

DESCRIPTION OF PROPOSED MODIFICATION

BlackSky Global LLC (“BlackSky”) respectfully requests a modification to the authorization for the Gen-2 satellites in its non-geostationary orbit (“NGSO”) constellation.¹ Specifically, BlackSky requests authority to modify the authorized orbital altitude for its Gen-2 satellites,² as follows:

- To authorize a lower operational range for the eleven active Gen-2 satellites (Global-2, Global-4, Global-7, Global-8, Global-10, Global-11, Global-12, Global-13, Global-14, Global-16, and Global-17),³ plus one Gen-2 satellite that has not been launched,⁴ down to a perigee of no less than 340 km enabling continued operation at the lower altitude, and a nominal demise for the satellites.

Except as stated specifically in this application, including the Schedule S and attachments,⁵ BlackSky is not requesting any other changes to its license or authorized

¹ FCC Call Sign S3032; ICFS File Nos. SAT-MOD-20211230-00205 and SAT-AMD-20220805-00078 (“Grant”). BlackSky’s Grant also includes authorization for BlackSky’s Gen-3 satellites. No change is requested to the Grant relative to the Gen-3 satellites.

² In this narrative, BlackSky’s satellites are identified by the order in which they were placed into service. In some cases, two satellites were launched concurrently, in which case the order number reflects the satellite that first became operational.

³ The order in which the satellites were placed into service differs in some cases from BlackSky’s internal tail numbers. To avoid confusion, in this narrative internal tail numbers are identified as “G-#” rather than “Global-#”. The Global-x numbers listed here correspond to internal tail numbers G-2, G-4, G-9, G-14, G-12, G-13, G-16, G-17, G-18, G-19, and G-5, respectively.

⁴ Internal tail number G-6. In addition to these eleven active satellites and one unlaunched satellite, BlackSky’s Grant includes authorization for six now-demised satellites (Global-1, Global-3, Global-5, Global-6, Global-9, and Global-15).

⁵ Updated ownership information is attached as an exhibit.

satellite operations and certifies that such operations (except as permitted under Special Temporary Authorizations that have been granted to BlackSky)⁶ remain unchanged.

This requested modification seeks to extend the operational lifetime of the Gen-2 satellites. Authorizing BlackSky's remaining Gen-2 satellites to operate down to a perigee of 340 km will enable continued use of these on-orbit assets as they begin to demise, maintaining services from these satellites in areas of crucial significance to BlackSky's customers, including the United States government. There are no countervailing harms with respect to radio frequency interference or orbital debris mitigation.

Accordingly, BlackSky submits that grant of the application will serve the public interest.

I. Description of Modification

In a series of grants beginning on October 3, 2018, and running through January 10, 2023, BlackSky was granted authority to launch and operate its Gen-2 satellites at minimum orbital altitudes of, variously, 385 km or 440 km.⁷ To maximize the lifetime of its Gen-2 satellites, BlackSky proposes to continue operations down to a perigee of 340 km.

BlackSky originally did not seek authority to operate at an altitude below 385 kilometers because initial pre-operational analysis pointed to that altitude as the limit of

⁶ BlackSky requested and was granted several STAs to operate Global-4 down to an altitude of 400 km (*see* SAT-STA-20250822-00223, SAT-STA-20250918-00289, SAT-STA-20250926-00306, SAT-STA-20251118-00326, and SAT-STA-20251219-00392), with the most recent STA grant ending January 26, 2026. As Global-4 continued to descend, BlackSky separately requested and has been granted a series of STAs to operate Global-4 down to an altitude of 340 km, with the first such STA beginning January 20, 2026, and the most recent STA effective through Aug 19, 2026. (*See* SAT-STA-20260709-00283, SAT-STA-20260608-00231, SAT-STA-20260511-00193, SAT-STA-20260408-0015, SAT-STA-20260310-00117, SAT-STA-20260129-00062, and SAT-STA-20250925-00301, ; 9, , and). BlackSky further notes that on June 17, 2026, BlackSky submitted an STA request to operate Global-10 and Global-13 down to an altitude of 340 km. (*See* SAT-STA-20260617-00244.) That request is pending.

