

APPLICATION FOR EXPERIMENTAL AUTHORITY

The National Operations Research Alliance, LLC (“NORA”) respectfully requests experimental authority to operate several Silvus StreamCaster radios [REDACTED] identified in section 4 of this narrative at mobile locations on the ground and on a mobile base [REDACTED] Sanderson, Texas. [REDACTED] NORA would use this experimental authority to [REDACTED]

1) Company Background

NORA is a limited liability company that specializes in creating technology innovations. This submission contains confidential and proprietary information related to technological advancements in radio communications. NORA’s address of record and FCC Registration Number are as follows:

National Operations Research Alliance, LLC
1209 Orange Street
Wilmington, DE, 19801
FRN: 0036034106

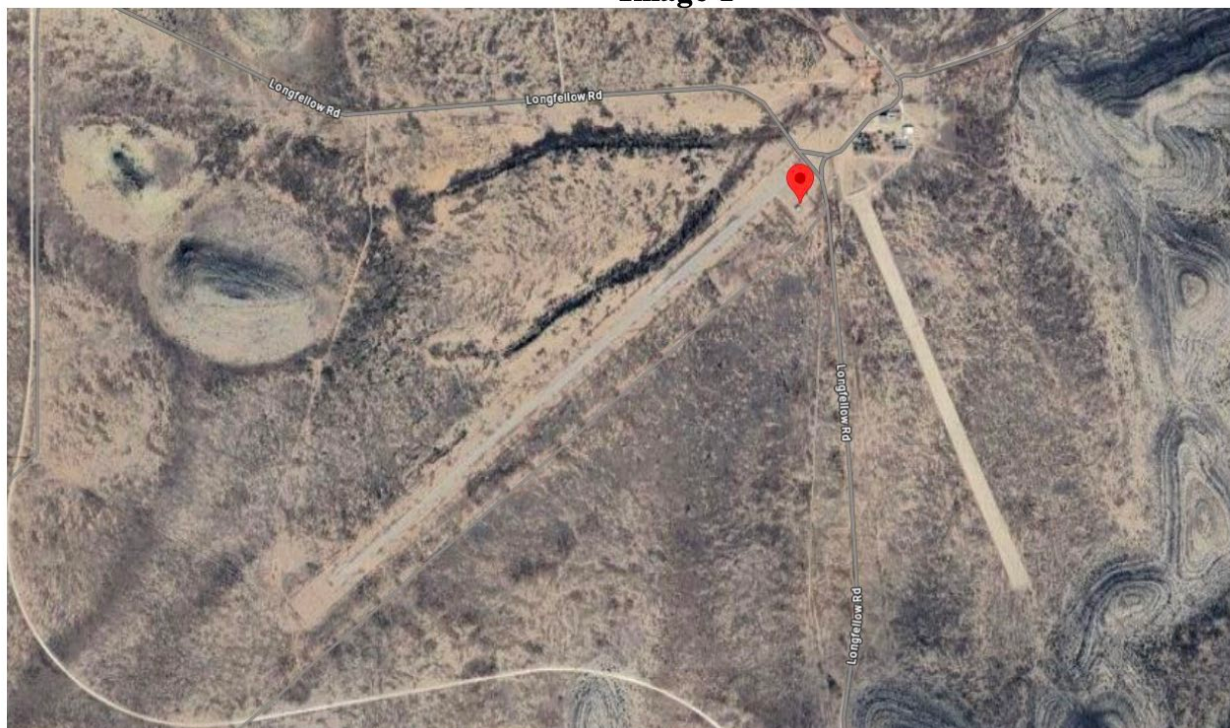
2) Need for Experimental Authority

Grant of experimental authority would allow NORA to [REDACTED]
[REDACTED]. Transmitters in flight would operate at an altitude of up to 8500 meters above ground level. The experimental authority would allow NORA to [REDACTED]
[REDACTED].

3) Station Location

NORA will conduct the proposed experiments at a remote site, with its terrestrial mobile transmitters principally operating from the coordinates 30° 18’ 36.71” N, 102° 42’ 57.67” W. Airborne mobile operations will occur within the cylinder of volumetric space defined by a 13-km radius from the site location coordinates and an altitude of up to 8,500 meters above ground level. The red pin in Image 1 shows the proposed primary terrestrial transmitter site location.

