FCC Form 442 Exhibit 1

## PURPOSE OF EXPERIMENTATION

Lockheed Martin Corporation ("Lockheed Martin") hereby requests experimental authority for two years, 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 on discrete frequencies that have been selected so as to cause no interference to incumbent operators of the band. The use of these frequencies has been coordinated through Micronet. A copy of the coordination data sheet, including polarization, azimuth, beamwidth, and gain values, is attached.