

STATEMENT ACCOMPANYING REQUEST FOR SPECIAL TEMPORARY AUTHORITY EXPERIMENTAL AUTHORIZATION BY AEROVIRONMENT, INC.

1. Introduction

By this application, AeroVironment, Inc. (AeroVironment), requests that the Commission grant Special Temporary Authority for a 30 days period to operate facilities at frequencies 1317.5 MHz and 1337.5 MHz at Edwards Air Force Base, Kern County, California. The experiments will be conducted on an intermittent basis and for a limited duration, subject to the coordination and control of Edwards AFB Spectrum Management and Edwards AFB Operational Units. AeroVironment will comport with all processes and procedures.

AeroVironment has provided a copy of this attachment and application to the Federal Aviation Administration (FAA), Western-Pacific Regional Office to assist its review.

AeroVironment requests that the experiments be permitted to commence on March 12, 2105 and shall terminate on April 13, 2015.

In this statement, we explain the purpose and nature of the proposed operations and why this application is within the Commission's experimental authorization rules. We also provide the information required by the Commission's rules.

2. Purpose

The purpose of the experiments is to provide analysis and information relating to the provision of small unmanned aircraft system (SUAS) technologies in support of the US Army Security Assistance Command's (USASAC) responsibility to manage security assistance programs and Foreign Military Sales. The analysis and information is directed to a USASAC project involving the Government of Uzbekistan. AeroVironment has a contractual relationship with the US Army and other US military services.

The experimental authorization will be used to demonstrate that the technology can make a meaningful contribution to security and emergency response requirements at significant cost efficiencies. The experimental work will make possible the provisioning of the technology in an expeditious manner.

Technology Use

AeroVironment SUAS technology provides real-time direct situational awareness. The system's communications platform features air vehicles (SUAS), a ground control unit and support equipment. The AV can be controlled manually or can autonomously navigate a preplanned route. AeroVironment's SUAS technology is directed to assist national security and emergency response responsibilities. The experiments embrace a model using a spectrum segment available to and authorized for the user agency. The requested band segment aligns with technology and equipment currently available.

AeroVironment commits to operations respecting other users of the band and those in adjacent segments. The limited power levels proposed and the short term intermittent use are part of this commitment. The project supports the US Army Security Assistance Command and serves the public interest.

The frequencies located at 1317.5 MHz and 1337.5 MHz will be for purposes of AV control, and video and telemetry transmission from the AV to the ground.

The proposed location is within Department of Defense Restricted Air Space operations at Edwards Air Force Base, Kern County, California, with a radius of 30 Km of the center point, not to exceed 305 meters AGL.

3. Purpose and Nature of Operation

Airborne Transmission

The segments 1317.5 MHz and 1337.5 MHz will send command and control data from the SUAS and transmit NTSC video and telemetry to the ground control station with FSK modulation. Emission Designator 14M8F9W with a transmit power at 1.5 W is proposed. Transmission control will be from the ground control station to the AV via a laptop or consul. The SUAV will not exceed 305 meters AGL.

4. Stop Buzzer, Andy Thurling, Chief Test Pilot and Director, Product Safety and Mission Assurance, AeroVironment, will be available by telephone at 805.581.2198, extension 1892 or mobile phone 805.368.6351, and will act as a “stop buzzer” if any matters involving interference arise during the testing.

5. Transmitting Equipment

Manufacturer	Model	Quantity	Experimental
L3 Communications	VNTXL-2A/SC232	2	No

6. Antenna

The following details Antenna information:

Antenna Frequency Segment	Gain (Main Beam)	Polarization	Orientation in Vertical Plane	Orientation in Horizontal Plane
1317.5 MHz 1337.5 MHz AeroVironment PN 55018	2.2 dbi	Vertical	78 deg	360 deg

7. Restrictions on Operations and Interference Protection

AeroVironment understands that experimental operations must not cause harmful interference to authorized facilities. Should any interference occur, AeroVironment will take immediate steps to resolve the interference, including if necessary, arranging for the discontinuance of operations.

8. Waiver of Station Identification Requirements

AeroVironment requests a waiver of the station identification requirements stated in Section 5.115 of the Commission's rules.

9. Diagram

A diagram of the proposed operations follows.

Conclusion

AeroVironment appreciates very much the Commission's consideration of its application and the cooperation of concurring agencies for an Experimental Authorization. Please call upon us if we can respond to any questions.

Operations Diagram



Small Unmanned Aircraft-

Command and
Control Data
Video and
Telemetry
1317.5 MHz
1337.5 MHz

