

APPLICATION FOR EXPERIMENTAL AUTHORITY

Anduril Industries respectfully requests authority to operate 2 Kraytos FTTS-P-8, 2 Silvus StreamCaster 4400E, 2 Silvus StreamCaster 4200EP, 2 Anduril SURFR, and 2 Qualcomm Longbow radios at locations near Pecos County, TX (combined ATTS / West Pyle COA region near Sanderson).

The radios would use several radio bands. These are listed in section 3. Experimental operation of the radios would allow Anduril Industries to conduct radio network research and better understand the radios capabilities when paired with uncrewed aircraft systems.

1. Company Background

Anduril Industries is a limited liability company specializing in technological innovation. This submission includes confidential and proprietary information related to technological advancements in radio communications. Anduril Industries' address of record and Registration Number are as follows:

Anduril Industries

1400 Anduril

Costa Mesa, CA 92626

FRN: 0028824514

¹ See 47 C.F.R. § 5.115.

2. Station Location

In Pecos County, TX (near Sanderson), Anduril Industries will operate radios proximate to coordinates 30-20-14 N, 102-40-34 W with an area illustrated and bounded by the attached map. The area is 18 NM from the center point, or 34 kilometers.

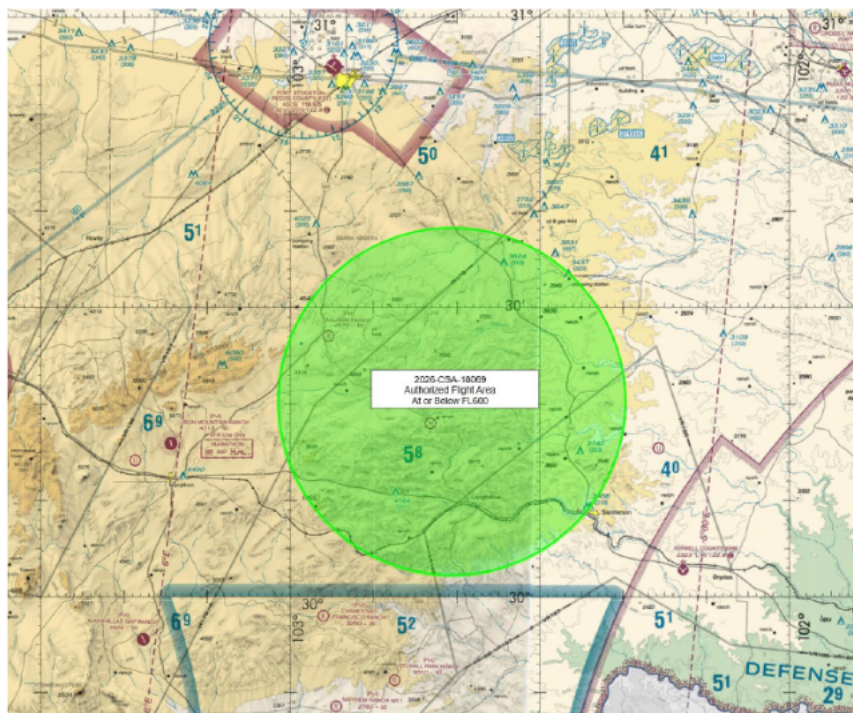
The mobile ground high power FTS antenna will operate in a more restricted circle of 20 kilometers from the center point.

Attachment 1

Operating Location: Class A, E and G airspace in the vicinity of Emerson, TX, as depicted below and defined by the following:

Center Point - 30°20'14"N 102°40'34"W; Radius – 18 NM

Operating Altitudes: At or below FL600



The radios are a mixture of Mobile Ground and Mobile Air systems up to a 50k ft altitude.

3. Frequencies

The radios would use the following bands:

Kraytos FTTS-P-8: 425-435 MHz

Silvus StreamCaster 4400E: 2200-2290 MHz, 2395-2450 MHz

Silvus StreamCaster 4200EP: 2200-2290 MHz, 2395-2450 MHz

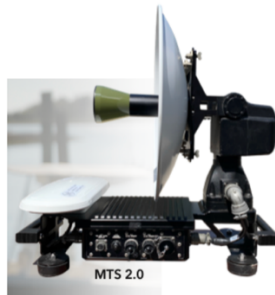
¹ See 47 C.F.R. § 5.115.

Anduril SURFR: 420-434 MHz, 902-928 MHz, 1785-1850 MHz, 2280 MHz, 2395-2450 MHz, 5725-5850 MHz

Qualcomm Longbow: 1780-1850 MHz

Anduril Industries will comply with any limitations applied to non-Federal users in these bands pursuant to the FCC Table of Frequency Allocations located at 47 C.F.R. § 2.106. Anduril Industries will operate with the minimum necessary power to conduct its operations and will not exceed the power levels specified in this application and will operate with the emissions, modulation techniques, and frequency ranges specified in this application.

