

## **Exhibit 1**

### **1. Introduction**

By the instant application (“Application”), Leidos, Inc. (“Leidos”) requests that the Commission grant Special Temporary Authority (STA) to operate the facilities (the “Facilities”) specified in the instant application.

### **2. Purpose of the Operation**

The testing conducted by Leidos is a critical part of the manufacture and delivery of military systems provided to the Armed Forces in support of Homeland Security as well as war efforts. Leidos will briefly conduct tests to verify capabilities of an upgrade to our antenna control units in order to allow our aerial satellite communications system to track a inclined satellite with an inclined orbit.

These operations will be in support of the following granted contract:

Contract Number: W15P7T-17-D-0103  
Delivery Order/Tasking No: W56KGY19F0074  
Contracting Officer’s Representative (COR):  
Phillip Wadsworth  
PM SAI, 6580 Surveillance Loop  
APG, MD 21005  
Phone: 443-861-1939  
Email: Phillip.d.wadsworth.civ@mail.mil

Temporary-fixed and airborne operations will occur as follows:

- Temporary-fixed operations within 1 km of the specified center point coordinates – Bridgewater VA - 38° 22' 0"N; 78° 57' 37"W
- Mobile airborne operations with the furthest waypoints lying on a radius of 10 km from the specified centerpoint coordinates. The maximum flight ceiling planned is 5,500 meters above ground level (AGL). Ground elevation above sea level at the center point coordinates is 360 m at this location. The nearest airport to the center point coordinates is 14.80 km from the center point coordinates.

A waiver of the Station ID requirements of 47 CFR §5.115(a) is respectfully requested.

### 3. Transmitting Equipment/Directionality/Orientation

The following information is provided with respect to the directional antennas to be used:

Antenna	Manufacturer	Model No.	Beamwidth at Half-Power Point	Orientation in Horizontal Plane	Orientation in Vertical Plane
Honeywell .4m Aerial Antenna	Honeywell	N/A	0.65 °	Varies (SatCom on the Move)	23°
AVL 2.4m Antenna	AVL	N/A	1.09 °	118.4 °	23°

### 4. Interference Mitigation

Leidos is well aware of its obligations under Part 5 of the Commission's rules to avoid interference to co-channel licensees in non-experimental services, and will take all steps to ensure compliance with this obligation. In addition, the following factors will help mitigate any interference issues:

- The antenna under test has an 8-degree beamwidth in both azimuth and elevation. It has an electronically steerable beam with -9 dB first sidelobe, all others 20 dB or lower. Generally during testing, emission will be limited to short periods of less than 5 minutes, and only periodically with an overall duty cycle of less than 10% during tests. During testing, targets will primarily be located on the ground and emission will be typically limited to no more than 10 degrees above the horizon. These typical test conditions will represent 90% or more of the testing done under this license.
- Most testing will be limited to ground-based operation with the emitting antenna generally located no higher than 10 feet from the ground and the elevation of the main beam not exceeding +10 degrees elevation. Other tests, from a tower, will have the antenna directed down toward the ground.
- Outdoor testing will not be frequent. Testing will be sporadically planned and executed throughout the course of this license, typically for one to three days at a time at an expected frequency of several times a month. Testing will typically only occur between the hours of 8AM and 6PM EST on weekdays.
- Outdoor testing will not be continuous. Emissions will be active for short durations no longer than 60 minutes at a time (maximum) with an average on-time more on the order of 10 minutes. During a test, emissions will be activated for these durations periodically with several minutes between emissions at a minimum, if not longer. Overall, during a full day of testing the expected total time spent emitting would be on the order of 60 to 120 minutes on average.

**5. Stop Buzzer**

The following will be available by wireless telephone and will act as the “stop buzzer” if any issues arise during testing:

PRIMARY: David M. West - (423) 836-8325  
SECONDARY: Clarence Simpson - (540) 831-0261