

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

EXPERIMENTAL

(Nature of Service)

XT FX MO

(Class of Station)

WJ9XDS

(Call Sign)

1108-EX-ST-2015

(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:

To provide video and command and control frequencies for UAS operations.

Station Locations

- (1) Taiban, NM - NL 34-29-36; WL 104-00-23
- (2) MOBILE: See Technical Description
- (3) Mountainair, NM - NL 34-30-24; WL 106-11-51

Frequency Information

Taiban, NM - NL 34-29-36; WL 104-00-23

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
902-928 MHz	FX	230KF1D	61 W (ERP)	

This authorization effective October 23, 2015 and
will expire 3:00 A.M. EST February 29, 2016

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

MOBILE: See Technical Description

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
902-928 MHz	MO	230KF1D	1 W (ERP)	
1090 MHz	MO	11M0K1D	500 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

Mountainair, NM - NL 34-30-24; WL 106-11-51

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
902-928 MHz	FX	230KF1D	61 W (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) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (3) This operation as a temporary proof-of-concept only. The user must ensure that 902-928 MHz Location and Monitoring Systems (LMS) will not be installed or operating along the railroad tracks or with RLOS vicinity during this testing period. After the completion of this testing, Insitu must seek an alternative radio spectrum for the UAS command/control link, which shall be in a licensable and protected frequency band. Concurrence will not be given to support the use of ISM, FCC Part 5,15 or 18 or other unlicensable bands for long –term or wide area usage above 400 feet.
- (4) The TCDS must be updated to reflect the actual command/control link; it is currently based upon 1350-1390 MHz.
- (5) Despite the approval of a COA, the user must be identifiable to Military flight operations in the vicinity that use TCAS. Therefore, the 1090 MHz transponder must be certified for this de-confliction, which the information shall be provided to the FAA. The current transponder shall not be used beyond the scope of this STA. For other proposed situations, the user must incorporate a full TSO transponder with Mode S that can support ADS-B.
- (6) Prior to the use of 2434, 2453, 2463, 2473 and/or 2486 MHz, coordination is required with NASA's Columbia Scientific Balloon Facility (Fort Sumner, TX). POC is Robert Salter (Robert.Salter@csbf.nasa.gov, 903-729-0271).
- (7) Stop buzzer for this operation is Insitu Operations Action Center at 866-637-4691.