

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

EXPERIMENTAL

(Nature of Service)

XC      FX

(Class of Station)

WF2XXB

(Call Sign)

0215-EX-RR-2013

(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(b) of the Commission's Rules

Station Locations

(1) Bithlo (ORANGE), FL - NL 28-22-38; WL 81-04-56

Frequency Information

Bithlo (ORANGE), FL - NL 28-22-38; WL 81-04-56

| Frequency       | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-----------------|---------------|---------------------|------------------|---------------------------|
| 2000 MHz        | FX            | 116MP0N             | 1.18 MW (ERP)    |                           |
| 2015.748031 MHz | FX            | 116MP0N             | 1.19 MW (ERP)    |                           |
| 2031.496063 MHz | FX            | 116MP0N             | 1.25 MW (ERP)    |                           |
| 2031.746032 MHz | FX            | 116MP0N             | 1.25 MW (ERP)    |                           |

This authorization effective September 01, 2013 and  
will expire 3:00 A.M. EST September 01, 2015

**FEDERAL  
COMMUNICATIONS  
COMMISSION**

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|-----------------|---------------|---------------------|------------------|---------------------------|
| 2047.244094 MHz | FX            | 116MP0N             | 1.33 MW (ERP)    |                           |
| 2062.992126 MHz | FX            | 116MP0N             | 1.35 MW (ERP)    |                           |
| 2063.492063 MHz | FX            | 116MP0N             | 1.35 MW (ERP)    |                           |
| 2078.740157 MHz | FX            | 116MP0N             | 1.38 MW (ERP)    |                           |
| 2094.488189 MHz | FX            | 116MP0N             | 1.45 MW (ERP)    |                           |
| 2095.238095 MHz | FX            | 116MP0N             | 1.45 MW (ERP)    |                           |
| 2110.23622 MHz  | FX            | 116MP0N             | 1.47 MW (ERP)    |                           |
| 2125.984252 MHz | FX            | 116MP0N             | 1.49 MW (ERP)    |                           |
| 2126.984127 MHz | FX            | 116MP0N             | 1.49 MW (ERP)    |                           |
| 2141.732283 MHz | FX            | 116MP0N             | 1.51 MW (ERP)    |                           |

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|-----------------|---------------|---------------------|------------------|---------------------------|
| 2157.480315 MHz | FX            | 116MP0N             | 1.54 MW (ERP)    |                           |
| 2158.730159 MHz | FX            | 116MP0N             | 1.54 MW (ERP)    |                           |
| 2173.228346 MHz | FX            | 116MP0N             | 1.58 MW (ERP)    |                           |
| 2188.976378 MHz | FX            | 116MP0N             | 1.6 MW (ERP)     |                           |
| 2190.47619 MHz  | FX            | 116MP0N             | 1.6 MW (ERP)     |                           |
| 2204.724409 MHz | FX            | 116MP0N             | 1.62 MW (ERP)    |                           |
| 2220.472441 MHz | FX            | 116MP0N             | 1.59 MW (ERP)    |                           |
| 2222.222222 MHz | FX            | 116MP0N             | 1.59 MW (ERP)    |                           |
| 2236.220472 MHz | FX            | 116MP0N             | 1.27 MW (ERP)    |                           |
| 2251.968504 MHz | FX            | 116MP0N             | 1.27 MW (ERP)    |                           |

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|-----------------|---------------|---------------------|------------------|---------------------------|
| 2253.968254 MHz | FX            | 116MP0N             | 1.27 MW (ERP)    |                           |
| 2267.716535 MHz | FX            | 116MP0N             | 1.27 MW (ERP)    |                           |
| 2283.464567 MHz | FX            | 116MP0N             | 1.27 MW (ERP)    |                           |
| 2285.714286 MHz | FX            | 116MP0N             | 1.27 MW (ERP)    |                           |
| 2299.212598 MHz | FX            | 116MP0N             | 1.27 MW (ERP)    |                           |
| 2314.96063 MHz  | FX            | 116MP0N             | 1.27 MW (ERP)    |                           |
| 2317.460317 MHz | FX            | 116MP0N             | 1.27 MW (ERP)    |                           |
| 2346.456693 MHz | FX            | 116MP0N             | 1.27 MW (ERP)    |                           |
| 2349.206349 MHz | FX            | 116MP0N             | 1.27 MW (ERP)    |                           |
| 2362.204724 MHz | FX            | 116MP0N             | 1.27 MW (ERP)    |                           |

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|-----------------|---------------|---------------------|------------------|---------------------------|
| 2377.952756 MHz | FX            | 116MP0N             | 1.27 MW (ERP)    |                           |
| 2380.952381 MHz | FX            | 116MP0N             | 1.27 MW (ERP)    |                           |
| 2393.700787 MHz | FX            | 116MP0N             | 1.27 MW (ERP)    |                           |
| 2409.448819 MHz | FX            | 116MP0N             | 1.27 MW (ERP)    |                           |
| 2412.698413 MHz | FX            | 116MP0N             | 1.27 MW (ERP)    |                           |
| 2425.49685 MHz  | FX            | 116MP0N             | 1.27 MW (ERP)    |                           |
| 2440.944882 MHz | FX            | 116MP0N             | 1.27 MW (ERP)    |                           |
| 2444.444444 MHz | FX            | 116MP0N             | 1.27 MW (ERP)    |                           |
| 2456.692913 MHz | FX            | 116MP0N             | 1.27 MW (ERP)    |                           |
| 2472.440945 MHz | FX            | 116MP0N             | 1.82 MW (ERP)    |                           |

