

Communication Systems-West Division
L3 Technologies, Inc.
L3Harris Technologies, Inc.
Special Temporary Authorization
Date: 22 October 2021
File No.: EL481809
STA File No.: 1713-EX-ST-2021

Point of Contact:

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Application Background:

The purpose of this project is to perform modem and antenna testing of a ground station for use with the Wideband Global SATCOM (WGS) system. The testing will be done under the Survivable SHF contract, contract number: FA8612-21-C-5007.

Concept of Operations:

The concept of operation is the classic Satcom terminal thru the satellite to another Satcom terminal. Satcom terminal #1 is a ground terminal described in the original application, File number: 0466-EX-ST-2021, Confirmation Number: EL864147. Terminal #1 will be mounted atop a building in Omaha, Nebraska, specifically, 41° 14' 35" North and 96° 59' 0" West. Transmissions will be through a WGS satellite to an already implemented ground station controlled and operated by the U.S. DoD.

Terminal Hardware:

Manufacturer

List below transmitting equipment to be installed (if experimental, so state) if additional rows are required, please submit equipment list as an exhibit:

Manufacturer	Model Number	No. Of Units	Experimental
L3Harris Technologies, Inc.	WPM-1000	5	No
L3Harris Technologies, Inc.	Hawkey III	1	No
L3Harris Technologies, Inc.	WPM-1000	5	No
ThinKom	Falcon Ka2517	1	No

Spectrum Requirements:

As in the original STA application:

Action Frequency		Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	5.85000000-6.42500000 GHz	FX	37.580000 W 323.593000 kW	P	0.00000100 %	43K6G1D	Digital Data
Action Frequency		Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	5.85000000-6.42500000 GHz	FX	37.580000 W 323.593000 kW	P	0.00000100 %	72M1G1D	Digital Data
Action Frequency		Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	7.90000000-8.40000000 GHz	FX	43.700000 W 732.824000 kW	P	0.00000100 %	43K6G1D	Digital Data
Action Frequency		Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	7.90000000-8.40000000 GHz	FX	43.700000 W 732.824000 kW	P	0.00000100 %	72M1G1D	Digital Data
Action Frequency		Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	13.75000000-14.50000000 GHz	FX	28.840000 W 1.462000 MW	P	1.0E-7 %	43K6G1D	Digital Data
Action Frequency		Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	13.75000000-14.50000000 GHz	FX	28.840000 W 1.462000 MW	P	1.0E-7 %	72M1G1D	Digital Data
Action Frequency		Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	30.00000000-31.00000000 GHz	FX	32.360000 W 5.432000 MW	P	0.00000100 %	43K6G1D	Digital Data
Action Frequency		Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	30.00000000-31.00000000 GHz	FX	32.360000 W 5.432000 MW	P	0.00000100 %	72M1G1D	Digital Data