

**PUBLIC INTEREST STATEMENT**

By the instant application (“Application”), Leidos, Inc. (“Leidos”) requests that the Commission grant a two year conventional experimental license (“License”) to permit Leidos to operate the facilities specified in the instant application.

**1. Purpose of Operation**

This License will support the testing and validation of the VaDER (Vehicle and Dismount Exploitation Radar) system for the ARL-E program. This program will support the future deployment of these systems in support of US Army intelligence gathering operations.

The applicable government contract information is as follows;

Customer/Agency: PMSAI  
Contract No.: W56KGY-16-D-0001  
Government Contract POC: Bob Schafer 443-861-1961

Waiver of the Station ID rules set forth at Section 5.115 is respectfully requested.

**2. Nature of Transmissions**

**A. Ground-Based Transmissions**

Temporary fixed ground-based operations at:

Letterkenny Army Depot – 40-0-01 N.Lat.; 077-37-54 W.Long. (1 km Radius)  
Bridgewater, VA – 38-21-53 N.Lat.; 078-57-38 W.Long. (1 km Radius)  
Manassas, VA – 38-43-55 N.Lat.; 077-31-07 W.Long. (1 km Radius)  
Lakehurst, NJ – 40-01-30 N.Lat.; 074-18-59 W.Long. (1 km Radius)

**B. Airborne Transmissions**

Mobile airborne transmissions conducted within flight patterns centered on the above test area center points, with the furthest waypoints lying on a 37.04 km radius about each of the center points. Maximum flight ceiling for each airborne test will be 4572m above ground level (AGL). Ground elevations above mean sea level at the center point coordinates is as follows.

Letterkenny Army Depot – Ground elevation AMSL at Centerpoint: 235.9m  
Bridgewater, VA – Ground elevation AMSL at Centerpoint: 355.10m  
Manassas, VA – Ground elevation AMSL at Centerpoint: 58.50m  
Lakehurst, NJ – Ground elevation AMSL at Centerpoint: 20.10m

**3. Transmitting Equipment**

<b>Manufacturer</b>	<b>Model Number</b>	<b>No. of Units</b>	<b>Experimental Yes or No</b>
Northrop Grumman	AN/ZPY-5 VADER	3	No

**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. With respect to interference mitigation, Leidos notes as follows:

- Operation of the requested facilities will not be continuous. Rather, authority for only sporadic operation of the facilities is requested during the authorized timeframe. The transmitters will conduct intermittent transmissions of short duration, which will significantly limit the potential for interference to authorized users.
- In the off state, no measurable power will be radiated. In fact, there may be extended periods of non-operation during the authorized period, while other non-RF transmission aspects of the experiment are conducted.
- Leidos understands that FAA (or other stakeholders) may require certain limited azimuth and/or elevation orientations in order to ensure that the proposed Facilities do not pose a threat of interference to adjacent emitters. Accordingly, this is to confirm that Leidos stands ready to work with FAA to identify any reasonably necessary restrictions for the system.
- Being that this is a downward looking radar, the beam is oriented in a way that will only radiate towards ground targets and no other adjacent emitters or receivers should be affected unless in the immediate vicinity of the testing facility and falling within the transmit frequency of the VaDER system.

**5. Stop Buzzers**

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