

Northrop Grumman Systems Corporation

The purpose of this application for experimental license and the requested authorization are identical to those authorized by Special Temporary Authority (STA) WL9XFK, File No. 0549-EX-ST-2017. This request is in support of U.S. Government contract W15P7T-10-D-D408-KZ01. The purpose of the contract is to develop a Synthetic Aperture Radar and Moving Target Indicator surveillance system for use aboard military aircraft. The Government point-of-contact is: Bob Schafer, 443-861-1961, Robert.c.schafer4.civ@mail.mil.

Variable pulse widths from 38.4 usec to 141.7 usec and variable PRFs from 500 Hz to 3,000 Hz will be employed. The transmitter output power is 800 watts mean, 3975 watts peak. Gain of the Northrop Grumman Active Electronically Scanned Array (AESA) is 36.4 dBi, resulting in maximum Effective Radiated Power (ERP) of 10.6 MW peak. The main beam width is 1.2 degrees horizontal (azimuth) and 5.7 degrees vertical (elevation).

The airborne mobile will operate at a maximum altitude of 18,000 feet MSL within a 350-kilometer radius of the coordinates in Georgetown, Delaware. Antenna orientation will be fixed at 230 degrees with horizontal polarization at the fixed laboratory location in Linthicum, Maryland.