

Exhibit 1

1. Introduction

By the instant application (“Application”), General Dynamics Armament and Technical Products, Inc. (GDATP) requests that the Commission grant an experimental license to permit GDATP to operate the facilities (the “Facilities”) specified in the instant Form 442.

2. Purpose of the Operation

The testing specified in this Application 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 Application applies to the manufacture of radomes for the F-15, F-18 and AVB-8B aircraft, internal range development and characterization, and Independent Research and Development (IR&D). Although internal range development and characterization, and IR&D are not associated with any particular contract, such internal experimental use is essential to demonstrate and verify our ability to meet the needs required of our customers. It is critical for GDATP that this range be granted a license to radiate on this basis. As to the contract-related manufacture of radomes for the F-15, F-18 and AVB-8B aircraft, the contract information pursuant to which this experiment will be conducted is as follows:

Customer:	USAF/Boeing
Contact:	Hugh Bell 314-232-2048
Contract Number:	Prime: F09603-01-D-0025 ¹
Contract DPAS Rating:	DOA1

Customer:	Boeing Integrated Defense Systems
Contact:	Dennis McMenemy - (314) 232-8646
Contract Number:	S30266

¹ Authority is requested to operate under this Prime Contract in connection with Subcontract A51663 (for which authority was granted to GDATP under STA File No. 0697-EX-ST-2006) as well as any other subcontracts that may be awarded under this Prime.

Customer: US Air Force
Contact: Hugh Bell
Contract Number: Prime: N00383-05-G-003H/5023
Contract DPAS Rating: DOA1

Customer: US Navy
Contact: Dennis McMenamy
Contract Number: Prime: N00019-04-C-0014
Contract DPAS Rating: DOA1

Customer: US Navy
Contact: Hugh Bell
Contract Number: N00383-06-D-001J
Contract DPAS Rating: DOA1

Customer: US Navy
Contact: Dennis McMenamy
Contract Number: N00019-03-C-0054
Contract DPAS Rating: DOA1

3. Blanking Capabilities

This Application 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.

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.

4. 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

GDATP hereby advises the Commission that the tests to be conducted under the requested Commission authorization are to be conducted on GDATP'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).

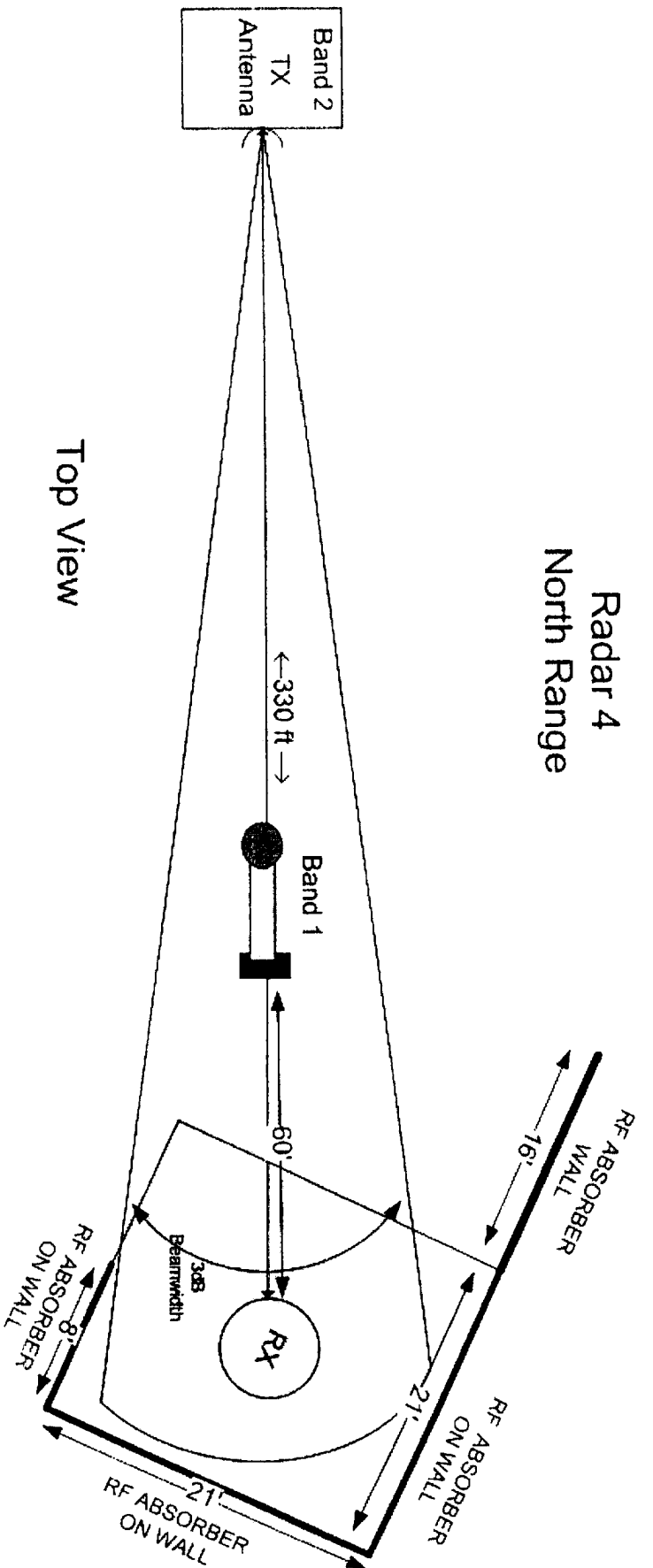
Although the ERP figure itself appears high, the impact of the experiment on co-channel and adjacent channel users, and the environment is negligible, primarily because the experiment will involve the use of an antenna with a very narrow beamwidth. By using such a narrow beam antenna, GDATP intends to 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, expedited review and approval of this Application is in the public interest, convenience and necessity.

