

From: Patricia Ludlow

To: Behnam Ghaffari

Date: August 01, 2014

Subject: FCC File No. 0686-EX-ST-2014

Message:

1. Submit an attachment describing the purpose of your operation.

Purpose of the Operation:

Lockheed Martin requests a Special Temporary Authorization to support an immediate need for testing of equipment required by the Missile Defense Agency (MDA) for national security system testing.

For L and S-Band testing we are required to verify the integrity of the PCM Telemetry system on the flight article under test. We are required to perform an end to end test of the Telemetry system, coupled to our ground equipment through RF Hat Couplers. These tests characterize the generated RF signals for center frequency, occupied bandwidth, recovered data integrity (Bit Error Rate) and recovered "EYE" patterns as well as spectral analysis. Though the individual emitters are tested at our suppliers for compliance, these tests verify that our entire system meets its requirements prior to being shipped to a launch site. Generation in these bands is estimated to be less than 3 hours per day for 3 days a week for the duration of the STA.

For the requested UHF bands, we are using our ground equipment to emit RF signals to test a receiver on the flight asset. Once again, all testing is performed through RF hat Couplers. This testing verifies that the flight system (a command receiver) will only respond to in band frequencies and correct tone sequences. We also check sensitivity by decreasing the ground equipment output power and characterize the receiver AGC over the power spectrum. The emitter is a piece of Commercial off the shelf equipment that we procure that is built for this effort. One of the scheduled tests requires us to emit in the UHF band for a full 8 hour day and is expected to be performed no more than 2 times. Typical test are expected to run for the duration of less than 3 hours per day for 3 days a week for the duration of the STA.

2. Submit AFTRCC coordination for 1460.50 MHz and 1476.50 MHz.

Status from AFTRCC is that the coordination process has begun and payment been received for services.

3. Complete the emission designator for 2277.50 MHz (19M7?3F).
19M7F3F

4. Start date 8/1/2014 is not possible, change the start date where there is adequate time (10-14 days) for processing and coordination.

Requested Period of Operation (60 days) Start Date 08/11/2014 End Date 10/10/2014