⁷ *See id.* Global-2 and Global-4 were authorized to operate at a minimum orbital altitude of 440 km; the remaining satellites that are the subject of this request were authorized to operate a minimum orbital altitude of 385 km.

satellite operational stability due to atmospheric drag, disturbance torques, gravity gradient, and other factors. However, BlackSky has had successful and stable operations down to 340km perigee under FCC STA on several prior satellites. Taking into account this operational experience and BlackSky's engineering analysis based upon this experience, BlackSky is confident that it can operate the satellites as they descend below 385 kilometers while maintaining necessary spacecraft stability at least until its satellites reach the new requested minimum altitude of 340 kilometers.

In addition, the Gen-2 satellites have proven to have longer operational lifetimes than initially anticipated. [REDACTED], these satellites continue to provide high quality imagery that is highly valuable to the United States government and other BlackSky customers.

[REDACTED]

II. Additional/General Considerations

A. Frequency Considerations

As demonstrated below, BlackSky's proposed operations below 385 km should not raise interference concerns. If needed, however, BlackSky also notes below further steps it will take to avoid any possibility of concern.

For X-band downlink, though BlackSky's current license would permit it to operate at an Effective Isotropic Radiated Power (EIRP) of up to 23.2 dBW, its Gen-2 satellites can control the transmit power in 1dB increments down to 16.2dBm and nominally downlink at a power of 19.2dBW or lower, depending on the Earth Station in accordance with BlackSky's frequency coordination with NASA. This coordination includes a schedule of power reductions at each site, which is referenced in its Grant in condition 19:

"Therefore, BlackSky shall continue to implement these techniques on the Gen-2 constellation and shall decrease power further for the Gen-2 satellites commensurate with the altitude decrease."

As BlackSky's satellites decrease in altitude, they will also move further away from the geostationary satellite belt. Consequently, their PFD in that direction will be reduced and therefore will be well within the compliance showing demonstrated by BlackSky in its license application.

As to BlackSky's UHF downlink, while it does not have the ability to adjust the power as the satellites descend, the increase in PFD to the earth (from 385 km) will not exceed 1.1 dB at the lowest altitude (340 km) for which operation is requested. Furthermore, the use of these frequencies will be exceedingly limited because the satellites are obviously far beyond the LEOP stage. The PFD at other satellites in higher altitude orbits will naturally decrease as separation increases. BlackSky will transmit on UHF frequencies only when over the limited number of mid-inclination earth stations for which transmissions are intended and at a 5% average duty cycle. These factors make the chances of any increase in potential interference exceedingly remote. The availability of multiple UHF channels in the band that could be switched with other satellites in the constellation that operate at higher altitudes gives BlackSky additional flexibility to avoid any potential interference.

As BlackSky's satellites descend, simply as a matter of geometry, the geographic scope of their transmit beams also narrow and, therefore, fall within the broader scope of the beams presented in the application underlying BlackSky's current grant.

B. Schedule S

BlackSky has updated the orbits in the Schedule S with current orbital parameters as of June 22, 2026 for in-orbit satellites. Argument of Perigee and Right Ascension of the Ascending Node (RAAN) reflect the transient values at the time of computation of each vehicle's orbital ephemerides. Note that RAAN tolerance is held to be +/-180 degrees for all vehicles BlackSky operates, as BlackSky does not manage apsidal or nodal precession and operates through the full precession of both orbital elements.

