

ELTA North America Request for FCC Experimental License

Form 442 File Number: 0360-EX-CN-2019
Form 442 Confirmation Number: EL429164

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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 in Baltimore County, Maryland and in Flathead County, Montana, on a designated tripod. Those location are isolated and has surrounded with trees and foliage. 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 MARS-K radar system is utilized for demonstrating its drone detection capabilities. The system will transmit in 9.8-9.975 GHz and 10.55-10.6 GHz frequency bands. The array has a Vertical polarization with 31dBi gain antenna and a horizontal beamwidth of 3 degrees and vertical beamwidth of 20 degrees.