

Technical Description

MSA Wave Relay Air & Ground

The Boeing Company

Submitted: 6/25/2014
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JUSTIFICATION:

Test of Boeing Maritime Surveillance Aircraft (MSA) Demonstrator

These frequencies are requested to support Boeing MSA aircraft production and testing. The MSA is a long-range, coastal surveillance, intelligence, and reconnaissance aircraft capable of broad-area, maritime and littoral operations. The MSA demonstrator is a Bombardier Challenger 604 aircraft. Boeing will be flight testing the aircraft in Washington State, and in the vicinities of: Greenville, TX and Glasgow, MT.

OBJECTIVE & TEST DESCRIPTION

This requirement supports Line Of Sight data link communication testing during flight test. Communication with the MSA aircraft will be via a Wave Relay ground station.

OPERATION OVERVIEW

Start Date:	July 1, 2014
Stop Date:	December 31, 2016
Station Class:	FA, MO

L-Band Mobile Airborne and Fixed Ground Equipment

Manufacturer:	Persistent Systems, LLC
Model:	Wave Relay
Frequency Band:	1370 - 1390 MHz
Emission:	3M85G1D, 7M7G1D, 15M4G1D, 4M06D1D, 8M13D1D, 16M3D1D
Frequency Tolerance:	20 ppm
Ground Output Power:	20 Watts
Airborne Output Power:	20 Watts
Airborne Antenna Gain:	3 dBi
Ground Antenna Gain:	24 dBi
Ground Antenna Type:	Parabolic Dish
Airborne Antenna Type:	Monopole
Ground ERP:	3063 W
Airborne ERP:	25 W
Ground Antenna Polarization:	Vertical
Airborne Antenna Polarization:	Vertical

S-Band Mobile Airborne and Fixed Ground Equipment

Manufacturer:	Persistent Systems, LLC
Model:	Wave Relay
Frequencies:	2391 - 2295 MHz
Emission:	3M85G1D, 7M7G1D, 15M4G1D, 4M06D1D, 8M13D1D, 16M3D1D
Frequency Tolerance:	20 ppm
Ground Output Power:	10 Watts
Airborne Output Power:	10 Watts
Airborne Antenna Gain:	3 dBi
Ground Antenna Gain:	24 dBi
Ground Antenna Type:	Parabolic Dish
Airborne Antenna Type:	Monopole
Ground ERP:	1532 W
Airborne ERP:	13 W
Ground Antenna Polarization:	Vertical
Airborne Antenna Polarization:	Vertical

STOP BUZZER POINT OF CONTACT:

Phil Tsiang at 253-657-8218, Mark Poad at 253-657-8265 or Tom Ott at 253-657-7934
, Jahn Goede 206-544-2543

LOCATIONS

Location: Boeing Field, Seattle, WA (Excluding Canada)
Latitude: 47° 32' 0.09" N
Longitude: 122° 18' 41.01" W
Radius: 600 Kilometers
Max Flight Level: 37,000 Feet AGL

Location: Greenville, TX (Excluding Mexico)
Latitude: 33° 4' 20.42" N
Longitude: 96° 4' 36.71" W
Radius: 600 Kilometers
Max Flight Level: 37,000 Feet AGL

Location: Glasgow, MT (Excluding Canada)
Latitude: 48° 24' 22.27" N
Longitude: 106° 31' 57.74" W
Radius: 600 Kilometers
Max Flight Level: 37,000 Feet AGL

