

IAI North America Request for FCC Experimental License

Form 442 File Number: 0526-EX-PL-2013

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Question 7: Purpose of Experiment

This application is being made to support the testing and evaluation of IAI North America radars. These tests will be conducted to test and verify new, installation and integration on additional aircrafts beyond the C130J which operate by USCG, conduct production tests and equipment calibration. The radar ELM 2022 A(V)3 is an approved system that is flying on the USCG HC130J Tests will be conducted around the French Valley Airport 37260 Sky Canyon Drive, Hanger 20, Murrieta, California 92563, centered on Ikhana's facility located at the French Valley Airport in Riverside County in an altitude of 5000' and in a radius of 50NM from the airport. The antenna, transmitter, and receiver are mounted on a Twin Otter aircraft (DHC-6 Guardian 400) for testing.

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 sea clutter and maritime targets, and other physical phenomena that affect radar performance.

The EL/M-2022A (V) 3 system is a linear FM/ LFM + Step FM/ PSK (Baker Code) airborne Multi-mode radar system, for Maritime surveillance applications. The system will transmit in the 8730 - 8970 MHz frequency band from a Flat Planar array antenna. The array has a horizontal beam width of 3.1 +/- 0.2 degrees and a vertical beam width of 6.4 +/- 0.5 degrees.