

**United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
SPECIAL TEMPORARY AUTHORIZATION**

EXPERIMENTAL

(Nature of Service)

WP9XDS

(Call Sign)

XT FX MO

(Class of Station)

1617-EX-ST-2019

(File Number)

NAME Insitu

This Special Temporary Authorization is granted upon the express condition that it may be terminated by the Commission at any time without advance notice or hearing if in its discretion the need for such action arises. Nothing contained herein shall be construed as a finding by the Commission that the authority herein granted is or will be in the public interest beyond the express terms hereof.

This Special Temporary Authorization shall not vest in the grantee any right to operate the station nor any right in the use of the frequencies designated in the authorization beyond the term hereof, nor in any other manner than authorized herein. Neither the authorization nor the right granted hereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934. This authorization is subject to the right of use of control the Government of the United States conferred by Section 706 of the Communications Act of 1934.

Special Temporary Authority is hereby granted to operate the apparatus described below:

Purpose Of Operation:

The C2 link consists of a ground station communicating to and from an aircraft. The ground station will uplink to the aircraft and the aircraft will downlink to the ground station.

Station Locations

- (1) MOBILE: , within 1.5 km, centered around NL 45-42-23; WL 121-27-23
- (2) Boardman (MORROW), OR - NL 45-44-54; WL 119-47-38; MOBILE: 5,000 Foot Flight Level, within 25 km, centered around NL 45-44-54; WL 119-47-38
- (3) Arlington, WA - NL 45-43-13; WL 120-10-45; MOBILE: 1,200 Foot Flight Level, within 25 km, centered around NL 45-43-13; WL 120-10-45
- (4) Morenci, AZ - NL 33-07-09; WL 109-19-51; MOBILE: 1,200 Foot Flight Level, within 25 km, centered around NL 33-07-09; WL 109-19-51
- (5) Sierrita, AZ - NL 31-52-56; WL 111-08-43; MOBILE: 1,200 Foot Flight Level, within 25 km, centered around NL 31-52-56; WL 111-08-43
- (6) Safford, AZ - NL 32-56-54; WL 109-38-44; MOBILE: 1,200 Foot Flight Level, within 25 km, centered around NL 32-56-54; WL 109-38-44
- (7) Bagdad, AZ - NL 34-35-09; WL 113-14-12; MOBILE: 1,200 Foot Flight Level, within 25 km, centered around NL 34-35-09; WL 113-14-12

This authorization effective October 01, 2019 and
will expire 3:00 A.M. EST March 31, 2020

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

MOBILE: , within 1.5 km, centered around NL 45-42-23; WL 121-27-23

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
902-928 MHz	MO	350KF1D	1 W (ERP)	
902-928 MHz	MO	350KF1D	4 W (ERP)	
2400-2500 MHz	MO	5M00G1D 10M0G1D 20M0G1D	4 W (ERP)	
2400-2500 MHz	MO	5M00G1D 10M0G1D 20M0G1D	25 W (ERP)	
2400-2500 MHz	MO	5M00G1D 10M0G1D 20M0G1D	772 W (ERP)	

Boardman (MORROW), OR - NL 45-44-54; WL 119-47-38; MOBILE: 5,000 Foot Flight Level, within 25 km, centered around N

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
902-928 MHz	MO	350KF1D	1 W (ERP)	
902-928 MHz	MO	350KF1D	4 W (ERP)	

Frequency Information

Boardman (MORROW), OR - NL 45-44-54; WL 119-47-38; MOBILE: 5,000 Foot Flight Level, within 25 km, centered around N

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2400-2500 MHz	MO	5M00G1D 10M0G1D 20M0G1D	4 W (ERP)	
2400-2500 MHz	MO	5M00G1D 10M0G1D 20M0G1D	25 W (ERP)	
2400-2500 MHz	MO	5M00G1D 10M0G1D 20M0G1D	772 W (ERP)	

Arlington, WA - NL 45-43-13; WL 120-10-45; MOBILE: 1,200 Foot Flight Level, within 25 km, centered around NL 45-43-13; W

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
902-928 MHz	MO	350KF1D	1 W (ERP)	
902-928 MHz	MO	350KF1D	4 W (ERP)	
2400-2500 MHz	MO	5M00G1D 10M0G1D 20M0G1D	4 W (ERP)	
2400-2500 MHz	MO	5M00G1D 10M0G1D	25 W (ERP)	

Frequency Information

Arlington, WA - NL 45-43-13; WL 120-10-45; MOBILE: 1,200 Foot Flight Level, within 25 km, centered around NL 45-43-13; V

