

**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 particular application relates to testing required for a re-design of BAE Systems' ASN-128 self-contained Doppler navigation system. BAE Systems' Doppler navigation systems provide the U.S. military with accurate navigation in both friendly and hostile environments. To complete their missions successfully in often hostile territory, the U.S. military must have accurate, jam-resistant navigation systems, able to operate effectively and dependably in all mission scenarios. These conditions may require high speed, low-level flight over featureless, unknown terrain, in the presence of enemy jamming. The ASN-128 system provides three axes of velocity, as well as a continuous navigation solution for present position. These systems compute distance, bearing and time to a selected destination, as well as track angle error and distance-off-course to assist in navigating to that destination.

Although the ASN-128 is already deployed for use by the U.S. military, this system re-design is necessitated because certain materials used in the production of the antenna have been discontinued. The testing to be conducted pursuant to this application will continue to ensure that the new materials used for the system have no adverse impact on the systems' operation and utility.

3. Directionality/Orientation

The instant form requests directionality/information information for “directional antenna[s] (other than radar)”. Because the antenna is a radar system, a “No” answer has been inserted on the form. However, for the purpose of completeness, the following information is provided with respect to the radar signal to be used in this experiment:

| 3dB BW E<br>(Vertical) | 3dB BW H<br>(Horizontal) |
|------------------------|--------------------------|
| 5°                     | 5°                       |

4. Mitigation of Interference

Interference potential for this experiment is mitigated due to the very low power and narrow beamwidth of the signal.

5. 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.