Yes, the undersigned certifies, that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application"; for these purposes.</p>	<p style="text-align: right;">Yes <input checked="" type="radio"/> No <input type="radio"/></p>
<p>42a. Does the applicant intend to use a non-U.S. licensed satellite to provide service in the United States? If Yes, answer 42b and attach an exhibit providing the information specified in 47 C.F.R. 25.137, as appropriate. If No, proceed to question 43.</p>	<p style="text-align: right;">Yes <input type="radio"/> No <input checked="" type="radio"/></p>
<p>42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, what administration has coordinated or is in the process of coordinating the space station?</p>	
<p>43. Description. (Summarize the nature of the application and the services to be provided). (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>Applicant requests authority to modify the authorized orbital location for the SkySat-16 to SkySat-21 satellites to include the inclination range 40 degrees to 60 degrees and the operational orbital altitude for SkySat-3 to include 400 km.</p> </div> <p>Ex. A - Description</p>	

43a. Geographic Service Rule Certification

By selecting A, the undersigned certifies that the applicant is not subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25.

A

By selecting B, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will comply with such requirements.

B

By selecting C, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will not comply with such requirements because it is not feasible as a technical matter to do so, or that, while technically feasible, such services would require so many compromises in satellite design and operation as to make it economically unreasonable. A narrative description and technical analysis demonstrating this claim are attached.

C

CERTIFICATION

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The applicant certifies that grant of this application would not cause the applicant to be in violation of the spectrum aggregation limit in 47 CFR Part 20. All statements made in exhibits are a material part hereof and are incorporated herein as if set out in full in this application. The undersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are true, complete and correct to the best of his or her knowledge and belief, and are made in good faith.

44. Applicant is a (an): (Choose the button next to applicable response.)

- Individual
- Unincorporated Association
- Partnership
- Corporation
- Governmental Entity
- Other (please specify)

45. Name of Person Signing  
Adonica Wada

46. Title of Person Signing  
Vice President, Regulatory Affairs & Compliance

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT  
(U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION  
(U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).

**FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT**

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**THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104-13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.**

## DESCRIPTION OF PROPOSED MODIFICATION

Planet Labs Inc. (“Planet”) respectfully requests authority to modify the authorization for Planet’s SkySat Earth Exploration Satellite Service (“EESS”) system (FCC Call Sign S2862).<sup>1</sup> Specifically, Planet requests authority to:

- Modify the authorized orbital location for the SkySat-16 to SkySat-21 satellites to include the inclination range 40° – 60° in addition to the currently authorized inclination range of 97.0° – 97.9°; and
- Modify the operational orbital altitude for SkySat-3 to include 400 km.

This application contains only information regarding the above-proposed changes, including an updated Schedule S identifying relevant technical specifications. Planet is not requesting any other changes to the existing authorized satellite operations or radio communications parameters and certifies that all such other information remains unchanged.<sup>2</sup>

Grant of the requested modification increases the commercial flexibility of the company by enhancing image coverage and resolution and facilitating system operations. Such increased capabilities will further competition and expand U.S. capabilities in the market for commercial remote sensing data. Accordingly, grant of the application will serve the public interest.

### **I. Description of Modification**

#### **A. Operation of SkySat-16 to SkySat-21 at an Inclination Range between 40° to 60°**

Planet operates a constellation of commercial remote sensing satellites that are licensed under FCC Call Sign S2862.<sup>3</sup> Planet currently operates 15 SkySat satellites and is nearing the completion of construction of six more SkySats (SkySat-16 through SkySat-21).

SkySat-16 through SkySat-18 are intended to be launched as secondary payloads in April 2020 on a Falcon 9 launch vehicle, and SkySat-19 through SkySat-21 are intended to be launched as secondary payloads in June 2020 on a subsequent Falcon 9 launch vehicle. The six SkySats are expected to be deployed into a 190 km x 380 km elliptical orbit.

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<sup>1</sup> See Stamp Grant, Application of Terra Bella Technologies Inc., File No. SAT-MOD-20170317-00053 (granted June 28, 2017) (“Planet Authorization”).

<sup>2</sup> See Application of Terra Bella Technologies Inc., File No. SAT-MOD-20170317-00053, Exhibit 43 (granted June 28, 2017) (“Planet Application”).

<sup>3</sup> See Planet Authorization. Planet also operates constellation of Dove satellites that provide medium-resolution images and complement the SkySat satellites. See Stamp Grant, File No. SAT-MOD-20170713-00103 (granted July 19, 2018).