To derive the figures for the updated Schedule S, BlackSky started with the actual apogee and perigee for each satellite, as of June 22, 2026. In each case, BlackSky added 15 km to the altitude as margin to allow for potential maneuvering. To produce the

tolerances listed in Schedule S (and for Schedule S purposes only) BlackSky assumed the tolerance to be the midpoint of the difference between (a) the adjusted apogee or perigee as stated previously and (b) the proposed operational floor 340 km. These figures encapsulate the full operational range of perigee and apogee for which BlackSky is requesting a modification to its grant.

As noted above, tail number satellite G-6 is yet to launch. To generate numbers for G-6 in the Schedule S, BlackSky entered orbital plane 12 with an apogee of 500 km, perigee of 340 km, and mean altitude of 420 km with tolerance of 80 to represent launch anywhere within the 385 to 500 km range per the existing grant (as a Gen-2 replacement satellite) and eventual operation down to 340km. For inclination, BlackSky used the mean between expected 40 to 60 degrees, with a tolerance of 10 degrees, reflecting that the precise inclination will be decided later.

PFD calculation for X band is provided at max power setting at 385km, as power will be reduced as satellites decrease altitude between 385km and 340km. As noted in Section (a), BlackSky nominally sets output lower than the maximum to 19.2dBW and lower. The below schedule will avoid any increase in PFD on the earth relative to nominal operation as the satellites descend, and the coordination with NASA results in an even lower power settings over some locations.

Altitude (km)	EIRP (dBW)
385+	19.2
344 - 384	18.2
340 - 343	17.2

C. Orbital Debris

Similarly, continuing to operate the satellites has no detrimental effect on the mitigation of orbital debris considerations that were presented in BlackSky's license application. The intent of BlackSky's orbital debris mitigation plan is, and has always been, that the satellites will descend to the earth by force of gravity after exhaustion of

propulsion capability. This modification request maintains the propulsion and orbital demise concept of operations for the Gen-2 satellites.

BlackSky's ability to perform necessary end-of-life activities, as required under Section 25.283(c) of the Commission's rules, does not require remaining propellant aboard the satellite. BlackSky retains the ability to fully comply with the requirements for de-energizing the satellite at all altitudes down to 340km. [REDACTED]

[REDACTED]

[REDACTED].

BlackSky maintains a conjunction deconfliction agreement with NASA for coordination of operations in and around the International Space Station (ISS). During these overlaps, coordination between BlackSky and NASA has operated effectively for conjunction avoidance. Upon altitude reduction below 385km, each satellite will leave the altitude of overlap with the ISS and thus further decrease any chance of conflict or orbital debris impacting the ISS mission.

D. Coordination with other Federal Agencies

BlackSky has attempted to pre-coordinate this modification request with federal agencies but was told that such pre-coordination is no longer being conducted.

BlackSky's NOAA CRSRA license allows operation of all Gen-2 "Global" satellites down to an altitude of 300 km (although, as noted herein, BlackSky does not intend to operate its satellites below 340 km).

E. ITU Materials

BlackSky is preparing the relevant ITU materials associated with this modification application and will separately provide these materials to the Space Bureau.

F. Public Interest Considerations

Taking BlackSky's Gen-2 satellites out of service when they are still capable of mission performance would constrain BlackSky's ability to provide service at a time when extensive and timely imaging is most essential to its customers' programs, including programs of the US Government. Allowing BlackSky to continue operating its Gen-2 satellites during the initial portion of their post-propellant descent to earth will extend the company's ability to support the US government and other customers and will therefore strongly serve the public interest.

The public interest will be further served by shortening the period between the decommissioning of BlackSky's Gen-2 satellites and their demise into the atmosphere. That is, since the operational mission of these satellites will be extended as they descend below their originally authorized lowest operating point, the post-mission orbital lifetime of the satellites will be commensurately shortened.

* * * * *

For the reasons set out above, BlackSky respectfully requests modification of its Grant.

TECHNICAL CERTIFICATE

I, Nick Merski, 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 and the related attachments, 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.

/s/ Nick Merski

Nick Merski
Chief Operating Officer
BlackSky Global LLC

July 31, 2026