Exhibit 1
Description of Experimental Program
System 7

Lockheed Martin Corporation requires the use of GPS Re-Radiation (Re-Rad) systems inside Lockheed Martin aircraft production/flight test facilities at Palmdale Airfield, California.[1] This equipment will be used as "Experimental RNSS Test Devices" for the purpose of testing and verifying GPS receiver functionality of various aircraft systems. Currently, in order to obtain a GPS signal, the aircraft and all supporting test equipment must be towed outside of the production/flight test facility. During this time, aircraft and personnel are exposed to adverse weather conditions and prevented from accessing certain tools and equipment. In addition, additional power and cooling is required for the aircraft. At certain times, due to safety and efficiency considerations, Lockheed Martin must have the ability to perform pre-flight GPS receiver functionality tests indoors. The GPS Re-Rad systems proposed here are designed to re-transmit the GPS signal at approximately the same signal level as received outside the hangars. This Exhibit describes the various implementations required at Palmdale.

1. PROGRAM DESCRIPTIONS

U-2. The program title is: U-2 "Dragon Lady" Depot Maintenance, Modifications and Flight Test. The contract number for this program is: FA8528-14-D-0015.

General Description.

Lockheed Martin requires GPS Re-Rad capability in one building at USAF Production Plant 42, Site 2 to support the U-2 "Dragon Lady" program. This facility is used for periodic and depot maintenance, modifications, flight testing and sensor systems development/integration on the U-2 high altitude surveillance aircraft. GPS Re-Rad is needed for testing and verification of the flight platform, flight test instrumentation, avionics and missions equipment when moving the aircraft outdoors is unreasonable for mechanical, logistics, weather or security classification reasons.

Technical Information.

Locations:

- Four fixed antennas inside hangar facility at USAF Production Plant 42, Site 2, Building 210 (210T1/T2/T3/T4 respectively).

  Longitude: W 118 05.383
  Latitude: N 34 38.270

  Longitude: W 118 05.366
  Latitude: N 34 38.251

  Longitude: W 118 05.428
  Latitude: N 34 38.250

  Longitude: W 118 05.422
  Latitude: N 34 38.270

[1] The overall Palmdale Airfield is mostly USAF property. The AF designated their Palmdale facility "Plant 42" and segregated the facility into several physical "sites" that are used for specific purposes or programs, many of which are operated by contractors such as Lockheed Martin. Lockheed Martin also privately owns property associated with the Palmdale Airfield, which has been named "Plant 10" (not to be confused with Site 10 of USAF Production Plant 42).

2. EQUIPMENT

All of the above sites will use the following equipment:

Antenna Orientation: 180 degrees vertical, 360 degrees horizontal. All antennas are directional facing down towards the ground.
Antenna Polarization: Right hand circular polarization (RHCP)
Frequencies: 1227.6 MHz, 1575.42 MHz (GPS L2/L1)
Emissions: 20M4W7D
Power at antenna: Table 1

TABLE 1	L1				L2		
Reradiator Identifier	Maximum RF Power at the Transmitter Output Terminal	Maximum EIRP from the Antenna			Maximum RF Power at the Transmitter Output Terminal	Maximum EIRP from the Antenna	
	Watts	dBm	Watts		Watts	dBm	Watts
210T2	45.4E-12	-68.53	140.2E-12		63.1E-12	-68.50	141.3E-12
210T3	41.1E-12	-68.96	127.1E-12		61.1E-12	-68.64	136.8E-12
210T1	12.6E-12	-74.10	38.9E-12		17.3E-12	-74.12	38.7E-12
210T4	9.1E-12	-75.51	28.1E-12		14.9E-12	-74.78	33.3E-12

3. CONDITIONS OF LICENSE

For all the foregoing programs, the following conditions will apply.

The experimental period will last for two years (24 months).

In order to ensure no GPS re-radiated signal adversely affects safety-of-life applications, Lockheed Martin will only transmit:

- Indoors;
- Such that no GPS re-radiated signal level greater than or equal to –140 dBm, measured 100 feet from the building perimeter will occur; and
- When testing an airplane indoors is considered necessary.

In addition:

- The "Stop Buzzer" emergency point of contact (POC) will be Rich Elersich (661) 572-3595, cell (661) 802-1152. The secondary POC will be Geva Frevert (661) 572-4978, cell 661-917-7451.
- If the POC changes, Lockheed Martin Aeronautics Company will immediately notify the FCC.
- The location of the GPS transmitters will be fixed and located in such a way that the entire area of potential interference from the GPS transmitters is under the control of Lockheed Martin personnel - the facility where the transmitters will be located is a "secure" facility where security personnel control ingress and egress.