

Lockheed Martin Proprietary Information

Exhibit #1

Description of RF on FLEX Experiment.

This experiment involves the utilization of a phased array receive antenna system mounted on a ground mobile conveyance equipped with GPS and magnetic coordinate determination devices and an X-Band telemetry demodulation receiver. The signal to be received emanates from a low flying piloted, powered glider which will transmit a camera generated video stream and a GPS NMEA stream modulated on an X-Band carrier radiated through a hemispherical omni-directional antenna located on the belly of the aircraft.

The phased array antenna will be steered by integrating the aircraft position (derived from the demodulated GPS telemetry stream) and the ground vehicle position coordinates with proprietary software that will generate the proper control signals for the beam steering.

The video telemetry stream will be time and position stamped and displayed in the ground vehicle and will demonstrate the viability of the antenna steering

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