

PUBLIC INTEREST STATEMENT

1. Introduction

By the instant request (“STA Request”), General Dynamics Armament and Technical Products, Inc. (“GDATP”) requests that the Commission grant to GDATP Special Temporary Authority (“STA”) to operate the facilities (the “Facilities”) specified in the instant STA Request. A Start Date of May 31, 2009 is respectfully requested.

2. Purpose and Nature of the Operation

The testing specified in this STA Request will be conducted by General Dynamics Armament and Technical Products (GDATP), a business unit of General Dynamics. The purpose of this experiment is to assist in the continued development of next generation unmanned aerial surveillance technologies. This experiment will involve 2-way transmissions between ground-based transmitters and unmanned aerial surveillance aircraft at power levels, gain, data rates and bandwidths higher than previously tested by GDATP.

This application seeks authority for operation of a new experiment intended to ensure the readiness of GDATP to respond to the US Navy's Small Tactical Unmanned Aircraft System USMC Tier II Unmanned Aircraft System (STUAS/Tier II UAS) request for proposal (“RFP”). Due to the anticipated schedule requiring GDATP to prove performance pursuant to the program’s Performance Based Specification and formal response to the RFP, operations are currently anticipated to occur during the six (6) month period from 5/31-11/30/2009. Accordingly, the instant request for a 6 month STA is appropriate under Commission rules and policies.

The goal of this testing is to facilitate naval surveillance and ship recognizance missions, as well as to provide persistent, responsive battlefield surveillance at small unit echelons, and thereby provide warfighters the timely information they need to mitigate battlefield threats and reduce American casualties.

The proposed experiment is consistent with military needs and objectives, in that this application seeks authority for operation of a new experiment intended to ensure the readiness of GDATP to respond to the US Navy's Small Tactical Unmanned Aircraft System USMC Tier II Unmanned Aircraft System (STUAS/Tier II UAS) request for proposal (“RFP”). In this regard, General Dynamics has entered into a Joint Venture to design, develop, and integrate a family of small and medium Unmanned Aerial Systems (UAS) to help fill the urgent need of the US military and other US Government agencies for these systems.

3. **Mitigation of Interference**

The UHF radio modem employs spread spectrum frequency operation reducing the possibility of interference to other UHF users within the band. Additionally, maximum transmit power is user selectable and can be reduced (with corresponding reduction in maximum link range) as test parameters predicate. Frequency tolerance of the transmitter is held quite tight, less than 1.5 ppm, and spurious and harmonics are very well suppressed, mitigating the possibility of out of band interference conditions.

4. **Transmitting Equipment**

Manufacturer	Model	Quantity	Experimental?
Microhard systems	MHX-320	2	No
Microhard systems	BiAmp-320	2	No

5. **Directionality**

The form specifies “Yes” in response to the questions: “Is a directional antenna used?”. This is to clarify that the UHF frequencies specified in the STA Request are not associated with directional antennas. Rather the “Yes” response relates to the ground-based (uplink) Ku-bands, as follows:

Gain (Nominal)	Width of Beam in Degrees at half-power point	Orientation in Vertical Plane	Orientation in Horizontal Plane
4 dBi	Omni directional	15° to -15°	0° to 360°
42.2 dBi	1.15° in Horizontal Plane 1.15° in Vertical Plane	-5° to 95°	0° to 360°

6. **Stop Buzzer**

In addition, GDATP hereby advises that Mr. Richard Scheps will be available by wireless telephone at (802) 318-6561 and will act as a “stop buzzer” if any issues regarding interference arise during testing.