

Raytheon Company
Experimental License Application
File Number: 0059-EX-CR-2022

Explanation of Experiment

Raytheon Missile Systems (Raytheon) is the primary missile manufacturer in the US, supplying ordinance ready to operate to the US military. This application seeks authorization for the use of a variety of radio systems that are used in the development and testing of its advanced missile systems, to deliver automatic real-time position information to the warfighter on the battlefield.

This application seeks to extend testing that was originally conducted under previous license. That testing was very productive, and the program needs to continue its work with these radios.

Technical Synopsis:

Spectrum requested:	420-450 MHz
Limited time of use:	sporadic use, when hard-wired connections are detached
Limited area of operations:	operations are indoors at Raytheon and contractor plant sites
Power level is low:	5 W
Operations protect other users:	frequency hopping, listen-before-transmit radios

Description of Operations:

Raytheon is working on the advanced development of radio systems incorporated into its missiles. Raytheon's customers are requesting ever more data from the missile systems while those systems are in operation, to provide the warfighter with local, just-in-time information. The radios being tested here will use a 6 MHz wide channel to provide a variety of data.

Testing will be limited to the lab, to see if the radios in question can deliver the performance being requested by the customers.

Limited Time of Use:

Most testing will be hard-wired. However, on occasion, it will be necessary to test over-the-air transmissions to validate the effectiveness of the radio operations. The time of use of these frequencies is expected to be less than 2 hours per week.

Locations of Testing:

Testing will be conducted primarily at Raytheon facilities in Tucson. The other location is at a testing contractor site in Tempe, AZ which may be used in the future.

Stop Buzzer Point of Contact:

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Conclusion:

Raytheon is seeking renewal of an experimental license for operations to advance the development of communications systems that are being incorporated into its missile systems. The proposed operations will take place indoors, and for less than 2 hours per week.