

Exhibit 1

1. Introduction

By the instant application (“Application”), BAE Systems Information and Electronic Systems Integration Inc. (“BAE Systems”) requests that the Commission grant a two year experimental license to permit BAE Systems to operate the facilities (the “Facilities”) specified in the instant application.

2. Purpose of the Operation

The testing at the Merrimack Antenna Test Facilities is a critical part of the manufacture and delivery of military systems provided to the Armed Forces in support of Homeland Security as well as war efforts.

Specifically, this demonstration, a continuation of the operations previously authorized under call sign WH9XLD (with some frequency deletions), is conducted to meet requirements of a government contract by demonstrating product functionality with the collecting and recording of antenna patterns to perform system calibration and capability verification at an outdoor antenna range.

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

3. Contract Information

Contract POC:
Mr. Louis J Winder, JF
CTR USAF AFMC 661 AESS/EN
520-228-9083
louis.winder.ctr@us.af.mil

4. Other Issues

A. Transmit Directionality

The experiment requires transmission from the rooftop of the MER04 outdoor antenna range located at the BAE Systems facility in Merrimack, NH. The station location is:

Station	North Latitude	West Longitude	Reference	Transmit Direction
1	42-48-40.320	71-29-24.360	Building 4	12 deg Azimuth line of bearing

B. Antenna Data

The transmit antenna is a developmental item. For the convenience of the Commission, the following chart defines certain specifications relating to the directional antenna that will be used in the experiment:

Mfg.	Model Number	Gain	BW
BAE Systems	n/a	60 dBi	E-Plane = 220 deg H-Plane = 220 deg

C. RF Source

Agilent N5230A PNA-L Network Analyzer or equivalent

D. Additional Signal Amplification

Additional signal amplification is necessary to achieve a useful signal for purposes of this experiment. This amplification will be provided by the antenna equipment under test. The RF output power from the transmit antenna will be measured and verified to meet the radiated output power limits set forth in the license.

E. Frequency Requests

BAE Systems is aware that some requested frequencies may contain other licensees, and as always, BAE Systems will comply with all restrictions and special conditions imposed by the Commission. BAE Systems has attempted to avoid conflicts by selecting frequencies that in the past have allowed for higher than typical ERP levels for our Merrimack location. In the instance of a frequency conflict for a discrete frequency, BAE Systems would appreciate the opportunity to review any available frequencies and accept special conditions limiting operation to said frequencies or frequencies close to the requested values.

F. Prevention of Interference

BAE Systems hereby advises the Commission that the tests to be conducted under the requested Commission authorization are to be conducted near the center of BAE Systems' Merrimack, New Hampshire campus. Such location will result in the separation of the test facility from other existing transmit or receive facilities.

BAE Systems has conducted a safety assessment for the requested ERP levels and has determined that the only areas in which exposure levels will exceed those for the general public will be located on the BAE Systems campus and be under controlled access.

In addition, BAE Systems notes that the transmitter will not continuously emit an RF signal due to the nature of the experiment. During the time needed to physically reposition the transmit antenna between transmissions the transmit power will be reduced to zero. At each position of the transmit antenna, the RF source will sweep once through the frequency list, after which the transmit power will be reduced to zero until the next position is achieved. Thus, the duty cycle for RF transmission for this experiment is 1.2%.

G. Stop Buzzers

Primary: Primary: George Moynihan - (603) 689-8630

Alternate: BAE Systems Emergency Services Center - (603) 885-3842