

1. Introduction

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

2. Purpose of the Operation

The testing conducted by BAE Systems 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. In support of Internal Research and Development, the purpose of this authority is to perform developmental/prototype testing on a new radar. At this time, authority for only ground-based transmissions is required.

A waiver of the Station ID requirements of 47 CFR §5.115(a) is respectfully requested.

3. Interference Mitigation

The antenna under test has an 8-degree beamwidth in both azimuth and elevation. It has an electronically steerable beam with -9 dB first sidelobe, all others 20 dB or lower. Generally during testing, emission will be limited to short periods of less than 5 minutes, and only periodically with an overall duty cycle of less than 10% during tests. During testing, targets will primarily be located on the ground and emission will be typically limited to no more than 10 degrees above the horizon. These typical test conditions will represent 90% or more of the testing done under this license.

Potential impact to co-channel operations is significantly mitigated due to the following factors:

- Most testing will be limited to ground-based operation with the emitting antenna generally located no higher than 10 feet from the ground and the elevation of the main beam not exceeding +10 degrees elevation. Other tests, from a tower, will have the antenna directed down toward the ground.
- Outdoor testing will not be frequent. Testing will be sporadically planned and executed throughout the course of this license, typically for one to three days at a time at an expected frequency of several times a month. Testing will typically only occur between the hours of 8AM and 6PM EST on week days.
- Outdoor testing will not be continuous. Emissions will be active for short durations no longer than 5 minutes at a time (maximum) with an average on-time more on the order of 1 minute. During a test, emissions will be activated for these durations periodically with several minutes between emissions at a minimum, if not longer. Overall, during a full day of testing the expected total time spent emitting would be on the order of 30 to 60 minutes on average.

4. Stop Buzzers

Primary: Tyler Forbes 603-809-2139; Alternate: Ed Martony 603-305-4284