

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

EXPERIMENTAL

(Nature of Service)

XC MO

(Class of Station)

WF2XYE

(Call Sign)

0461-EX-PL-2011

(File Number)

NAME _____ Insitu _____

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) MOBILE: Airborne 50 Kilometer Radius Around Coordinates Listed, within 50 km, centered around NL 45-44-54; WL 119-47-38
- (2) MOBILE: Boardman Range, OR, within 200 km, centered around NL 45-44-54; WL 119-47-38

Frequency Information

MOBILE: Airborne 50 Kilometer Radius Around Coordinates Listed, within 50 km, centered around NL 45-44-54; WL 119-47-38

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
902-928 MHz	MO	230KF1D	61 W (ERP)	
1370-1390 MHz	MO	230KF1D	608 W (ERP)	
1755-1850 MHz	MO	9M58G1D 18M5F9W 4M79G1D 2M40G1D	2 W (ERP)	

This authorization effective May 09, 2012 and
will expire 3:00 A.M. EST January 01, 2014

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

MOBILE: Airborne 50 Kilometer Radius Around Coordinates Listed, within 50 km, centered around NL 45-44-54; WL 119-47-38

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2200-2290 MHz	MO	18M5F9W 9M58G1D 4M79G1D 2M40G1D	2 W (ERP)	
2310-2390 MHz	MO	18M5F9W 9M58G1D 4M79G1D 2M40G1D	2 W (ERP)	
2312.5 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2347.5 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2352.5 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2357.5 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2364.5 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2370.5 MHz	MO	18M0F9W	2 W (ERP)	

Frequency Information

MOBILE: Airborne 50 Kilometer Radius Around Coordinates Listed, within 50 km, centered around NL 45-44-54; WL 119-47-38

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2370.5 MHz	MO	16M0F3F	2 W (ERP)	
2382.5 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2387.5 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2411 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2434 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2453 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2463 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2473 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2486 MHz	MO	18M0F9W	2 W (ERP)	

Frequency Information

MOBILE: Airborne 50 Kilometer Radius Around Coordinates Listed, within 50 km, centered around NL 45-44-54; WL 119-47-38

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2486 MHz	MO	16M0F3F	2 W (ERP)	
2490 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2495 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	

MOBILE: Boardman Range, OR, within 200 km, centered around NL 45-44-54; WL 119-47-38

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
902-928 MHz	MO	230KF1D	61 W (ERP)	
1370-1390 MHz	MO	230KF1D	608 W (ERP)	
1755-1850 MHz	MO	18M5F9W 9M58G1D 4M79G1D 2M40G1D	2 W (ERP)	
2200-2290 MHz	MO	18M5F9W 9M58G1D 4M79G1D	2 W (ERP)	

Frequency Information

MOBILE: Boardman Range, OR, within 200 km, centered around NL 45-44-54; WL 119-47-38

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2200-2290 MHz	MO	2M40G1D	2 W (ERP)	
2310-2390 MHz	MO	18M5F9W 9M58G1D 4M79G1D 2M40G1D	2 W (ERP)	
2312.5 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2347.5 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2352.5 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2357.5 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2364.5 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2370.5 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	

Frequency Information

MOBILE: Boardman Range, OR, within 200 km, centered around NL 45-44-54; WL 119-47-38

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2382.5 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2387.5 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2411 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2434 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2453 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2463 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2473 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2486 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	

Frequency Information

MOBILE: Boardman Range, OR, within 200 km, centered around NL 45-44-54; WL 119-47-38

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2490 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	
2495 MHz	MO	18M0F9W 16M0F3F	2 W (ERP)	

Special Conditions:

- (1) Assignment in frequency band 960-1400, 2700-2900, or 9000-9200 MHz was coordinated prior to authorization with the FAA Northwest Coordinator, Seattle, WA. Use of frequencies under the authority of this assignment is subject to such further coordination with the FAA Northwest Coordinator, Seattle, WA, as necessary to ensure compatibility with existing uses.
- (2) Licensee is required to coordinate operations with existing microwave users in the area to avoid interference.
- (3) Operation is subject to prior coordination with the Society of Broadcast Engineers, Inc. (SBE); ATTN: Executive Director; 9247 North Meridian Street, Suite 305; Indianapolis, IN 46260; telephone, (866) 632-4222; FAX, (317) 846-9120; e-mail, executivedir @ sbe.org; information, www.sbe.org.
- (4) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (5) 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.
- (6) 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.
- (7) The designated point-of-contact to terminate transmissions if interference occurs is Ben Schreffler at (509) 493-6690 and Joel Thorsheim at (206) 544-6066.
- (8) 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 numbers: N00019-09-C-0005, and N68335-10-C-0054. 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.

Special Conditions:

- (9) Maximum antenna height 20000 ft MSL.
- (10) Due to anticipated harmful interferences to Federal services, no operations permitted in frequency band 1710-1755 MHz.
- (11) Operation in frequency band 1370-1390 MHz is limited to Pulse Repetition Rate = 000 .