

REQUEST FOR SPECIAL TEMPORARY AUTHORITY

Lockheed Martin Corporation (“Lockheed Martin”) hereby seeks Special Temporary Authority to operate a developmental system that Lockheed Martin is testing in connection with a Defense Advanced Research Projects Agency (“DARPA”) program.

Lockheed Martin has made every effort to limit both the area of operation as well as the frequencies required to satisfy the proposed testing. Testing is designed to occur during two testing periods of up to 4 hours a day for 3-5 days within a week. We expect several weeks of total testing to validate the proof of concept and system functionality. An individual test consists of transmissions of up to 30 minutes. Within an individual test, we expect to switch among bands (UHF, S, and X) multiple times a minute to understand channel performance characteristics. The frequencies requested in the current STA cover the frequencies that DARPA requires for post-production use of the system.

Prior Coordination.

Lockheed Martin brings to the FCC’s attention that it has cleared the use of the 440 MHz frequency with operators Planet and Spire (licensees of the 449.75-450.25 MHz band). Notices of these prior consents are attached to the application.

Area of Operation.

DAPRA operational requirements in the area of Eglin Air Force Base call for ground-to-air operations to be conducted between a fixed transmitter and an airborne receiver.

100 km radius around N 30-23-30 W 086-45-57.

Flights will be conducted at up to 10,000 ft AGL.

Frequency Requirements.

The DARPA program requires that Lockheed Martin’s equipment be able to transmit in the UHF, S, and X bands. Given the bandwidth requirements of such operations, we have selected frequencies in each of the bands to account for the full bandwidth required to test (1) proof of concept and system verification to support anticipated future operational needs and (2) channel characterization.

The instant STA request seeks transmit authority on the following UHF and S-band frequencies. (A separate STA request will be submitted, covering authority for X-band authority.)

<u>UHF:</u>	410 MHz	/	1M00G1D
	440 MHz	/	1M00G1D 50M0G1D

	490 MHz	/	1M00G1D 69M0G1D
<u>S-band:</u>	2250 MHz	/	125MF1D 125MG1D
	3400 MHz	/	125MF1D 125MG1D