

PUBLIC INTEREST STATEMENT

1. Introduction

By the instant application (“Application”), DRS Training & Control Systems, LLC (“DRS-TCS”) requests that the Commission grant to DRS-TCS a two year experimental license to operate the facilities (the “Facilities”) specified in the instant Application.

2. Purpose and Nature of the Operation

DRS-TCS is an industry leader in the design, development, and production of products for Air Combat Training Systems, Shipboard Control Systems, Combat Vehicle Control Systems, Air Cargo Handling Systems, Electronic Warfare Systems, and Unmanned Aerial Systems.

This particular experiment involves the testing of and use of Unmanned Aerial Systems at and around Eglin Air Force Base, employing both ground-based and airborne transmissions.

Ground-Based (Uplink) Transmissions:

A digital uplink signal is used to control an Unmanned Aerial Vehicle and its payload. The uplink normally uses a directional antenna that is pointed with a pan/tilt unit, but omnidirectional antennas may be switched in in lieu of the directional antenna for close-in or overhead support. With respect to the directionality of the antenna, the following is provided:

Width of Beam in Degrees at Half-Power Point	Orientation in Horizontal Plane	Orientation in Vertical Plane
17°	0-360°	-18° to +65°

Airborne (Downlink) Transmissions:

A digital downlink signal is used to provide position data, air vehicle status, video signal(s), and payload status. Some Unmanned Aerial Vehicles also use an additional analog FM downlink to provide low-latency video for takeoff and landing. Maximum flight ceiling planned is 3048m above ground level. Ground elevation above sea level at the centerpoint (30-38-10 N.Lat.; 086-44-34 W.Long.) is 38m. The nearest aircraft landing area is the site of the experiment – Eglin Air Force Base – as such, “0 km” has been inserted in the form as the distance to the nearest aircraft landing area.

Request for XT Station Class – Grant of this license is requested with an XT Station Class designation, as the authority requested is to support both internal research and development and contract activity. The contracts currently associated with this experiment are as follows:

Agency: US Air Force
 Contract #: FA 2823-12-A-0001 (Weapons Systems Evaluation Program (WSEP))
 POC: Roger Moore, Test Program Engineer (850) 882-1524

Agency: U.S. Navy
 Contract #: N00244-10-C-0023(Center for Interdisciplinary Remotely-Piloted Aircraft Studies (CIRPAS))
 POC: Raymond Jackson, CIRPAS UAV Program Manager (805) 227-1313

DRS-TCS will advise the Commission of future contracts associated with this experiment as they are awarded.

3. Transmitting Equipment/Transmitter Types/Other Issues

Transmitting Equipment

Manufacturer	Model Number	No. of Units	Experimental
ViaSat, Inc.	EnerLinksII Data Uplink	4	No
ViaSat, Inc.	EnerLinksII Data Downlink	4	No
ViaSat, Inc.	EnerLinksIII Data Uplink	2	No
ViaSat, Inc.	EnerLinksIII Data Downlink	3	No
Advanced Microwave Products	VT15LR7N	2	No
Advanced Microwave Products	VT30LR2NDF-0	3	No
Advanced Microwave Products	VT15NLB7NDF	2	No
Advanced Microwave Products	VT15N2B7N-2400.00-2483.75	2	No
Advanced Microwave Products	VST1G2S2RCCNXXX-DR1	2	No

Transmitter Types:

Frequency	Transmitter Type	Emission Designator
1.70000 – 1.85000 GHz or 2.45000 – 2.48375 GHz	Analog FM (Downlink)	14M0F3F
1.71 – 1.85 GHz	Digital FSK or GMSK (Downlink)	8M11F1D or 13M2G1D
2.20 – 2.40 GHz	Digital FSK or GMSK (Uplink)	8M11F1D or 13M2G1D

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

It is noted that geographic coordinates set forth in the Application are provided based on measurements in WGS84 format. It is the applicant's understanding that NAD83 is a subset of World Geodetic System of 1984 (WGS84) and for mapping and charting purposes the commission considers NAD83 and WGS84 to be equivalent. If the provision of coordinates in WGS format is unacceptable, the applicant requests that the commission advise as such and the applicant will revise the coordinates as necessary.

4. Mitigation of Interference

- Operation will not be continuous. The transmitters will only be operated when ground testing or flight operations are actively underway.
- Before any of the transmitters are allowed to radiate on the air, clearance will be obtained from the frequency authorities at Eglin Air Force Base. This clearance would always include specific frequencies and time slots for their use. The agency granting the frequency allocations monitors the spectrum, and maintains telephone contact information in case an issue was to arise.
- Flight operations for these Unmanned Aerial Vehicles on Eglin Air Force Base are restricted to very specific times and very specific flight corridors.
- Stop Buzzer information:

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