Image 1



4) Equipment and Frequencies

NORA will use the transmitters and the associated frequencies listed in the chart below. NORA will comply with any limitations applied to non-Federal users in these bands pursuant to the FCC Table of Frequency Allocations found at 47 C.F.R. § 2.106. NORA will operate with the minimum necessary power to conduct its operations and will not exceed the power levels specified in this application. NORA will also operate with the emissions, modulation techniques, and frequency ranges specified in this application.

Transmitter	Manufacturer	Frequencies	Modulation/Coding
Test Transmitter	National Operations Research Alliance, LLC	420 - 449.75 MHz	FM, FSK
Test Transmitter	National Operations Research Alliance, LLC	450.25 - 460 MHz	FM, FSK
Test Transmitter	National Operations Research Alliance, LLC	902 - 928 MHz	FM, FSK
Test Transmitter	National Operations Research Alliance, LLC	2400 - 2483.5 MHz	FM, QPSK, OFDM

Test Transmitter	National Operations Research Alliance, LLC	5725 - 5850 MHz	FM, QPSK, OFDM
StreamCaster 4200 (SL4200) / 4200EP (SC42A0)	Silvus Technologies	2280 MHz	OFDM
StreamCaster 4200 (SL4200) / 4200EP (SC42A0)	Silvus Technologies	2395 - 2483 MHz	OFDM
StreamCaster 4200 (SL4200) / 4200EP (SC42A0)	Silvus Technologies	4400 - 4940 MHz	OFDM
StreamCaster 4400E (SC4480) / 4400E (SC44K0)	Silvus Technologies	2280 MHz	OFDM
StreamCaster 4400E (SC4480) / 4400E (SC44K0)	Silvus Technologies	2395 - 2483 MHz	OFDM
StreamCaster 4400E (SC4480) / 4400E (SC44K0)	Silvus Technologies	4400 - 4940 MHz	OFDM

5) Safety

NORA will comply with FCC rules and regulations regarding the operation of transmitting antennas. All power levels will comply with the limits set forth in the FCC's rules, including those relating to human exposure to radiofrequency radiation. In addition, all personnel who will operate the equipment are knowledgeable as to the effects of radiofrequency energy and will have the ability to control their exposure.

6) Interference Protection

The proposed test location is far removed from population centers and radiocommunications facilities. Even in this remote location, NORA recognizes that the operation of any equipment under experimental authority must not cause harmful interference to authorized facilities. NORA also recognizes that its proposed operations may require coordination with existing licensees authorized on the requested frequencies. NORA will fully coordinate and operate on a non-interference, non-protected basis with anyone affected or reasonably likely to be affected. Should interference occur, NORA will take immediate steps to resolve the interference. For instance, it will operate on another authorized frequency, provided such frequency is not within the restricted frequencies set forth in 47 C.F.R. § 15.205, or it will discontinue operation.

7) Restrictions on Operation

NORA recognizes that permission to operate under FCC experimental authority confers no long-term rights. NORA does not propose to market, sell, or lease equipment to end users or conduct a market trial in conjunction with these operations.

8) Request for Waiver of Station Identification Requirements

NORA requests a waiver of the station-identification requirements in section 5.115 of the Commission's rules.¹ Grant of the requested waiver will promote the public interest by allowing NORA to determine the most effective operating capabilities of the equipment as part of this operation.

9) Technical and "Stop Buzzer" Contact Information

If NORA must terminate operations due to any interference concerns, the technical and "stop buzzer" points of contact with authority to direct the termination of operations are as follows:

Shaun Taylor Duvall
Ass. Director, Test Site Manager
(657) 702-2450
sduvall@anduril.com

Trey Hanbury
Jenner & Block LLP
1099 New York Ave NW #900
Washington, DC 20001
Telephone: (202) 637-6387
Email: NORASpectrum@jenner.com

For these reasons, NORA respectfully requests approval of experimental authority.

¹ See 47 C.F.R. § 5.115.