

**United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
SPECIAL TEMPORARY AUTHORIZATION**

EXPERIMENTAL

(Nature of Service)

WR9XHW

(Call Sign)

XT FX MO

(Class of Station)

0896-EX-ST-2021

(File Number)

NAME Northrop Grumman Systems Corporation

This Special Temporary Authorization is granted upon the express condition that it may be terminated by the Commission at any time without advance notice or hearing if in its discretion the need for such action arises. Nothing contained herein shall be construed as a finding by the Commission that the authority herein granted is or will be in the public interest beyond the express terms hereof.

This Special Temporary Authorization shall not vest in the grantee any right to operate the station nor any right in the use of the frequencies designated in the authorization beyond the term hereof, nor in any other manner than authorized herein. Neither the authorization nor the right granted hereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934. This authorization is subject to the right of use of control the Government of the United States conferred by Section 706 of the Communications Act of 1934.

Special Temporary Authority is hereby granted to operate the apparatus described below:

Purpose Of Operation:

The purpose of the operation is to test airborne data link capabilities of new equipment. These operations do not involve jamming, spoofing, and/or performing electronic attack. The aircraft will

Station Locations

- (1) Mojave (KERN), CA - NL 35-03-32; WL 118-09-05; MOBILE: airborne max altitude 60,000 feet AGL, within 350 km, centered around NL 35-03-32; WL 118-09-05
- (2) Grand Forks (GRAND FORKS), ND - NL 47-56-38; WL 97-10-40; MOBILE: airborne max altitude 60,000 feet AGL, within 350 km, centered around NL 47-56-38; WL 97-10-40
- (3) Carlsbad (SAN DIEGO), CA - NL 33-05-45; WL 117-18-59; MOBILE: airborne max altitude 50,000 feet AGL, within 185 km, centered around NL 33-05-45; WL 117-18-59
- (4) Dulles (LOUDOUN), VA - NL 38-56-51; WL 77-27-36; MOBILE: airborne max altitude 25,000 feet AGL, within 242 km, centered around NL 38-56-51; WL 77-27-36
- (5) Holloman AFB (OTERO), NM - NL 32-51-57; WL 106-06-27; MOBILE: airborne max altitude 50,000 feet AGL, within 185 km, centered around NL 32-51-57; WL 106-06-27
- (6) Creech AFB (CLARK), NV - NL 36-35-01; WL 115-40-42; MOBILE: airborne max altitude 50,000 feet AGL, within 185 km, centered around NL 36-35-01; WL 115-40-42
- (7) Mountain Home AFB (ELMORE), ID - NL 43-02-52; WL 115-52-17; MOBILE: airborne max altitude 50,000 feet AGL, within 185 km, centered around NL 43-02-52; WL 115-52-17
- (8) Carlsbad (SAN DIEGO), CA - NL 33-05-45; WL 117-18-59; MOBILE: airborne max altitude 50,000 feet AGL, within 185 km, centered around NL 33-05-45; WL 117-18-59
- (9) Newport (NEWPORT), RI - NL 41-31-57; WL 71-18-26; MOBILE: airborne max altitude 50,000 feet AGL, within 185 km, centered around NL 41-31-57; WL 71-18-26

This authorization effective June 24, 2021 and
will expire 3:00 A.M. EST December 25, 2021

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

Mojave (KERN), CA - NL 35-03-32; WL 118-09-05; MOBILE: airborne max altitude 60,000 feet AGL, within 350 km, centered i

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2410-2470 MHz	FX	20M0G1D	125 W (ERP)	
2410-2470 MHz	MO	20M0G1D	125 W (ERP)	
5725-5850 MHz	FX	20M0G1D	125 W (ERP)	
5725-5850 MHz	MO	20M0G1D	125 W (ERP)	

Grand Forks (GRAND FORKS), ND - NL 47-56-38; WL 97-10-40; MOBILE: airborne max altitude 60,000 feet AGL, within 350

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2410-2470 MHz	FX	20M0G1D	125 W (ERP)	
2410-2470 MHz	MO	20M0G1D	125 W (ERP)	
5725-5850 MHz	MO	20M0G1D	125 W (ERP)	
5725-5850 MHz	FX	20M0G1D	125 W (ERP)	

Frequency Information

Carlsbad (SAN DIEGO), CA - NL 33-05-45; WL 117-18-59; MOBILE: airborne max altitude 50,000 feet AGL, within 185 km, center

