

**Before the
Federal Communications Commission
Washington, DC 20554**

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	)	
In the Matter of	)	
	)	
Umbra Lab, Inc.,	)	File No.: SAT-MOD-_____
	)	
Modification Application for a Non-	)	Call Sign: S3220
Geostationary Satellite Orbit System in the	)	
Earth Exploration-Satellite Service	)	
	)	

MODIFICATION APPLICATION

Umbra Lab, Inc. (“Umbra”) requests to modify the authorization for its above-referenced satellite space station license¹ (“Umbra Block 3.0 Tranche 1 SAR Constellation”), consistent with further coordination discussions with federal spectrum managers.² Specifically, Umbra requests authority to update the S-band Telemetry, Tracking, and Command (“TT&C”) center frequencies for the even-numbered satellites, such that all Block 3 Tranche 1 spacecraft (*i.e.*, both the even-numbered and odd-numbered spacecraft) operate TT&C using the same center frequencies, as follows:³

- 2025-2110 MHz (Earth-to-space) (center frequency 2080.0 MHz; 100 kHz bandwidth); and

¹ See Stamp Grant, Umbra, ICFS File SAT-LOA-20250117-00019 (granted October 7, 2025).

² Umbra’s analysis indicates that maintaining the currently-authorized TT&C center frequencies for such satellites - together with the NTIA conditions applicable to those frequencies - would impose operational constraints that materially limit Umbra’s ability to communicate with and control these spacecraft during necessary contact windows. These constraints would, in turn, adversely affect Umbra’s ability to meet customer service. As a result of Umbra’s proposal to modify its operations, the federal spectrum managers have agreed to remove the conditions to the license.

³ For the avoidance of doubt, the text in the bullets below would replace the relevant TT&C text in the “Frequencies” section of the Umbra license grant.

- 2200-2290 MHz (space-to-Earth) (center frequency 2254.0 MHz; 100 kHz bandwidth).

Additionally, due to currently available launch options, Umbra requests a limited modification for satellites Umbra-13 and Umbra-14 to reflect an updated inclination and initial deployment altitude. Specifically, satellites Umbra-13 and Umbra-14 will operate at an inclination of 88.0 degrees (± 0.1 degrees) and will be initially deployed at 500 km (± 20 km). Following deployment, Umbra will raise orbit to operate within the already-authorized nominal operating altitude range of 535 km to 595 km. Umbra will continue SAR operations during the terminal phase of flight down to an altitude of 325 km.

In the worst-case scenario that an Umbra satellite is deployed dead-on-arrival (“DOA”) while fully stowed at an altitude of 520 km, it will re-enter the atmosphere in at most 35 years. Except as stated specifically in this application, Umbra is not requesting any other changes to its license or authorized satellite operations and certifies that such operations remain unchanged. Umbra is submitting an updated Schedule S and is preparing the relevant ITU submission for the proposed modification and will provide those documents to the Space Bureau as soon as possible.

Respectfully submitted,

By: /s/ Iulia Davies

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Dated: January 30, 2026

ATTACHMENT

Technical Certification

I, Abbie Rooper, hereby certify, under penalty of perjury, that I am the technically qualified person responsible for the preparation of the engineering information contained in the technical portions of the foregoing application, that I am familiar with Part 25 of the Commission's rules, and that the technical information is complete and accurate to the best of my knowledge and belief.

By: /s/ Abbie Rooper

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Dated: January 30, 2026