

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

EXPERIMENTAL

(Nature of Service)

WF2XVU

(Call Sign)

XD FX

(Class of Station)

0323-EX-PL-2011

(File Number)

NAME Raytheon Missile Systems

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(i) of the Commission's Rules

Station Locations

- (1) Redstone Arsenal (MADISON), AL - NL 34-37-38; WL 86-35-43
- (2) Redstone Arsenal (MADISON), AL - NL 34-37-42; WL 86-35-46
- (3) Redstone Arsenal (MADISON), AL - NL 34-37-43; WL 86-35-43
- (4) Redstone Arsenal (MADISON), AL - NL 34-37-42; WL 86-35-39
- (5) Redstone Arsenal (MADISON), AL - NL 34-37-40; WL 86-35-37
- (6) Redstone Arsenal (MADISON), AL - NL 34-37-37; WL 86-35-37
- (7) Redstone Arsenal (MADISON), AL - NL 34-37-35; WL 86-35-39

Frequency Information

Redstone Arsenal (MADISON), AL - NL 34-37-38; WL 86-35-43

| Frequency   | Station Class | Emission Designator | Authorized Power  | Frequency Tolerance (+/-) |
|-------------|---------------|---------------------|-------------------|---------------------------|
| 1227.6 MHz  | FX            | 24M0G1D             | 0.000124 pW (ERP) |                           |
| 1575.42 MHz | FX            | 24M0G1D             | 0.000078 pW (ERP) |                           |

This authorization effective August 29, 2011 and  
will expire 3:00 A.M. EST August 29, 2013

**FEDERAL  
COMMUNICATIONS  
COMMISSION**



## Frequency Information

Redstone Arsenal (MADISON), AL - NL 34-37-42; WL 86-35-46

| Frequency   | Station Class | Emission Designator | Authorized Power  | Frequency Tolerance (+/-) |
|-------------|---------------|---------------------|-------------------|---------------------------|
| 1227.6 MHz  | FX            | 24M0G1D             | 0.000124 pW (ERP) |                           |
| 1575.42 MHz | FX            | 24M0G1D             | 0.000078 pW (ERP) |                           |

Redstone Arsenal (MADISON), AL - NL 34-37-43; WL 86-35-43

| Frequency   | Station Class | Emission Designator | Authorized Power  | Frequency Tolerance (+/-) |
|-------------|---------------|---------------------|-------------------|---------------------------|
| 1227.6 MHz  | FX            | 24M0G1D             | 0.000124 pW (ERP) |                           |
| 1575.42 MHz | FX            | 24M0G1D             | 0.000078 pW (ERP) |                           |

Redstone Arsenal (MADISON), AL - NL 34-37-42; WL 86-35-39

| Frequency   | Station Class | Emission Designator | Authorized Power  | Frequency Tolerance (+/-) |
|-------------|---------------|---------------------|-------------------|---------------------------|
| 1227.6 MHz  | FX            | 24M0G1D             | 0.000124 pW (ERP) |                           |
| 1575.42 MHz | FX            | 24M0G1D             | 0.000078 pW (ERP) |                           |

## Frequency Information

Redstone Arsenal (MADISON), AL - NL 34-37-40; WL 86-35-37

| Frequency   | Station Class | Emission Designator | Authorized Power  | Frequency Tolerance (+/-) |
|-------------|---------------|---------------------|-------------------|---------------------------|
| 1227.6 MHz  | FX            | 24M0G1D             | 0.000124 pW (ERP) |                           |
| 1575.42 MHz | FX            | 24M0G1D             | 0.000078 pW (ERP) |                           |

Redstone Arsenal (MADISON), AL - NL 34-37-37; WL 86-35-37

| Frequency   | Station Class | Emission Designator | Authorized Power  | Frequency Tolerance (+/-) |
|-------------|---------------|---------------------|-------------------|---------------------------|
| 1227.6 MHz  | FX            | 24M0G1D             | 0.000124 pW (ERP) |                           |
| 1575.42 MHz | FX            | 24M0G1D             | 0.000078 pW (ERP) |                           |

Redstone Arsenal (MADISON), AL - NL 34-37-35; WL 86-35-39

| Frequency   | Station Class | Emission Designator | Authorized Power  | Frequency Tolerance (+/-) |
|-------------|---------------|---------------------|-------------------|---------------------------|
| 1227.6 MHz  | FX            | 24M0G1D             | 0.000124 pW (ERP) |                           |
| 1575.42 MHz | FX            | 24M0G1D             | 0.000078 pW (ERP) |                           |

## Special Conditions:

- (1) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (2) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.

**Special Conditions:**

- (3) 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.
- (4) The designated point-of-contact to terminate transmissions if interference occurs is Mr. Thomas J. Fagan at 520-465-7087 (cell) or 520-794-0227 (office).
- (5) Operation is limited to activity for the purpose of testing radionavigation satellite service (RNSS) equipment and systems.
- (6) The test equipment shall only be used indoors and shall be under the control of the Raytheon Missile Systems.
- (7) The Raytheon Missile Systems shall post signs on doors to the test area notifying that, "GPS re-radiator is in use and the GPS information you receive may be in error."
- (8) GPS users in the area of potential interference to GPS reception must be notified that GPS information may be impacted for periods of time.
- (9) EIRP is no greater than -140 dbm/24 MHz at 100 feet.