

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of	)	
	)	
Spire Global, Inc.	)	IBFS File No.
	)	SAT-MOD-20200603-00065;
Application to Modify	)	SAT-MPL-20200618-00078
SAT-LOA-20151123-00078	)	
SAT-AMD-20180102-00001	)	
SAT-PDR-20190321-00018	)	

**APPLICATION**

Spire Global, Inc. (“Spire”) hereby amends its partially granted space station license and pending application<sup>1</sup> and requests authority to deploy 15.5kg satellites, in addition to 6kg satellites already requested, instead of 4.5kg satellites.<sup>2</sup>

As Spire’s innovation continues, it has received requests for special discrete projects utilizing 6U satellites. Spire continues to utilize 3U satellites for the majority of its launches, but requests authority to use 6U satellites for certain discrete projects. This will result in an increased mass of the satellite greater than the nominal mass when the original application was submitted. The satellite bus is configured for flexible payloads to accommodate third-party hosted payloads and special projects, but the nominal configuration is to install Spire’s own payloads, as described and authorized in

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<sup>1</sup> See Stamp Grant, Spire, IBFS File No. SAT-MOD-20200603-00065, Call Sign: S2946 (granted in part October 30, 2020) (“License”) and IBFS File No. SAT-MPL-2020061800078, Call Sign: S3045 (granted in part October 30, 2020) (“Market Access Grant”).

<sup>2</sup> *Id.*

this license. With all of Spire's data collection payloads installed for these discrete projects, the satellite would have a maximum mass of 15.5kg.

Spire is submitting an ODAR and orbital debris mitigation plan discussing 6U satellites as Exhibit F and G, respectively. The updated ODAR and orbital debris mitigation plan previously submitted remain relevant to Spire's typical 3U operations. Both reports, for the 3U satellites and the 6U satellites, show that Spire meets the deorbit timelines and collision probability requirements.<sup>3</sup>

Grant of the Application serves the public interest. The authorization will expand Spire's ability to provide the range of services requested by customers. Accordingly, Spire respectfully requests the Commission to grant the authority as discussed herein.

Respectfully submitted,

/s/ Ananda Martin

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Dated: March 1, 2021

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<sup>3</sup> Spire's ODAR and orbital debris mitigation plan for the 6U satellites discusses the use of 6U satellites for the whole constellation of 175 satellites as a worst case. However, Spire does not plan on utilizing 6U satellites for the whole constellation but rather for a few specific customer requests. Currently, Spire estimates that less than 5 6U satellites will be launched in the following approximate 12 months, with an estimate of up to 30-40 6U satellites utilized in the next 5 year time frame. The majority of Spire's satellites will remain 3U satellites.