

Narrative Attachment

DG Consents Sub, Inc. (“DigitalGlobe”) requests special temporary authority (“STA”) for 180 days, beginning September 21, 2019, to relocate and operate WorldView-4, authorized under Call Sign S2348, at orbital altitudes between 425 and 525 km.¹ DigitalGlobe is in the process of lowering WorldView-4 to 450-550 km pursuant to STA granted previously by the Commission.² Through this application, DigitalGlobe requests permission to lower the satellite an additional 25 km. DigitalGlobe has filed an application for 30-day STA to relocate and operate WorldView-4 at 425-525 km concurrently with this 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.³ 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 425-525 km range to conduct testing and training. Operating under STA granted by the Commission previously, DigitalGlobe began relocating the space station to 450-550 km in May 2019, which it expects will take about four months.⁴ Subject to FCC approval, DigitalGlobe will continue to lower the satellite until arriving at 425-525 km. DigitalGlobe will continue to 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 continue to 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 425-525 km orbital altitude, DigitalGlobe will conduct X-band data downlink at 8025-8400 MHz at the new altitude in addition to TT&C.

As explained in its earlier applications to relocate WorldView-4, grant of this STA request will allow DigitalGlobe to maximize the utility of WorldView-4, while ensuring

¹ 47 C.F.R. § 25.120.

² See *DG Consents Sub, Inc.*, Stamp Grant, IBFS File No. SAT-STA-20190503-00035, Call Sign S2348 (granted May 22, 2019); *DG Consents Sub, Inc.*, Stamp Grant, IBFS File No. SAT-STA-20190612-00046, Call Sign S2348 (granted July 10, 2019); Application of DG Consents Sub, Inc. for 30-day STA Extension, IBFS File No. SAT-STA-20190717-00062, Call Sign S2348 (filed July 17, 2019). Pursuant to Section 1.62 of the Commission’s rules, DigitalGlobe is operating WorldView-4 under the terms and conditions of its existing STA pending action on its timely filed renewal request. See 47 C.F.R. § 1.62.

³ See *DG Consents Sub, Inc.*, Stamp Grant, IBFS File No. SAT-MOD-20160408-00033, Call Sign S2348 (granted Aug. 5, 2016).

⁴ See *supra* n.2.

complete de-orbit of the impaired satellite. DigitalGlobe will use the space station for training purposes at 425-525 km – enhancing the skills and experience of DigitalGlobe’s network operators. In addition, lowering WorldView-4 to 425-525 km – 25 km lower than authorized previously by the Commission – will ensure quicker satellite re-entry 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 425-525 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 425-525 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 425 and 525 km.