



Hogan Lovells US LLP  
Columbia Square  
555 Thirteenth Street, NW  
Washington, DC 20004  
T +1 202 637 5600  
F +1 202 637 5910  
www.hoganlovells.com

August 24, 2016

**VIA IBFS**

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554

Re: *Ex Parte* Letter  
IBFS File Nos. SAT-MOD-20150802-00053; SAT-STA-20150821-00060; SAT-LOA-20151123-00078

Dear Ms. Dortch:

On August 22, 2016, representatives of Planet Labs Inc. (“Planet”) met with representatives of the FCC’s International Bureau (“Bureau”) regarding the above-referenced proceedings. The following individuals participated in the meeting on behalf of Planet: Rich Leshner, Vice President Government Affairs; Mike Safyan, Director of Launch and Regulatory Affairs; and Tony Lin, outside counsel for Planet Labs. The following people participated in the meeting on behalf of the Bureau: Jose Albuquerque, Satellite Division Chief; Karl Kensinger, Deputy Division Chief; Stephen Duall, Policy Branch Chief; Chip Fleming, Satellite Division Chief Engineer; Cindy Spiers, Policy Branch Attorney Advisor; and Merissa Velez, Policy Branch Attorney Advisor.

Planet discussed its recent *ex parte* filing responding to the letter by ORBCOMM License Corp. (“ORBCOMM”) raising questions and concerns regarding the in-plane conjunction analysis conducted by Planet.<sup>1</sup> Planet clarified that its conjunction analysis was conservative and did not take into consideration factors that would substantially reduce the estimated probability of an orbital collision, such as:

- Planet’s ability to execute differential drag maneuvers to properly space its fifty-six satellites and readily avoid collisions among those satellites.<sup>2</sup>

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<sup>1</sup> See Letter from Tony Lin, Counsel for Planet, to Marlene H. Dortch, Secretary, FCC (Aug. 18, 2016) (“Planet *Ex Parte* Letter”); see also Letter from Walter H. Sonnenfeldt, Regulatory Counsel, ORBCOMM, to Marlene H. Dortch, Secretary, FCC (Aug. 9, 2016).

<sup>2</sup> To date, Planet has successfully launched and operated over 100 satellites at various altitudes and has already demonstrated it can maintain, via differential drag, a fleet of its own satellites in a single plane without any collisions among those satellites. For example, Planet’s latest launch and

- The ability of Planet and other operators aboard the SHERPA mission, such as Spire Global, Inc. (“Spire”), to work cooperatively with one another to similarly avoid collisions.<sup>3</sup>
- The ability of satellite operators aboard the SHERPA mission to perform “collision minimization maneuvers,” *i.e.*, rotate the satellites to present the smallest surface area towards the potential conjunction, thus reducing risk of collision.

Thus, even if ORBCOMM’s extrapolated analysis of a “complete mission” were appropriate to consider, which it is not, it would overstate the risk of collision considerably.<sup>4</sup>

Planet also emphasized its willingness to execute an agreement with ORBCOMM but emphasized that finalizing such an agreement should not be a prerequisite to the grant of a license. Planet has already begun adding GPS-derived orbital position estimates for its recently launched “Flock 2p” satellites to its publicly available website, <http://ephemerides.planet-labs.com/>, and will do so for the “Flock 2c” satellites as well. The GPS solutions are updated multiple times a day and provide more accurate orbit determination than JSPoC predictions or radio ranging, alone.

Please feel free to contact the undersigned if you have any questions.

Respectfully submitted,

/s/ Tony Lin

Tony Lin  
Counsel  
tony.lin@hoganlovells.com  
D 1+ 202 637 5795

cc: (via email)  
Jose Albuquerque  
Karl Kensinger  
Stephen Duall  
Chip Fleming  
Cindy Spiers  
Merissa Velez

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deployment of 12 satellites, collectively known as “Flock 2p”, launched into a single orbital plane on June 22, 2016 and continues to operate without issue.

<sup>3</sup> See Description of Application, Application of Spire Global, Inc., File No. SAT-LOA-20151123-00078, at 5-6 (Nov. 23, 2015) (The satellites “can perform station-keeping and collision-avoidance maneuvers using differential drag and an on-board attitude determination and control system”). Also, the ORBCOMM satellites themselves are maneuverable (and regularly perform collision avoidance maneuvers already).

<sup>4</sup> See Planet Ex Parte Letter at 2 n. 6 (“Mathematically, one cannot accurately or reliably extrapolate, as ORBCOMM has done here, the results of a Monte Carlo simulation allegedly having too few samples.”). To be clear, Planet has provided a “complete mission” orbital debris risk analysis using the NASA DAS program, which is the industry-accepted standard for assessing collision risk and which ORBCOMM itself has used for debris calculations for its own satellites.

## CERTIFICATE OF SERVICE

I, Noah Cherry, hereby certify that on August 24, 2016, a true and correct copy of this *ex parte* letter was sent by United States mail, first class postage prepaid, to the following:

Walter H. Sonnenfeldt, Esq.  
Regulatory Counsel  
ORBCOMM License Corp. &  
Vice President, Regulatory Affairs ORBCOMM, Inc.  
395 West Passaic St.  
Suite 325  
Rochester Park, NJ 07662

Jonathan Rosenblatt  
General Counsel  
Spire Global, Inc.  
33 Norfolk St.  
San Francisco, CA 94103

Jonathan L. Wiener  
Goldberg Godles Wiener & Wright LLP  
1229 19<sup>th</sup> Street, NW  
Washington, D.C. 20036-2413  
*Counsel to Spaceflight, Inc.*

/s/ Noah Cherry

Noah Cherry