

## Technical Description

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### Purpose

This special temporary authorization (STA) request is being submitted to support a Department of Defense (DoD) technical demonstration.

### Operation Description

This request will support a data link between a ground station and an airborne UAS.

### S-Band Mobile Airborne and Fixed Ground Equipment

Manufacturer: Persistent Systems  
Model: Wave Relay  
Frequencies: 2391 - 2507 MHz  
Emission: 22M0D1D

Airborne Output Power: 2 Watts  
Airborne Power in ERP: 1.22 Watts ERP  
Airborne Antenna Gain: 0 dB  
Airborne Antenna Type: Dipole  
Airborne Antenna Polarization: Vertical

Ground Output Power: 2 Watts  
Ground Power in ERP: 555 Watts ERP  
Ground Antenna Gain: 26.5 dB  
Ground Antenna Type: Parabolic  
Ground Antenna Polarization: Vertical  
Beamwidth: 6.5 degrees horizontal and 8 degrees vertical

### Dates of Operation

Start Date: June 1, 2015  
Stop Date: November 30, 2015

### Stop Buzzer

Stop buzzer for this operation is the Insitu operations center at 509-637-4691.

### Location

Dugway Proving Grounds, Utah  
Restricted Airspace  
40-07-23 N  
113-16-21 W  
Radius of operation is 50 kilometers  
Maximum Flight Level is 6,000 feet