

**United States of America  
FEDERAL COMMUNICATIONS COMMISSION  
EXPERIMENTAL  
RADIO STATION CONSTRUCTION PERMIT  
AND LICENSE**

EXPERIMENTAL

(Nature of Service)

WH2XOJ

(Call Sign)

XC      FX MO

(Class of Station)

0164-EX-RR-2016

(File Number)

NAME Lockheed Martin Corporation

Subject to the provisions of the Communications Act of 1934, subsequent acts, and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions and requirements set forth in this license, the licensee hereof is hereby authorized to use and operate the radio transmitting facilities hereinafter described for radio communications in accordance with the program of experimentation described by the licensee in its application for license.

Operation: In accordance with Sec. 5.3(c) of the Commission's Rules

Station Locations

(1) Owego (TIOGA), NY - NL 42-05-50; WL 76-13-28

(2) MOBILE: Owego, NY, within 160 km, centered around NL 42-05-50; WL 76-13-28

Frequency Information

Owego (TIOGA), NY - NL 42-05-50; WL 76-13-28

| Frequency  | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|------------|---------------|---------------------|------------------|---------------------------|
| 2.24 MHz   | FX            | 3K00J3E             | 50 W (ERP)       |                           |
| 14.305 MHz | FX            | 3K00J3E             | 50 W (ERP)       |                           |
| 17.91 MHz  | FX            | 3K00J3E             | 50 W (ERP)       |                           |
| 20.525 MHz | FX            | 3K00J3E             | 50 W (ERP)       |                           |

This authorization effective April 30, 2016 and  
will expire 3:00 A.M. EST May 01, 2018

**FEDERAL  
COMMUNICATIONS  
COMMISSION**



## Frequency Information

Owego (TIOGA), NY - NL 42-05-50; WL 76-13-28

| Frequency  | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|------------|---------------|---------------------|------------------|---------------------------|
| 21.3 MHz   | FX            | 3K00J3E             | 50 W (ERP)       |                           |
| 23.25 MHz  | FX            | 3K00J3E             | 50 W (ERP)       |                           |
| 24.68 MHz  | FX            | 3K00J3E             | 50 W (ERP)       |                           |
| 27.55 MHz  | FX            | 3K00J3E             | 50 W (ERP)       |                           |
| 28.5 MHz   | FX            | 3K00J3E             | 50 W (ERP)       |                           |
| 137.75 MHz | FX            | 35K0A1E             | 150 W (ERP)      |                           |
| 139.5 MHz  | FX            | 8K20A3E             | 159 W (ERP)      |                           |
| 142.5 MHz  | FX            | 8K20A3E             | 150 W (ERP)      |                           |
| 145 MHz    | FX            | 11K0F3E             | 512 W (ERP)      |                           |
| 147 MHz    | FX            | 8K20A3E             | 150 W (ERP)      |                           |

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|--------------|---------------|---------------------|------------------|---------------------------|
| 150.5 MHz    | FX            | 11K0F3E             | 512 W (ERP)      |                           |
| 156.3 MHz    | FX            | 10K4F3E             | 150 W (ERP)      |                           |
| 163.5 MHz    | FX            | 11K0F3E             | 512 W (ERP)      |                           |
| 163.55 MHz   | FX            | 8K10F1D             | 512 W (ERP)      |                           |
| 164 MHz      | FX            | 11K0F3E             | 512 W (ERP)      |                           |
| 164.8875 MHz | FX            | 8K10F1E             | 512 W (ERP)      |                           |
| 165.3 MHz    | FX            | 8K10F1E             | 512 W (ERP)      |                           |
| 166.5125 MHz | FX            | 8K10F1E             | 512 W (ERP)      |                           |
| 170 MHz      | FX            | 8K10F1E             | 512 W (ERP)      |                           |
| 170.5 MHz    | FX            | 11K0F3E             | 512 W (ERP)      |                           |

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|-------------|---------------|---------------------|------------------|---------------------------|
| 171 MHz     | FX            | 8K10F1E             | 512 W (ERP)      |                           |
| 173 MHz     | FX            | 8K10F1E             | 512 W (ERP)      |                           |
| 173.5 MHz   | FX            | 11K0F3E             | 512 W (ERP)      |                           |
| 173.7 MHz   | FX            | 8K20A3E             | 150 W (ERP)      |                           |
| 173.75 MHz  | FX            | 11K0F3E             | 512 W (ERP)      |                           |
| 225 MHz     | FX            | 8K20A3E             | 150 W (ERP)      |                           |
| 230.025 MHz | FX            | 10K0F3E             | 150 W (ERP)      |                           |
| 230.5 MHz   | FX            | 35K0A1E             | 150 W (ERP)      |                           |
| 240 MHz     | FX            | 10K4F3E             | 150 W (ERP)      |                           |
| 240.7 MHz   | FX            | 35K0A1E             | 150 W (ERP)      |                           |

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| Frequency   | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-------------|---------------|---------------------|------------------|---------------------------|
| 245.025 MHz | FX            | 10K4F3E             | 150 W (ERP)      |                           |
| 343.05 MHz  | FX            | 8K20A3E             | 150 W (ERP)      |                           |
| 343.8 MHz   | FX            | 35K0A1E             | 150 W (ERP)      |                           |
| 346.45 MHz  | FX            | 10K4F3E             | 150 W (ERP)      |                           |
| 350.05 MHz  | FX            | 8K20A3E             | 150 W (ERP)      |                           |
| 350.5 MHz   | FX            | 8K20A3E             | 150 W (ERP)      |                           |
| 358.85 MHz  | FX            | 10K4F3E             | 150 W (ERP)      |                           |
| 379.85 MHz  | FX            | 8K20A3E             | 150 W (ERP)      |                           |

