

January 10, 2023

In re Application of

Hillsborough County Sheriff's Office  
10136 Windhorst Road  
Tampa, Florida 33619

To operate in the 2200-2290MHz and 4400-4940MHz Telemetry Band in Tampa, Florida.

ATTN.: Microwave Branch

The Hillsborough County Sheriff's Office hereby requests Special Temporary Authority (STA) to operate within the 2200-2290MHz and the 4400-4940MHz telemetry bands pursuant to Section 21.25 of the Commission's Rules. The Hillsborough County Sheriff's Office requests that the Commission grant it temporary authority to operate on the frequencies centered at 2280MHz with a 20MHz bandwidth, 4410MHz and 4810MHz with a 20MHz bandwidth from February 10, 2023, through February 09, 2024, with intermittent usage. If the 2280MHz, 4410MHz or the 4810MHz frequency range is unavailable, any 20MHz channels within the 2200-2290MHz band or the 4400-4940MHz band will suffice. As explained below, the Hillsborough County Sheriff's Office is filing an STA request to experiment with new microwave technologies in an aerial exercise in a MIMO/MANET configuration. Hillsborough County Sheriff's Office submits that there are extraordinary circumstances warranting a grant of the STA request.

The Hillsborough County Sheriff's Office is experimenting with new microwave emission technologies as it relates to data coherency, propagation, data throughput, vehicle integration and impact in an aerial scenario. The Hillsborough County Sheriff's Office is experimenting with multiple optical sensors for their helicopter operations. Due to the extreme frequency congestion in the Tampa area, Hillsborough County Sheriff's Office requests the use of these channels.

The Hillsborough County Sheriff's Office 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 and 4.9GHz bands would serve the public interest by enabling the Hillsborough County Sheriff's Office to experiment with supporting ground and aviation assets with live video data while engaging in official Law Enforcement operations in real time in an aerial configuration. The proposed service would enable demonstration of Silvus Technologies, Inc. Streamcaster SC44K0/4400 transceivers in a MIMO / MANET array in a terrestrial exercise.

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

Applicants Name: Hillsborough County Sheriff's Office  
Address: 10136 Windhorst Road  
Tampa, Florida 33619

Type and Manufacturer Of Equipment: Silvus Technologies, Inc.  
Streamcaster SC44K0/4400

Power Output: 20W

ERP: **80W AERIAL**

Emission: 20M00D7W

Frequency: 2280.0MHz, 20M00D7W @ 80W AERIAL

4410.0MHZ, 20M00D7W @ 80W AERIAL  
4810.0MHZ, 20M00D7W @ 80W AERIAL

Area of Operation: 60Km  
Coordinates: Hillsborough County Sheriff's Office District IV  
N 27 57 41.73  
W 082 26 09.24  
Antenna Height: **MANNED HELICOPTER AT OR BELOW 2500' AGL**  
Antenna: 9dBi Dual  
Antenna Gain: 9dBi  
Dates of Operation: February 10, 2023 – February 09, 2024.  
(Intermittent Usage during these days)

Hillsborough County Sheriff's Office requests an STA to operate on the above-referenced frequency for a period not to exceed one year. No application for regular authorization will subsequently be filed.

Hillsborough County Sheriff's Office 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 § 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