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| 2476.190476 MHz | FX            | 116MP0N             | 1.8 MW (ERP)     |                           |
| 2488.188976 MHz | FX            | 116MP0N             | 1.78 MW (ERP)    |                           |
| 2500-2655 MHz   | FX            | 116MP0N             | 3.58 MW (ERP)    |                           |
| 2661.417323 MHz | FX            | 116MP0N             | 1.98 MW (ERP)    |                           |
| 2666.666667 MHz | FX            | 116MP0N             | 1.98 MW (ERP)    |                           |
| 2677.165354 MHz | FX            | 116MP0N             | 2.03 MW (ERP)    |                           |
| 3650.793651 MHz | FX            | 116MP0N             | 3.02 MW (ERP)    |                           |
| 3653.543307 MHz | FX            | 116MP0N             | 3.02 MW (ERP)    |                           |
| 3669.291339 MHz | FX            | 116MP0N             | 2.99 MW (ERP)    |                           |
| 3682.539683 MHz | FX            | 116MP0N             | 2.97 MW (ERP)    |                           |

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|------------------|---------------|---------------------|------------------|---------------------------|
| 3685.03937 MHz   | FX            | 116MP0N             | 2.97 MW (ERP)    |                           |
| 3700-4000 MHz    | FX            | 116MP0N             | 3.58 MW (ERP)    |                           |
| 25330.708661 MHz | FX            | 116MP0N             | 1.85 MW (ERP)    |                           |

## Special Conditions:

- (1) All operations subject to coordination with the Gulf Area Frequency Coordinator located at Eglin AFB, Florida, prior to use with the area bounded by 27 degrees N. 33 degrees 30' N; and 83 degrees W. 90 degrees W.
- (2) This frequency assignment in one of the bands 1435-1525, 2310-2320 and 2345-2390 MHz was coordinated prior to its authorization with AFMO CONUS, Ft. Sam Houston, TX, who also coordinated it, as appropriate, with the Aerospace and Flight Test Radio Coordinating Council. Use of this frequency under the authority of this assignment is subject to such further coordination with AFMO CONUS, Ft. Sam Houston, TX, as necessary to ensure compatibility with existing uses.
- (3) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (4) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (5) All operations subject to coordination with the Eastern Area Frequency Coordinator located at Patrick AFB, Florida, prior to use within the area bounded by 24 degrees N, 31 degrees 30' N and 77 degrees W, 83 degrees W.
- (6) 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.
- (7) The licensee shall not constrain or limit the present or future growth of non-Federal and Federal radio services in the area of operation. Furthermore, the licensee shall: (1.) be responsible for remedying RF interference caused to non-Federal and Federal users including terminating transmissions if necessary to resolve interference, (2.) maintain a transmission log as a standard operating procedure, (3.) periodically check the FCC licensing databases to monitor the authorizations granted in the area of operation, and (4.) notify appropriate the FCC Field Office(s) of the test locations and duration of operation.
- (8) The applicant shall secure consent from the existing and future Advanced Wireless Service licensees prior to operation on the ranges of 1995-2000 MHz, 2020-2025 MHz and 2110-2180 MHz.

**Special Conditions:**

- (9) The applicant shall coordinate with the local Society of Broadcast Engineers (SBE) coordinator prior to operation on 2025-2110 MHz and 2450-2500 MHz and coordinate with the Fixed Microwave Service licensees prior to operation in the 3700-4200 MHz and 2450-2500 MHz bands.
- (10) Operations in frequency band 3650 -3700 MHz, must maintain separation from grandfathered earth stations as defined in Part 90, subpart Z, or coordinate an agreement with the grandfathered earth station licensees. In addition, the applicant shall consult the ULS database to ensure that its operation will not cause harmful interference to any existing registered stations in the 3650-3700 MHz band and notify the registered users in the area.
- (11) Use of frequencies under the authority of this assignment is subject to further coordination with the FAA Southern Coordinator, Atlanta, GA, as necessary to ensure compatibility with existing uses.
- (12) 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 FA8682-10-C-0016. 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.
- (13) The designated point-of-contact to terminate transmissions if interference occurs is Robert Reim at (407) 568-7100.
- (14) Operation is subject to prior coordination with affected Educational Broadband Service/Broadband Radio Service (EBS/BRS) licensees in frequency band 2500 - 2690 MHz within 80 km.
- (15) Due to possible harmful interference to the FAA operations, frequencies 2692.913386 MHz and 2698.412698 MHz are not permitted.
- (16) Operation in the band 2320-2345 MHz requires consent of existing Satellite Digital Audio Radio Service (SDARS) licensees.