

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

EXPERIMENTAL

(Nature of Service)

XC FX MO

(Class of Station)

WI2XCJ

(Call Sign)

0671-EX-PL-2015

(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) of the Commission's Rules

Station Locations

- (1) MOBILE: Airborne with maximum Flight Level of 20K ft, within 12 km, centered around NL 33-09-14; WL 111-19-25
- (2) Florence, AZ - NL 33-04-29; WL 111-22-13

Frequency Information

MOBILE: Airborne with maximum Flight Level of 20K ft, within 12 km, centered around NL 33-09-14; WL 111-19-25

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1370-1390 MHz	MO	230KF1D	1 W (ERP)	
1780-1850 MHz	MO	18M5F9W 9M58G1D 4M79G1D 2M40G1D	2 W (ERP)	
2200-2290 MHz	MO	18M5F9W 9M58G1D 4M79G1D	2 W (ERP)	

This authorization effective February 22, 2016 and
will expire 3:00 A.M. EST March 01, 2018

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

MOBILE: Airborne with maximum Flight Level of 20K ft, within 12 km, centered around NL 33-09-14; WL 111-19-25

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2200-2290 MHz	MO	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)	
2355-2390 MHz	MO	18M5F9W 9M58G1D 4M79G1D 2M40G1D	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

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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: Airborne with maximum Flight Level of 20K ft, within 12 km, centered around NL 33-09-14; WL 111-19-25

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)	
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Florence, AZ - NL 33-04-29; WL 111-22-13

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1370-1390 MHz	FX	230KF1D	608 W (ERP)	

1780-1850 MHz	FX	18M5F9W 9M58G1D 4M79G1D 2M40G1D	2 W (ERP)	
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2200-2290 MHz	FX	18M5F9W 9M58G1D 4M79G1D 2M40G1D	2 W (ERP)	
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2355-2390 MHz	FX	18M5F9W 9M58G1D 4M79G1D 2M40G1D	2 W (ERP)	
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Special Conditions:

- (1) Assignment in frequency bands 960-1400, 2700-2900, or 9000-9200 MHz was coordinated prior to authorization with the FAA Western Coordinator, Los Angeles, CA. Use of frequencies under the authority of this assignment is subject to such further coordination with the FAA Western Coordinator, Los Angeles, CA, as necessary to ensure compatibility with existing uses.
- (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) 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) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (5) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (6) The designated point-of-contact to terminate transmissions if interference occurs is the Operations Center at (509) 637-4691.
- (7) 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.
- (8) Operation not permitted in AWS band 1755-1780 MHz.
- (9) Operation is subject to consent of ALL WCS licensees (2305-2330 MHz / 2345-2360 MHz) within 250 miles of the test area.
- (10) Operation not permitted in 902-928 MHz band.
- (11) Operation must be confined to the R-2310 airspace to provide UAV command and control, video downlink, and transponder requirements during flight operations.
- (12) It is the sponsor's obligations to ensure operations do not interfere with military transmitters operating in the 1370-1390 MHz.
- (13) Coordination required 5 days prior to use with DOD AFC AZ, 520-538-6423 for operations in the 1780-1850 MHz.
- (14) Subject to coordination with the Area Frequency Coordinator, located at Ft. Huachuca, Arizona, prior to use within the State of Arizona. Phone: 602-538-6423.
- (15) Coordinate with the local Society of Broadcast Engineers (SBE) frequency coordinator prior to operation in 2450-2483.5 MHz band.
- (16) Coordinate with the fixed microwave Part 101.103(d) licensees prior to operation in 2450-2483.5 MHz band.