

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/cm² and 1 mW/cm² respectively. These calculations were conducted using the highest gain antenna used in this operation. The antenna is patch passive electronically scanned array..

TX Peak Power (Watts)	6.53		
Antenna Gain (dBi)	30		
Duty Cycle	1		
TX Power (dBm)	38.14913181		
EIRP (dBm)	68.14913181		
Non-dimensional Antenna Ga	1000		
TX Avg Power (Watts)	6.53		LOCKED
EIRP Watts	6530		FIELDS
Avg EIRP Watts	6530		
Minimum Safe Distance	Occupational		General Public
Meters	3.223789352		7.208612135
Feet	10.5766081		23.65001469

The antenna will be on a manned or unmanned aircraft. 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.