L-3 Communications, CS-W
Special Temporary Authorization
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Note: Rev1 of this document updates the transmit and receive frequencies of terminal#2 to match the correct uplink and dnlink O3b satellite frequencies.

Application Background:

The purpose of this project is to conduct a static ground test and characterization of an existing SATCOM system over the O3b satellite.

Concept of Operations:

The concept of operation is the classic SATCOM terminal thru the satellite to another SATCOM terminal. SATCOM terminal #1 is a static terminal located in Salt Lake City, UT on the L-3 CS-W campus. Terminal #2 is a fixed location ground terminal located in Vernon, TX on the O3b gateway campus. Satellite services will be through SES O3b. See Figure 1.

Spectrum Requirements:

Terminal #1 will transmit to the satellite in the 28.855-29.071 GHz frequency range and receive in the 19.055-19.271 GHz band. Terminal #2 will also transmit to the satellite in the 28.855-29.071 GHz band while receiving in the 19.055-19.271 GHz frequency range. The specific operating frequency band(s) will be assigned by the satellite provider.

Figure 1 Concept of Operations

Location of Testing:

Terminal #1 is located at the L-3 CSW campus in Salt Lake City, Utah and Terminal #2 is located at the O3b campus in Vernon, TX indentified by the coordinates shown in Figure 2.

Terminal #1
Lat: 40°47'14.24"N
Long: 111°57'6.93"W

Terminal #2
Lat: 34° 9'19.89"N
Long: 99°15'49.46"W

Figure 2 Location of Testing