

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

EXPERIMENTAL
(Nature of Service)

XT MO
(Class of Station)

WQ2XNS
(Call Sign)

0818-EX-CN-2025
(File Number)

NAME National Operations Research Alliance, LLC

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(J) of the Commission's Rules

Station Locations

- (1) MOBILE: Mobile on the ground and airborne up to 8500m AGL, Sanderson, TX, within 13 km, centered around NL 30-18-37; WL 102-42-58
- (2) MOBILE: Mobile on the ground and airborne up to 8500m AGL, Sanderson, TX, within 13 km, centered around NL 30-18-37; WL 102-42-58
- (3) MOBILE: Mobile on the ground and airborne up to 8500m AGL, Sanderson, TX, within 13 km, centered around NL 30-18-37; WL 102-42-58
- (4) MOBILE: Mobile on the ground and airborne up to 8500m AGL, Sanderson, TX, within 13 km, centered around NL 30-18-37; WL 102-42-58
- (5) MOBILE: Mobile on the ground and airborne up to 8500m AGL, Sanderson, TX, within 13 km, centered around NL 30-18-37; WL 102-42-58
- (6) MOBILE: Mobile on the ground and airborne up to 8500m AGL, Sanderson, TX, within 13 km, centered around NL 30-18-37; WL 102-42-58
- (7) MOBILE: Mobile on the ground and airborne up to 8500m AGL, Sanderson, TX, within 13 km, centered around NL 30-18-37; WL 102-42-58
- (8) MOBILE: Mobile on the ground and airborne up to 8500m AGL, Sanderson, TX, within 13 km, centered around NL 30-18-37; WL 102-42-58
- (9) MOBILE: Mobile on the ground and airborne up to 8500m AGL, Sanderson, TX, within 13 km, centered around NL 30-18-37; WL 102-42-58

This authorization effective July 27, 2026 and
will expire 3:00 A.M. ET August 01, 2028

FEDERAL
COMMUNICATIONS
COMMISSION



Frequency Information

MOBILE: Mobile on the ground and airborne up to 8500m AGL, Sanderson, TX, within 13 km, centered around NL 30-18-37;
WL 102-42-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2280 MHz	MO	11M3D7W	34.5 W (ERP)	0.00002 %
2280 MHz	MO	20M0D7W	61.1 W (ERP)	0.00002 %
2280 MHz	MO	5M64D7W 11M3D7W 20M0D7W	17.2 W (ERP)	0.00002 %
2395-2483 MHz	MO	5M64D7W 11M3D7W 22M6D7W	193 W (ERP)	0.00002 %

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WL 102-42-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2280 MHz	MO	5M64D7W 11M3D7W 20M0D7W	17.2 W (ERP)	0.00002 %
2280 MHz	MO	11M3D7W	19.3 W (ERP)	0.00002 %
2395-2483 MHz	MO	5M64D7W 11M3D7W	19.3 W (ERP)	0.00002 %

Frequency Information

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WL 102-42-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2395-2483 MHz	MO	22M6D7W	19.3 W (ERP)	0.00002 %

MOBILE: Mobile on the ground and airborne up to 8500m AGL, Sanderson, TX, within 13 km, centered around NL 30-18-37;
WL 102-42-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
4400-4940 MHz	MO	5M64D7W 11M3D7W 22M6D7W	193 W (ERP)	0.00002 %

MOBILE: Mobile on the ground and airborne up to 8500m AGL, Sanderson, TX, within 13 km, centered around NL 30-18-37;
WL 102-42-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
4400-4940 MHz	MO	5M64D7W 11M3D7W 22M6D7W	96.6 W (ERP)	0.00002 %

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
420-449.75 MHz	MO	25K0F7N	76.4 W (ERP)	0.00001 %
450.25-453 MHz	MO	25K0F7N	76.4 W (ERP)	0.00001 %

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
454-460 MHz	MO	25K0F7N	76.4 W (ERP)	0.00001 %
902-928 MHz	MO	300KF7N	76.4 W (ERP)	0.00001 %
2400-2483.5 MHz	MO	10M0W7N	76.4 W (ERP)	0.00001 %
5725-5850 MHz	MO	20M0W7N	76.4 W (ERP)	0.00001 %

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2280 MHz	MO	5M64D7W 11M3D7W 20M0D7W	17.2 W (ERP)	0.00002 %
2280 MHz	MO	11M3D7W	34.5 W (ERP)	0.00002 %
2395-2483 MHz	MO	5M64D7W 11M3D7W 22M6D7W	77.3 W (ERP)	0.00002 %

Frequency Information

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WL 102-42-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2280 MHz	MO	5M64D7W 11M3D7W 20M0D7W	9.7 W (ERP)	0.00002 %
2395-2483 MHz	MO	5M64D7W 11M3D7W 22M6D7W	9.7 W (ERP)	0.00002 %

MOBILE: Mobile on the ground and airborne up to 8500m AGL, Sanderson, TX, within 13 km, centered around NL 30-18-37;
WL 102-42-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
4400-4940 MHz	MO	5M64D7W 11M3D7W 22M6D7W	77.3 W (ERP)	0.00002 %

MOBILE: Mobile on the ground and airborne up to 8500m AGL, Sanderson, TX, within 13 km, centered around NL 30-18-37;
WL 102-42-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
4400-4940 MHz	MO	5M64D7W 11M3D7W 22M6D7W	9.7 W (ERP)	0.00002 %

Special Conditions:

- (1) The station identification requirements of Section 5.115 of the Commission's Rules are waived.

Special Conditions:

- (2) Prior to equipment authorization or a determination of compliance, the device must be accompanied by a conspicuous notice worded as follows: "This device has not been authorized as required by the rules of the Federal Communications Commission. This device is not, and may not be, offered for sale or lease, or sold or leased, until authorization is obtained."
- (3) Directed energy / jamming / electronic attack / spoofing / emulating operations are not authorized and must be submitted under an Electronic Attack (EA) application with the National Telecommunications and Information Administration (NTIA).
- (4) Licensee is required to ensure that trial devices are either rendered inoperable or retrieved by the experimental licensee at the conclusion of the experiment.
- (5) Stop Buzzer is Shaun Taylor Duvall
Telephone: (657) 702-2450
Email: sduvall@anduril.com
- (6) Experimental licensee must coordinate with the local Society of Broadcast Engineers Frequency Coordinator in each proposed area prior to performing the experimental operations. Consult the list at <http://sbe.org/resources/frequency-coordination/> to find the appropriate coordinator.
- (7) Experimental licensee must coordinate with the Fixed Microwave Service licensees in the proposed venues prior to operation in the frequencies from 2450 MHz to 2483.5 MHz.
- (8) Prior to commencing any operations in the frequencies below, the experimental licensee must obtain consent from the following within 236 miles of the contours of the testing area:
 - a. Mobile and Fixed Service licensees in 454 MHz/459 MHz
 - b. General Aviation Air-Ground Service in 454 MHz/459 MHz
 - c. Location & Monitoring Service licensees (902-928 MHz)
- (9) Operations within part 90 bands must comply with all applicable rules under part 90, including, but not limited to, the requirements for protecting centralized trunked incumbents as specified in section 90.187.
- (10) Experimental licensee is strictly prohibited from operating in the 453 - 454 MHz frequency band that is exclusive public safety under rule 90.20.
- (11) For transmissions operating at a center frequency of 2280 MHz, the Effective Radiated Power (ERP) must not exceed 61.1 W when using the 20M0D7W emission designator, 34.5 W when using the 11M3D7W emission designator, and 17.2 W when using the 5M64D7W emission designator.