

ELTA North America Request for FCC Experimental License

Form 442 File Number: 0383-EX-PL-2016

Form 442 Confirmation Number: EL768167

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Question 7: Purpose of Experiment

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 11840 West Market Place, Fulton, 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.

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 ELM-2114 system is a linear FMCW radar for ground surveillance applications. The system will transmit in the 24000 – 24250 MHz frequency band from a patch array antenna. The array has a horizontal beamwidth of 85 degrees and a vertical beamwidth of 15 degrees.