

0037-EX-CN-20XX

9 January 2024

Aurora Flight Sciences

Submitted by:

[Daniel McNeil](#)

[The Boeing Company](#)

[Daniel.p.mcneil@boeing.com](mailto:Daniel.p.mcneil@boeing.com)

714-642-7485

### **Description of Operation:**

The objective of this request is to obtain a license authorizing experimental use of the Silvus SC4200EP radio to support auto-tracking, from the ground, of small Unmanned Aerial Systems (sUAS). Testing will be performed around Maples Field, in Catlett, VA.

### **Area of Operation:**

- 1) Ground Station – within 1km, centered around NL 38-36-25; WL 77-35-04 (Maples Field, Catlett, VA)
- 2) Ground Station – within 1km, centered around NL 38-43-45; WL 77-30-59 (Manassas Airport, Manassas, VA)
- 3) Mobile / Airborne Operations – 2kft ASL, 5km radius around NL 38-36-25; WL 77-35-04 (Maples Field, Catlett, VA)

### **Frequencies and Emissions:**

#### Location 1:

Frequency: 2400MHz  
Station Class: MO  
Emission Designator: 5M00G1D, 10M00G1D, 20M00G1D  
Power (ERP): 1531W

#### Location 2:

Frequency: 2400MHz  
Station Class: MO  
Emission Designator: 5M00G1D, 10M00G1D, 20M00G1D  
Power (ERP): 1531W

#### Location 3:

Frequency: 2400MHz  
Station Class: MO  
Emission Designator: 5M00G1D, 10M00G1D, 20M00G1D  
Power (ERP): 19W

**Stop Buzzer:**

Kendall Clutts

352-638-6828

**Auxiliary Information:**

Testing is proposed to start in April of 2024. The mobile ground stations will operate within a 1km radius, with an Effective Radiated Power (ERP) of 1531 watts. The ERP is composed from a 10-watt transmitter and a 24dBi directional tracking antenna. The horizontal beamwidth is 6.6 degrees, equating to 3dBi of gain; the vertical beamwidth is 6.8 degrees, equating to 3dBi of gain. The airborne unit will have a maximum altitude of 2000ft AGL, operating within 5km of Maples Field. The airborne unit has an ERP of 19W, composed of a 10-watt transmitter and a 5dBi gain omnidirectional antenna. An additional ground station, Manassas Airport, will be used for testing the ability to establish a link with the sUAS, for purposes of controlling its onboard camera.