

FCC Application for Experimental License
File Number: 0695-EX-CN-2017

Exhibit 1: Information on Experiment

Type of Applicant

The applicant is the Virginia Tech (VT) Unmanned Aircraft Systems (UAS) Test Site.

The VT UAS Test Site is one of six Test Sites designated by the Federal Aviation Administration (FAA) as a result of the 2012 FAA modernization and Reform Act and is part of Virginia Polytechnic Institute and State University (Virginia Tech), a public land-grant university serving the Commonwealth of Virginia, the nation, and the world community.

Purpose of Experiment

The VT UAS Test Site respectfully requests the Federal Communications Commission to grant an Experimental License for the operation of up to three Gryphon EXB Radars. The experiment is in support of the FAA UAS Test Site program to evaluate surveillance technology to detect non-participating airborne traffic to mitigate risk for UAS flight during integration in the National Airspace System (NAS).

The period of time VT UAS Test Site will be requesting our Experimental License is for two years over the period of September 1, 2017 through September 1, 2019. The radar will be operated intermittently during this period up to a period of several days of operation. Transmissions will be pulsed during operation.

This program is conducted under FAA contract number DTFAC15A-00006 and the point of contact at FAA Bonnie Schmidt (bonnie.schmidt@faa.gov).

Operating Locations

The EXB Radar will be operated from a tripod 2 meters above ground at the following location:

<u>Location</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Radius of Operation</u>
United States (All 50)			

The VT FAA Test Site is based out of Virginia Tech in Blacksburg VA but holds FAA Certificates of Authorization (COAs) for Test Site activity throughout the United States including multiple “blanket” COAs that cover the geographic entirety of the United States. The Test Site intends to deploy the RADARs to support research under any of the COAs and is therefore requesting authorization to operate anywhere in the United States.

Operating Schedule

VT UAS Test Site will operate the EXB Radar on the following schedule over the period of the Experimental License grant:

<u>Schedule</u>	<u>Operations</u>
Hours per day	Intermittently throughout the day/night

STOP Buzzer for Experiment

VT UAS Test Site understands that operation will be on a secondary non-interference basis. In the event interference complaints were to occur, VT UAS Test Site has taken preventative measures to cease and desist from transmission until they can be resolved. VT UAS Test Site has established a Stop Buzzer point of contact to quickly react with any interference complaints that are the result of the system. The point of contact for the Stop Buzzer is:

<u>Point of Contact</u>	<u>Telephone Number</u>
Stop Buzzer (Primary)	(540) 552-5646
(Secondary)	(615) 400-0064