

## **ELTA North America Request for FCC Experimental License Modification to WG2XYF**

Modification Form 442 File Number: 0106-EX-CM-2017

Modification Form 442 Confirmation Number: EL258842

28 April 2017

### **Question 7: Purpose of Experiment - Fulton, MD location**

This application is being made to support the testing and evaluation of ELTA radars. These tests will be conducted to test and verify new radar processing software and algorithms, develop equipment designs, conduct production tests and equipment calibration, and demonstrate products to customers. Tests will be conducted on the roof of ELTA's facility located at 8955 Henkels Ln Annapolis Junction, MD in Howard County. This building is a single-story structure located in a mixed-use business development. The antenna, transmitter, and receiver are mounted on the antenna support structure. In addition to the experiments conducted at the Fulton, MD location, demonstrations will be conducted within Ft Benning, GA at the McKenna Leyte Heliport. These demonstrations of the EL/M-2180 system will be conducted for the US Army. Addition demonstrations will be conducted Sells (Elephant Head,Horse Peak) ,AZ in PIMA county with Costumes and Border Protection (CBP) DHS.

It is essential that these tests be performed outside of a laboratory or anechoic chamber to create the necessary radar environment that includes land and foliage clutter, ground moving vehicles, birds, fixed and rotary wing aircraft, second time around radar targets and clutter, and other atmospheric disturbances that affect radar performance.

The EL/M-2180 system is a pulsed Doppler radar for the detection of personnel and vehicle movement on the ground. The system will transmit linear FM pulses in the 10.55 GHz to 10.6 GHz band into a planar array antenna. The horizon scan is electronic and the scan rate is 3 Hz for starring mode and 0.3-2 seconds for the scanning mode.