Exhibit 1

STA REQUEST
AND DESCRIPTION OF OPERATIONS

1. Introduction

By the instant application ("STA Request"), BAE Systems Information and Electronic Systems Integration Inc. ("BAE Systems") requests that the Commission grant special temporary authority ("STA") to permit BAE Systems to operate the facilities (the "Facilities") specified in the instant STA Request. STA is requested for a period of six (6) months, with a commencement date of December 21, 2005.

2. Purpose of the Operation

BAE Systems Information and Electronic Systems Integration Inc. ("IESI") will conduct the testing specified in this STA Request at the company's Lansdale, PA Antenna Test Range. IESI is a major producer of electronic warfare systems, protection systems, and tactical surveillance and intelligence systems for all branches of the armed forces. IESI's lines of business include Platform solutions, Sensor Systems, Advanced Systems & Technology, Electronic Protection, Information Warfare, Communication, Navigation, Identification and Reconnaissance, Center for Transformation and National Security Solutions with products and services spanning the whole electromagnetic spectrum.

The intent of this STA is to request authorization to transmit over a specified frequency band to allow BAE Systems' personnel to conduct internal range calibration and optimization tests with the purpose of minimizing reflections. The range calibration at the Lansdale, PA Antenna location is the final step in the funded capital upgrade of the facility.

Because the anticipated transmissions will relate to internal BAE Systems calibration and optimization activities, there is no specific government contract currently associated with the requested facilities.

It is anticipated that the range will be used in the future on a variety of programs and will be a critical part of the manufacture and delivery of the military systems related to those programs. Any future usage of the authorized frequencies beyond the stated internal calibration and optimization tests will be addressed either through appropriate notifications or applications where necessary. As a general matter, the purpose of the facilities for which consent is requested herein is to individually measure the performance of antennas of various types (i.e., log periodic, loop, monopole, dipole), and the performance of arrays of these antennas in various array configurations.

3. Notes Regarding Frequency Requirements and Overlap With Prior Experimental Grants

A. Actual Frequency Requirements

The frequency plan for the requested experiment is within a 4:1 band covering 80 MHz to 320 MHz. In general test frequencies may include 80 MHz to 320 MHz in 2.500 MHz steps. Frequency tolerance or accuracy will be MHz to 3 decimal points or within 1000Hz. Measurements will be performed in a stepped frequency sweep rather than a continuous frequency sweep. This may accommodate removal of individual potential interfering frequencies in the plan as required by the Commission. All tests in this STA refer to Continuous Wave operation (CW) with no modulation.

B. Overlap With Prior Experimental Grants

It is noted that the Commission has previously authorized BAE Systems to operate on a number of overlapping frequencies in both Pennsylvania[1] and New Hampshire[2].The experiments associated with the current STA request are for low power testing at finer frequency increments. BAE Systems trusts that the above-described prior grants will serve to expedite Commission processing and approval of the current STA Request.

4. Why STA is in the Public Interest

STA is being requested in order to obtain processing as expeditiously as possible so that the commencement of operation of the proposed facilities can occur as soon as possible. As a leader in technological advancements, BAE Systems continually drives new research efforts in support of the war fighter. Each candidate antenna design is fabricated and tested using the antenna measurement system described in the application. Accordingly, evaluation of the performance of the upgraded antenna range will be conducted in the near term before it is used to support customer programs. In this particular case, authority to operate the Facilities under STA is necessary so that BAE Systems can promptly perform critical near-term internal range calibration and optimization tests in preparation for anticipated future projects. Accordingly, BAE Systems is not in a position to delay the commencement of these range setup and integration tests. Commission grant of STA in this case will permit BAE Systems to commence operations under a timeframe that meets current testing schedules. For the foregoing reasons, approval of this STA Request is in the public interest, convenience and necessity.

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[1] See e.g., File No. 0239-EX-ST-2000 (Call Sign WB9XJY) (authorizing 143.975 MHz, 150.000 MHz and 225.000 MHz at higher power levels) and File No. 5705-EX-PL-97 (Call Sign WA2XLT) (authorizing 140 MHz and 225 MHz at higher power levels).

