

Raytheon Company
Experimental License Application
File Number: 0261-EX-ST-2024

Explanation of Experiment and Need for STA

Overview

Raytheon Company develops a number of systems for the US government. Those systems incorporate a number of highly developed systems including radio technology that improves the function and performance and precision of Raytheon's technologies.

This application is for the use of Raveon M7 radios to be used while testing some of Raytheon's systems. This application seeks authorization for operations in the Eglin AFB vicinity with a 25Km radius. The testing is conducted to comply with the provisions of Air Force Contract.

Testing is not constant and will only occur between 22 April - 3 May 2024. The program conducts only occasional testing in the area of operations and is willing to continue to adhere to all coordination requirements deemed necessary by regional frequency management offices and the FCC.

Technical Synopsis

- Spectrum requested: 450-480 MHz
 - Tuning capabilities: 464.5, 450.1, 452.1, 460.1, 468.1 MHz (Request 2-3 channels)
- Power level low: output power is only 5 W, 10 W ERP
- Emission: 11K0F1D, 15K3F1D
- Airborne operations: up to 6000 feet AGL
- Limited time of use: proposed operations will only use the spectrum for 4-6 hours at a time

Description of Operations

Raytheon is proposing to use the Raveon radios as a back up to the equipment being tested for location data.

One radio will be in the control with the other aboard a small aircraft. The radio systems are used as a back up geo-location aid device to primary testing systems.

The proposed areas of operations are on or close to operational bases of the DoD customers.

The radios in use are to support testing and not part of the developed system.

Areas of Operations

This application seeks authorization for operations within the radius shown in red in *Figure 1* below. Operations in those areas will start with system configuration and testing, followed by customer demonstrations of the technology in operation.



Figure 1. Requested Area of Operations – 25 km circle in red above

When the aircraft is over specific terrain features, it will vary its altitude from as much as 6000 AAT.

Time of Use

It is estimated that Raytheon will only fly for 4-6 hours per flight. Those flights will take place only occasionally across the few days of testing. This is a limited amount of spectrum use.

Stop Buzzer Points of Contact

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Conclusion

Raytheon is seeking short term support of testing at Eglin AFB, FL. The testing is conducted under federal contracts; FA8672-17-D-0004 & FA8672-21-F-6052.