

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

EXPERIMENTAL

(Nature of Service)

WS9XUS

(Call Sign)

XT FX

(Class of Station)

1526-EX-ST-2021

(File Number)

NAME JAXON ENGINEERING and MAINTENANCE

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:

Perform RF field mapping experiments in an outdoor environment to characterize the uniformity and levels of the EM fields emitted from our CWI antenna system.

Station Locations

(1) Roanoke (ROANOKE), VA - NL 37-15-51; WL 80-09-59

Frequency Information

Roanoke (ROANOKE), VA - NL 37-15-51; WL 80-09-59

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
0.1-225 MHz	FX	1K00N0N	632 W (ERP)	
399.9-449.75 MHz	FX	1K00N0N	632 W (ERP)	
450-608 MHz	FX	1K00N0N	632 W (ERP)	

This authorization effective October 20, 2021 and
will expire 3:00 A.M. EST April 20, 2022

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

Roanoke (ROANOKE), VA - NL 37-15-51; WL 80-09-59

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
614-758 MHz	FX	1K00N0N	632 W (ERP)	
798-976 MHz	FX	1K00N0N	632 W (ERP)	

Special Conditions:

- (1) 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.
- (2) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (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) Operation is prohibited on any public safety frequency listed under CFR 47 part 90.20 rules.
- (5) Further requests for extension of the authority granted herein must be filed on Form 442, "Application for New or Modified Radio Station Authorization under Part 5 of FCC Rules - Experimental Radio Service." Future STA requests to extend this authorization will not be considered.
- (6) Stop Buzzer POC is Matt Day at 719-355-2023.
- (7) Coordinate with Fixed Microwave Service licensees in the proposed venue in accordance with 47 C.F.R, Part 101.103(d) prior to operation in 798-980 MHz band.

Special Conditions:

- (8) Licensee must obtain consent from the following within 50 miles of the contours of the testing area:
- Paging Service licensees in 35 MHz
 - Paging Service licensees in 43 MHz
 - Paging Service licensees in 152 MHz
 - Paging Service licensees in 158 MHz
 - Mobile Service licensees in 152 MHz/158 MHz
 - AMTS Licensee (217-218 MHz/219-220 MHz)
 - 218-219 MHz Service licensees
 - 220-222 MHz Service licensees
 - Mobile Service licensees in 454 MHz/459 MHz
 - General Aviation Air-Ground Service in 454 MHz/459 MHz
 - 700 MHz Lower Band licensees (698-746 MHz)
 - 700 MHz Upper Band licensees (746-758 MHz, 805-806 MHz)
 - SMR/ESMR licensees (809-824 MHz/854-869 MHz)
 - ESMR licensees (817-824 MHz/862-869 MHz)
 - B/ILT licensees (809-824 MHz/854-869 MHz)
 - Cellular licensees (824-849 MHz/869-894 MHz)
 - Commercial Air-Ground licensee (849-851 MHz/894-896 MHz)
 - SMR licensees (896-901 MHz/935-940 MHz)
 - B/ILT licensees (896-901 MHz/935-940 MHz)
 - Narrowband PCS licensees (901-902/930-931/940-941 MHz)
 - Location & Monitoring Service licensees (902-928 MHz)
 - Paging Service licensees in 929 MHz and 931 MHz
- (9) JAXON Engineering and Maintenance must notch out the following:
- a. 190 – 535 kHz, 2850 – 3025 kHz, 3400 – 3500 kHz, 4650 – 4700 kHz, 5450 – 5680 kHz, 6525 – 6685 kHz, 8815 – 8965 kHz, 10005 – 10100 kHz, 11275 – 11400 kHz, 13260 – 13360 kHz, 17900 – 17970 kHz, 21924 – 22000 kHz, 74.800-75.200 MHz, 108.000-122.6875 MHz, 123.5875-128.8125 MHz, 132.0125-137.000 MHz, 225-400 MHz, 328.600-335.400 MHz, 400 – 406.1 MHz, 976 – 1000 MHz
 - b. (+/- 150 Hz) 2174.5 kHz, 2187.5 kHz, 4177.5 kHz, 4207.5 kHz, 6268 kHz, 6312 kHz, 8414.5 kHz, 12520 kHz, 12577 kHz, 16695 kHz, 16804.5 kHz
 - c. (+/- 1.4 kHz) 2183.4 kHz, 3024.4 kHz, 4126.4 kHz, 5681.4 kHz, 6517.4 kHz, 8292.4 kHz, 12291.4 kHz, 16421.4 kHz
 - d. (+/- 5.5 kHz) 162.325 MHz, 163.05 MHz, 165.3125 MHz
 - e. (+/- 8 kHz) 156.3 MHz, 156.525 MHz, 156.6 MHz, 156.8 MHz, 157.05 MHz, 157.075 MHz, 157.1 MHz, 157.15 MHz, 157.175 MHz
 - f. (+/- 10 kHz) 161.975 MHz, 162.025 MHz
- (10) Licensee must successfully secure consents from the Upper Microwave Flexible Use Service licensees in the proposed area prior to accessing to frequency range from 614 MHz to 698 MHz.
- (11) Prior to commencing any operations in the 137-138 MHz, 148-150.05 MHz, 161-163 MHz, and 400.15-401 MHz frequency bands, experimental licensee must notify licensee of ORBCOMM License Corp. (Call signs: E940534, S2103. Mr. Walter H. Sonnenfeldt, Phone Number: 585-461-3018, E-Mail: sonnenfeldt.walter@orbcomm.com). The notice must include the name and contact information of the stop buzzer personnel that will be available to cease operations in the event of reported interference. The notification should include the testing parameters (specific location(s), antenna gain(s), antenna height(s), antenna orientation, EIRP, EIRP density) and day and times of each test.