MOBILE: Owego, NY, within 160 km, centered around NL 42-05-50; WL 76-13-28

| Frequency | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-----------|---------------|---------------------|------------------|---------------------------|
| 2.24 MHz  | MO            | 3K00J3E             | 25 W (ERP)       |                           |

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| Frequency  | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|------------|---------------|---------------------|------------------|---------------------------|
| 14.305 MHz | MO            | 3K00J3E             | 25 W (ERP)       |                           |
| 17.91 MHz  | MO            | 3K00J3E             | 25 W (ERP)       |                           |
| 20.525 MHz | MO            | 3K00J3E             | 25 W (ERP)       |                           |
| 21.3 MHz   | MO            | 3K00J3E             | 25 W (ERP)       |                           |
| 23.25 MHz  | MO            | 3K00J3E             | 25 W (ERP)       |                           |
| 24.68 MHz  | MO            | 3K00J3E             | 25 W (ERP)       |                           |
| 27.55 MHz  | MO            | 3K00J3E             | 25 W (ERP)       |                           |
| 28.5 MHz   | MO            | 3K00J3E             | 25 W (ERP)       |                           |
| 137.75 MHz | MO            | 35K0A1E             | 15 W (ERP)       |                           |
| 139.5 MHz  | MO            | 8K20A3E             | 15 W (ERP)       |                           |

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|--------------|---------------|---------------------|------------------|---------------------------|
| 142.5 MHz    | MO            | 8K20A3E             | 15 W (ERP)       |                           |
| 145 MHz      | MO            | 11K0F3E             | 50 W (ERP)       |                           |
| 147 MHz      | MO            | 8K20A3E             | 15 W (ERP)       |                           |
| 150 MHz      | MO            | 11K0F3E             | 50 W (ERP)       |                           |
| 150.5 MHz    | MO            | 11K0F3E             | 50 W (ERP)       |                           |
| 156.3 MHz    | MO            | 10K0F3E             | 15 W (ERP)       |                           |
| 163.5 MHz    | MO            | 11K0F3E             | 50 W (ERP)       |                           |
| 163.55 MHz   | MO            | 8K10F1D             | 50 W (ERP)       |                           |
| 164 MHz      | MO            | 11K0F3E             | 50 W (ERP)       |                           |
| 164.8875 MHz | MO            | 8K10F1E             | 50 W (ERP)       |                           |

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|--------------|---------------|---------------------|------------------|---------------------------|
| 165.3 MHz    | MO            | 8K10F1E             | 50 W (ERP)       |                           |
| 166.5125 MHz | MO            | 8K10F1E             | 50 W (ERP)       |                           |
| 170 MHz      | MO            | 8K10F1E             | 50 W (ERP)       |                           |
| 170.5 MHz    | MO            | 11K0F3E             | 50 W (ERP)       |                           |
| 171 MHz      | MO            | 8K10F1E             | 50 W (ERP)       |                           |
| 173 MHz      | MO            | 8K10F1E             | 50 W (ERP)       |                           |
| 173.5 MHz    | MO            | 11K0F3E             | 50 W (ERP)       |                           |
| 173.7 MHz    | MO            | 8K20A3E             | 15 W (ERP)       |                           |
| 173.75 MHz   | MO            | 11K0F3E             | 50 W (ERP)       |                           |
| 225 MHz      | MO            | 8K20A3E             | 15 W (ERP)       |                           |

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| Frequency   | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-------------|---------------|---------------------|------------------|---------------------------|
| 230.025 MHz | MO            | 10K0F3E             | 15 W (ERP)       |                           |
| 230.5 MHz   | MO            | 35K0A1E             | 15 W (ERP)       |                           |
| 240 MHz     | MO            | 10K4F3E             | 15 W (ERP)       |                           |
| 240.7 MHz   | MO            | 35K0A1E             | 15 W (ERP)       |                           |
| 245.025 MHz | MO            | 10K4F3E             | 15 W (ERP)       |                           |
| 343.05 MHz  | MO            | 8K20A3E             | 15 W (ERP)       |                           |
| 343.8 MHz   | MO            | 35K0A1E             | 15 W (ERP)       |                           |
| 346.45 MHz  | MO            | 10K4F3E             | 15 W (ERP)       |                           |
| 350.05 MHz  | MO            | 8K20A3E             | 15 W (ERP)       |                           |
| 350.5 MHz   | MO            | 8K20A3E             | 15 W (ERP)       |                           |

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|------------|---------------|---------------------|------------------|---------------------------|
| 358.85 MHz | MO            | 10K4F3E             | 15 W (ERP)       |                           |
| 379.85 MHz | MO            | 8K20A3E             | 15 W (ERP)       |                           |

## Special Conditions:

- (1) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (2) Licensee should be aware that other stations may be licensed on these frequencies and if any interference occurs, the licensee of this authorization will be subject to immediate shut down.
- (3) Coordinate with the local SBE frequency coordinator prior to accessing the frequencies 163.5-173 MHz.
- (4) This authorization is issued for the express purpose of conducting experimental operations described in the related application and required by the U.S. Government; contract number N00019-14-C-0050. The use of this radio station in any other manner or for any other purpose will constitute a violation of the privileges herein authorized. Except as subsequently authorized by the Commission, this radio station shall not be operated after the expiration date of the contract designated in the related application and enumerated above.
- (5) Stop buzzer is John Dimmick at (607) 751-7053 and (585) 727-2363.  
Stop buzzer is Tommy Lam at (607) 751-3557 and (607) 221-1935.