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January 4, 2007

**FILED ELECTRONICALLY**

Federal Communications Commission  
Office of Engineering and Technology  
Experimental Licensing Branch  
Washington, DC. 20554

**Re: Request for Expedited Processing and Grant by No Later than January 25, 2007**

**BAE Systems Information and Electronic Systems Integration Inc.**

**Application For Special Temporary Authority**  
**File No. 0794-EX-ST-2006**

Dear Sirs:

On behalf of BAE Systems Information and Electronic Systems Integration Inc. ("BAE Systems"), this letter is to request expedited processing of the above-referenced application ("STA Request"). For the reasons set forth herein, BAE Systems respectfully requests expedited processing and grant of the STA Request as soon as possible, but by no later than January 25, 2007.

As explained in the STA Request, the specified experiment relates to the development and evaluation of an experimental RF waveform and demodulation protocol pursuant to a DARPA contract recently awarded to BAE Systems.<sup>1</sup> The primary beneficiary, at least initially, of this experiment is expected to be the Special Operations Forces ("SOF"), for uses associated with unconventional warfare, counter-terrorism, reconnaissance, direct action, and foreign internal defense. Additional applications for this technology should also include state and local police and homeland security departments, which require increased interoperability capabilities and decreased interference potential, particularly in the event of domestic terrorist attacks.

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<sup>1</sup> Project sponsor: DARPA / STO; Project Name: Interference Division Multiple Access (IDMA); Project Contract #: W15P7T-06-C-P423; Sponsor's Name: Dr. Reggie Brothers – (703-696-2373).

More specifically, the experiment proposed in this STA Request involves the development and demonstration of a prototype communications system whereby 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. The innovation of such a system is that users will no longer need to rely upon spatial, temporal, or frequency orthogonality to keep signals from interfering, while at the same time full use of available spectrum will be enjoyed.

Successful performance and delivery under this DARPA contract requires the near-term completion of real time, real environment, over-the-air RF demonstrations. In other words, mere theoretical simulations of system performance would be wholly unacceptable in this case. In its STA Request filed with the Commission in November, BAE Systems explained that its first over-the-air data collection in connection with this technology was scheduled to be completed by January 16, 2007 as part of a Technical Interchange Meeting ("TIM"). See Exhibit 1. This TIM is a contractual deadline. In its STA Request, BAE Systems requested grant by December 18, 2006, in order to permit BAE Systems sufficient lead time to characterize and validate system performance prior to the scheduled data collection on January 16. Unfortunately, due to processing backlogs, that requested December 18, 2006 Start Date has passed without Commission action. Yet successful performance in the near term remains a critical necessity, and it is absolutely essential that the grant occur as soon as possible, but by no later than January 25, 2007. Specifically, a grant prior to January 25, 2007 will permit important, preliminary data collection to be performed utilizing test equipment. As of January 25, performance data needs to be collected using actual hardware and as a result it is critical that the STA be granted by no later than that date. Any delay past January 25, 2007 will cause day to day slippage with respect to the collection of performance data, and will place the contract in great jeopardy. Based on continued processing backlogs, it appears that -- without expedited processing -- the instant STA Request is unlikely to be granted on or before January 25, 2007. For this reason, expedited processing and grant of the STA Request is respectfully requested as soon as possible, and by no later than January 25, 2007.

Failure to meet contractual deadlines will significantly impact the ability of BAE Systems to timely deliver the system and will place the entire contract at great risk. Given the continuation of hostilities abroad, and the continued domestic terrorist threat, such a result would unacceptably deny SOF and homeland security departments the ability to utilize this promising communications technology as soon as possible. Failure to successfully perform under this portion of the DARPA contract (valued at many millions of dollars) could also have a significant financial impact on BAE Systems.

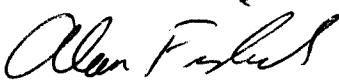
BAE Systems commenced the licensing process for this STA Request as expeditiously as possible after award of the subject contract. Unfortunately, absent expedited processing, the current processing schedule of the Experimental Branch would cause a failure in the performance of critical near-term requirements associated with the contract. Accordingly, expedited processing and grant of the STA Request is respectfully requested as soon as possible and by no later than January 25, 2007. For the foregoing reasons, expedited review and approval

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of the above-referenced STA Request under such timeframe is in the public interest, convenience and necessity.

Should any questions arise with respect to the instant STA Request, please do not hesitate to contact undersigned counsel.

Sincerely,

A handwritten signature in cursive script, appearing to read "Alan Fishel".

Alan Fishel

Attorney for BAE Systems Information and  
Electronic Systems Integration Inc.