

**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 from the date of grant of this STA Request.

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 North America, will conduct the testing specified in this STA Request. 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 Merrimack 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 the performance of an antenna system. The contract information relevant to the instant STA Request is as follows:

Contract No. – HR0011-05-C-0064

Agency – DARPA MTO

Contract POC – Dr. Reggie Brothers (703) 696-2373
rbrothers@darpa.mil

3. **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. In this particular case, authority to operate the Facilities under STA is necessary so that BAE Systems can demonstrate and verify performance of the subject system in accordance with the near term requirements of the above-referenced contract. As stated above, the testing at the Antenna Test Range 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, and BAE Systems is not in a position to delay the commencement of these tests. Commission grant of STA in this case will permit BAE Systems to commence operations under a timeframe that will permit it to timely verify performance in accordance with the near term requirements of the above-referenced military contract. For the foregoing reasons, approval of this STA Request is in the public interest, convenience and necessity.

It is that the Commission has already previously granted STA to BAE Systems to operate experimental facilities at the Merrimack Antenna Test Range on a frequency band 456-470 MHz that includes the specific frequencies requested in this STA Request. See File No. 0010-EX-ST-2005. Although such prior grant was authorized at a lower power and for non-modulated frequencies, the instant coordination and processing of these frequencies may benefit from such prior review.

It is also noted that the instant STA Request seeks Commission authority to operate the specified antennas on a fixed basis within a radius of operation around the centerpoint of: 42-48-30 N.Lat.; 071-29-15 W.Long. [NAD 83]. Specifically, BAE Systems is requesting authority to operate all of the specified transmitters within a 200 m (.2 km) radius from the centerpoint geographic coordinates identified in the STA Request (i.e., 42-48-30 N.Lat.; 071-29-15 W.Long. [NAD 83]).

4. 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 the transmit amplifier is non-experimental in nature:

Manufacturer	Model	Quantity
Minicircuits	CRL-700	8

5. 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' Merrimack, New Hampshire facilities. Such location will result in the separation of the test facilities from other existing transmit or receive facilities. BAE Systems' Tracy Johnson will act as a "stop buzzer" if any issues regarding interference arise during testing. His number for this purpose will be (603) 689-8630.