

DESCRIPTION OF PROPOSED OPERATIONS

Lockheed Martin Corporation ("Lockheed Martin") hereby requests experimental authority for two years, in order to perform the following tests and evaluation:

The license request is in support of test activity involving transmission of C-band microwave signals to a ground-based IRAD radar system. The IRAD radar system is being developed to support Lockheed Martin programs and business capture efforts.

The hardware that requires licensing is a C-band Radar Target Generator (RTG) plus associated low gain antenna. The RTG low gain antenna will be mounted on an elevated platform and will transmit downward to the IRAD radar system located on the ground. During test activity, the IRAD radar system will not radiate – only the RTG antenna will radiate. The RTG will operate at center frequency 6825 MHz with bandwidth 10 MHz. The RTG antenna will operate with Equivalent Isotropically Radiated Power (EIRP) 10 watt peak or less and transmit power 1 watt peak or less.

The technical details relating to the directional antenna follow:

- (a) Width of beam in degrees at the half-power point:** Azimuth: $\leq 18.7^\circ$, Elevation: $\leq 18.8^\circ$
- (b) Orientation in horizontal plane:** 0° to 360°
- (c) Orientation in vertical plane:** -20° to 0°