

Exhibit 1

1. Introduction

By the instant application ("STA Request"), General Dynamics Armament and Technical Products, Inc. (GDATP) requests that the Commission grant Special Temporary Authority ("STA") to permit GDATP to operate the facilities (the "Facilities") specified in the instant STA Request.

As the Commission is aware, the Commission previously granted to GDATP Special Temporary Authority ("STA") under File No. 0697-EX-ST-2006 for certain test range testing activities at the company's facilities in Marion, VA. The frequencies and associated facilities previously authorized under that STA will be referred to as the "Prior Granted Facilities". This STA Request is being submitted in order to obtain approval for operation of those same precise Prior Granted Facilities in connection with the following additional commercial contracts ("Additional Contracts"):

Customer:	Boeing St. Louis/Singapore
Prime Contract No./PO#:	PO Numbers 188850 and 191049
Point of Contact:	Dennis McMenamy (314-232-8646)

Upon grant of this STA Request, the operations under these portions of the Additional Contracts will be conducted pursuant to precisely the same technical and operational parameters specified in the Prior Granted Facilities. That means that - among other things - (i) no ungranted frequencies are required; (ii) the operation will be within the same power levels and emissions and will not result in the licensee exceeding the authorized maximum emissions envelope nor in any operations inconsistent with any terms of the outstanding authorization for the station involved; (iii) any antennas and transmitting equipment employed will be from the list of equipment specified in the Prior Granted Facilities and any subsequent notifications, and will have the same height limits, directionality, gain and orientation/beamwidth as specified in the Prior Granted Facilities; (iv) any signal amplification equipment employed will be from the list of equipment specified in the Prior Granted Facilities; (v) transmissions will be limited to the same area of operation specified in the Prior Granted Facilities; and (vi) all of the Special Conditions issued by the Commission for the Prior Granted Facilities will apply to these additional operations.

2. Purpose 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. GDATP, a major producer of radomes for the Armed Forces of the United States, manufactures radomes for varied customers. In general, the testing performed at the Marion Test Range Facilities in Marion, VA involves active, radiating testing related to GDATP's contracts with various defense

contractors and the United States Government for the development, manufacture, characterization, and acceptance testing of military and commercial radomes. The testing at the Marion Test Facilities is a critical part of the development and manufacture of military radomes supplied to the Armed Forces of the United States.

This specific STA Request applies to the manufacture of radomes for the F-15 aircraft pursuant to the contracts and purchase orders identified above.

3. Why Grant of STA is in the Public Interest

Grant of an STA is requested in this case to permit the required acceptance testing of radomes. It is highly important that the STA be granted to support current, ongoing military operations. As stated above, the testing at the Marion Test Range Facilities is a critical part of the manufacture and delivery of military radomes provided to the Armed Forces in support of current war efforts. A STA is requested in this case because the radome contract work referenced below is anticipated to be completed within six months of grant.

4. Blanking Capabilities

This STA Request seeks wideband frequency operations in the frequency ranges from 0.5 to 2.0 GHz ("Band 1") and 6 to 18 GHz ("Band 2"), with specified carve-outs to accommodate stakeholders in these bands. **GDATP wishes to obtain permission to operate over as much of the requested frequency ranges as possible while minimizing difficulties in obtaining authorization.** Military systems operate over wide bands and GDATP needs the ability to evaluate and characterize our range through as much of the requested frequency range as possible in order to be able to support our customers' testing.

As explained above, the Commission previously granted to GDATP Special Temporary Authority ("STA") under File No. 0697-EX-ST-2006 for certain test range testing activities at the company's facilities in Marion, VA ("the "Prior Granted Facilities"). This STA Request is being submitted in order to obtain approval for operation of those same precise Prior Granted Facilities in connection with the Additional Contracts identified above.

GDATP understands that FAA or other stakeholders may require certain frequency blanking, or certain limited azimuth and/or elevation blanking in order to ensure that the Facilities do not pose a threat of interference to adjacent emitters. This is to confirm that the subject system has such blanking capabilities and that GDATP stands ready to work with the Commission to identify and implement any reasonable restrictions that may be required.

In this regard, to help expedite processing of the STA Request and ease the administrative burden on the Commission, NTIA and any other entities coordinating this application, GDATP has already "carved out" from this STA Request certain frequencies that were carved-out by the FCC in its prior grant to GDATP under File No. 0697-EX-ST-2006.

5. Other Issues

A. Transmitting Equipment

Manufacturer	Model	Band	Quantity	Experimental
Mini-Circuits	ZHL-42W	.5-2.0 GHz	1	Yes
Agilent	E8257D Analog Signal Generator	.5-2.0 GHz	1	No
Microwave Power, Inc.	L0618-32	6-18 GHz	1	Yes
Agilent	E8257D Analog Signal Generator	6-18 GHz	1	No

Note: Due to the distance from the Band 1 transmitter to the Band 1 transmit antenna, the cable loss is 12 to 18 dB. Cable loss from the Band 2 transmitter to the Band 2 transmit antenna is 2 to 3 dB.

B. Directionality/Orientation of Antenna

Band	Elevation (Vertical)	Azimuth (Horizontal)
.5-2.0 GHz 6-18 GHz	0°	163° SSE

3dB Beamwidth of Antenna (widest beam/worst case)

Band	3dB BW E (Vertical)	3dB BW H (Horizontal)
.5-2.0 GHz	70°	70°
6-18 GHz	4.6	4.6°

C. Prevention of Interference

GDATEP hereby advises the Commission that the tests to be conducted under the requested Commission authorization are to be conducted on GDATEP's Marion, Virginia facilities. The test range is designed such that the transmitting antennas are pointed directly at the radome under test which is located 60 feet away for Band 1 and 330 feet away for Band 2 on an elevated roofed porch with three walls. The walls have 6 inch broadband pyramidal RF absorber on them to absorb the RF energy from the transmitting antenna. Additional RF absorber covered panels will be used to further absorb the RF energy. The 3 dB beamwidth of the Band 2 transmit antenna is contained within the porch area for the upper 80% of the band. The range is located in a low area surrounded mostly by hills and trees. The range configuration is designed to minimize RF energy propagation outside of the actual test area. Please refer to the attached diagram of the range (Figure 1).

Although the ERP figure itself appears high, the impact of the experiment on co-channel and adjacent channel users, and the environment is negligible, primarily because the experiment will involve the use of an antenna with a very narrow beamwidth. By using such a narrow beam antenna, GDATP intends to greatly reduce the emissions in all directions except where we will be measuring. Additionally – as depicted in Figure 1 – GDATP’s receive area contains large amounts of RF absorber with over 40 dB of attenuation. The narrow beam of our antenna, combined with the absorber in the receive area, reduces GDATP’s stray emissions greatly. The test range is a very contained environment, and has significantly lower stray emission levels than if the applicant hooked up its 1 watt transmitter to a dipole and had an ERP of 1 watt. Further, this is to confirm that one watt of transmitted power is the lowest practical value for this experiment. Transmitting less power would require GDATP to develop and build sensitive receivers at significant cost. The ERP appears high only because of our very narrow beamwidth antennas, not because of the actual power GDATP is transmitting.

D. Stop Buzzer

The range shift supervisor, Gerald Hicks, will be personally supervising the testing and will be available by telephone at (276) 783-3121 x 1392. Mr. Hicks will act as a “stop buzzer” if any issues regarding interference arise during testing. The range operator will also be available by telephone at (276) 783-3121 x 1393 if Mr. Hicks cannot be reached.

For the foregoing reasons, approval of this STA Request is in the public interest, convenience and necessity.