DG Consents Sub, Inc.
Request for 30-day STA

Narrative Attachment

DG Consents Sub, Inc. ("DigitalGlobe") requests special temporary authority ("STA") for 30 days, beginning May 9, 2019, to relocate and operate WorldView-4, authorized under Call Sign S2348, at orbital altitudes between 450 and 550 km.[1] DigitalGlobe intends to file a modification application for permanent authority to operate WorldView-4 at 450-550 km and a concurrent 60-day STA application pending FCC review of that modification request.

WorldView-4 is a non-geostationary-satellite orbit satellite currently authorized to provide Earth Expiration Satellite Service ("EESS") at altitudes between 496 km and 770 km.[2] On January 7, 2019, WorldView-4 experienced a failure in its control moment gyros, preventing the satellite from collecting usable imagery due to the loss of an axis of stability. However, WorldView-4's authorized communication paths remain operational, and DigitalGlobe maintains control of the satellite.

DigitalGlobe intends to lower WorldView-4 to the 450-550 km range to conduct testing and training. Subject to FCC approval, DigitalGlobe will begin relocation, which DigitalGlobe expects will take about four months. DigitalGlobe will operate only the satellite's telemetry, tracking, and command ("TT&C") frequencies during relocation and will do so on a non-interference basis. TT&C communications will occur in the same frequencies as currently authorized, at 8386 MHz (120 KHz) for downlink and 2052 MHz (64 KHz) for uplink. Once at the 450-550 km orbital altitude, DigitalGlobe will conduct X-band data downlink at 8025-8400 MHz at the new altitude in addition to TT&C.

Grant of this STA request will allow DigitalGlobe to maximize the utility of its WorldView-4 satellite, while ensuring complete de-orbit of the impaired satellite. DigitalGlobe will use the WorldView-4 satellite for training purposes at 450-550 km—enhancing the skills and experience of DigitalGlobe's network operators. In addition, lowering WorldView-4 to 450-550 km will ensure satellite re-entry within 25 years even in the unlikely event that the satellite experiences further anomalies. Currently, the TT&C functions on WorldView-4 are fully functional, and the spacecraft has fuel reserves sufficient to support testing at 450-550 km and subsequently perform maneuvers to facilitate complete de-orbit in 1-2 weeks. Therefore, authorization here serves the public interest.

DigitalGlobe has notified the National Oceanic and Atmospheric Administration of its intent to relocate and operate WorldView-4 at 450-550 km, as required. In addition, DigitalGlobe will coordinate with the Consolidated Space Operations Center at the Vandenberg Air Force Base, as well as with all potentially affected satellite operators authorized at orbital altitudes between 450 and 550 km.

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1 47 C.F.R. § 25.120.

2 *See DG Consents Sub, Inc.*, Stamp Grant, IBFS File No. SAT-MOD-20160408-00033, Call Sign S2348 (granted Aug. 5, 2016).