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2400-2500 MHz	MO	20M0G1D	25 W (ERP)	
2400-2500 MHz	MO	5M00G1D 10M0G1D 20M0G1D	772 W (ERP)	

Morenci, AZ - NL 33-07-09; WL 109-19-51; MOBILE: 1,200 Foot Flight Level, within 25 km, centered around NL 33-07-09; WL

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
902-928 MHz	MO	350KF1D	1 W (ERP)	
902-928 MHz	MO	350KF1D	4 W (ERP)	
2400-2500 MHz	MO	5M00G1D 10M0G1D 20M0G1D	4 W (ERP)	
2400-2500 MHz	MO	5M00G1D 10M0G1D 20M0G1D	25 W (ERP)	
2400-2500 MHz	MO	5M00G1D 10M0G1D	772 W (ERP)	

Frequency Information

Morenci, AZ - NL 33-07-09; WL 109-19-51; MOBILE: 1,200 Foot Flight Level, within 25 km, centered around NL 33-07-09; WL

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2400-2500 MHz	MO	20M0G1D	772 W (ERP)	

Sierrita, AZ - NL 31-52-56; WL 111-08-43; MOBILE: 1,200 Foot Flight Level, within 25 km, centered around NL 31-52-56; WL

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
902-928 MHz	MO	350KF1D	1 W (ERP)	
902-928 MHz	MO	350KF1D	4 W (ERP)	
2400-2500 MHz	MO	5M00G1D 10M0G1D 20M0G1D	4 W (ERP)	
2400-2500 MHz	MO	5M00G1D 10M0G1D 20M0G1D	25 W (ERP)	
2400-2500 MHz	MO	5M00G1D 10M0G1D 20M0G1D	772 W (ERP)	

Frequency Information

Safford, AZ - NL 32-56-54; WL 109-38-44; MOBILE: 1,200 Foot Flight Level, within 25 km, centered around NL 32-56-54; WL

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
902-928 MHz	MO	350KF1D	1 W (ERP)	
902-928 MHz	MO	350KF1D	4 W (ERP)	
2400-2500 MHz	MO	5M00G1D 10M0G1D 20M0G1D	4 W (ERP)	
2400-2500 MHz	MO	5M00G1D 10M0G1D 20M0G1D	25 W (ERP)	
2400-2500 MHz	MO	5M00G1D 10M0G1D 20M0G1D	772 W (ERP)	

Bagdad, AZ - NL 34-35-09; WL 113-14-12; MOBILE: 1,200 Foot Flight Level, within 25 km, centered around NL 34-35-09; WL

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
902-928 MHz	MO	350KF1D	1 W (ERP)	
902-928 MHz	MO	350KF1D	4 W (ERP)	

Frequency Information

Bagdad, AZ - NL 34-35-09; WL 113-14-12; MOBILE: 1,200 Foot Flight Level, within 25 km, centered around NL 34-35-09; WL

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2400-2500 MHz	MO	5M00G1D 10M0G1D 20M0G1D	4 W (ERP)	
2400-2500 MHz	MO	5M00G1D 10M0G1D 20M0G1D	25 W (ERP)	
2400-2500 MHz	MO	5M00G1D 10M0G1D 20M0G1D	772 W (ERP)	

Special Conditions:

- (1) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (2) 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.
- (3) Prior to commencing any operations in the frequencies below, the applicant must obtain consent from the following within 100 miles of the contours of the testing area: Location & Monitoring Service licensees (902-928 MHz)
- (4) The applicant shall coordinate with the local Society of Broadcast Engineers coordinator prior to operation to protect the Low Power Broadcast Auxiliary operations on 2400-2500 MHz and BRS/ EBS in 2496-2500 MHz.
- (5) Experimental station shall use the minimum power level necessary to establish communications links to minimize potential interference to licensed users.
- (6) NTIA objects to the use of the 902-928 MHz band until successful coordination with Mr. Rodney Murphy, rodney.murphy@faa.gov, of the following:
 - a. What is the UAS platform?
 - b. Is the use of 902-928 MHz in accordance with FCC Part 15?
 - c. What is the loss line procedure for this operation?
 - d. Is there an autonomous operating feature with this UAS platform?
- (7) Insitu must notch out 2410 and 2453 MHz (+/- 20 MHz) at all Arizona locations.

Special Conditions:

- (8) Insitu must coordinate the Washington state operations with Mr. Dan Mertley, nrao-rfi@nrao.edu, 575-835-7128, prior to operating.