The Boeing Company
P.O. Box 3707
Seattle, WA 98124 2207

Per CFR 47, section 1.1307.b(1), Table 1, all applications for experimental operations with an ERP greater than 100 watts require evaluation for compliance with human exposure limits defined in section 1.1310, and if exceeded require submission of an Environmental Assessment as defined in section 1.1311.

The below calculations define the minimum safe working distance for both Occupational and General Public, which are based on the maximum permissible exposure limits of 5 mW/cm^2 and 1 mW/cm^2 respectively.

The antenna will be operated in a controlled area, and will be directed towards the aircraft in flight. Only authorized occupational workers will be allowed access to the area of operation. In addition the transmitter will be secured prior to conducting maintenance, and the area will be monitored during the operation to ensure that personnel are clear of any radiation hazard area.

Transmitter Peak Power (Watts):	21.16
Maximum Antenna Gain (dBi):	55.1
Duty Cycle (%):	100
Transmitter Power (dBm):	43.2552
EIRP (dBm):	98.3552
Non-dimensional Antenna Gain:	323593.6569
Transmitter Avg Power (Watts):	21.16
EIRP Watts:	6847241.7806
Avg EIRP Watts:	6847241.7806

Minimum Safe Distance	Occupational	General Public
Meters:	**104.3922**	**233.428**
Feet:	**342.4898**	**765.8305**