[2] See e.g., File No. 0010-EX-ST-2005 (authorizing 228.4-454 MHz with certain specified exclusions).

5. Other Issues

A. Requested Area of Operation

The Lansdale, PA Antenna Test Range is comprised of multiple separate testing locations on the 69 acre BAE Systems campus at which the subject experiment may be conducted. In addition, depending on the particular requirements of the experiment (i.e., when generating signals at zero degree elevation or at a depression angle), it may be necessary to move a given antenna along the bore site line on the range up to a distance of 100 feet. *Accordingly, in order to accommodate these requirements, by this STA Request, BAE Systems is requesting authority to operate all of the specified facilities within a 120 meter radius from the center point geographic coordinates identified in the STA Request* (i.e., 40-16-10 N.Lat.; 075-14-46 W.Long. [NAD 83]). Commission approval of such area of operation will provide BAE Systems with the flexibility it requires to move the specified test equipment to any appropriate testing location on the Lansdale, PA Antenna Test Range during the authorized term of operation, in response to the requirements of the experiment.

B. Directionality and Height of Antennas

A single Antenna Registration has been submitted for the instant STA Request, 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...." Such approach was taken in order to simplify the filing process and to reduce the amount of duplicative information contained in the STA Request. However, by way of clarification, there are 3 potential locations within the specified area of operation – each of which is identified in Figure 1 located at the end of this Exhibit 1 (the proposed range setup options are shown in Figure 1 and address the range configuration with respect to height and transmit or receive operation). Location 1 mounts the Transmit antenna on a movable tower that exceeds the 6 meter criteria. However, locations 2 and 3 do not exceed 6 meters in height and will be used in a slant range or fixed height range at less than 6 meters in height. The proposed range setup options are shown in Figure 1 and address the range configuration with respect to height and transmit or receive operation.

The following table provides the typical performance to three antenna models which are directional in nature in both the Vertical and Horizontal plane and one which directional only in the Vertical plane, and which exceed 6 meters in height above the ground (or above any structure).[3] These antennas are as follows:

Manufacturer	Model #	Quantity	Gain (Nominal)	3dB BW E (Vertical)	3dB BW H (Horizontal)
BAE AEL	AP107A	1	+6 dBi	70	120
BAE AEL	APN1509	1	+5 dBi	60	110
BAE	Crossed Dipole*	1-6	+ 6 dBi	85	75
* The Crossed Dipole antenna may be arranged on a ground plane with maximum size of12 ft. x 8 ft and arrayed with as many as 5 parasitic antenna elements.					
BAE AEL	Dipole	2	+1.73 dBi	90	-

C. Notes Regarding "Mean" Power Designation

In the attached form, the power levels are reported as a "Mean" value. The theoretical mean power of the transmitter, operating in CW mode is 10 mW. However this calculation presents a worst case and is not representative of the measurement scenario. The measurement scenario and impact on average poser is descried below.

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.

Typical radiation patterns over the +/- 100 deg Field-of-View (FOV) taken in 1 degree increments require 20 minutes maximum per cut or rotation. At each angular increment each frequency will be measured once within the dwell time of 5 msec. The significant portion of measurement time is driven by the mechanical positioning equipment. The ON-TIME at a given frequency, per radiation pattern cut, is nominally 1 second (i.e. 200 x 5 msec =1 sec). Thus the ON-TIME duty cycle for a single radiation pattern measurement is calculated to be 0.083% (i.e., 1-second in 20 minutes). Using the ON-TIME pattern measurement duty cycle the mean power is calculated to be 0.0083 mW (i.e., 10 mW x 0.00083).

Another way to assess the average power is to calculate the ON-TIME duty cycle over the course of a working day. Measurements will be performed at two (2) linear polarization states and in both the co-polarized and cross polarized configurations. This results in a total of four (4) total pattern cuts per measurement. Additionally the maximum number of sets performed per day is estimated at five (5).