Radar 4 North Range



Top View

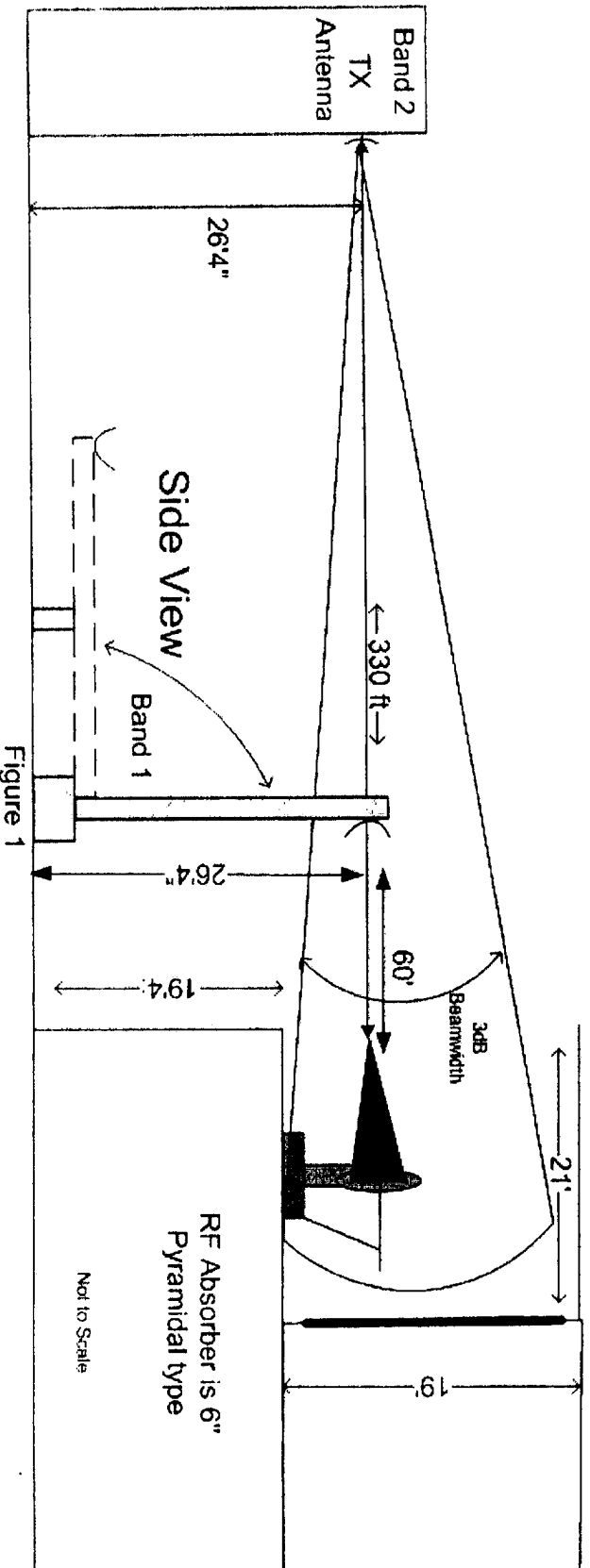


Figure 1