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2410-2470 MHz	FX	20M0G1D	125 W (ERP)	
2410-2470 MHz	MO	20M0G1D	125 W (ERP)	
5725-5850 MHz	FX	20M0G1D	125 W (ERP)	
5725-5850 MHz	MO	20M0G1D	125 W (ERP)	

Dulles (LOUDOUN), VA - NL 38-56-51; WL 77-27-36; MOBILE: airborne max altitude 25,000 feet AGL, within 242 km, center

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2410-2470 MHz	FX	20M0G1D	125 W (ERP)	
2410-2470 MHz	MO	20M0G1D	125 W (ERP)	
5725-5850 MHz	FX	20M0G1D	125 W (ERP)	
5725-5850 MHz	MO	20M0G1D	125 W (ERP)	

Frequency Information

Holloman AFB (OTERO), NM - NL 32-51-57; WL 106-06-27; MOBILE: airborne max altitude 50,000 feet AGL, within 185 km,

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2410-2470 MHz	FX	20M0G1D	125 W (ERP)	
2410-2470 MHz	MO	20M0G1D	125 W (ERP)	
5725-5850 MHz	FX	20M0G1D	125 W (ERP)	
5725-5850 MHz	MO	20M0G1D	125 W (ERP)	

Creech AFB (CLARK), NV - NL 36-35-01; WL 115-40-42; MOBILE: airborne max altitude 50,000 feet AGL, within 185 km, cen

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2410-2470 MHz	FX	20M0G1D	125 W (ERP)	
2410-2470 MHz	MO	20M0G1D	125 W (ERP)	
5725-5850 MHz	FX	20M0G1D	125 W (ERP)	
5725-5850 MHz	MO	20M0G1D	125 W (ERP)	

Frequency Information

Mountain Home AFB (ELMORE), ID - NL 43-02-52; WL 115-52-17; MOBILE: airborne max altitude 50,000 feet AGL, within 18

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2410-2470 MHz	FX	20M0G1D	125 W (ERP)	
2410-2470 MHz	MO	20M0G1D	125 W (ERP)	
5725-5850 MHz	FX	20M0G1D	125 W (ERP)	
5725-5850 MHz	MO	20M0G1D	125 W (ERP)	

Carlsbad (SAN DIEGO), CA - NL 33-05-45; WL 117-18-59; MOBILE: airborne max altitude 50,000 feet AGL, within 185 km, c

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2410-2470 MHz	FX	20M0G1D	125 W (ERP)	
2410-2470 MHz	MO	20M0G1D	125 W (ERP)	
5725-5850 MHz	FX	20M0G1D	125 W (ERP)	
5725-5850 MHz	MO	20M0G1D	125 W (ERP)	

Frequency Information

Newport (NEWPORT), RI - NL 41-31-57; WL 71-18-26; MOBILE: airborne max altitude 50,000 feet AGL, within 185 km, center

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2410-2470 MHz	FX	20M0G1D	125 W (ERP)	
2410-2470 MHz	MO	20M0G1D	125 W (ERP)	
5725-5850 MHz	FX	20M0G1D	125 W (ERP)	
5725-5850 MHz	MO	20M0G1D	125 W (ERP)	

Special Conditions:

- (1) Licensee should be aware that other stations may be licensed on these frequencies and if any interference occurs, the licensee of this authorization will be subject to immediate shut down.
- (2) Operation is subject to prior coordination with the local Society of Broadcast Engineers, Inc. (SBE) frequency coordinator. Consult the list at <http://sbe.org/wp-content/uploads/freqcoor.pdf> to find the appropriate coordinator.
- (3) Licensee must coordinate with the local Society of Broadcast Engineers frequency coordinator prior to operation in the frequency range from 2450 MHz to 2500 MHz.
- (4) Licensee must coordinate with Fixed Microwave Service licensees in the proposed venue in accordance with 47 C.F.R, Part 101.103(d) prior to operation in the frequency range from 2450 MHz to 2500 MHz.
- (5) Northrop Grumman Systems Corporation contact the Western Area Frequency Coordinator for IFDS scheduling of requirements in the band 5725-M5850, a minimum of 72 hours prior to operations. DOD Western Area Frequency Coordinator POC: Jamie Heaton 760-939-6832
- (6) Northrop Grumman Systems Corporation coordinate operations in the band M2410 - M2470; provided the applicant provide cease buzzer POC information to White Sands Spectrum Manager Rogelio.ramirez@navy.mil a minimum of 72 hours prior to operations.

