

From: David Katko

To: Leann Nguyen

Date: August 08, 2017

Subject: Request for Info - File # 0621-EX-CN-2017

Message:

Leann - below please find the information you requested on August 4. Please let me know if you need anything else.

Sincerely,
David Katko

A – Ground Station Antenna

- 1) Polarization - Right Hand Circular (RHC) in both uplink and downlink
- 2) Azimuth (degrees clockwise from true north) - Satellites are in polar orbits with orbital period of 100.5 minutes and are therefore constantly rising in the North/South and setting on the opposite pole. Azimuth from the test locations will sweep from 0 to 180 degrees, or 360 to 180 degrees, or vice versa depending on ground track.
- 3) Location Elevation (above MSL in meters):
Melbourne, FL (Babcock St.) = 6.7 m
Melbourne, FL (Hibiscus Blvd.) = 8.0 m
Phoenix, AZ = 435 m
Little Rock, AR = 81 m
Seattle, WA = 4.5 m
- 4) Antenna height (above ground level, in meters)
Melbourne, FL (Babcock St.) = 22.6 m
Melbourne, FL (Hibiscus Blvd.) = 10.7 m
Phoenix, AZ = 9.8 m
Little Rock, AR = 8.5 m
Seattle, WA = 16.8 m

B – Space Station

- 1) Antenna gain
transmit = 23.6 dBi max at beam peak; 10.8 dBi min at beam edge
receive = 23.6 dBi max at beam peak; 10.8 dBi min at beam edge
- 2) Beamwidth – 11.3 degrees (full beamwidth), 3 dB down from peak

C – Orbital Characteristics

- 1) Inclination angle = 86.4 degrees
- 2) Apogee = 780 km nominal (circular)
- 3) Perigee = 780 km nominal (circular)
- 4) Period = 1.675 hours (100.5 minutes)
- 5) Number of satellites in system = 89
- 6) Number of transmitting satellites = 66
- 7) Number of receiving satellites = 66

D – Contact for system termination in case of interference:

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