

From: JJ Johnston

To: Leann Nguyen

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Subject: FCC File# 0275-EX-ST-2010

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Message:

The aircraft will be between 20 and 200 miles offshore. The aircraft will be receive only, transmissions will be from shore directed offshore only.

The following antennas will be used for this operation:

For the high band frequencies, a 5 parabolic dish antenna will be used. It's made by Quinstar (P/N: QRP-A0005P). It has a 5 deg conical beamwidth (in E and H planes). At Moses Lake and at Ocean Shores the antenna will be pointed up roughly 6 deg and westward.

For the low band (150MHz to 1000 MHz), we will use a Linear (Vertical) Log Periodic Antenna with a gain of 6dBi and beam width of 30 deg in E and H planes.

For 1,000MHz to 6,000MHz, we will use a Standard Gain Horn with gain of 10 dBi and beam width of 15 deg in E-plane and 20 deg H-Plane

For 6,000MHz to 18,000MHz, we will use a Standard Gain Horn with gain of 14 dBi and beam width of 15 deg in E-plane and 20 deg H-Plane