

TRINITY BEND SOLUTIONS, INC.
STATEMENT IN SUPPORT OF
EXPERIMENTAL LICENSE
SPECIAL TEMPORARY AUTHORITY APPLICATION

Federal Government Contact: Derek Wadsworth (Idaho National Laboratory)

Government Contract Number: DE-AC07-05ID14517

Pursuant to Section 5.61 of the Rules and Regulations of the Federal Communications Commission (FCC or Commission), Trinity Bend Solutions, Inc. (TBSI) seeks an Experimental Special Temporary Authority (STA) License to test radio equipment on frequencies in the L-Band (1755-1850 MHz), S-Band (2025-2500 MHz), and between 4400-4990 MHz to demonstrate intelligence, surveillance, and reconnaissance (ISR) system viability for air-to-ground and ground-to-air data transmissions between mobile radios and Unmanned Aircraft Systems (UAS).¹

TBSI, headquartered in Cedar Park, Texas, is a defense subcontractor working with the Idaho National Laboratory (INL) to test and demonstrate UAS ISR Radio equipment capabilities for planned use by the United States Air Force (USAF) and United States Marine Corps (USMC). ISR systems are principal elements of U.S. defense capabilities, and include a wide variety of systems for acquiring and processing information needed by decisionmakers and military commanders to promote national security.²

An Experimental STA is requested to conduct limited air-to-ground and ground-to-air data transmissions using Secure CDL ISR Radios (SCISR). The SCISR Radio equipment is experimental and is still in development by L3 Communications, Cubic, Rockwell Collins, and RT Logic. This STA seeks authority for mobile-only testing at the Warm Springs FAA UAS Test Range in Warm Springs, Oregon for a very brief duration: from May 14, 2018 through 24, 2018. Transmissions will be conducted to demonstrate viability of the radios and antennas and will not be used to control the UAS.

This STA is required so that TBSI and INL can create a program of record for the USAF and USMC. The ultimate goal if testing proves successful is to deploy this equipment to support active military and intelligence operations in the field as soon as possible. The SCISR Radio equipment proposed for this testing is considered Type 1 Product under the National Information Assurance Glossary. As such, it is a classified or controlled item endorsed by the National Security Agency (NSA) for securing classified and sensitive U.S. Government information, when appropriately keyed. Pursuant to Section 5.84 of the Commission's Rules³, TBSI will conduct operations on a non-interference basis. Accordingly, the following individuals will act as a "stop buzzer" if any issues regarding interference arise during testing:

¹ 47 C.F.R. 5.61(a)(1)-(3).

² RICHARD A. BEST, JR., CONG. RESEARCH SERV., RL 32508, INTELLIGENCE, SURVEILLANCE, AND RECONNAISSANCE (ISR) PROGRAMS: ISSUES FOR CONGRESS (2005).

³ 47 C.F.R. 5.84.

Primary Chris Joyce, 702-526-1322
Secondary: Matt Balderree, 208-599-4324
Tertiary: Jodie Boyce, 208-403-3291

Antenna and Location Information

Both a directional and omnidirectional antenna will be used during testing. The directional antenna will be a ground-based Troll A-600. A datasheet for the Troll A-600 is available at https://trollsystems.com/images/Troll_DataSheetsPDF/a600data_2011.pdf. The directional antenna will be mounted up to 15 feet above ground level. The omnidirectional antenna will be mounted on the UAS and will transmit from at or below 3,000 feet above ground level.

All testing will be conducted within the following bounding coordinates:

45-11-45.6 N, 121-52-26.4 W
45-11-52.8 N, 120-39-36.0 W
44-19-48.0 N, 120-39-21.6 W
44-19-40.8 N, 121-52-30.0 W

For the foregoing reasons, TBSI respectfully submits that approval of this application for Experimental STA is in the public interest, convenience, and necessity.

* * *

Should the Commission require additional information, it is asked to contact Wes Wright, Keller and Heckman LLP, 1001 G Street NW, Washington, DC 20001; (202)434-4239; e-mail: wright@khlaw.com, or Tim Doughty; (202)434-4271; e-mail: doughty@khlaw.com.