

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

EXPERIMENTAL

(Nature of Service)

WK2XKX

(Call Sign)

XC FX MO

(Class of Station)

0087-EX-CM-2020

(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(c j) of the Commission's Rules

Station Locations

- (1) Bingen (KLICKITAT), WA - NL 45-42-23; WL 121-27-23
- (2) Hood River, OR - NL 45-40-18; WL 121-32-24
- (3) Boardman, OR - NL 45-44-54; WL 119-47-38
- (4) Wasco, OR - NL 45-31-19; WL 120-46-58
- (5) The Dalles, OR - NL 45-36-26; WL 121-19-53
- (6) Bald Peter, OR - NL 44-39-23; WL 121-41-33
- (7) Dee, OR - NL 45-34-31; WL 121-46-13
- (8) Opal City, OR - NL 44-25-04; WL 121-05-51
- (9) Arlington, OR - NL 45-43-13; WL 120-10-45
- (10) MOBILE: Boardman, OR, within 50 km, centered around NL 45-44-54; WL 119-47-38
- (11) MOBILE: Bingen, WA, within 200 km, centered around NL 45-42-23; WL 121-27-23
- (12) The Dalles, OR - NL 45-31-01; WL 121-24-27

Frequency Information

Bingen (KLICKITAT), WA - NL 45-42-23; WL 121-27-23

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2267 MHz	FX	5M00D1D 10M0D1D 20M0D1D	15 W (ERP)	

This authorization effective March 11, 2021 and
will expire 3:00 A.M. EST February 01, 2022

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

Bingen (KLICKITAT), WA - NL 45-42-23; WL 121-27-23

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2295 MHz	FX	5M00D1D 10M0D1D 20M0D1D	15 W (ERP)	
2295 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	
2377 MHz	FX	5M00D1D 10M0D1D 20M0D1D	15 W (ERP)	
2377 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	
2395-2483 MHz	FX	5M00D1D 10M0D1D 20M0D1D	15 W (ERP)	
2395-2483 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	

Frequency Information

Hood River, OR - NL 45-40-18; WL 121-32-24

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2267 MHz	FX	5M00D1D 10M0D1D 20M0D1D	15 W (ERP)	
2295 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	
2377 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	
2395-2483 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	

Boardman, OR - NL 45-44-54; WL 119-47-38

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2267 MHz	FX	5M00D1D 10M0D1D 20M0D1D	15 W (ERP)	
2295 MHz	FX	5M00D1D 10M0D1D	12.3 kW (ERP)	

Frequency Information

Boardman, OR - NL 45-44-54; WL 119-47-38

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2295 MHz	FX	20M0D1D	12.3 kW (ERP)	
2377 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	
2395-2483 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	

Wasco, OR - NL 45-31-19; WL 120-46-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2267 MHz	FX	5M00D1D 10M0D1D 20M0D1D	15 W (ERP)	
2295 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	
2377 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	

Frequency Information

Wasco, OR - NL 45-31-19; WL 120-46-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2395-2483 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	

The Dalles, OR - NL 45-36-26; WL 121-19-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2267 MHz	FX	5M00D1D 10M0D1D 20M0D1D	15 W (ERP)	
2295 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	
2377 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	
2395-2483 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	

Frequency Information

Bald Peter, OR - NL 44-39-23; WL 121-41-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2267 MHz	FX	5M00D1D 10M0D1D 20M0D1D	15 W (ERP)	
2377 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	
2395-2483 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	

Dee, OR - NL 45-34-31; WL 121-46-13

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2267 MHz	FX	5M00D1D 10M0D1D 20M0D1D	15 W (ERP)	
2295 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	
2377 MHz	FX	5M00D1D 10M0D1D	12.3 kW (ERP)	

Frequency Information

Dee, OR - NL 45-34-31; WL 121-46-13

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2377 MHz	FX	20M0D1D	12.3 kW (ERP)	
2395-2483 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	

Opal City, OR - NL 44-25-04; WL 121-05-51

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2267 MHz	FX	5M00D1D 10M0D1D 20M0D1D	15 W (ERP)	
2377 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	
2395-2483 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	

