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To: Leann Nguyen

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Subject: Request for Info - File # 0715-EX-CN-2019

Message:

1- Transmitter Antenna (Space station - Inmarsat):

- Polarization RHCP
- Orientation Directional (Parabolic Gimbal Dish)
- Dimension: Gain (dbi), Beamwidth (degree) Gain = 42.8dBi (Peak of Beam), Beamwidth = 1.2° (HPBW)

2- Receiver Antenna (aircraft):

- Polarization RHCP
- Orientation: Directional (Electromechanically steered array)
- Dimension: Gain (dbi), Beamwidth (degree), Azimuth (degree clockwise from True North), Elevation (in meter above MSL) , Height (in meter above MSL).
Gain = 30.9dBi at 20° elevation
Beamwidth = 3.8° (HPBW)
Azimuth = Varies (+/- 180 deg)
Elevation = 5-90 deg
Height (for AC) = 0-12,200 m

3- Orbital characteristics Inmarsat-5 5F2 at 55°W; Inmarsat-5 5F3 at 180 deg

- Inclination angle (in degree) 0.0 °
- Apogee (in km) 35,797.7 km
- Perigee (in km) 35,791.2 km
- Period (in hour) 23.935 Hours
- Number of satellite in the system. 2
- Number of transmitting satellite 2
- Number of receiving satellite 2