



Federal Communications Commission
Washington, D.C. 20554

September 28, 2021

VIA ELECTRONIC MAIL

Mr. Paul Caritj
Harris, Wiltshire & Grannis LLP
1919 M St NW, 8th Floor
Washington, DC 20036
Pcaritj@hwglaw.com

Re: Capella Space Corp.
IBFS File No. SAT-LOA-20210824-00109; Call Sign: S3100

Dear Mr. Caritj:

In August 2021, Capella Space Corp. filed the above-referenced application to construct, deploy and operate a constellation of two low-Earth orbit, non-geostationary satellites that would operate in the earth-exploration satellite service, conducting synthetic aperture radar (SAR) imaging.¹ To assist in the Satellite Division's review of Capella's application, please provide the information requested below:

1. What is the large object collision risk of a single spacecraft? The Orbital Debris Assessment Report (ODAR) lists it at $8e-5^2$ while the technical attachment lists it at $3e-5$.³
2. Page 11 of the ODAR states the worst-case initial orbit is 475 km for collision risk.⁴ Why was the minimum insertion altitude chosen instead of the maximum of 575 km?
3. Please provide the Debris Assessment Report (DAS) logs.
4. Please provide the correct amount of Xenon propellant aboard the spacecraft. The ODAR states the mass is 1.1 kg⁵ while the technical attachment states 1.0 kg.⁶
5. Page 4 of the ODAR states that Capella 7 and 8 will deploy from the launch vehicle into a near-circular 98° sun-synchronous orbit at an altitude of 525 km (insertion orbit), and will maintain operational orbits at an altitude between 475 and 575 km using an RF xenon propulsion system for 3 years.⁷ Please clarify the operational orbit altitudes of each of the spacecraft during this 3

¹ Capella Space Corp., Application for SAR Constellation Block 3, IBFS File No. SAT-LOA-20210824-00109 (filed Aug. 24, 2021) (Capella Application).

² Capella Application, Orbital Debris Assessment Report (ODAR) at 11.

³ Capella Application, Attachment A, Technical Information to Supplement Schedule S, at 23.

⁴ ODAR at 11.

⁵ *Id.* at 5.

⁶ Attachment A at 22.

⁷ ODAR at 4.

year time period, as well as the operational tolerances for each spacecraft (altitude, inclination, RAAN, etc.).

6. For the temporary ground-based SAR calibration, how long after launch will it operate and how often per 24 hour period? Please provide additional details regarding these operations.

The requested information must be submitted no later than **October 5, 2021**.

Sincerely,

Karl A. Kensinger

Karl A. Kensinger
Chief, Satellite Division
International Bureau

Cc:

Dan Connors
General Counsel & Secretary
Capella Space Corp.
Dan.connors@capellaspace.com