Maris Developments
E181611
Request for Modification

On September 11, 2019, the FCC granted Maris Developments ("Maris") authority to operate a fixed earth station located in Boardman, Oregon (the "Boardman Earth Station"; Call Sign E181611) utilizing certain X-band downlink and S-band uplink frequencies to communicate with the DigitalGlobe satellites (Call Signs S2129 and S2348) ("DigitalGlobe").[1]

By this modification application, Maris seeks authority for three measures. First, it seeks to add three additional points of communication—the BlackSky Global satellites (Call Sign S3032) ("BlackSky"); the Planet Labs Dove satellites (Call Sign S2912) ("Dove"); and the Planet Labs SkySat satellites (Call Sign S2862) ("SkySat"). Second, it seeks to add an S-band uplink frequency for DigitalGlobe. Third, it seeks to add a pair of electrically identical antennas to communicate with the current (DigitalGlobe) and requested points of communication (BlackSky, Dove, and SkySat). As discussed with International Bureau staff, Maris provides a separate Schedule B for each point of communication with complete technical details to facilitate the individual evaluation of each request.[2]

Grant of this modification will serve the public interest by facilitating systematic and efficient use of resources by satellite network operators and service providers, enabling Earth exploration satellite service ("EESS") customers to focus on satellite and customer operations by minimizing deployment and/or management of their own ground infrastructure and allowing Maris to provide that service instead. This managed network provides for an increase in coordination and spectral efficiency in the EESS service, as the Boardman Earth Station can be utilized to maximum efficiency among Maris's client constellations. Such innovative shared infrastructure solutions also help to advance the goals of United States space policy by making commercial space increasingly accessible to more users, whether service providers or consumers, through reduced cost of operations.[3] Prompt grant will enable Maris to provide spectrally efficient ground network solutions that facilitate a growing use of EESS services.

Additional Points of Communication

Maris requests authorization to add BlackSky, Dove, and SkySat as points of communication. The Boardman Earth Station, including the requested second pair of electrically identical antennas, would communicate with these constellations utilizing the following frequencies:

- BlackSky
    - 401.375 MHz, 401.5 MHz, and 8025-8400 MHz downlink; and

[1] *See* SES-LIC-20180827-02512 (granted Sep. 11, 2019).

[2] *See* 47 C.F.R. § 25.115.

[3] *See, e.g.*, Presidential Memorandum, *Space Policy Directive-2 of May 24, 2018: Streamlining Regulations on Commercial Use of Space*, 83 Fed. Reg. 24901 (May 30, 2018).

    - 450.2 MHz and 2071.875 MHz uplink
- Dove:
    - 401.3 MHz, 8087.5 MHz, 8212.5 MHz, and 8337.5MHz downlink; and
    - 450.0 MHz, 2057.31 MHz, 2054.69 MHz, and 2056.0 MHz uplink
- SkySat:
    - 8075 MHz, 8200 MHz, 8325 MHz, 8375 MHz, and 8380 MHz downlink; and
    - 2081 MHz and 2083 MHz uplink

The requested downlink transmissions are within the frequencies ranges previously coordinated through the Interdepartment Radio Advisory Committee ("IRAC") for the current DigitalGlobe points of communication.

Additional Electrically Identical Antennas

The Commission has licensed the Boardman Earth Station to operate two co-located antennas: a 5.4m Viasat and a UHF M2 Antenna Systems antenna. On October 3, 2019, Maris was granted a 30-day special temporary authority (the "Boardman STA") to operate a second pair of electrically identical antennas.[4] The STA was subsequently renewed for an additional 30-day period, expiring on December 6, 2019.[5] The Boardman STA authorizes the second pair of electrically-identical antennas to communicate with the DigitalGlobe satellites on the same technical parameters as the currently authorized antennas.[6] Pursuant to its STA authority, Maris has installed and is currently operating a second pair of electrically identical Viasat and M2 antennas.[7]

By this modification application, Maris requests permanent authorization to continue to operate this pair of electrically identical antennas, both with the currently authorized point of communication (DigitalGlobe) and the requested points of communication (BlackSky, Dove, and SkySat). Complete technical information is provided in the Schedule Bs.

S-Band Uplink Transmissions

Maris requests authorization to add additional an S-band frequency in the 2025-2110 MHz band for the purposes of providing uplink and telemetry, tracking, and control ("TT&C") services for the DigitalGlobe constellation.

Specifically, Maris requests authorization to uplink to the DigitalGlobe constellation utilizing the 2085.7 MHz frequency. The use of this frequency for uplink EESS and TT&C is in accordance with the U.S. Table of Frequency Allocations.[8]

---

[4] *See* SES-STA-20190927-01214 (Oct. 3, 2019) ("Maris STA").

[5] *See* SES-STA-20191029-01375 (Nov. 6, 2019).

[6] *Id.*

[7] *See id.*

[8] *See* 47 C.F.R. § 2.106.

Conclusion

For the reasons set forth above, Maris respectfully requests that the Commission grant this modification application.