

**1. Introduction**

By the instant application (“Application”), BAE Systems Information and Electronic Systems Integration Inc. (“BAE Systems”) requests that the Commission grant experimental Special Temporary Authority (“STA”) to permit BAE Systems to operate the facilities specified in the instant application.

**2. Purpose and Nature of the Operation**

BAE Systems manufactures and tests RF systems as well as antennas for DOD as well as other governmental customers. The testing specified in this Application will be conducted by BAE Systems Information and Electronic Systems Integration Inc., which is a major producer of electronic warfare systems, protection systems, and tactical surveillance and intelligence systems for all branches of the armed forces. This unit's lines of business include Electronic Warfare/Electronic Protection, Electronic Warfare/Information Warfare, Integrated Defense Solutions, and Mission Electronics with products and services spanning the whole electromagnetic spectrum.

BAE Systems developed and produces SIGINT systems used by US Government military customers. This experiment involves calibration and testing to enhance the performance, capabilities and accuracy of the subject SIGINT system. This technology will be incorporated into active military weapons systems, which in turn will directly improve the success and utility of the military missions flown by the SIGINT system in the areas of deployment. This request is in direct support of US Army and their contract with BAE Systems, as follows:

Customer:	US Army
Contract No. :	W56KGY-16-D-0013-0002
Customer Contract POC:	Robert WinKopp (443) 861-2304

The purpose of the operation is allow the aircraft manufacturer, General Atomics (GA), a test mechanism to verify the BAE SIGINT product transmission does not interfere with the aircraft avionics equipment.

**3. Waiver of Station ID**

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

**4. Stop Buzzers**

The designated point-of-contacts to terminate transmissions if interference occurs is:

BAE Systems Stop Buzzers:

**Paul Nuccio**; Transmit Station Engineer; 603-897-9764; 435-831-3411

Note: Because Dugway Proving Ground is in a very remote area and is surrounded on three sides by mountain ranges, cell coverage may be limited. Accordingly, the following additional “Stop Buzzers” are provided, with their landline numbers, who are located on site

DPG RIAC Test Facility Test Leads

**Doug McDaniel**; 256-759-7642; 435-831-7841; **Nate Critchlow**; 435-841-1474

DPG Spectrum Manager: **Jason Straughan**; 435-831-3411

### **Frequency Requirements:**

The operations under this Application will transmit individual frequencies specified in this application. The BAE product becomes the source of the transmission, and the GA aircraft is the victim of the transmission. GA engineers will measure effects of each frequency during the source/victim test.

The BAE product will transmit one frequency at a time. The transmit signal amplitude and duty cycle can be adjusted based on the test needs.

- Transmission will occur on 47 frequencies individually transmitted.
- Modulation: Continuous Sine Wave
- Transmit duration will be determined by test director for an undetermined number of seconds.

Additional information regarding specific discrete frequency requirements can be supplied upon request.

### **Directionality/Orientation:**

For each directional antenna, the following information is provided:

<b>Antenna Description</b>	<b>Width of Beam in degrees at half-power point</b>	<b>Orientation in horizontal plane</b>	<b>Orientation in vertical plane</b>
JEM Engineering	90 deg Az; 22 deg El	90 deg to starboard	-30 deg from waterline
Trivec Avnat Cobham	360 deg Az; 15 deg El	Omni	0 deg (Waterline and down)
AEM	180 deg Az; 50 deg El	Directional	-15 deg from waterline

### **Transmitting Equipment**

<b>Manufacturer</b>	<b>Model No.</b>	<b># Units</b>	<b>Experimental (Yes or No)</b>
JEM Engineering	901-0127-002	1	N
Trivec Avant Cobham	AV 201	1	N
AEM	SAS-1831	1	N
BAE Systems Custom EW System	N/A	1	N