

April 9, 2012

FILED ELECTRONICALLY

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

**Re: Request for Expedited Processing and Grant for Very Limited 1 Day STA
No Later Than Thursday April 12, 2012
To Conduct a Five Hour Test to Support US Army Requirements**

**Application For Special Temporary Authority
File No. 0288-EX-ST-2012**

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") wherein BAE Systems requests that the Commission grant special temporary authority ("STA") to permit BAE Systems to operate the facilities specified in the STA Request for a very limited one day period, no later than April 12, 2012, at Merrimack, NH.

In support of this Request, the following is shown:

- **Demonstration is in Support of US Army Requirements**

As explained at Exhibit 1, the testing conducted by BAE Systems at Merrimack, NH is a critical part of the manufacture and delivery of military systems provided to the Armed Forces in support of Homeland Security as well as war efforts.

Testing under this STA must be completed by April 12, 2012, as the US Army is expected to take possession of the device for its own testing purposes on April 17, 2012.

The POCs for this effort are as follows:

Program Managers
LTC, SC Robert M. Collins
(Aberdeen Proving Grounds): 410-417-0126
(Fort Monmouth): 732-532-3444
Cell: 443-619-1878
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- **Request for Expedited Processing**

BAE Systems is well aware that requests to expedite processing and grant of experimental applications such as this STA Request place additional requirements on the Commission's already strained resources. For that reason, BAE Systems submits expedite requests only in appropriate circumstances and where no other alternative exists. This approval is required to characterize the system's maximum capability in support of a government scheduled flight test to be conducted on April 17, 2012. The test to be conducted under this STA is required to characterize and determine the system's proper optimized operating point as the equipment has matured in design and performance. The test is a P1db compression gain test. Previous testing addressed only the nominal RF output case, not taking into consideration the 4dB back-off reserved by the radio waveform. During calibration/performance characterizations such as this, BAE Systems uses a highly controllable surrogate waveform generator which allows for tight RF output control.

BAE has acted as quickly as possible to confirm this licensing requirement and prepare and submit this request for Commission authority. Due to performance shortcomings in a February 2012 unit, the US Army elected not to fly the company's device, but instead, requested that BAE Systems build up another unit to fly on a subsequent test flight scheduled in mid-April. This was an unexpected event which is causing fabrication and test schedule pressures. As explained above, testing under this STA must be completed by April 12, 2012, as the US Army is expected to take possession of the device for its own testing purposes on April 17, 2012.

Expedited processing should be aided due to the fact that the need to operate the requested facilities is very limited in scope and duration, as follows:

- *Operation is required on only one day, no later than April 12, 2012*
- *Operation is required for only a five (5) hour period*
- *Operation is required under this STA on only one frequency, 15 GHz*
- *Each ground-based transmission is expected to last no more than 10 seconds*
- *The duration of transmissions under STA is expected to total no more than 15 minutes*

For the reasons set forth above, BAE Systems respectfully requests that the Commission approve expedited review and grant of the STA Request to permit operation no later than Thursday April 12, 2012. Should any questions arise with respect to the instant STA Request, please do not hesitate to contact undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read "Randolph Beltz", with a stylized, cursive script.

Randolph Beltz

Senior Principal Systems Engineer II

BAE Systems Information and Electronic Systems Integration Inc.