Frequency Information

Arlington, OR - NL 45-43-13; WL 120-10-45

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2267 MHz	FX	5M00D1D 10M0D1D 20M0D1D	15 W (ERP)	
2295 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	
2377 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	
2395-2483 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	

MOBILE: Boardman, OR, within 50 km, centered around NL 45-44-54; WL 119-47-38

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2267 MHz	MO	5M00D1D 10M0D1D 20M0D1D	15 W (ERP)	
2295 MHz	MO	5M00D1D 10M0D1D	15 W (ERP)	

Frequency Information

MOBILE: Boardman, OR, within 50 km, centered around NL 45-44-54; WL 119-47-38

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2295 MHz	MO	20M0D1D	15 W (ERP)	
2377 MHz	FX	5M00D1D 10M0D1D 20M0D1D	15 W (ERP)	
2395-2483 MHz	MO	5M00D1D 10M0D1D 20M0D1D	15 W (ERP)	

MOBILE: Bingen, WA, within 200 km, centered around NL 45-42-23; WL 121-27-23

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2267 MHz	MO	5M00D1D	15 W (ERP)	
2295 MHz	MO	5M00D1D 10M0D1D 20M0D1D	15 W (ERP)	
2377 MHz	FX	5M00D1D 10M0D1D 20M0D1D	15 W (ERP)	
2395-2483 MHz	MO	5M00D1D 10M0D1D	15 W (ERP)	

Frequency Information

MOBILE: Bingen, WA, within 200 km, centered around NL 45-42-23; WL 121-27-23

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2395-2483 MHz	MO	20M0D1D	15 W (ERP)	

The Dalles, OR - NL 45-31-01; WL 121-24-27

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2267 MHz	FX	5M00D1D 10M0D1D 20M0D1D	15 W (ERP)	
2295 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	
2377 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	
2395-2483 MHz	FX	5M00D1D 10M0D1D 20M0D1D	12.3 kW (ERP)	

Special Conditions:

- (1) 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.
- (2) The station identification requirements of Section 5.115 of the Commission's Rules are waived.

Special Conditions:

- (3) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (4) Operation is subject to prior coordination with the local Society of Broadcast Engineers, Inc. (SBE) frequency coordinator. Consult the list at <http://sbe.org/wp-content/uploads/freqcoor.pdf> to find the appropriate coordinator.
- (5) Unmanned Airborne operations will be conducted inside restricted airspace and manned airborne operations will be conducted outside restricted airspace.
- (6) For mobile operations in Bingen, WA., Manned Aircraft Maximum Flight Level 10K ft, radius of operation of 200 km centered around 45-42-23 N; 121-27-23 W location.
- (7) For mobile operations in Boardman, OR., UAS Restricted Airspace Maximum Flight Level 10K ft, radius of operation of 50 km centered around 45-44-54 N; 119-47-38 W location.
- (8) Stop buzzer for this operation is a 24-7 staffed number at 509-637-4691.
- (9) Operations shall be non-interference basis to any current authorized users within radio line-of-sight due to high ERP.
- (10) Prior to commencing any operations in WCS (2305-2320 MHz/2345-2360 MHz) frequencies, the applicant must obtain consent from the WCS licensee (AT&T).
- (11) Prior to operation in 2450-2483 MHz band, licensee must successfully coordinate with the existing and future Fixed Microwave Service licensees in each proposed location in accordance with 47 CFR, Part 101.103(d).
- (12) Frequency assignment(s) in the bands of 1435-1525 MHz and 2360-2395 MHz must be coordinated prior to authorization with the Area Frequency Coordinator (AFC), who also coordinates, as appropriate, with Aerospace and Flight Test Radio Coordinating Council. During transmission, aircraft shall not exceed the altitude listed of 10,000 ft. Use of this frequency under the authority of this assignment is subject to further coordination with AFMO CONUS, Ft. Sam Houston, Texas, as necessary to ensure compatibility with existing users.
- (13) For operations at 2267.00MHz, prior to activation, applicant must coordinate with NASA/Boardman, OR (45-51-17N 119-37-55W). During transmission, aircraft shall not exceed the altitude of 10,000 ft.
- (14) 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 H92222-17-D-0011. 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.
- (15) Operation in 2295 MHz in the following locations are prohibited: Bald Peter, OR and Opal City, OR