

Exhibit 1

REQUEST FOR VERY LIMITED 24 DAY STA FOR DEMONSTRATION AT FT. BENNING AT THE INVITATION OF THE US ARMY

1. Introduction

By the instant request ("Application"), BAE Systems Unmanned Aircraft Programs Inc. ("BAE Systems") requests that the Commission grant a very limited 24 day Special Temporary (STA) to operate the facilities specified in the Application at Ft. Benning, GA, from October 11, 2011 through November 3, 2011. As explained in this Application:

- This STA is requested for a *very limited 24 day period* from 10/11-11/3/2011
- BAE Systems has *been expressly invited by the US Army* to support the AEWE program
- The *US Army has provided written support* of this Application (see attached)
- *Similar facilities have been authorized* at BAE Systems' campus location
- If FAA coordination is required, *FAA coordination will be promptly obtained*
- BAE Systems requires *only a single frequency within 1370-1390 MHz (1W; 300KF1D)*

2. Purpose and Nature of the Operation

As the Commission is aware, BAE Systems manufactures and tests antennas as well as RF systems for DOD as well as other governmental customers. This unit's lines of business generally include development and production of small unmanned aircraft and associated ground control station equipment in support of military operations and homeland defense.

- Date/Location:

The transmissions to be conducted pursuant to this STA involve the demonstration of BAE Systems' Silver Fox unmanned aircraft at Ft. Benning, Georgia from October 11, 2011 through November 3, 2011.

- BAE Systems Has Been Invited by the US Army to Conduct these Tests:

- BAE Systems has been invited by the United States Army to conduct these demonstrations at Ft. Benning as part of the Army's Army Expeditionary Warrior Experiments (AEWE). Grant of this STA is critical because upon grant the company would be the only battalion level asset providing Intelligence, Surveillance and Reconnaissance (ISR) functions during the entire AEWE program. For this experiment, the Silver Fox UAS will be providing real-time video and location data to the Tactical Operation Center which would then be disseminated to all other groups, including the ground troops via 4G cellular phones.

- The US Army Expressly Supports this STA Request:

These operations are fully supported by Ft. Benning personnel conducting the AEWE experiments. Attached is an e-mail from Mr. Gary Daniel confirming the U.S Army's support of this demonstration during the requested timeframe. Questions related to the experiment, and for validating the information requested in this Application can be directed to the following POC:

Mr. Gary Daniel; AEWE Program Manager
Maneuver Battle Lab, Maneuver Center of Excellence, Ft. Benning, GA
(706) 545-5592; (706) 575-7210; gary.daniel@us.army.mil

- **Similar Facilities Have Been Previously Authorized at BAE Systems' Campus Location:**
The facilities to be used in this short-term demonstration are the same as those already authorized by the Commission for operation at BAE Systems' Tucson, AZ campus location under Experimental Station WF2XSU, which operations are conducted in support of a contract with the Air Force Research Lab. Accordingly, processing of the Application in this case should pose no significant issue.
- **If Required, FAA Coordination Will Be Obtained and Provided to the Commission:**
BAE Systems will promptly contact the FAA to determine whether FAA coordination is required in this case, and if it is required BAE Systems will obtain FAA coordination for this experiment and will provide proof of coordination upon receipt from the FAA.
- **Very Limited Frequency Requirement Within 1370-1390 MHz**
BAE Systems notes that it does not require actual operation over the entire 1370-1390 MHz band. Rather, BAE Systems' minimum frequency requirement for this experiment is a single operating frequency within 1370-1390 MHz band with an emissions of 300KF1D. In other words, BAE Systems requires only a single 300 kHz block within 1370-1390 MHz, comprised of a center frequency plus 150 kHz below and above the center frequency, to allow for a 40 decibel drop in the radio signal from the center frequency to ensure non-interference.

3. **Descriptions of Ground-Based and Airborne Transmissions**

The Application seeks authority for a flight test, with transmissions originating from the ground and the air, in and around Ft. Benning, GA as follows:

A. **Ground-Based Transmissions**

Fixed ground-based locations (less than 6 m above ground) operating at:
32-22-22 N.Lat.; 084-48-29 W.Long. (NAD 83)

B. **Airborne Transmissions**

Mobile airborne transmissions originating from an unmanned aircraft flying within a 10km radius around Ground Location #1 (centerpoint coordinates of 32-22-22 N.Lat.; 084-48-29 W.Long. (NAD 83)). Maximum flight ceiling planned is 600 m above ground level. The nearest aircraft landing area to the centerpoint coordinates is Lawson Army Airfield at Ft. Benning (1km). Ground elevation above sea level is 100m at the centerpoint coordinates.

