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November 4, 2015

***Via Electronic Filing***

Experimental Licensing Branch  
Office of Engineering and Technology  
Federal Communications Commission  
445 12th Street SW  
Washington, DC 20554

**Re: Spire Global, Inc.  
ELS File No. 0684-EX-PL-2015**

To Whom It May Concern:

Spire Global, Inc. ("Spire") hereby requests authority from the Office of Engineering and Technology ("OET") to launch and operate an additional seven satellites as part of Spire's Lemur-2 satellite system. The OET has authorized already the launch and operation of the initial eight Lemur-2 satellites and associated ground stations,<sup>1</sup> and Spire has a pending modification application for the launch and operation of two additional satellites.<sup>2</sup> In the instant application, Spire also corrects the emission designator for the 2020-2025 MHz downlink band (5M00G1D) and the ERP for the 400-403 MHz uplink band (860W).

The seven satellites, which are technically identical to the prior authorized satellites, are scheduled to launch aboard an H-IIA launch vehicle from Tanegashima, Japan on January 26, 2016, as a secondary payload. Spire is required to demonstrate to the launch provider that it has obtained authority from the FCC to operate the satellites 60 days in advance of the scheduled launch date, *i.e.*, by November 27, 2015. To meet this requirement, Spire seeks expedited processing of this experimental license application.

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<sup>1</sup> See Application, Call Sign WH2XQT, ELS File No. 0041-EX-PL-2015 (granted June 9, 2015); Application, Call Sign WH2XQT, ELS File No. 0129-EX-ML-2015 (granted July 17, 2015). The initial license grant states that Spire should seek approval for subsequent launches in separate applications. Spire has previously sought such authority pursuant to modification applications to the initial license. Spire now seeks such additional authority pursuant to a new experimental license because the OET filing system, *i.e.*, the Experimental Licensing System ("ELS"), prohibits an applicant from having more than one pending modification application in the system.

<sup>2</sup> See ELS File No. 0171-EX-ML-2015.

For the OET's convenience, Spire is including in this application the following attachments:

- Exhibit A – the narrative filed with the initial experimental application regarding the Lemur-2 system;<sup>3</sup>
- Exhibit B – the Orbital Debris Assessment Report (“ODAR”) showing that the proposed seven satellites are fully compliant with NASA orbital debris guidelines;<sup>4</sup> and
- Exhibit C – the updated launch schedule associated with the Lemur-2 fleet, which reflects changes by the respective launch service providers in the scheduled launch dates.<sup>5</sup>

The seven satellites will be deployed at an altitude of 575 km and with an inclination of 31 degrees. With respect to the coordination of this application with NTIA, the revised response to inquiry 1B of the NTIA coordination form (regarding inclination angle, apogee in kilometers, perigee in kilometers, orbital period in hours and fractions of hours in decimal, and the number of satellites) should be as follows:

“H-IIA: ORB, 31.0IN00575AP00575PE001.60H07NRT01.”

If there are any questions regarding this application, please contact the undersigned.

Very truly yours,

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/s/

Trey Hanbury

Partner

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<sup>3</sup> See Narrative Statement attached to Application, Call Sign WH2XQT, ELS File No. 0041-EX-PL-2015 (granted June 9, 2015).

<sup>4</sup> The ODAR was submitted as part of a prior modification application. See Orbital Debris Assessment Report attached to Application, Call Sign WH2XQT, ELS File No. 0171-EX-ML-2015 (filed August 24, 2015).

<sup>5</sup> This information supersedes the information found on page 7 of the narrative in the attached Exhibit A.