

Exhibit 1

DESCRIPTION/PURPOSE OF OPERATIONS

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

BAE Systems manufactures and tests RF systems, from the transmit antenna performance to the entire system as a whole for DOD as well as other governmental customers. The testing specified in this Application will be conducted by BAE Systems Information and Electronic Systems Integration Inc., which is a major producer of electronic warfare systems, protection systems, and tactical surveillance and intelligence systems for all branches of the armed forces. This unit’s lines of business include Electronic Warfare/Electronic Protection, Electronic Warfare/Information Warfare, Integrated Defense Solutions, and Mission Electronics.

The testing at the Litchfield Antenna Test Range 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. As a general matter, the purpose of the facilities for which consent is requested herein is to measure individually the performance of scale model antennas of various types (i.e., loop, monopole, dipole), then install arrays of these antennas on scale models of various military fixtures, and measure the performance of the antennas in their installed configuration.

The contract information associated with this Application is as follows:

Agency/Customer – NAVICP Mechanicsburg
Point of Contact – Steven Banks – (717) 605-4146
Contract No. – N00103-05-G-A503/5018 (Antenna Repair)

3. Directionality of Antennas

The Antenna Registration specifies “Yes” in response to the questions: “Is a directional antenna used?”. Although certain of the antennas are directional, certain of the antennas involved in the subject experiment are not directional in nature. Therefore, the following breakdown of antenna groupings is set forth to provide an accurate understanding of the directionality of the antennas involved in the experiment:

A. Non-Directional (Omni-directional) Antennas

Manufacturer	Model #	Quantity	Gain (Nominal)	3dB BW E (Vertical)	3dB BW H (Horizontal)
Shakespeare	229B	2	-15 to +5 dBi	OMNI	N/A
Sanders	1/4Mon	4	-5.2 dBi	OMNI	N/A

B. Directional Antennas

Manufacturer	Model #	Quantity	Gain (Nominal)	3dB BW E (Vertical)	3dB BW H (Horizontal)
Sanders	BRD	1	-30 to -5dBi	35°	N/A

4. Note Regarding Output Power/ERP Figures

Antenna efficiency has been assumed to be 100%. Therefore, the transmitter power and the radiated power are reported as equal (i.e., both the Output Power and the ERP are reported as “.007 W”). In practice the antenna efficiency and cable loss between the transmitter and the antenna will be considered and the transmitter power adjusted to achieve the approved output radiated power level.

5. Note Regarding “Mean” Power Designation

In the attached form, the power levels are reported as a “Mean” value. The transmitter will not be left on continuously due to the nature of the experiment and the need to physically reposition the unit under test between measurements, cycle through frequencies, change elevation angles of the transmit antenna, etc. where the transmit power is reduced to zero. The actual duty cycle of the transmit system is approximately 7%. Mean power is therefore a more accurate representation of the applicant’s proposed activity.

6. Transmitting Equipment

Each of these transmitters is non-experimental in nature:

Manufacturer	Model	Quantity
Fluke	Fluke 6060	1
HP	HP8341	1
HP	HP8643A	2
HP	HP8340B	2
HP	HP8662A	1
HP	HP8671A	1
HP	HP8753A	2
HP	HP8753D	2
HP	HP8753E	2
HP	HP8510B	1
HP	HP8510C	1
Agilent	E8257D	1

7. Additional Signal Amplification

Due to the low gain of the transmit antennas, an additional signal amplification may be utilized as follows:

Power Amplifiers	Model	Frequency Band	Power Output	Quantity
OPHIR	5069	.5MHz to 500MHz	8W	1
OPHIR	5094	1MHz to 1000MHz	3W	1
ENI	510L	1.7MHz to 500MHz	9.5W	2
ENI	603L	.8 MHz to 1000MHz	3W	1
ENI	550L	1.5 MHz to 400 MHz	50W	1
Amplifier Research	5W1000	1MHz to 1000MHz	50W	1

8. Prevention of Interference/Stop Buzzer

BAE Systems' Richard C. Ball will be personally conducting the test and will be available by wireless telephone at (603) 318-6913. Mr. Ball will act as a "stop buzzer" if any issues regarding interference arise during testing.