

May 13, 2021

**BY ELECTRONIC FILING**

Marlene H. Dortch, Secretary  
Federal Communications Commission  
45 L Street NE  
Washington, DC 20554

Re: IBFS File No. SAT-MOD-20210512-00067

Dear Ms. Dortch:

This supplement further explains two aspects of Capella Space Corp.’s above-referenced request to modify its authorization to launch and operate the satellite known as Capella-5:<sup>1</sup> the updated Orbital Debris Assessment Report (“ODAR”), and changes noted on Schedule S.

**I. ODAR**

As noted in Capella’s modification request, Capella generated a new ODAR reflecting the characteristics of Capella-5, operating pursuant to the requested modification, and Capella-6 as currently authorized. Capella’s modification application requests an operating altitude of  $525 \pm 25$  km for Capella-5. Thus, while its nominal altitude will be 525 km, operations at 550 km would also be authorized. This 550 km altitude reflects, from an orbital debris perspective, the worst-case altitude that would be authorized under the requested modification. Therefore, Capella’s ODAR assumes this altitude to ensure the most conservative result. As noted in the modification application, Capella would continue to easily satisfy all applicable orbital debris standards at this worst-case altitude.

**II. Schedule S**

Because the Schedule S included with the requested modification was similar to the Schedule S attached to the underlying application, the changes requested in the modification may not be readily apparent. Therefore, for ease of reference, Capella highlights the following changes:

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<sup>1</sup> See Grant of Authority, SAT-LOA-20210119-00012 (granted May 4, 2021). This existing license also authorizes Capella to launch and operate Capella-6. However, no aspect of Capella-6 is affected by the requested modification.

## Orbital Information for Non- Geostationary Satellites

	Old Value	New Value
Orbit Epoch Date	08/30/2020	05/17/2021

*Explanation:* Conforms to the updated RAAN values listed in the confirmation of Capella orbital parameters filed April 26, 2021.<sup>2</sup>

## Orbital Plane 1

	Old Value	New Value
Number of Satellites in Plane	--	1
Inclination Angle	--	97.5 degrees
Right Ascension of Ascending Node	--	259.0 degrees
Argument of Perigee	--	0.0 degrees
Orbital Period	--	5708.0
Apogee	--	525.0 km
Perigee	--	525.0 km
Active Service Arc Begin Angle with respect to Ascending Node	--	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	--	0.0 degrees

*Explanation:* New orbital plane added to reflect changed characteristics of Capella-5.

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<sup>2</sup> See Letter from Paul Caritj, Counsel to Capella Space Corp., to Marlene H. Dortch, Secretary, FCC, IBFS File No. SAT-LOA-20210119-00012 (filed Apr. 26, 2021).

## Orbital Plane 1 > Mean Anomaly for Each Satellite

	Old Value	New Value
Satellite Number	--	1
Mean Anomaly (degrees) at the Orbit	--	0.0
Epoch Date		

*Explanation:* New entry to reflect changed characteristics of Capella-5.

## Orbital Plane 2

	Old Value	New Value
Number of Satellites in Plane	2	1
Right Ascension of Ascending Node	90.0 degrees	106.0 degrees

*Explanation:* Changed number of satellites reflects relocation of Capella-5 from this orbital plane and into the new plane noted above. Changed RAAN value conforms to the updated RAAN values listed in the confirmation of Capella orbital parameters filed April 26, 2021.<sup>3</sup> Note that this plane was previously identified as Orbital Plane 1.

## Orbital Plane 2 > Mean Anomaly for Each Satellite

	Old Value	New Value
Satellite Number	2	--
Mean Anomaly (degrees) at the Orbit	180	--
Epoch Date		

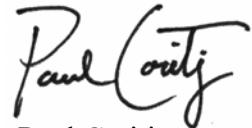
*Explanation:* Reflects removal of Capella-5 from this orbital plane and into the new plane noted above. Note that Orbital Plane 2 was previously identified as Orbital Plane 1.

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<sup>3</sup> *Id.*

Please contact the undersigned if you have any additional questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Paul Caritj".

Paul Caritj  
*Counsel for Capella Space Corp.*