

STATEMENT ACCOMPANYING REQUEST to RENEW
EXPERIMENTAL AUTHORIZATION WI2XVI

AeroVironment, Inc. respectfully requests that WI2XVI be renewed for an additional two year period. There are no changes to the frequency channels to be accessed on an intermittent basis, 2362 MHz, 2366 MHz, 2389 MHz and 2390 MHz or current technical parameters. We will maintain the Emission Designators 4M68G7W and 1M56G7W and the transmit power at 1.5 w. Airborne operations will not exceed 152 meters AGL within a radius of 5 km of the current sites, Hazel Green and Tanner, Alabama.

The tests continue to engage the small unmanned aircraft (SUAS) in beyond line of sight environments encountered by allied governments. The tests conducted address uplink command and control and downlink video and telemetry transmission capability and flexibility and encompass updates and changes and improvements to the SUAS radio technology. Mission tests will determine if particular requirements of the allied governments can be fulfilled including aerial reconnaissance, surveillance, route clearance, mapping, and payload delivery.

The participation of allied government representatives is critical to the testing and the aircraft's credibility. There is a training aspect integrated into the tests to convey an understanding of the aircraft, its technology and what the test metrics indicate. The testing is particularly intermittent and short term (several days), involving a very small number of allied government representatives and limited to one allied government per test.

Commitment to Users of the Radio Spectrum

The system's communications platform encompasses air vehicle, a ground control unit and support equipment. The SUAS can be controlled manually or can autonomously navigate a preplanned route.

Operations will be intermittent and coordinated with Department of Defense Frequency and Operations Managers.

AV commits to operations respecting other users of the band and those in adjacent segments. The limited power level proposed and short term intermittent use indicate this commitment. AV understands that experimental operations must not cause harmful interference to authorized facilities. Should any interference occur, AV will take immediate steps to resolve the interference, including if necessary, discontinuing operations.

Operational Parameters

The proposed frequencies will send command and control data from the SUAS and transmit NTSC video and telemetry to the ground control station with modulation SO QPSK. Emission Designators 4M68G7W and 1M56G7W, with a transmit power of 1.5 w, are proposed. Transmission control will be from the ground control station to the SUAS via a laptop, tablet or console.

Stop Buzzer

Bart Decker, Mission Standards Director, will be available by telephone or electronic mail at 805 391-1335 and Decker@AVINC.com, and will act as a "stop buzzer" if any matters involving interference arise during the testing.

Transmitting Equipment

Manufacturer	Model	Quantity	Experimental
AeroVironment	50280	2	No

Antenna

The following details the antenna information:

Antenna Frequency Segment	Gain (Main Beam)	Polarization	Orientation in Vertical Plane	Orientation in Horizontal Plane
GCU Antenna ASSY AeroVironment Stack Patch	9 dBi*	Vertical	30°	85°

*1st Major Side Lobe

E-Plane

- Gain: -2 dBi
- Degrees: 120°

H-Plane

- Gain: -2 dBi
- Degrees: 179°