Special Conditions:

- (7) Northrop Grumman Systems Corporation notch the following frequencies at the associated locations:
- a.Kern, CA
- 5725 MHz +/- 280 kHz
 - 5730 MHz +/- 280 kHz
 - 5740 MHz +/- 2.5 MHz
 - 5750 MHz +/- 7.5 MHz
 - 5770 MHz +/- 280 kHz
 - 5775 MHz +/- 280 kHz
 - 5780 MHz +/- 280 kHz
 - 5792 MHz +/- 280 kHz
 - 5800 MHz +/- 280 kHz
 - 5805 MHz +/- 280 kHz
 - 5810 MHz +/- 280 kHz
 - 5815 MHz +/- 280 kHz
 - 5820 MHz +/- 280 kHz
 - 5825 MHz +/- 280 kHz
 - 5830 MHz +/- 280 kHz
 - 5834 MHz +/- 280 kHz
 - 5842 MHz +/- 280 kHz
 - 5850 MHz +/- 280 kHz
- b.Grand Forks, ND
- 5730 MHz +/-280 kHz
 - 5740 MHz +/-280 kHz
 - 5775 MHz +/-280 kHz
 - 5800 MHz +/-280 kHz
 - 5750 MHz +/-1.7MHz
- c.San Diego, CA
- 5725 MHz +/- 280 KHz
 - 5730 MHz +/- 280 KHz
 - 5750 MHz +/- 7.5 MHz
 - 5770 MHz +/- 280 KHz
 - 5775 MHz +/- 280 KHz
 - 5780 MHz +/- 280 KHz
 - 5792 MHz +/- 280 KHz
 - 5800 MHz +/- 280 KHz
 - 5805 MHz +/- 280 KHz
 - 5810 MHz +/- 280 KHz
 - 5815 MHz +/- 280 KHz
 - 5820 MHz +/- 280 KHz
 - 5825 MHz +/- 280 KHz
 - 5830 MHz +/- 280 KHz
 - 5830 MHz +/- 280 KHz
 - 5834 MHz +/- 280 KHz
 - 5842 MHz +/- 280 KHz
- d.Holloman AFB, NM
- 2431.5 MHz +/- 10.5 MHz
 - 2433.3213 MHz +/- 10.5 MHz
 - 2432.13 MHz +/- 3.5 MHz

Speci2433.5 MHz +/- 3.5 MHz
2433.6 MHz +/- 3.5 MHz
2433.4 MHz +/- 10.5 MHz
2433.6 MHz +/- 10.5 MHz
2433.4259 MHz +/- 13.5 MHz
2433.5185 MHz +/- 13.5 MHz
2433.4259 MHz +/- 13.5 MHz
2433.5185 MHz +/- 13.5 MHz
5725 MHz +/- 1.5 MHz
5740 MHz +/- 5.5 MHz
5750 MHz +/- 7.5 MHz
5760 MHz +/- 280 kHz
5765 MHz +/- 280 kHz
5770 MHz +/- 280 kHz
5775 MHz +/- 280 kHz
5780 MHz +/- 280 kHz
5785 MHz +/- 280 kHz
5790 MHz +/- 280 kHz
5795 MHz +/- 280 kHz
5800 MHz +/- 7.5 MHz
5805 MHz +/- 280 kHz
5810 MHz +/- 280 kHz
5815 MHz +/- 280 kHz
5820 MHz +/- 280 kHz
5825 MHz +/- 280 kHz
5830 MHz +/- 280 kHz
5835 MHz +/- 280 kHz
5840 MHz +/- 280 kHz
5845 MHz +/- 280 kHz
5850 MHz +/- 6 MHz

e.Creech AFB, NV: Must coordinate operations at Nevada Test Training Range (NTTR) through DoD sponsor.

2412 MHz +/- 11 MHz
2417 MHz +/- 11 MHz
2422 MHz +/- 11 MHz
2427 MHz +/- 11 MHz
2432 MHz +/- 11 MHz
2437 MHz +/- 11 MHz
2442 MHz +/- 11 MHz
2447 MHz +/- 11 MHz
2452 MHz +/- 11 MHz
2457 MHz +/- 11 MHz
2462 MHz +/- 11 MHz
2467 MHz +/- 11 MHz
5728 MHz +/- 280 kHz
5750 MHz +/- 7.5 MHz
5757 MHz +/- 280 kHz
5775 MHz +/- 280 kHz
5800 MHz +/- 4 MHz

f.Newport, RI
2412-2462 MHz

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