Raytheon IIS
Experimental License Application
File No: 0322-EX-PL-2016

Explanation of Experimentation

Raytheon IIS develops a number of defense systems including advanced voice and data communications systems for the US military.

Raytheon IIS is continuing work with its military customers to test and configure Blue Force Tracking radios that operate in government-only accessible SATCOM frequency bands. Raytheon has leveraged government-off-the-shelf (GOTS) radios from ViaSat to perform the experiments and testing for its customer. Originally, Raytheon began testing on an STA, WJ9XIA. This experimental license application is being filed to allow Raytheon to continue its experimentation with integrating its technology with the Blue Force Tracking radios.

Background:

Raytheon has been supporting its DOD customers on testing of radio systems for a number of years. The ViaSat Blue Force Tracker satellite communications radio system is an example of a technology upgrade that the Army and Navy customers have on their roadmap, and Raytheon is supporting integration of the radio system with its technology application platform.

Explanation of Experimentation:

Raytheon is working to connect its data processing systems to the ViaSat SATCOM terminals to test operationally relevant software code and communications protocol performance of the entire system from transmitter to receiver. In order to properly test latencies and system dynamics Raytheon requires the use of the SATCOM terminal wirelessly connected to the satellites in orbit to determine whether the radio and data streams will meet performance requirements specified by our customers.

The Blue Force Tracker (BFT) technology will connect to a secure communications network that has a blanket license for use by the US Army. Because the BFT system is provisioned only to the US Army by the satellite provider, the transceiver will operate exclusively on the BFT system. Raytheon, as a contractor, is required to have an FCC license for its operations. For that reason, Raytheon is seeking this STA extension.

Technical Synopsis:

- Power level proposed: 63 W ERP maximum
- Terminal Location: Raytheon IIS in Indianapolis, atop a four story building
- Spectrum Requested: 1525 - 1559 MHz (receive) and 1610 - 1660.5 MHz (transmit)
- Radios: ViaSat RT-1981/V and RT-1982/V SATCOM Terminals
- Planned Use: Used for customer radio development testing

Locations of testing:

Raytheon IIS conducts tests on the ViaSat SATCOM terminals for testing of Blue Force Tracking capabilities at the Raytheon facility at 6125 E. 21st Street, Indianapolis, IN.

Test Time:

During the construction, the program will be working through the regular workday up to 9 hours per day, 7 days a week.

Stop Buzzer Point of Contact:

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Conclusion:

Raytheon IIS will use GOTS ViaSat SATCOM terminals for development of BFT communications system for its customers. The use of GOTS technology will both expedite the new technology development and keep costs low in the early design and testing phase of the programs.

If there are any questions, please contact Brian Kavalar, Spectrum Manager, Raytheon IIS, at 317-517-9989 or brian_r_kavalar@raytheon.com or Anne Cortez, Counsel, Washington Federal Strategies, 520-344-8525 or alc@conspecinternational.com