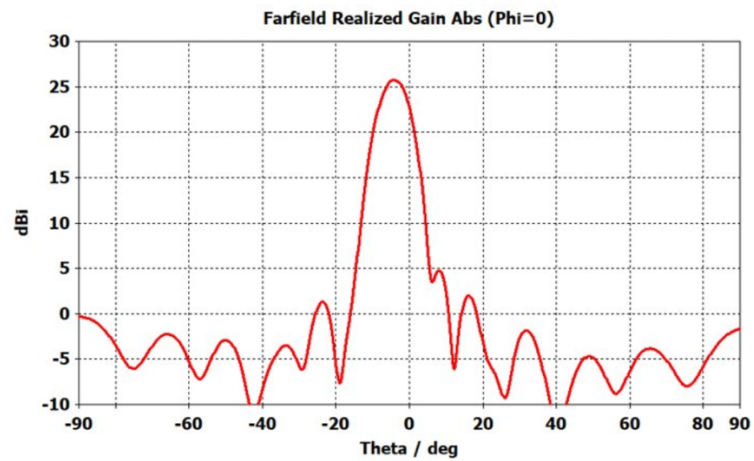
The directional antenna being used with the Silvus is a TSC Mobile Tracking System 2.0, pictured below. The automatic tracking system should reduce error and misdirection of the broadcast signal. The beamwidth at the half-power point is 18 degrees. The vertical plane orientation will vary with the location of the UAS but not exceed 35 degrees above the horizon. This directional antenna will be used as ground only. Other lower gain (4-6 dBi) omni antennas may be used with the Silvus radios in a mobile air configuration.



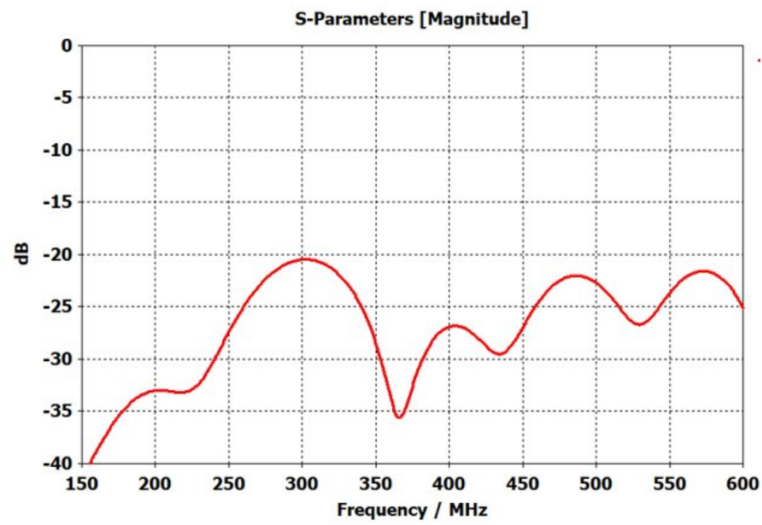
The objective of the effort is to evaluate range, signal quality, system capability, and environmental impacts for Anduril's use of the radio hardware for UAS systems.

The high ERP directional radio in the 425-435 MHz range is ground only and will operate within a less than 10 km radius of the center point. The antenna is a Raven UHF directional dish, and stood up on its pedestal, measures no higher than 5.5 meters at the top of the dish.

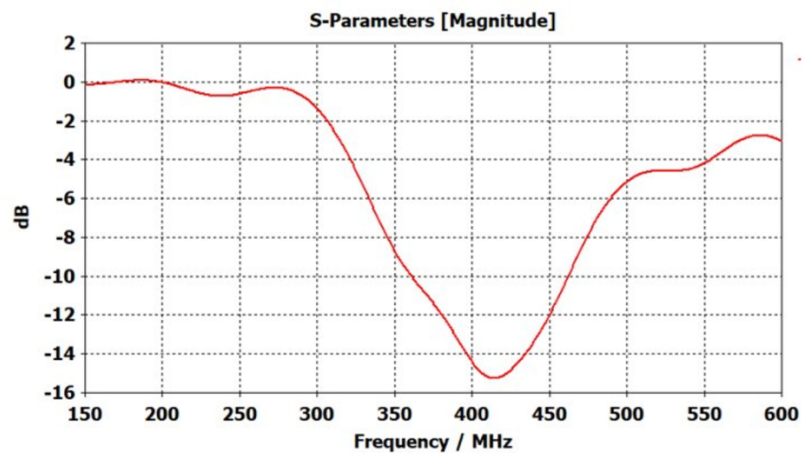
¹ See 47 C.F.R. § 5.115.



UHF Crossed Dipole Cross Polar Isolation



UHF Crossed Dipole Return Loss



¹ See 47 C.F.R. § 5.115.

4. Safety

Anduril Industries 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.

5. Interference Protection

The proposed test location is some distance from sensitive locations like public airports; the nearest private landing site is Fortytone Draw Airport approximately 15 km from the center point of the area requested.

Anduril Industries recognizes that the operation of any equipment under experimental authority must not cause harmful interference to authorized facilities. Anduril Industries also recognizes that its proposed operations may require coordination with existing licensees authorized on the requested frequencies.

Anduril Industries will fully coordinate and operate on a non-interference, non-protected basis with anyone affected or reasonably likely to be affected. Should interference occur, Anduril Industries 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.

6. Restrictions on Operation

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

7. Request for Waiver of Station Identification Requirements

Anduril Industries 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 Anduril Industries to determine the most effective operating capabilities of the equipment as part of this operation.

8. Technical and "Stop Buzzer" Contact Information

If Anduril Industries must terminate operations due to any interference concerns, the technical and "stop buzzer" point of contact is as follows:

James Miller

Anduril Industries

¹ See 47 C.F.R. § 5.115.

1400 Anduril

Costa Mesa, California 92626

Telephone: (949) 827-4993

Email: spectrum@anduril.com

For these reasons, Anduril Industries respectfully requests approval of experimental authority.

¹ See 47 C.F.R. § 5.115.