4. **Transmitting Equipment**

Manufacturer	Model	Quantity	Experimental?
Microhard	MHX1320	2	No

5. **Directionality of Ground-Based Antennas**

The following is provided for the ground-based transmissions, which are directional in nature (the antenna automatically tracks to aircraft position in azimuth and elevation):

Width of Beam in Degrees at Half-Power Point	Orientation in Horizontal Plane	Orientation in Vertical Plan
56 degrees horizontal	Variable azimuth 0 to 360 degrees	N/A
46 degrees vertical	N/A	Variable elevation 0 to 90 degrees

6. **Mitigation of Interference/Stop Buzzer.**

A. **Mitigation of Interference**

Interference potential is mitigated due to the following factors:

Prior to each flight BAE Systems is willing to coordinate with the FAA Frequency Manager for the region to provide specific start-time and duration info regarding when the system will be transmitting at the test range. BAE is only requesting a single frequency that should not conflict with other users of the band for the entire duration of the experiment.

Authority is requested for only limited and sporadic operation of the facilities during the authorized timeframe. Specifically, operation of the facilities anticipated to not exceed 6 hours, with only one flight per day. There may be extended periods of non-operation during the authorized period, while other non-RF transmission aspects of the experiment are conducted.

The transmit antenna for the ground site transmission is directional. The transmit antenna for the airborne transmission is low gain omni-directional. Peak effective radiated power is limited to 1.0 W at both the ground and airborne transmitters.

BAE Systems understands that FAA (or other stakeholders) may require certain limited azimuth and/or elevation blanking in order to ensure that the proposed Facilities do not pose a threat of interference to adjacent emitters. Accordingly, this is to confirm that the subject system does have such blanking capabilities and that BAE Systems stands ready to work with FAA to identify any reasonably necessary azimuth and/or elevation restrictions for the system.

B. **Stop Buzzer**

BAE Systems advises that the following will be available by wireless telephone as the “stop buzzer” if any issues regarding interference arise during testing:
Christopher Troudt - (520) 240-2974

For the foregoing reasons, BAE Systems respectfully submits that approval of this Application is in the public interest, convenience and necessity.

E-MAIL FROM AEWE PROGRAM MGR SUPPORTING GRANT OF THIS STA REQUEST

From: [Daniel, Gary CTR US USA](#)
To: [Troutt, Christopher \(US SSA\)](#)
Cc: [Bakocz, Jason G CTR US USA TRADOC](#); [Lublin, Harry J CIV USA TRADOC](#)
Subject: RE: AEWE Spiral G Project Lead concurrence for BAE Systems to submit a Silver Fox Unmanned Aircraft frequency request for FCC approval (UNCLASSIFIED)
Date: Wednesday, September 21, 2011 7:23:52 AM

Classification: UNCLASSIFIED
Caveats: NONE

Christopher Troutt,

My name is Gary Daniel and I am the Maneuver Center of Excellence (MCoE), Maneuver Battle Lab's (MBL) Project Lead for the Army Expeditionary Warrior Experiment (AEWE) Spiral G. It is my understanding that BAE Systems intends to file with the Federal Communications Commission (FCC) an application for Special Temporary Authority (STA) to permit BAE Systems to demonstrate its Silver Fox unmanned aircraft at Fort Benning, Georgia from October 11, 2011 through November 3, 2011. This email message is to express my organization's support of this filing and for FCC approval of the STA Request by October 11, 2011 in order to support my experiment.

It is my understanding that BAE Systems is seeking FCC consent for operating authority within 1370-1390 MHz at 1W ERP, for fixed ground-based transmissions, as well as for airborne transmissions within a 10km radius around a center point located at Fort Benning. BAE Systems has been invited by the United States Army to conduct these demonstrations at Fort Benning as part of the Army Expeditionary Warrior Experiments (AEWE) Spiral G. Assuming that all other necessary FCC processing determines that these operations are acceptable, these actions to get the Silver Fox unmanned aircraft into my experiment is supported by my leadership at Fort Benning. The Silver Fox is an important technology in order for us to examine a Unmanned Aerial System (UAS) at the Battalion level to support our AEWE Spiral G objectives.

/r
Gary Daniel
AEWE Program Manager
Maneuver Battle Lab
SAIC
Ft. Benning, GA
706-545-5992
706-575-7210

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Caveats: NONE