After each launch, Planet will commence in-orbit testing and commissioning shortly after deployment. Planet will then conduct orbit-raising maneuvers to transition the SkySat satellites to a nominal operating altitude of 400 km at an inclined orbit between 40° to 60° (to be determined based on market factors at that time).<sup>4</sup> Planet expects that SkySats will arrive at their destination location and begin nominal operations within approximately six weeks of deployment. Throughout this period, Planet will also conduct imaging operations for commissioning and calibration purposes. Nominal S-band (uplink) and X-band (downlink) operations will comply with authorized parameters.<sup>5</sup>

To be clear, there are no changes to the SkySat propulsion system, the orbit maintenance characteristics or the orbital debris mitigation plan, as previously authorized.<sup>6</sup>

**B. Operation of SkySat-3 at a 400-km Orbital Altitude**

On April 8, 2015, Planet (through a predecessor-in-interest) sought authority to launch and operate SkySat-3 to SkySat-15 at orbital altitudes ranging from 400 to 630 km.<sup>7</sup> The FCC granted authority for SkySat-4 to SkySat-15 to operate at any of those altitudes. However, for SkySat-3, which was to be launched in approximately two weeks after the license grant, the FCC authorized the satellite to operate at only the specific target deployment altitude associated with the imminent launch, *i.e.* 510 km x 502 km with an inclination of 97.42 degrees.<sup>8</sup>

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<sup>4</sup> The SkySats are currently authorized to operate in circular orbits with altitudes in the range of 400 to 630 km at an inclination in the range 97.0° – 97.9°. *See* Planet Authorization.

<sup>5</sup> Prior to the arrival of the satellites at the 400 km orbit, Planet will maintain the satellites' PFD levels, during nominal operations, within the applicable ITU limits by operating with a sufficiently low satellite transmitter power. *See* Planet Application at 16 ("At all altitudes down to the reentry altitude, Terra Bella will maintain the satellites' PFD at levels within the applicable ITU limits by reducing satellite transmitter power on a graduated basis as the satellite nears the Earth.").

<sup>6</sup> *See* Planet Application. The ground segment comprises an earth station in Fairbanks, Alaska and stations in Inuvik, Canada; Svalbard, Norway; Tromso, Norway; and Troll, Antarctica. If Planet seeks to communicate with other ground stations, it will seek separate authorizations from the appropriate administrations and coordinate operations with relevant federal agencies, pursuant to existing coordination agreements with federal operators. *See* Planet Authorization, conditions 1, 4, and 5.

<sup>7</sup> *See* Application of SkyBox Imaging, Inc., File No. SAT-MOD-20150408-00019 (April 8, 2015).

<sup>8</sup> *See* Stamp Grant, Application of Skybox Imaging, Inc., File No. SAT-MOD-20150408-00019 (granted June 6, 2016).

Because Planet intends to enhance its image-resolution capabilities and desires consistency for its satellite constellation authorization, it seeks authority to operate SkySat-3 at a 400-km orbital altitude.<sup>9</sup> Planet incorporates by reference the information provided in its 2015 application supporting the authority for the SkySats to operate at the 400-630 km orbital altitude.

**II. Additional/General Considerations**

**A. Form 312, Schedule S**

Planet's Transmitting Beam 1 (Beam ID: TTC) has a Max Transmit EIRP of -2.1 dBW. However, the Schedule S data field will not accept a number less than zero. Accordingly, Planet entered zero to satisfy the Schedule S form requirement that maximum EIRP values be non-negative.

As required by the Commission's rules and policies, Planet has completed, to the best of its ability and within the limitations of the Commission's software, the FCC Form 312, Schedule S submission, which reflects the orbital and physical/electrical characteristics of the satellites proposed in this application. To the best of Planet's understanding, the information in Form 312, Schedule S is complete and contains representative data that will allow the Commission to conduct an accurate technical assessment of the proposed modification. Any additional information used to complete the application process is identified in this Exhibit.

**B. ITU Advance Publication Materials**

Planet is preparing the ITU Advance Publication Information submission for the proposed modification of its non-geostationary EESS system and will provide an electronic file with this information to the International Bureau.

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<sup>9</sup> Lowering the operating orbital altitude from 500 km to 400 km will increase the ground sample distance, enhancing the image resolution.

**EXHIBIT A**  
Planet Labs Inc.  
Application for License Modification

\* \* \* \* \*

For the reasons set out above, Planet respectfully requests modification of the Planet Authorization. Further, because of the anticipated launch of SkySat-16 through SkySat-21 in early 2020, Planet requests expedited action.

Respectfully submitted,

*/s/ Adonica Wada*

Tony Lin  
Hogan Lovells US LLP  
555 13<sup>th</sup> Street NW  
Washington, DC 20004  
*Counsel for Planet Labs Inc.*

Adonica Wada  
Vice President, Regulatory Affairs &  
Compliance  
Planet Labs Inc.  
645 Harrison Street, Floor 4  
San Francisco, CA 94107

December 17, 2019

**TECHNICAL CERTIFICATION**

I, Henrique Miranda, hereby certify, under penalty of perjury, that I am the technically qualified person responsible for the preparation of the engineering information contained in the technical portions of the foregoing application and the related attachments, that I am familiar with Part 25 of the Commission's rules, and that the technical information is complete and accurate to the best of my knowledge and belief.

*/s/ Henrique Miranda*

Henrique Miranda  
Principal RF Engineer  
Planet Labs Inc.

December 17, 2019