

Exhibit 3: Demo-1 Earth Stations

The Jackal satellites will communicate with Viasat's Earth Station (ES) network in the U.S. and internationally. Viasat's 7.3 m Earth Station in Alaska will be used for Ka-band reception of payload data. This station will also be used for S-band command in the U.S. and S-band telemetry outside of the U.S.

S-band / Ka-band Payload Earth Station

- Diameter: 7.3 m
- FCC call sign: E140023
- FCC Site ID: UAF ASF GS
- Address: 1625 Richardson Hwy., North Pole, North Star, AK, 99705
- Viasat Antenna designator: FAI01
- Coordinates: Lat: 64.794°N, Long: -147.536°E, Altitude: 144 m AMSL
- Azimuth Range: Unlimited
- Elevation Range: 10 deg to 90 deg
- Polarization: RHCP
- Ka-band Rx (Payload Data) Parameters:
 - Rx Frequency: 25.5 GHz - 27 GHz
 - Rx Gain: 64.0 dBi
 - Minimum G/T: 34.5 dB/K
 - Beamwidth: 7.9 deg.
- S-band Tx (Command) Parameters:
 - Tx Frequency: 2.025 GHz - 2.110 GHz
 - Tx Gain: 42 dBi
 - Beamwidth: 1.4 deg.
- S-band Rx (Telemetry) Parameters – not downlinking in the U.S. provided for reference:
 - Rx Frequency: 2.2 GHz - 2.29 GHz
 - Rx Gain: 40 dBi
 - Minimum G/T: 17 dBi/K

S-band TT&C Earth Station

- Diameter: 5.4 m
- FCC call sign: E160161
- FCC Site ID: 1
- Address: 1236 Wayne Poultry Rd., Pendergrass, Jackson, GA 30567
- Viasat Antenna designator: PGG01
- Coordinates: Lat: 33°10'29.0"N, Long: 83°40'19.0"W Altitude: 230 m AMSL
- Azimuth Range: Unlimited
- Elevation Range: 10 deg to deg
- Tx Parameters:
 - Tx Frequency: 2.025 GHz - 2.110 GHz

- Tx Gain: 39.3 dBi
- Beamwidth: 1.9 deg.
- Tx Polarization: RHCP
- Rx Parameters:
 - Rx Frequency: 2.2 GHz - 2.29 GHz
 - Rx Gain: 40.0 dBi
 - Rx Polarization: RHCP
 - Minimum G/T: 17 dB/K

Table 1 provides the latitude and longitude of the international earth stations.

Table 1. Location Information of International Viasat Earth Station Locations

Location	Site Coordinates	S-band Uplink	S-band Downlink	Ka-band Downlink
Pendergrass, GA, USA (PGG)	● 34.1746 °N Lat ● -83.6718 °E Long ● 204.85 m AMSL	● 2025-2110 MHz ● EIRP: 53.2 dBW	● 2200-2290 MHz ● G/T: 17 dB/K	n/a
Guildford, UK (GDD)	● 51.2420 °N Lat ● -0.6186 °E Long ● 136.67 m AMSL	● 2025-2110 MHz ● EIRP: 53.2 dBW	● 2200-2290 MHz ● G/T: 17 dB/K	n/a
Alice Springs, AU (ASP01, ASP02)	● -23.7586 °N Lat ● 133.8809 °E Long ● 576.74 m AMSL	● 2025-2110 MHz ● EIRP: 65.0 dBW	● 2200-2290 MHz ● G/T: 18 dB/K	● 25500-27000 MHz ● G/T: 34.5 dB/K
Accra, Ghana (ACC)	● 5.7499 °N Lat ● -0.30619 °E Long ● 91m AMSL	● 2025-2110 MHz ● EIRP: 65.0 dBW	● 2200-2290 MHz ● G/T: 18 dB/K	● 25500-27000 MHz ● G/T: 34.5 dB/K
Cordoba, AR (COR)	● -31.5242 °N Lat ● -64.4636 °E Long ● 730m AMSL	● 2025-2110 MHz ● EIRP: 53.2 dBW	● 2200-2290 MHz ● G/T: 17 dB/K	n/a
Öjebyn, Sweden (OJY)	● 65.336978 °N ● 21.426067 °E ● ~12m AMSL	● 2025-2110 MHz ● EIRP: 55.2 dBW	● 2200-2290 MHz ● G/T: 18 dB/K	● 25500-27000 MHz ● G/T: 34.5 dB/K
Pretoria, South Africa (PRY)	● - 25° 53' N ● 27° 42' East ● 1530m AMSL	● 2025-2110 MHz ● EIRP: 55.2 dBW	● 2200-2290 MHz ● G/T: 18 dB/K	● 25500-27000 MHz ● G/T: 34.5 dB/K
Obihiro, Japan (OBO)	● 42.598087344 °N ● 143.454302556 °E ● 17 m	● 2025-2110 MHz ● EIRP: 55.2 dBW	● 2200-2290 MHz ● G/T: 18 dB/K	● 25500-27000 MHz ● G/T: 34.5 dB/K
Shimoji-shima, Japan (SHI)	● 24.8268 °N ● 125.1491 °E	● 2025-2110 MHz ● EIRP: 55.2 dBW	● 2200-2290 MHz ● G/T: 18 dB/K	● 25500-27000 MHz ● G/T: 34.5 dB/K
North Pole Alaska USA 7.3 m (NTP01)	● 64.794 °N ● -147.536 °E ● 144m AMSL	● 2025 – 2120 MHz ● EIRP: 53 dBW	● 2200–2300 MHz ● G/T: 19 dB/K	● 25500-27000 MHz ● G/T: 34.5 dB/K
Canada (YEV)	● 68.3607° N ● - 133.520 °E	● 2025-2110 MHz ● EIRP: 55.2 dBW	● 2200-2290 MHz ● G/T: 18 dB/K	● 25500-27000 MHz ● G/T: 34.5 dB/K