[3] In the attached form, the "overall height of above ground to tip of antenna" is identified as 35 feet. It should be noted that this figure represents the highest point to which the subject antennas would be raised in the course of the experiment. Based on the particular requirements of the experiment, the center line of a given antenna in this grouping may be lowered, or raised to the 35 foot limit, to generate appropriate receive angles.

Given this typical scenario the ON-TIME at a given frequency, is 20 seconds (i.e., 1 x 4 x 5 = 20) per day. The ON-TIME duty cycle in a working day is calculated to be 0.069% (i.e., 20-seconds in 8 hours). Using the ON-TIME working day duty cycle the mean power is calculated to be 0.0069 mW (i.e., 10 mW x 0.00069).

The scenario described above demonstrates that given the ON-TIME duty cycle of the measurement the effective mean power can be substantially lower than the theoretical mean power level stated in the opening paragraph of this section.

BAE has elected to use the more conservative 10 mW power level in this submission. The operational scenario demonstrates the effective average poser is only a fraction of the stated value.

D. Notes Regarding Output Power/ERP Figures

For the purpose of completion of the attached form, cable loss between the transmitter and antenna has been neglected. In practice the cable loss between the transmitter and the antenna will be considered and will result in lower than stated Power and ERP. The ERP is calculated assuming the maximum power of the transmitter is available at the antenna. The gain of the antenna and the transmitter power is used to calculate ERP. An Effective ERP calculation is made which includes the impact of the ON-TIME duty cycle on the average ERP value.

- The ERP is calculated from the equation

  ERP = Transmitter Power x Antenna Gain,

  From the antenna performance table an antenna gain of 6 dBi is used. The Transmitter power is 10 mW.

- Then converting dB's the ERP is

  ERP = 10 x $10^{6/10}$ = 10 x 3.98 = 39.8 mW

  The Effective ERP incorporates the ON-TIME duty cycle into the ERP equation.

- Then the Effective ERP is

  Effective ERP = Transmitter Power x Antenna Gain x ON-TIME duty cycle.

- or

  Effective ERP = 39.8 x ON-TIME duty cycle, mW.

The Effective ERP can be calculated for the two scenarios described above. While performing a typical pattern measurement the Effective ERP is 0.033 mW (i.e., 39.8 x .00083) and for a given working day the Effective ERP is 0.027 mW (i.e., 39.8 x .00069).

BAE SYSTEMS has submitted the more conservative maximum ERP value of 39.8 mW in the STA application. However we have demonstrated that the Effective ERP, that results when the actual test scenario and ON-TIME duty cycle is taken into consideration, is a fraction of the ERP values provided in the submission.

E. Transmitting Equipment

In response to Item No. 8 in the Administrative portion of the STA Request, 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
AGILENT HP	8340A	1
AGILENT HP	83650	1
AGILENT	ENA E5070B	1
AGILENT	ENA E5071B	1

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 solely on the campus of BAE Systems' Lansdale, Pennsylvania facility. Such location will result in the separation of the test facilities from other existing transmit or receive facilities. BAE Systems' Michael A. Matsick, department Manager, will be personally responsible for the test and will be available by wireless telephone at (610) 248-3929 or landline telephone (215) 996-2432. Mr. Matsick will act as a "stop buzzer" if any issues regarding interference arise during testing.

G. Additional Technical Information Relevant to Test Plan

BAE Systems hereby advises the Commission that the tests to be conducted under the requested Commission authorization will be performed only over a limited of ON-TIME over the duration of the STA. Typical testing to be performed will be:

Standard gain antenna calibration via 3 antenna gain method

Range specular reflection probing and absorber fence placement studies.

Test patterns of the standard gain antennas over +/-100 deg azimuth FOV

Test patterns of the standard gain antennas over +/-45 deg elevation FOV

Testing will be limited to an average of 8 operation days per month over the six months authorization period or a total of 48 operation days.

