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August 24, 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. 0171-EX-ML-2015  
Modification of License WH2XQT**

To Whom It May Concern:

Spire Global, Inc. ("Applicant") hereby requests a modification of the above-referenced experimental license granted on June 9, 2015 and modified on July 17, 2015. The initial license grant provides authority for the Applicant's initial launch and operation of four satellites for its Lemur-2 system and states that authority for Applicant's subsequent launches should be sought in separate applications.<sup>1</sup> Applicant hereby seeks authority for the additional launch and operation of two satellites, which will be part of the Lemur-2 system. Because the launch is scheduled for December 2015 and Applicant is required to demonstrate to the launch provider that it has obtained launch authority from the FCC 60 days in advance of the scheduled launch date, Applicant seeks expedited processing of this application.

The Applicant's two additional satellites will be launched, as secondary payloads, from Baikonur, Kazakhstan, using a Roscosmos Soyuz launch vehicle. The satellites will be deployed at an altitude of 600 km and with an inclination of 97.8 degrees. All other technical parameters specified in the license are the same. Attached as an exhibit to this modification application is a revised Orbital Debris Assessment Report ("ODAR"), which includes the orbital debris analysis for the two additional satellites for which authority is sought in this application and shows that the satellites are fully compliant with NASA orbital debris guidelines.

Additionally, Applicant seeks to update the uplink emission designator for the UHF bands (400-403 MHz) from 5K00F1D to 12K5F1D and the modulating signal from 2400 baud MSK to 9600 baud

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<sup>1</sup> The subsequently approved modification to the license allows the launch and operation of four additional satellites.

GMSK. Furthermore, Applicant seeks to change the modulating signal for the UHF downlinks from 2K50F1D to 12K5F1D.

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:

“Soyuz: ORB, 97.8IN00600AP00600PE001.60H02NRT01.”

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

Very truly yours,

\_\_\_\_\_/s/

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cc: Doug Young