

**United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
RADIO STATION CONSTRUCTION PERMIT
AND LICENSE**

EXPERIMENTAL

(Nature of Service)

WF2XIY

(Call Sign)

XD FX MO

(Class of Station)

0098-EX-RR-2012

(File Number)

NAME Northrop Grumman Systems Corporation

Subject to the provisions of the Communications Act of 1934, subsequent acts, and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions and requirements set forth in this license, the licensee hereof is hereby authorized to use and operate the radio transmitting facilities hereinafter described for radio communications in accordance with the program of experimentation described by the licensee in its application for license.

Operation: In accordance with Sec. 5.3(d) of the Commission's Rules

Station Locations

- (1) Carson (LOS ANGELES), CA - NL 33-51-37; WL 118-14-21; MOBILE: within 2 km
- (2) Yuma (tethered, max 4000 ft AGL) (YUMA), AZ - NL 33-26-40; WL 114-18-32; MOBILE: , within 50 km
- (3) Fort Dix (BURLINGTON), NJ - NL 40-00-18; WL 74-27-27; MOBILE: , within 32.19 km
- (4) Fort Huachuca (COCHISE), AZ - NL 31-32-32; WL 110-22-24; MOBILE: , within 64.37 km
- (5) Fort Bliss (EL PASO), TX - NL 31-54-04; WL 106-16-41; MOBILE: , within 32.19 km
- (6) Yuma (tethered, max 4000 ft AGL) (YUMA), AZ - NL 32-54-00; WL 113-56-15; MOBILE: , within 50 km
- (7) Elkridge (HOWARD), MD - NL 39-11-50; WL 76-45-15; MOBILE: , within 2 km
- (8) Linthicum (ANNE ARUNDEL), MD - NL 39-12-20; WL 76-41-11; MOBILE: , within 2 km
- (9) Fort Bliss (DONA ANA), NM - NL 32-18-54; WL 106-10-01; MOBILE: , within 64.37 km
- (10) Fort Bliss (DONA ANA), NM - NL 33-20-56; WL 106-26-08; MOBILE: , within 80.46 km
- (11) Yuma (YUMA), AZ - NL 33-26-40; WL 114-18-32; MOBILE: , within 50 km
- (12) Yuma (YUMA), AZ - NL 32-54-00; WL 113-56-15; MOBILE: , within 50 km
- (13) MOBILE: San Diego (SAN DIEGO), CA, within 32 km, centered around NL 32-53-01; WL 117-06-49

This authorization effective April 01, 2012 and
will expire 3:00 A.M. EST April 01, 2014

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

Carson (LOS ANGELES), CA - NL 33-51-37; WL 118-14-21; MOBILE:within 2 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1922.6 MHz	MO	5M00F8W	2 W (ERP)	
1927.4 MHz	MO	5M00F8W	2 W (ERP)	
1957.4 MHz	MO	4M20F9W	250 mW (ERP)	
2112.6 MHz	MO	5M00F8W	2 W (ERP)	
2117.4 MHz	MO	5M00F8W	2 W (ERP)	
2147.4 MHz	MO	4M20F9W	250 mW (ERP)	

Yuma (tethered, max 4000 ft AGL) (YUMA), AZ - NL 33-26-40; WL 114-18-32; MOBILE: , within 50 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1922.6 MHz	MO	5M00F8W	2 W (ERP)	
1927.4 MHz	MO	5M00F8W	2 W (ERP)	
2112.6 MHz	MO	5M00F8W	255 W (ERP)	

Frequency Information

Yuma (tethered, max 4000 ft AGL) (YUMA), AZ - NL 33-26-40; WL 114-18-32; MOBILE: , within 50 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2117.4 MHz	MO	5M00F8W	255 W (ERP)	

