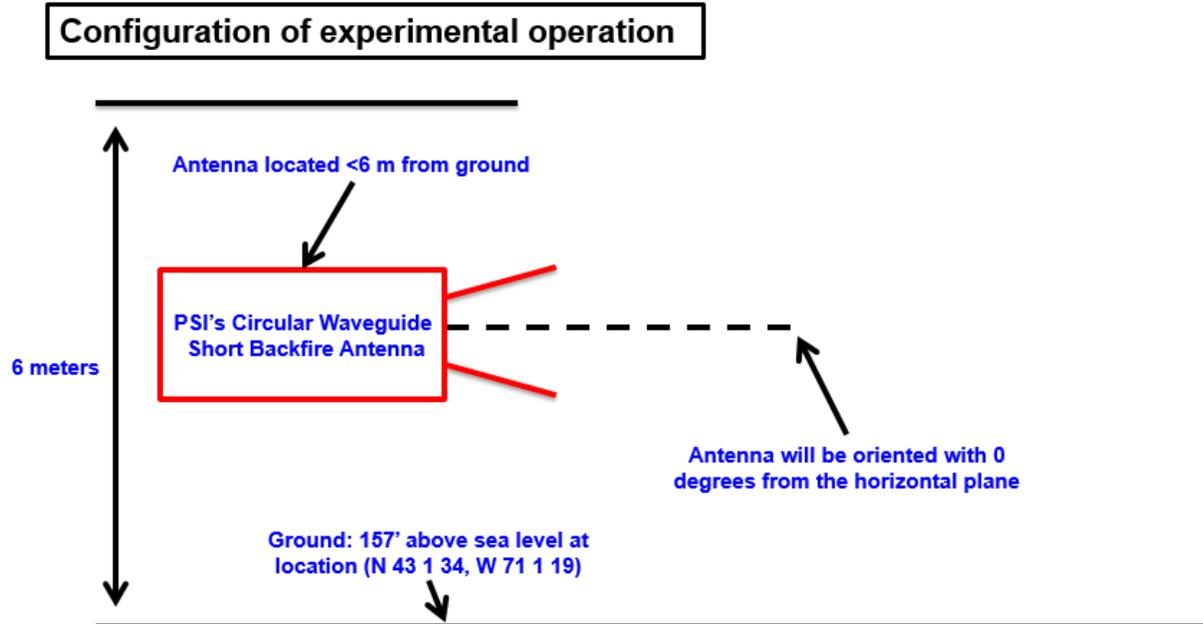


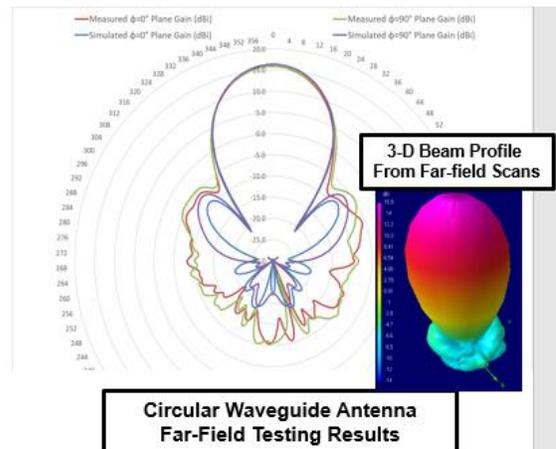
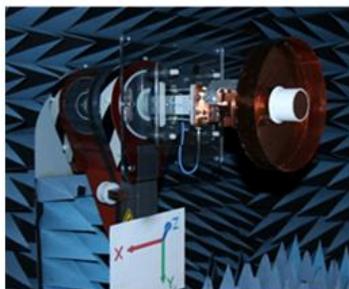
Exhibit 2 - 20221129 PSI Response to FCC Correspondence

According to WTB, the company must provide the following information "

1. Detailed configuration of the experimental operation, antenna sketch with antenna center height above ground level and AMSL, the direction that the antenna will point at, elevation angle.



- PSI's antenna is an experimental short-backfire circular waveguide antenna
- The antenna gain profile was characterized by Antenna Test Labs in North Carolina and has a peak gain of 16.3 dBi across 2400-2500 MHz



2. An engineering analysis and explanation of how it would specifically avoid causing harmful interference to the incumbent Broadcast Auxiliary Service and Fixed Microwave Service licensees.

Using the FCC supplied Point Radius Search, there does not appear to be an operator at the proposed frequencies (2460-2470 MHz) operating within 10 miles of the proposed STA location.

Site / Frequency / Market Search Results

[Search Criteria](#): Frequency Range = 2400 MHz through 2500 MHz, Computed Box Based on Point/Radius: Center = 43° 1' 34" N 71° 1' 19" W, Radius = 10 Miles, Currently Licensed and Pending Facilities

No Records found for this search criteria

[Back to original search](#)

* Indicates points outside the point/radius circle, within the computed box.

The FCC dictates that in the ISM band (2.400 – 2.4835 GHz) the maximum Effective Isotropic Radiated Power (EIRP) is 36 dBm (EIRP = Transmit Power (dBm) + Antenna Gain (dBi)).

The proposed transmitter has EIRP of 711,213,000 W or 118.52 dBm. According to the last term of the Friis Transmission equation shown below, the free space losses at a distance of 10 miles and the lowest operating frequency of 2400 MHz is equal to -124.2 dB. At 10 miles this brings the EIRP to below the 36 dBm limit at 118.52 dBm -124.2 dB = -5.68 dBm.

$$P_r^{[dB]} = P_t^{[dB]} + G_t^{[dBi]} + G_r^{[dBi]} + 20 \log_{10} \left(\frac{\lambda}{4\pi d} \right)$$

Friis Transmission Equation:

3. Justification for using very high power, 711,213,000 W associated with the emission designator NON.

PSI is developing a counter electronics device for the US military. This level of power is required to disable electronics at close range from our experimental device.

4. Any stop buzzer information in the event that interference occurs?. The company has not shown any intention, or submitted any plan, to avoid harmful interference caused by the proposed operations to the BAS and Fixed Microwave Service operations. The company has already provided some information on antenna but not enough details. "

Analysis is provided above in bullet 2 to demonstrate that no local operators should be affected by harmful interference. Antenna details and configuration provided under bullet 1. The stop buzzer information is provided in Exhibit 1 of this STA application.

The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information within 30 days of 11/28/2022 may result in application dismissal pursuant to Section 5.67 and forfeiture of the filing fee pursuant to Section 1.1108.