

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 2 year conventional experimental license to permit BAE Systems to operate the facilities specified in the instant application.

2. Purpose of the Operation

As a continuation of the authority previously granted under STA (WX9XBH), BAE Systems is testing and characterizing a novel type of RF sensor of great interest to the US government. The testing 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. This STA request is sought to allow BAE Systems to develop new technology to solve up until now impossible problems pursuant to Internal Research and Development (IRAD). The purpose of this test is to determine the sensitivity and gain pattern of a novel RF sensor.

3. Station ID Waiver

A waiver of the Station ID requirements of Section 5.115(a) is respectfully requested.

4. Transmitting Equipment

Manufacturer	Model No.	No. Units	Experimental Yes/No
Antenna - SUNAR RF Motion	Sunol JB -series	2	No
RF Sources: Agilent	Network Analyzers		
	E836XX* (*XX is 2B, 3B or 4B)	1	No
	N5230X* (*X is A,B, or C)	1	No
Amplification - Minicircuits	ZHL-42W	1	No

5. Other Issues

A. Transmit Directionality

The experiment requires transmission from B7, Merrimack Campus 130 DW HWY, Merrimack NH 03054.

North Latitude	West Longitude	Reference	Transmit Direction
42-48-47	71-28-49	B7	42-48-38N 71-29-20W Line of Bearing (LOB)

B. Antenna Data

For the convenience of the Commission, the following chart defines certain specifications relating to the directional antenna that is to be used in the experiment:

Mfg.	Model Number	Frequency Range	Gain	BW
SUNAR RF Motion	Sunol JB -series	30-2000 MHz	-21 - +6 dBi	Freq E-Plane H-Plane <u>MHz</u> <u>deg</u> <u>deg</u> 500 30 100

C. RF Sources

Network Analyzers
E836XX* (*XX is 2B, 3B or 4B)
N5230X* (*X is A,B, or C)

D. Additional Signal Amplification

Additional signal amplification is necessary to achieve a useful signal to noise ratio for the received signal. The output power of the system will be measured and verified to meet the radiated output power limits set forth in the license.

Mfg.	Model Number	Frequency Range	Gain
Minicircuits	ZHL-42W	10-4200MHz	30 dB

6. 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 facilities. Such location will result in the separation of the test facilities from other existing transmit or receive facilities.

7. Stop Buzzers

Primary: Craig Price - (603) 213-4232
Alternate: BAE Systems Emergency Services Center - (603) 885-3842