September 06, 2023

In re Application of

Choctaw Nation of Oklahoma
19001 East Highway 43
Stringtown, Oklahoma 74569

To operate in the 2200-2290MHZ, 4400-4940MHz and the 5030-5091MHz Telemetry Bands near Daisy, Oklahoma.

ATTN.: Microwave Branch

The Choctaw Nation of Oklahoma hereby requests Special Temporary Authority (STA) to operate within the 2200-2290MHz and 4400-4940MHz telemetry bands pursuant to Section 21.25 of the Commission's Rules. The Choctaw Nation of Oklahoma requests that the Commission grant it temporary authority to operate on the frequencies centered at 2230MHz, 2280MHz, 4420MHz and 4810MHz with a 20MHz bandwidth and 5040.925MHz with a 175KHz bandwidth from December 01, 2023, through November 30, 2024, with intermittent usage. If the 2230MHz, 2280MHz or the 4420MHz, 4810MHz frequency range is unavailable, any 20MHz channel within the bands 2200-2290MHz and the 4400-4940Mhz will suffice. As explained below, The Choctaw Nation of Oklahoma is filing an STA request to experiment with new microwave technologies in a MIMO/MANET configuration for UAV flight and ground testing at the Choctaw Nation of Oklahoma Emerging Aviation Technology Center near Daisy, Oklahoma. The Choctaw Nation of Oklahoma submits that there are extraordinary circumstances warranting a grant of the STA request.

The Choctaw Nation of Oklahoma is testing new microwave emission technologies for UAV ground and flight telemetry as it relates to data coherency, propagation, data throughput, vehicle integration and impact. Due to the frequency congestion around Oklahoma City, The Choctaw Nation of Oklahoma requests the use of these channels.

The Choctaw Nation of Oklahoma certifies that the operation of the requested channels for the purposes specified herein will not cause interference to any established stations.

Grant of the instant request for STA for the 2.2GHz band and the 4.5GHz bands would serve the public interest by enabling The Choctaw Nation of Oklahoma to experiment with the reliability of the emission scheme as it relates in both an aerial and terrestrial exercise in a wireless MIMO/MANET configuration. The proposed service would enable demonstration of the Streamcaster SC4480 / SC4240 transceivers / antenna arrays and the uAvionix SkyLink ARS radio in an aerial and terrestrial exercise. The Choctaw Nation of Oklahoma is in the process of obtaining the consent of the relevant frequency coordinators for this project, including the FAA. The FAA has indicated its intent to forward the results of the coordination to the Commission.

In accordance with Section 74.633 of the Commission's Rules, the following is provided:

Applicants Name:	Choctaw Nation of Oklahoma
Address:	19001 East Highway 43 Stringtown, Oklahoma 74569
Type and Manufacturer Of Equipment:	Silvus Technologies, Inc. Streamcaster SC4480 / SC4240
Power Output:	8W
ERP:	130W
Emission:	20M00D7W

Frequency:	2230.0MHz, 20M00D7W @ 130W AERIAL 2280.0MHz, 20M00D7W @ 130W AERIAL 4420.0MHz, 20M00D7W @ 130W AERIAL 4810.0MHz, 20M00D7W @ 130W AERIAL
Area of Operation:	80Km
Coordinates:	N 34 30 53 W 095 50 14
Type and Manufacturer Of Equipment:	uAvionix SkyLink ARS
Power Output:	10W
ERP:	10W
Emission:	175KF1D
Frequency:	5040.9250MHz, 175KF1D @ 10W AERIAL
Area of Operation:	18Km
Coordinates:	N 34 30 53 W 095 50 14
Antenna Height:	**UNMANNED AERIAL VEHICLE @ OR BELOW 2500' AGL.** FIXED TOWER @ 70'AGL.
Antenna:	Dual Polarized
Antenna Gain:	12dBi
Dates of Operation:	December 01, 2023 – November 30, 2024 (Intermittent Usage during these days)

The Choctaw Nation of Oklahoma requests an STA to operate on the above-referenced frequency for a period not to exceed twelve months. No application for regular authorization will subsequently be filed.

The Choctaw Nation of Oklahoma certifies that no party to the application is subject to a denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C ξ 853(a).

Should you have any questions regarding this matter, please contact, John Winch, by telephone 626 676 1470.

Respectfully submitted,

By: John Winch
Frequency Coordinator