Special Conditions:

- (12) Prior to commencing any operations in the 137.025 - 138 MHz and 148.25 - 149.95 MHz frequency bands, experimental licensee must notify licensee of Swarm Technologies, Inc. (Call signs: E190490, S3041. Dr.Sophie Arlow, Phone Number: 425-753-3349, E-Mail: sophie@swarm.space). The notice must include the name and contact information of the stop buzzer personnel that will be available to cease operations in the event of reported interference. The notification should include the testing parameters (specific location(s), antenna gain(s), antenna height(s), antenna orientation, EIRP, EIRP density) and day and times of each test.
- (13) Prior to commencing any operations in the 156.7625-156.7875 MHz and 156.8125-156.8375 MHz frequency bands, experimental licensee must notify licensee of Iridium Constellation LLC (Call sign: S2110. Ms. Maureen C McLaughlin, Phone Number: : 703-287-7518 E-Mail: : maureen.mclaughlin@iridium.com) or Name: Jennifer Hindin, Phone Number: 2027194975 E-Mail: jhindin@wileyrein.com). The notice must include the name and contact information of the stop buzzer personnel that will be available to cease operations in the event of reported interference. The notification should include the testing parameters (specific location(s), antenna gain(s), antenna height(s), antenna orientation, EIRP, EIRP density) and day and times of each test.
- (14) Prior to commencing any operations in the 156.7625-156.7875 MHz and 156.8125-156.8375 MHz frequency bands, experimental licensee must notify licensee of Spire Global, Inc. (Call sign: S S2946. Name: Mrs. Francisca Adeuyi, Phone Number: 4153563400 x307, E-Mail: francisca.adeuyi@spire.com). The notice must include the name and contact information of the stop buzzer personnel that will be available to cease operations in the event of reported interference. The notification should include the testing parameters (specific location(s), antenna gain(s), antenna height(s), antenna orientation, EIRP, EIRP density) and day and times of each test.
- (15) Prior to commencing any operations in the 156.7625-156.7875 MHz and 156.8125-156.8375 MHz frequency bands, experimental licensee must notify licensee of HawkEye 360, Inc. (Call sign: S3042. Name: Mr. Rob Rainhart, Phone Number: 571-203-0360 E-Mail: rob@he360.com or Mr. Michael Mineiro Phone Number: 571-203-0360 E-Mail: michael.mineiro@he360.com). The notice must include the name and contact information of the stop buzzer personnel that will be available to cease operations in the event of reported interference. The notification should include the testing parameters (specific location(s), antenna gain(s), antenna height(s), antenna orientation, EIRP, EIRP density) and day and times of each test.