Haras Development E181423 Request for Modification

On September 11, 2019, the FCC granted Haras Development ("Haras") authority to operate a fixed earth station located in Dublin, Ohio (the "Dublin Earth Station"; Call Sign E181423) utilizing certain X-band downlink and UHF uplink and downlink frequencies to communicate with DigitalGlobe satellites (Call Signs S2129 and S2348) and BlackSky Global satellites (Call Sign S3032).<sup>1</sup>

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

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 Haras to provide that service instead. This managed network provides for an increase in coordination and spectral efficiency in the EESS service, as the Dublin Earth Station can be utilized to maximum efficiency among Haras'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.<sup>3</sup> Prompt grant will enable Haras to provide spectrally efficient ground network solutions that facilitate a growing use of EESS services.

## Additional Points of Communication

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

- Dove:
  - $\circ$   $\,$  401.3 MHz, 8087.5 MHz, 8212.5 MHz, and 8337.5MHz downlink; and
  - o 450.0 MHz, 2057.31 MHz, 2054.69 MHz, and 2056.0 MHz uplink

<sup>&</sup>lt;sup>1</sup> See SES-LIC-20180816-02287 (granted Sep. 11, 2019).

<sup>&</sup>lt;sup>2</sup> See 47 C.F.R. § 25.115.

<sup>&</sup>lt;sup>3</sup> 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).

- SkySat:
  - o 8075 MHz, 8200 MHz, 8325 MHz, 8375 MHz, and 8380 MHz downlink; and
  - o 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 and BlackSky points of communication.

## Additional Electrically Identical Antennas

The Commission has licensed the Dublin Earth Station to operate two co-located antennas: a 5.4m Viasat and a UHF M2 Antenna Systems antenna. On September 25, 2019, Haras was granted a 30-day special temporary authority (the "Dublin STA") to operate a second pair of electrically identical antennas.<sup>4</sup> The Dublin STA authorizes the second pair of electrically-identical antennas to communicate with both DigitalGlobe and BlackSky on the same technical parameters as the currently authorized antennas.<sup>5</sup> Pursuant to its STA authority, Haras has installed and is currently operating a second pair of electrically identical Viasat and M2 antennas.<sup>6</sup>

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

## S-Band Uplink Transmissions

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

Specifically, Haras requests authorization to uplink to the DigitalGlobe constellation utilizing the 2052 MHz, 2085.7 MHz, and 2092.6 MHz frequencies, and the BlackSky constellation utilizing the 2071.875 MHz frequency. The use of these frequencies for uplink EESS and TT&C is in accordance with the U.S. Table of Frequency Allocations.<sup>7</sup>

## Conclusion

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

<sup>&</sup>lt;sup>4</sup> See SES-STA-20190923-01187 (Sep. 25, 2019) ("Dublin STA").

<sup>&</sup>lt;sup>5</sup> *Id.* 

 $<sup>^{6}</sup>$  See id.

<sup>&</sup>lt;sup>7</sup> See 47 C.F.R. § 2.106.