REQUEST FOR EXPERIMENTAL AUTHORITY

Lockheed Martin Corporation ("Lockheed Martin") hereby seeks authority under Part 5 of the Commission's rules to operate GPS re-radiator equipment at its Fort Worth, Texas, manufacturing facility. These radiators will supplement the GPS testing system already in place at Fort Worth and licensed under call sign WG2XGA.

The requested frequency operations correspond to re-radiated L1 and L2 Global Positioning Satellite (GPS) signals, which will be received and then rebroadcasted within the confines of the facility.

Nature of Operations.

The Lockheed Martin F-35 JSF production requires functional checks of the various avionics systems prior to delivery to the flight line for test flight and final delivery. Checks of some avionics functions require the GPS signal for navigational and time information. The final assembly stage where these checks are performed is inside the main manufacturing building at Air Force Plant 4 in Fort Worth. This building is primarily steel construction with metal siding and roofing underlayment. This material prevents reception of the GPS signal within the building. The two original GPS re-rad systems were installed in strategic positions to provide signals at specific manufacturing stations within the factory. As the F-35 production rate has increased, additional stations have been added requiring additional re-rad installations to serve these new locations.

To meet the ramp up to F-35 full production five additional locations will be added inside the final assembly area where the F-35 GPS receiving equipment is tested. These new re-rad units are located within a few hundred feet of the existing stations in the same factory building.

Accordingly, <u>all operations are conducted indoors</u> at various buildings of the Lockheed Martin production facility.

Furthermore, Lockheed Martin certifies that it continues to operate the existing equipment and will do so for any new equipment consistent with NTIA Regulation 8.3.28:

8.3.28/Item 1:
- Operations will only be conducted indoors.

8.3.28/Item 2:
- Applicant seeks experimental authority. The device is intended to be used exclusively as experimental RNSS test equipment for the purpose of testing production aircraft communications and GPS-related navigation avionics.

8.3.28/Item 3:
- NTIA action.

8.3.28/Item 4:

- Applicant seeks authority for a 24-month (2 year) term.

8.3.28/Item 5:

- The area of operation of the equipment will be exclusively under the control of Lockheed Martin personnel authorized for operation of such equipment.

8.3.28/Item 6:

- Operations will be conducted such that no GPS re-radiated signal level greater than or equal to –140 dBm, measured 100 feet from the building perimeter will occur.

8.3.28/Item 7:

- Appropriate notification will be provided to GPS users in the area of operation.

8.3.28/Item 8:

- The program activities are limited to testing production line aircraft RNSS avionics.

8.3.28/Item 9:

- "Stop buzzer" points of contact for the authorized equipment and available at any point during the operation of said equipment follow:
    - Mark Daugherty
      (o) +1 817 763 3958
      (c) +1 678 662 5786
    - John Van Meter
      (o) +1 817 777 0518
    - George Richey
      (o) +1 817 965 9753

Purpose of Application.

As indicated in the detailed information below, Lockheed Martin herein seeks to license five new locations within its existing GPS re-radiator network:

(1)	New Location	32 46 41.5N, 97 26 59.0W
(2)	New Location	32 46 41.5N, 97 26 58.0W
(3)	New Location	32 46 37.0N, 97 26 58.0W
(4)	New Location	32 46 35.0N, 97 26 58.0W
(5)	New Location	32 46 36.0N, 97 26 58.0W

Owing to the configuration of the electrical circuitry at the facility, all of these units will be powered from a single position switch such that only one repeater is powered at a single time. This configuration ensures that there is no aggregate excess of GPS signal leakage overall at the manufacturing facility.