

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

EXPERIMENTAL

(Nature of Service)

WQ9XIR

(Call Sign)

XT MO

(Class of Station)

0580-EX-ST-2020

(File Number)

NAME AIRXOS, Inc.

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 radars are used to monitor the perimeter of an area where UAS operations are planned to shuttle medical and food supplies. The radars will notify the UAS operators to cease operation if a

Station Locations

(1) MOBILE: Cover a 5 mile square around Atoka

Frequency Information

MOBILE: Cover a 5 mile square around Atoka

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
15.4-15.7 GHz	MO	300MQXN	2.34 W (Output Power)	0.5 %
16.2-16.5 GHz	MO	150MQXN	2.01 W (Output Power)	0.000094 %

Special Conditions:

(1) The occupied bandwidth of the emission shall not extend beyond the band limits set forth above.

This authorization effective April 03, 2020 and
will expire 3:00 A.M. EST October 04, 2020

**FEDERAL
COMMUNICATIONS
COMMISSION**



Special Conditions:

- (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) AIRXOS, Inc. must provide specific locations where each radar will be installed and the number of radar units to be installed at each location back to NTIA and FAA, Mr. Rodney Murphy, rodney.murphy@faa.gov, prior to any operations.
- (4) AIRXOS, Inc. should be aware that there are numerous federal assignments in the requested area and that interference potential does exist.
- (5) AIRXOS, Inc. should also be aware of the comments below regarding this request.
 - a. NTIA concurs with the use of Fortem R20 Detect-and Avoid (DAA) (15.4-15.7 GHz) for safety-of-life situational awareness of UAS traffic separation and deconfliction provided the FCC will allow this system to claim protection from interference and immunity from interference claims from other systems. Also, both Fortem and AIRXOS should note that future requests of the R20 DAA radar should be done thru operational licensing under Part 87 via the FCC to provide full protection, and not the experimental process.
 - b. The use of the Fortem R30 (16.2-16.5 GHz) is for strictly experimental radiolocation purposes, but will only temporarily be used to support COVID-19 operations. Its only purpose shall be for notifying the UAS pilots to cease operation if a manned aircraft enters the perimeter and shall not provide the UAS pilot with the location, course, or speed of any aircraft. It should be noted that this system will have no protection from interference.
- (6) The Stop Buzzer POC in case interference occurs is
Robert C. Huck, PhD
Director, Advanced Technology Initiatives
Choctaw Nation of Oklahoma
(580) 740-3370