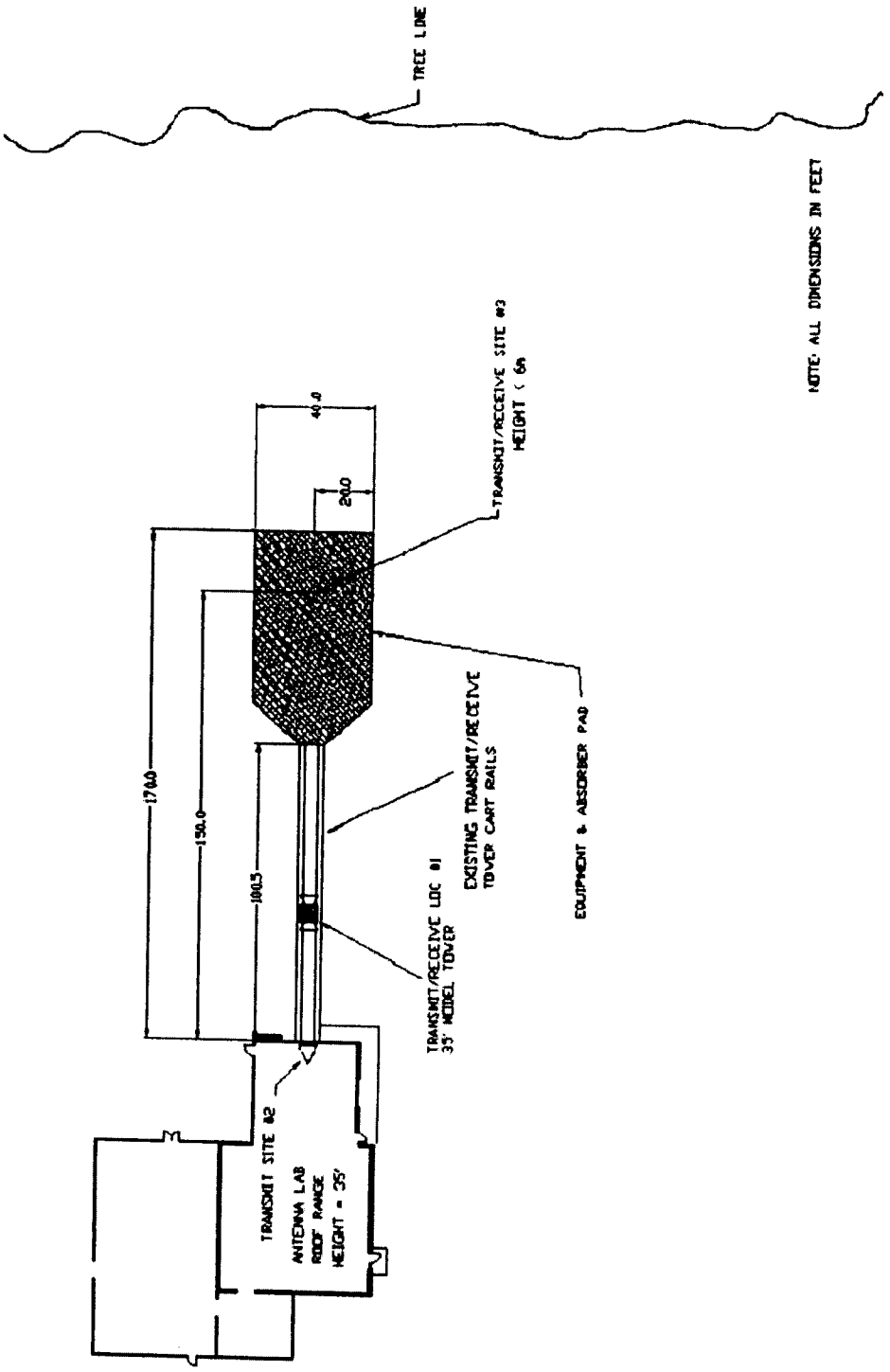

Figure 1. BAE Systems Lansdale, PA Outdoor Test Range Facility for proposed FCC STA