

PUBLIC INTEREST STATEMENT

1. Introduction

By the instant application (“Application”), BAE Systems Land & Armaments L.P. (“BAE Systems”) requests that the Commission grant Special Temporary Authority to permit BAE Systems to operate the facilities (the “Facilities”) specified in the instant application. As the testing under this STA is expected at this time to occur only during the six month period from 3/10/14-9/10/14, the request for Special Temporary Authority is justified under Commission rules and policies.

2. Purpose and Nature of the Operation

This experimental STA is requested to conduct limited testing of an experimental transmitter to characterize its performance and investigate if it can be used to effect electronics such as computer networks. This is being conducted as an internal technology demonstration effort for eventual use by the defense department. The transmitter will operate in the band from 1 to 2 GHz, at up to 1000 pulses per second for up to 5 seconds maximum. Each pulse has a duration of 4 nanoseconds and ERP levels of up to 3 GW will be produced.

Waiver of the Station ID rules set forth at Section 5.115 is respectfully requested.

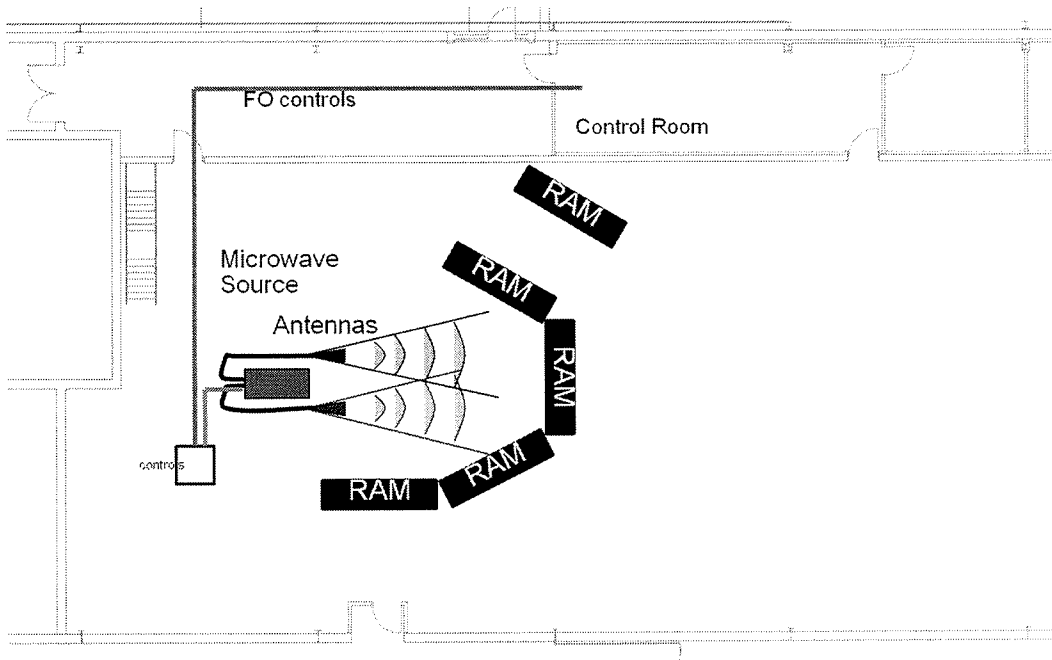
3. Interference Mitigation/Signal Characteristics

A. Interference Mitigation

BAE Systems is well aware of its obligations under Part 5 of the Commission’s rules to avoid interference to co-channel licensees in non-experimental services, and will take all steps to ensure compliance with this obligation. With respect to interference mitigation, and based on prior Commission and FAA coordination conducted for similar operations (see File 0198-EX-ST-2013), BAE Systems is willing to accept the following “keep-off” frequencies:

“Licensee must NOTCH OUT the following frequencies and bands: 1371.25 MHz, 1379 MHz, 1387 MHz, 1431.925 MHz, 1631.5 MHz, 1646 - 1647 MHz, 1678 MHz, 1680 -1682 MHz, 1755 - 1757 MHz, 1770 MHz, 1780 MHz, 1814 MHz, 1825 MHz, 1830 MHz, and 1840 MHz”

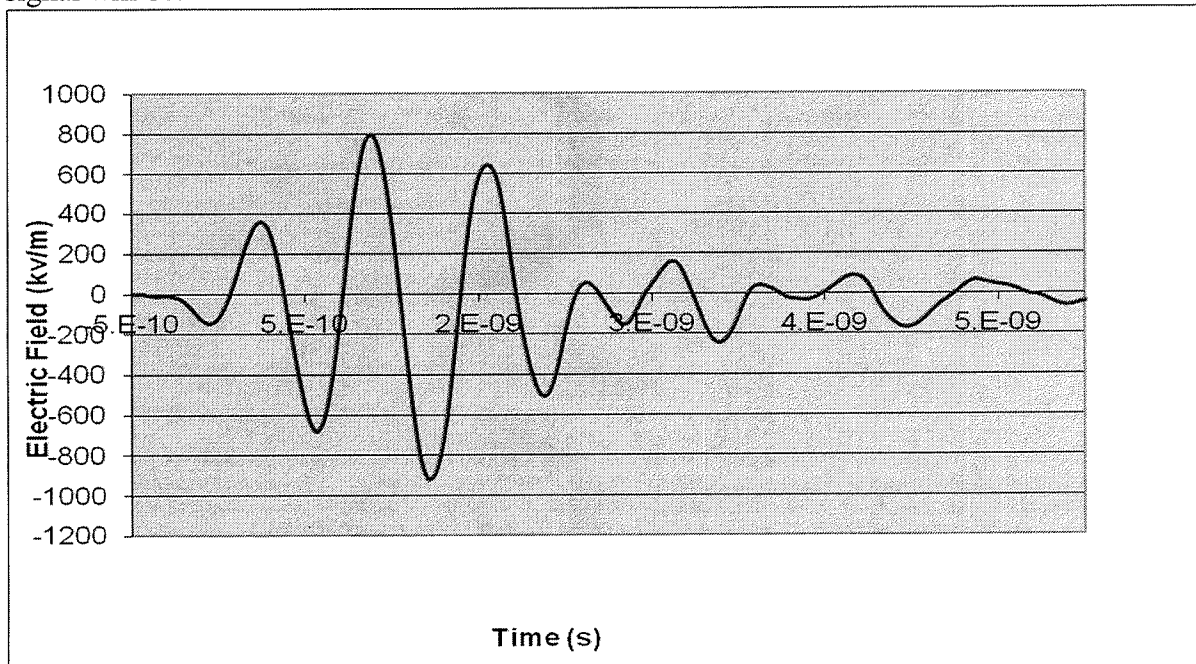
In addition, the antenna will be pointed horizontally and kept between 1 and 2 meters above the ground. The main lobe will be absorbed by panels of radar absorbing material and multiple cinder block walls with rebar surround the test area. The ceiling is multiple layers of sheet metal. The test area layout is shown below:



Test area layout. This room is situated inside of the Fridley facility and does not open to the outside. Multiple sheet metal and cinder block/rebar walls are between this facility and free propagation outside.

B. Signal Characteristics

Based on measurements taken in anechoic facilities and government labs, the output signal will be:



Output signal of RF transmitter

4. Stop Buzzer.

BAE Systems advises that the following will be available by wireless telephone and will act as the “stop buzzer” if any issues regarding interference arise during testing:

Primary: Luis Hernandez – 612-247-3566

Secondary: James Anderson – 612-437-6101

For the foregoing reasons, BAE Systems respectfully submits that approval of this Application is in the public interest, convenience and necessity.