

PUBLIC INTEREST STATEMENT

1. **Introduction**

By the instant application, BAE Systems Information and Electronic Systems Integration Inc. ("BAE Systems") requests that the Commission grant to BAE Systems a two year experimental license to operate the facilities (the "Facilities") specified in the instant Form 442.

2. **Purpose and Nature of the Operation**

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 application. 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.

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.

Operation at this particular location is critical because the necessary aircraft, hanger facilities, engineers, repair facilities and communications capabilities are located there. High-level military personnel from 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.

3. **Description of Test Procedures/Mitigation of Interference**

- A. 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°

- B. 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 authorized period, while other non-RF transmission aspects of the experiment are conducted.
- C. The transmit antenna is highly directional, and will lock on its targets during transmission rather than rotating during transmission.
- D. 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.
- E. 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 application is in the public interest, convenience and necessity.