

Exhibit 1

1. Introduction

By the instant application (“Application”), BAE Systems Information and Electronic Systems Integration Inc. (“BAE Systems”) requests that the Commission an experimental license to permit BAE Systems to operate the facilities (the “Facilities”) specified in the instant Form 442.

The Application seeks a two year license for certain of the same frequencies and facilities that were granted under Special Temporary Authority (“STA”) pursuant to File Nos. 0024-EX-ST-2007; 0032-EX-ST-2007; and 0030-EX-ST-2007.

2. Purpose of the Operation

BAE Systems Information & Electronic Warfare Systems (IEWS), a business unit of the Information and Electronic Systems Integration Sector (IESI) within BAE Systems Inc., will conduct the testing specified in this Application. IEWS is a major producer of electronic warfare systems, protection systems, and tactical surveillance and intelligence systems for all branches of the armed forces. IEWS’ lines of business include Electronic Warfare/Electronic Protection, Electronic Warfare/Information Warfare, Integrated Defense Solutions, and Mission Electronics with products and services spanning the whole electromagnetic spectrum.

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. The purpose of the facilities for which consent is requested 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 related to the facilities requested herein is as follows:

Agency: USAF

Point of Contact: Doug Daegele 937-255-2091

Contract #: F33657-03-G-3027

[Purpose: To measure the amplitude and phase response of an array of antennas mounted on a scale model aircraft in order to determine their performance and to generate a calibration table for the purpose of radio direction finding.]

3. Other Issues

A. Directionality and Height of Antennas

A single Antenna Registration has been submitted for the instant Application, and such Antenna Registration specifies “Yes” in response to the questions: “Is a directional antenna used?”, and “Will the antenna extend more than 6 meters above the ground....” In accordance with discussions with Commission staff, such approach was taken in order to simplify the filing process and to reduce the amount of duplicative information contained in the Application.

However, as further discussed with Commission staff, certain of the antennas involved in the subject experiment are not directional in nature, and certain of the antennas do not exceed 6 meters in height. Therefore, the following breakdown of antenna groupings is set forth to provide an accurate understanding of the directionality and height of the antennas involved in the experiment:

i. Non-Directional (Omni-directional) Antennas
With Heights Lower Than 6 Meters

This antenna grouping relates to 8 different antennas which are non-directional (omni-directional) in nature, and which do not exceed 6 meters in height above the ground (or above any structure). These antennas are as follows:

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
Electro Metrics	EM-6924	2	+2.6 dBi	OMNI	120°
Sanders	TASES 36	2	-60 to -5dBi	OMNI	N/A
Sanders	TASES 24	2	-31.5 to +1.1 dBi	OMNI	N/A
Sanders	TASES 12	2	-10 to -5	OMNI	N/A
Sanders	Slant	1	-20 to -5	OMNI	N/A
BAE	AJCN46	1	-20 to -2 dBi	OMNI	120°

ii. Directional Antennas
With Heights Lower Than 6 Meters

This antenna grouping relates to 3 different antennas which are directional in nature, and which do not exceed 6 meters in height above the ground (or above any structure). These antennas are as follows:

Manufacturer	Model #	Quantity	Gain (Nominal)	3dB BW E (Vertical)	3dB BW H (Horizontal)
Sanders	1/2 Horn	1	+8dBi	60-30°	N/A
Sanders	1/2 Horn	1	+8dBi	60-45°	N/A
Sanders	BRD	1	-30 to -5dBi	35°	N/A

iii. Directional Antennas
With Heights Above 6 Meters

This antenna grouping relates to 13 different antennas which are directional in nature, and which exceed 6 meters in height above the ground (or above any structure).¹ These antennas are as follows:

Manufacturer	Model #	Quantity	Gain (Nominal)	3dB BW E (Vertical)	3dB BW H (Horizontal)
KMA	26500	1	-6dBi	90°	90°
SA	26-0.1	1	+8 dBi	60°	120°
SA	29-0.1	2	+8 dBi	60°	120°
SA	27-1.0/8	1	+8 dBi	9°	1.5°
SA	28-1.0/8/10	1	+8 dBi	9°	4.5°
SA	11-0.9	1	+13.7dBi	40°	35°
SA	11-1.1	2	+15.5dBi	30°	27°
SA	11-1.7	2	+15.5dBi	30°	27°
Condor	AS-48461	1	+5-+18dBi	60-10°	60-10°
Narda	639	2	+16.5dBi	6-20°	6-20°
AEL	H-1498	1	+8-+12dBi	60-30°	60-30°
SA	28-2.0/8/10	1	+8dBi	60-30°	60-30°
Sanders	Dual Horn	1	+8dBi	60-30°	60-30°

C. Note Regarding Output Power/ERP Figures

For the purpose of completion of the attached form, 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.

D. 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.

¹ In the attached form, the “overall height of above ground to tip of antenna” is identified as 36.6 meters. It should be noted that this figure represents the highest point to which the subject transmit antennas would be raised in the course of the experiment.

E. Transmitting Equipment

The following information is provided with respect to the transmitting equipment to be involved in the experiment. It is noted that 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

F. 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
OPHIR	5160	.8GHz to 4.2GHz	7W	1
CPI	VZV-2776K4/K6	4.0GHz to 18GHz	25W	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

G. Prevention of Interference

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