

Exhibit 1

1. Introduction

By the instant application ("STA Request"), BAE Systems Information and Electronic Systems Integration Inc. ("BAE Systems") requests that the Commission grant special temporary authority ("STA") to permit BAE Systems to operate the facilities (the "Facilities") specified in this instant STA Request.

2. Purpose of the Operation

BAE Systems manufactures and test numerous electronic systems for DoD customers. The testing specified in this STA Request will be conducted by a business unit of BAE Systems which is a major producer of electronic warfare systems, protections systems, tactical surveillance, intelligence and communication systems for all branches of the armed forces. The company's line of business includes Electronic Warfare/Electronic Protection, electronic Warfare/Information Warfare, Integrated Defense Solutions and Mission Electronics.

The subject testing involves the development and evaluation of an experimental RF waveform and demodulation protocol sponsored by DARPA. Today, wireless communications systems are constrained by the need to share a limited resource (spectrum) while also avoiding contention/collisions with other interference. This is typically accomplished through spreading techniques, contention avoiding media access control protocols, and multiplexing users in time or frequency. All of these methods require that users make less than full use of the spectrum and that there be some controlling structure to the communications system.

In this program we will demonstrate a prototype system where ***users simultaneously make use of the same spectrum without any centralized control or infrastructure, greatly enhancing the performance while increasing throughput of the communications system.*** Systems built upon the new paradigm of interfering on purpose will be truly innovative in that they will not need to rely upon spatial, temporal, or frequency orthogonality among users to keep signals from interfering. Information for the contract associated with this STA Request is set forth below:

Project sponsor:	DARPA / STO
Project Name:	Interference Division Multiple Access (IDMA)
Project Contract #:	W15P7T-06-C-P423
Sponsor's Name:	Dr. Reggie Brothers, 3701 North Fairfax Drive Arlington, VA 22203-1714 703-696-2373
Project award date:	Sept 23, 2006

3. Why this STA is in the Public Interest

This STA is being requested so that the commencement of preliminary test and data collection can occur as soon as possible. Over the air testing is a critical part of the program. As a leader in technological advancements, BAE Systems continually drives new research efforts in support of our military customers and in support of national security.

This program has a contractual obligation to demonstrate capabilities January 16, 2007 as part of a Technical Interchange Meeting, requiring the ability to transmit no later than December 18, 2006 in order to characterize and validate system performance prior to customer demo.

4. Other Items

a. Frequency and Power Request

The frequency requests contained in this STA Request match certain prior grants issued to BAE Systems under File No. 0154-EX-PL-2005. This particular STA Request seeks authority for these frequency bands (228.8–242.8 MHz, 1.215–1.27 GHz, 243.3–328.6 MHz, 1.37–1.559 GHz and 335.4–454 MHz), but at slightly increased power levels, and with various modulated emissions.

b. Power level (ERP)

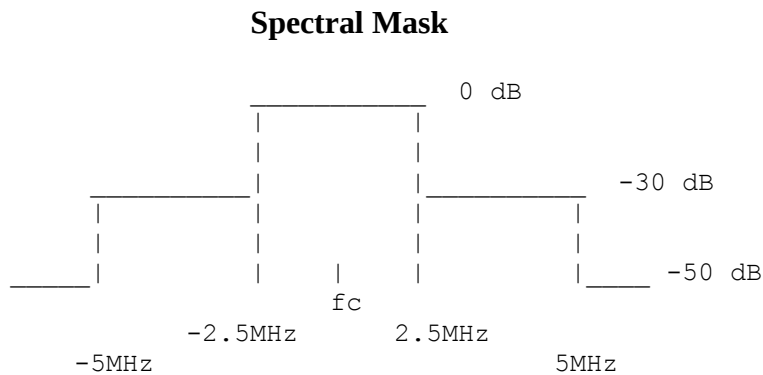
The output power and ERP for the transmission are proposed to be 0.5 W, reported as a “Mean” value per unit with all units communicating over the same channel frequency. Up to 6 units will be communicating at once.

c. Antenna Data

Omni-directional 3 foot high monopole, Shakespeare AS-4310 UHF; maximum gain across band is 2.5 dBi.

d. Description of Waveform:

The waveform will be characterized by modulated chirps at 4.166 MHz doing BPSK, QPSK, 8-PSK, and 16-QAM. BAE Systems will use a root raised cosine pulse (approximately) with a roll-off 0.22 (subject to some change). There may be variable “spreading gains” from 4-16 chirps. Modulation bandwidth is 5 MHz.



e. Prevention of Interference:

BAE SYSTEMS hereby advises the Commission that the tests to be conducted under the requested STA are to be conducted near the center of BAE SYSTEMS Merrimack, New Hampshire facility. Randolph Beltz, chief engineer, will be available by telephone at 603-759-3077 and will act as the “stop buzzer” if any issues regarding interference arise during test.