

Special Temporary Authorization
File No.: 0445-EX-ST-2011

**Exhibit 1: Overview and Fixed Antenna Pointing
Information**

L-3 Communications
Communications Systems – West
Salt Lake City, Utah
July 7, 2011

L-3 Communications, Communication Systems – West
Special Temporary Authorization
File No.: 0445-EX-ST-2011

Applicant Background:

L-3 Communication Systems-West is a leader in developing communications systems for high-performance intelligence collection, imagery processing and satellite communications for Department of Defense (DoD) and other government agencies. The company provides high-data rate, wideband, secure, real-time communications systems for surveillance, reconnaissance and other airborne intelligence collection systems.

Description of the Experiment:

Overview

The experimental operation requested in the STA application is for the demonstration of a prototype airborne reconnaissance system which includes a full-duplex data link for control of the sensor from the surface, and subsequent return of imagery from the sensor to the surface. The experiment involves the aircraft flying orbits around locations of interest at various altitudes up to 25,000 ft MSL. Operation of the RF equipment is addressed in the STA application; other aspects of the tests requiring certification (e.g. flight planning, flight safety) are being addressed through the appropriate authorities.

Test Schedule

The tests will begin no earlier than August 5, 2011, and will conclude no later than August 31, 2011. Detailed flight plans will be available prior to any test flights.

Location of Testing

All testing covered by this STA will be performed in the vicinity of Fort Collins, Colorado. The surface terminal will be located on the ground, approximately 8.9 km northeast of the Loveland/Ft. Collins airport.

Antennas and Antenna Pointing

Surface Terminal Antenna Pointing

The surface terminal directional antenna automatically points toward the aircraft, in elevation and azimuth, as it flies within line-of-sight of the surface terminal.

Azimuth angle: The surface terminal azimuth pointing angle depends on the aircraft's location, and can theoretically vary to any point on the compass. However, test flight plans will be developed such that the azimuth pointing angles toward the aircraft will be restricted to: a) avoid azimuth angles at which obstructions will prevent successful link closure; b) avoid azimuth angles at which transmissions would present a potential hazard to test personnel or to other uninvolved persons or structures.

The surface terminal will be located in a restricted access area to account for public safety concerns. Only knowledgeable test personnel will be allowed access to the shelter terminal location.

Elevation angle: Elevation angle will typically vary from approximately 15° to $+45^\circ$ or higher during the flight tests. The pointing angle is determined automatically by the surface terminal based on its location and the location of the aircraft.

Surface Terminal Antenna Pattern

The surface terminal utilizes a directional antenna. The measured azimuth relative gain pattern for this antenna is shown below. The elevation pattern is similar. Antenna polarization is right-hand circular.

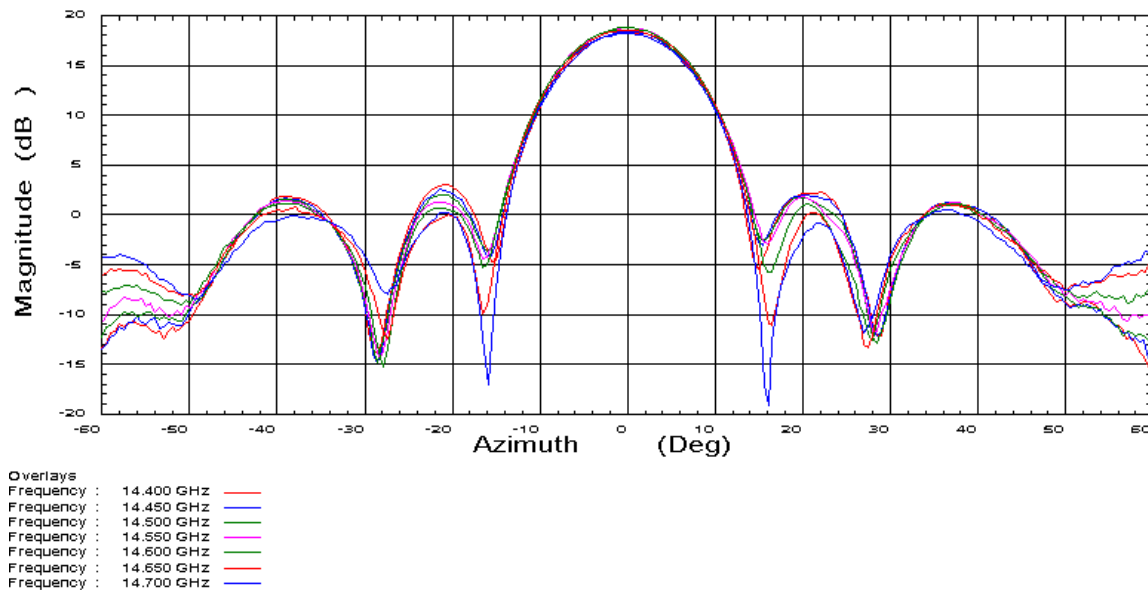


Figure 1. Surface Terminal Antenna Azimuth Pattern

Aircraft Terminal Antenna Pointing

The aircraft terminal antenna is omnidirectional in azimuth, with a peak gain of +3 dBi directed at broadside which is toward the horizon when the aircraft is in level flight. The antenna is fixed onto the aircraft, so no pointing mechanism is used.

Stop Buzzer Contacts:

In the even of interference caused by the experiment, the following individuals will be responsible for ensuring that transmissions cease as soon as possible after notification:

Primary: Kevin Shallbetter (801) 837-1009 (cell)

Backup: Tony Lee (707) 477-3655 (cell)

Backup: Andrew Beard (707) 481-8027 (cell)