

**EXPLANATION OF RESEARCH PROJECT /
PURPOSE OF MODIFICATION (CALL SIGN W12XXY)**

Lockheed Martin Corporation (“Lockheed Martin”) is conducting Independent Research and Development to test a modular architecture that enables usage of existing developmental products in novel ways. As part of this effort, a new Radio Frequency (RF) communications platform is required. This platform will be responsible for two-way communications with an existing RF entity in the 8.5-10.0 GHz range of X-Band.

Communications occur at a fixed range that exceeds current in-door facility limitations. To mature the conceptual design as part of this architectural research project, Lockheed Martin has already secured FCC authorization for low-power, intermittent transmissions at its facility in Grand Prairie, TX and at White Sands Missile Range, NM.

Lockheed Martin hereby seeks modification of its license to permit it to operate the same equipment at both locations identified on the accompanying Form 442 with increased effective radiated power. Specifically, Lockheed Martin requests an increase of ERP to **1150 W**.