

Explanation of Experimental License Application

Overview:

Raytheon Missile Systems builds and sells missiles to the US military. As a part of the engineering development and production process, Raytheon tests communications systems in its products to make sure they meet customer specifications. Additionally, from time to time, Raytheon needs to test its products.

This application seeks authorization for testing of the products that are developed and tested in the laboratory. The proposed testing will take place at Eglin AFB, and the time of any operation will be approximately 10 seconds.

Previously missile flight testing was conducted at government test and training ranges using federal frequency assignments. In this case, Raytheon has agreed to seek an experimental license for the proposed operations.

Synopsis:

- Frequency: 2213.5 MHz
- Power: 1 W
- Time of use is limited – just about 10 seconds of spectrum use on days of tests
- Testing will be conducted only sporadically.

Description of spectrum use for production line preparation for missile test:

S band single frequency: 2213.5 MHz transmitter is installed on the missile to allow for monitoring of the missile while it is in flight. Most missile flight tests are very short in nature, about 5 minutes.

Frequency in use:

S-band frequency: The S-band telemetry transmitter will use 2213.5 MHz. Power output is 1 Watt of power. For these flight tests, missile telemetry data is sent to the test center to provide information such as temperature, altitude, speed, voltages, and vibration levels as the missile is in flight.

The telemetry data received over these frequencies helps the controllers determine the health and status of the missile in flight.

Expected Effect of Spectrum Use:

Over the past 50 years, Raytheon has tested its products during engineering, development and production.

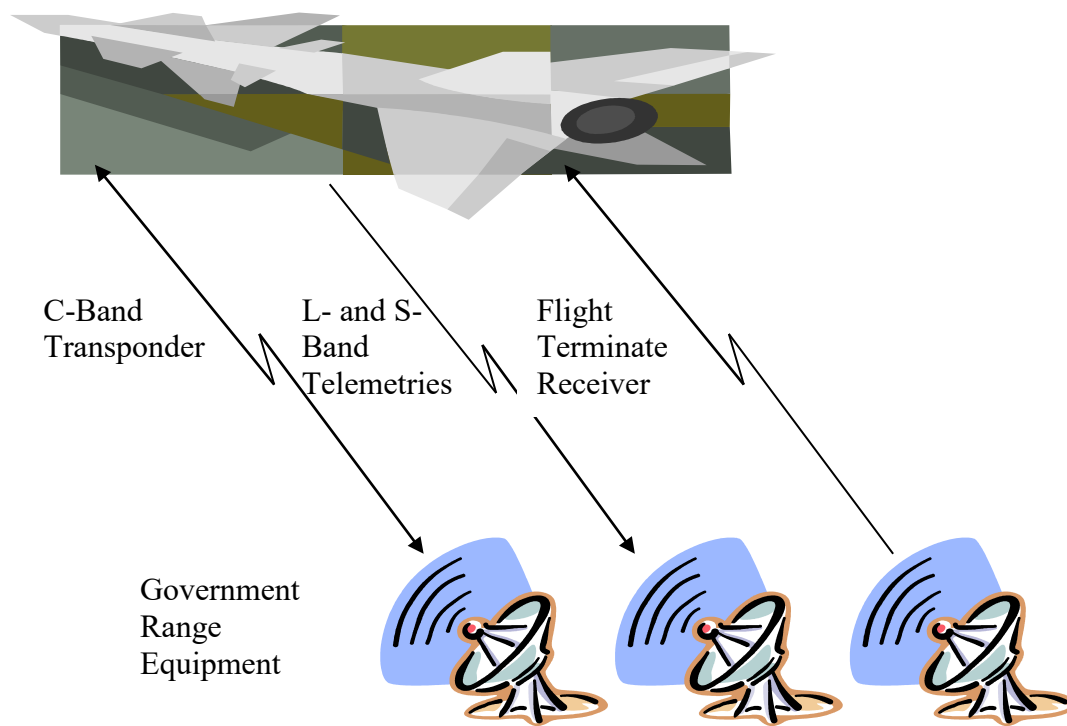
Additionally, in reviewing the FCC's regulations, we noted that the S band frequencies are not to be used for flight test of manned aircraft. The testing being conducted is simply for product testing in the lab and on the production line.

Stop Buzzer Point of Contact:

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Conclusion:

As noted above, this application is being filed to secure experimental authorization for testing conducted by Raytheon at Eglin AFB. The frequency proposed are those required by the customers.



Flight Test Configuration