

## DESCRIPTION OF EXPERIMENTATION

Lockheed Martin Corporation (“Lockheed Martin”) hereby seeks authority under Part 5 of the Commission’s rules to permit it to commence aeronautical mobile telemetry (“AMT”) testing operations at and around its Fort Worth, Texas, manufacturing facility. Lockheed Martin’s operations will be conducted in connection with multiple U.S. Government contracts entered into with the United States Air Force to support delivery of variants of both the F-16 and F-35 aircraft. The current request is supported by U.S. Government contract FA8615-16-C-6048.

Lockheed Martin understands that the National Telecommunications and Information Administration’s (“NTIA”) Interdepartment Radio Advisory Committee (“IRAC”) recently concluded that commercial entities, such as Lockheed Martin, could be permitted access to the 4400-4940 MHz band to conduct AMT operations of the type proposed in the instant application. Lockheed Martin asserts that making these spectrum resources available is a crucial development to supplement the heavily-leveraged S- and L-bands in which AMT operations are currently conducted at commercial manufacturing facilities. Furthermore, authority to conduct such operations in the C-band enhances efficiency of the testing and aircraft delivery schedule, as many test ranges are currently also C-band enabled and rely upon the same spectrum band for local operations.

Operations are intended to be conducted both on the ground and at airborne altitudes, first to test and validate the functionality of C-band telemetry equipment and then to perform preliminary flight testing of aircraft prior to either customer delivery or further flight testing at a test range. The Commission is familiar with Lockheed Martin’s long history of conducting flight testing in this manner.

Additional details related to this application follow:

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| - <b>Telemetry operations:</b>                  | Ground and airborne |
| - <b>Maximum altitude of flight operations:</b> | 50,000 ft AGL       |
| - <b>Radius of operations:</b>                  | 200 miles (322 km)  |
| - <b>Transmitter antenna polarization:</b>      | Omnidirectional     |