

PUBLIC INTEREST STATEMENT

1. Introduction

By the instant request (“STA Request”), BAE Systems Information and Electronic Systems Integration Inc. (“BAE Systems”) requests that the Commission grant to BAE Systems Special Temporary Authority (“STA”) to operate the facilities (the “Facilities”) specified in the instant STA Request.

Due to the urgent near-term requirements associated with the requested testing, under separate cover a request for expedited processing is being submitted by BAE Systems in order to permit commencement of testing by August 11, 2008.

2. Purpose and Nature of the Operation; and
Request for an Extremely Limited 2 Week STA from August 11-22, 2008 at Greater
Binghamton Regional Airport, Binghamton, NY

BAE Systems Networked Enabled Solutions (NES), a business unit within the Electronics and Integrated Solutions operating group within BAE Systems Inc., will conduct the testing specified in this STA Request. NES is a leader in developing, testing and building technical systems for the U.S. Department of Defense and the United States’ allies in avionics, navigation, and military communications. NES’ lines of business include C3I systems and communication systems integration, guidance and navigation, electronic identification, and reconnaissance systems.

As explained in the attached cover letter, BAE Systems respectfully requests that the Commission grant STA to permit BAE Systems to operate the facilities specified in the STA Request for a very limited 2 week period, from August 11-22, 2008.

In support of the request for expedited processing, BAE Systems has shown the following:

- Urgent Military Need for Field Deployment to Address Imminent Harm. It is BAE Systems’ understanding that the US military intends to deploy this technology as soon as possible. This experiment responds to an urgent need of the military to address helicopter accidents that present imminent harm to US soldiers and equipment. Specifically, this technology represents an attempt to immediately deploy a radar collision avoidance system to be used by military aircraft (i.e. helicopters) at low altitudes to detect obstacles such as power towers, power lines and structures that are close to the ground.
- Specific Request for Testing by AFSOC at this Location. The Air Force Special Operations Command (“AFSOC”) has specifically requested support for this near term experiment from

the FCC at the Greater Binghamton Regional Airport in Binghamton, NY. *See attached letter from Col. Mobley, USAF, Chief, Mobility Requirements Division, AFSOC.* Operation at this particular location is critical because the necessary aircraft, hanger facilities, engineers, repair facilities and communications capabilities are located there.

- Near-Term Grant Required Due to Presence of High-Level Military Personnel. Near-term grant of the STA by August 11, 2008, is necessary because numerous high-level military personnel from AFSOC, Ft. Rucker, the Aviation Applied Technology Directorate (“AATD”), the Air Force Research Laboratory (“AFRL”) and the 160th Special Operations Aviation Airborne Regiment have identified a need to observe a demonstration of these tests during the next 2 weeks specifically at the Binghamton, NY location. As the Commission is aware, BAE Systems routinely files applications for experimental authority well in advance of required Start Dates, and the company apologizes for the filing of this STA Request so close to the required Start Date in this instance. However, because BAE Systems is not currently authorized for these operations at this location, the submission of the STA Request under these circumstances was necessary and outside of the company’s control, and BAE Systems apologizes for any inconvenience that the processing of this request may cause to the Branch and the staff.
- Extremely Limited Duration and Scope of Experiment

Processing of this STA Request should be assisted due to the extremely limited duration and scope of the experiment. Specifically:

- Grant of STA is requested for only a very brief 2 week window, from 8/11-8/22/2008¹.
- Authority is requested for only limited and sporadic operation of the facilities during the authorized timeframe. Specifically, operation of the facilities will occur only from 6 am-3 pm (ET). In addition, during those hours, operation will be sporadic, not continuous. In fact, there may be extended periods of non-operation during the 2 week period, while other non-RF transmission aspects of the experiment are conducted.
- Processing Assisted Because Same Facilities Have Been Granted at Other Locations

Processing of this STA Request is likely to be non-controversial and streamlined because the same facilities have been authorized to BAE Systems under a two year experimental license recently granted under call sign WE2XRC (File No. 0116-EX-PL-2007). Unfortunately, the area of operations under Station WE2XRC do not cover the area of operations required for the Binghamton, NY experiment (e.g., the Station WE2XRC license authorizes an area of operation of 160 km around a centerpoint located at Wharton, NJ. The Greater Binghamton Regional Airport is 185 km from Wharton, NJ and therefore falls outside the authorized area of operations for Station WE2XRC).

¹ Further tests will be conducted at Fort Rucker, AL. In the unlikely event that further tests are required at Binghamton, we will submit a subsequent, non-expedited, STA Request.

A. **DESCRIPTION OF TEST PROCEDURES/
MITIGATION OF INTERFERENCE**

- i. For brief periods (no more than 60 seconds at a time) where initial calibration of the Facilities is required, BAE Systems will transmit directly towards the North Star. At all other times, radar transmissions will be directed at ground-based structures (i.e., power lines and utility poles) that are close to the ground (i.e., no more than 6 feet above ground level). BAE Systems will not direct transmissions at existing cellular or other wireless transmission facilities. For such transmissions, the following is the applicable beamwidth/orientation information:

3dB BW E (Vertical)	3dB BW H (Horizontal)
5°	5°

- ii. As explained above, Authority is requested for only limited and sporadic operation of the facilities during the authorized timeframe. Specifically, operation of the facilities will occur only from 6 am-3 pm (ET). In addition, during those hours, operation will be sporadic, not continuous. In fact, there may be extended periods of non-operation during the 2 week period, while other non-RF transmission aspects of the experiment are conducted.
- iii. The transmit antenna is highly directional, and will lock on its targets during transmission rather than rotating during transmission.
- iv. BAE Systems understands that FAA (or other stakeholders) may require certain limited azimuth and/or elevation blanking in order to ensure that the proposed Facilities do not pose a threat of interference to adjacent emitters. Accordingly, this is to confirm that the subject radar system does have such blanking capabilities and that BAE Systems stands ready to work with FAA to identify any reasonably necessary azimuth and/or elevation restrictions for the system.
- v. Stop Buzzer. BAE Systems hereby advises that Mr. John Santillo will be available by wireless telephone at (201) 452-1010 and will act as a “stop buzzer” if any issues regarding interference arise during testing.

For the foregoing reasons, approval of this STA Request on an expedited basis is in the public interest, convenience and necessity.