

Narrative Attachment

Pursuant to Section 25.120 of the Commission's rules,¹ Orbital Sidekick, Inc. ("OSK") requests special temporary authority ("STA") for 30 days, beginning May 25, 2023, to utilize a 40 kHz UHF uplink to repair one of the radios on a GHOSat satellite (call sign S3139).²

On April 15, 2023, OSK launched the first two satellites in its six-satellite GHOSat hyperspectral Earth imaging constellation. During commissioning, one of the UHF downlink TT&C radios on one of the satellites failed to perform nominally. Each satellite has two identical TT&C radios utilizing S-band uplink and UHF downlink.³ OSK has determined that it can likely repair the UHF downlink by uplinking to the radio via UHF. The antennas are currently authorized only for UHF downlink transmissions.⁴

OSK intends to uplink at 402.9 MHz (40 kHz bandwidth), using the same operating parameters as the UHF downlink authorized in the OSK grant, which is incorporated herein by reference.⁵ The 402-403 MHz band is allocated to the Earth exploration satellite service (Earth-to-space) on a primary basis internationally in all three regions and for Federal use in the United States, and on a secondary basis for non-Federal users.⁶ The UHF signals for this mission will be transmitted from two earth stations located outside the United States: Vimercate, Italy and Tromsø, Norway.⁷ OSK affirms that its use of the UHF uplink will be on a non-interference basis.

Grant of this STA request serves the public interest as it will allow OSK to troubleshoot a minor anomaly in a redundant system in order to ensure that its satellites can operate with maximum reliability and functionality intended for the spacecraft over the lifetime of the mission. Currently, the TT&C functions on the GHOSat satellites are fully functional, and the instant request will serve to ensure that the spacecraft will have full redundancy—and therefore greater safety of operations—over the life of the satellite.

OSK respectfully requests that the Commission expeditiously grant the instant request for a 30-day STA to utilize the UHF uplink.

¹ 47 C.F.R. § 25.120.

² See Orbital Sidekick, Inc., Stamp Grant with Conditions, IBFS File No. SAT-LOA-20220325-00035 (granted Dec. 7, 2022) ("OSK Grant").

³ See Orbital Sidekick, Inc., Application for Authority to Launch and Operate a Non-Geostationary Satellite Orbit System in the Earth-Exploration Satellite Service, IBFS File No. SAT-LOA-20220325-00035, Technical Annex at 7 (filed Mar. 25, 2022).

⁴ *Id.*

⁵ OSK Grant.

⁶ 47 C.F.R. § 2.106.

⁷ See Letter from Brian Weimer, Counsel to OSK, to Marlene H. Dortch, Secretary, FCC, IBFS File No. SAT-LOA-20220325-00035 (May 12, 2023).