

**Comtech Systems, Inc.  
Request for Experimental  
Authorization  
File No. 0495-EX-PL-2011**

**EXHIBIT I**

**DESCRIPTION OF EXPERIMENT**

Comtech Systems, Inc. ("Comtech") hereby requests an FCC experimental authorization license<sup>1</sup> to conduct experimental testing utilizing its Transportable Fast Link Antenna ("TFLA") system.

The proposed testing involves the use of two troposcatter units, one installed locally and second installed at a remote site. Each unit will transmit and receive a continuous wave that bounces off of the troposphere. This method of propagation uses the tropospheric scatter phenomenon, where radio waves at particular frequencies are randomly scattered as they pass through the upper layers of the troposphere. Radio signals are transmitted in a tight beam aimed at the troposphere, midway between the transmitter and receiver sites. As the signals pass through the troposphere they are scattered, allowing the receiver station to pick up the signal. The experimental data to be collected include characterization of tropospheric fading, changes in refractivity versus seasonal climactic changes, measuring aperture coupling losses and characterizing overall system performance.

Comtech acknowledges that all testing conducted under this experimental authorization will be on a non-interference basis. Further, Comtech will coordinate frequency usage pursuant to any directives issued by the Commission on the experimental authorization.

Because the equipment is technically incapable of providing station identification, Comtech respectfully requests a waiver of the station identification provisions of Section 5.115 of the Commission's rules, 47 C.F.R. § 5.115.

Comtech submits that a grant of this request for an extension of STA is necessary and in the public interest because it will allow Comtech to finalize its order with, and allow deployment by, the United States Marine Corp., thus advancing national security efforts.

The stop buzzer contact for this experiment is Paul Kelly at Comtech, tel: (407) 854-1950 ext. 3050, mobile: (321) 948-4315, e-mail: paul.kelly@comtechsystems.com.

Comtech submits that a grant of this application is necessary and in the public interest because it will facilitate advancements in communications equipment used by the US Military abroad.

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<sup>1</sup> Comtech was authorized under STA (*See File Nos. 0588-EX-ST-2011 and extension request File No. 0602-EX-ST-2011*) to conduct unrelated testing of the TFLA system utilizing the same parameters requested herein, with the exception of the requested frequency 4800 MHz and the increased radius of 161.0 kilometers.