Fort Dix (BURLINGTON), NJ - NL 40-00-18; WL 74-27-27; MOBILE: , within 32.19 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1922.6 MHz	MO	5M00F8W	2 W (ERP)	
1927.4 MHz	MO	5M00F8W	2 W (ERP)	
1957.4 MHz	MO	4M20F9W	250 mW (ERP)	
2112.6 MHz	MO	5M00F8W	255 W (ERP)	
2117.4 MHz	MO	5M00F8W	255 W (ERP)	
2147.4 MHz	MO	4M20F9W	250 mW (ERP)	

Frequency Information

Fort Huachuca (COCHISE), AZ - NL 31-32-32; WL 110-22-24; MOBILE: , within 64.37 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1922.6 MHz	MO	5M00F8W	2 W (ERP)	
1927.4 MHz	MO	5M00F8W	2 W (ERP)	
1957.4 MHz	MO	4M20F9W	250 mW (ERP)	
2112.6 MHz	MO	5M00F8W	255 W (ERP)	
2117.4 MHz	MO	5M00F8W	255 W (ERP)	
2147.4 MHz	MO	4M20F9W	250 mW (ERP)	

Fort Bliss (EL PASO), TX - NL 31-54-04; WL 106-16-41; MOBILE: , within 32.19 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1922.6 MHz	MO	5M00F8W	2 W (ERP)	
1927.4 MHz	MO	5M00F8W	2 W (ERP)	
1957.4 MHz	MO	4M20F9W	250 mW (ERP)	

Frequency Information

Fort Bliss (EL PASO), TX - NL 31-54-04; WL 106-16-41; MOBILE: , within 32.19 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2112.6 MHz	MO	5M00F8W	255 W (ERP)	
2117.4 MHz	MO	5M00F8W	255 W (ERP)	
2147.4 MHz	MO	4M20F9W	250 mW (ERP)	

Yuma (tethered, max 4000 ft AGL) (YUMA), AZ - NL 32-54-00; WL 113-56-15; MOBILE: , within 50 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1922.6 MHz	MO	5M00F8W	2 W (ERP)	
1927.4 MHz	MO	5M00F8W	2 W (ERP)	
2112.6 MHz	MO	5M00F8W	255 W (ERP)	
2117.4 MHz	MO	5M00F8W	255 W (ERP)	

Frequency Information

Elkridge (HOWARD), MD - NL 39-11-50; WL 76-45-15; MOBILE: , within 2 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1922.6 MHz	MO	5M00F8W	2 W (ERP)	
1927.4 MHz	MO	5M00F8W	2 W (ERP)	
1957.4 MHz	MO	4M20F9W	250 mW (ERP)	
2112.6 MHz	MO	5M00F8W	2 W (ERP)	
2117.4 MHz	MO	5M00F8W	2 W (ERP)	
2147.4 MHz	MO	4M20F9W	250 mW (ERP)	

Linthicum (ANNE ARUNDEL), MD - NL 39-12-20; WL 76-41-11; MOBILE: , within 2 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1922.6 MHz	MO	5M00F8W	2 W (ERP)	
1927.4 MHz	MO	5M00F8W	2 W (ERP)	
1957.4 MHz	MO	4M20F9W	250 mW (ERP)	

Frequency Information

Linthicum (ANNE ARUNDEL), MD - NL 39-12-20; WL 76-41-11; MOBILE: , within 2 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2112.6 MHz	MO	5M00F8W	2 W (ERP)	
2117.4 MHz	MO	5M00F8W	2 W (ERP)	
2147.4 MHz	MO	4M20F9W	250 mW (ERP)	

Fort Bliss (DONA ANA), NM - NL 32-18-54; WL 106-10-01; MOBILE: , within 64.37 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1922.6 MHz	MO	5M00F8W	2 W (ERP)	
1927.4 MHz	MO	5M00F8W	2 W (ERP)	
1957.4 MHz	MO	4M20F9W	250 mW (ERP)	
2112.6 MHz	MO	5M00F8W	255 W (ERP)	
2117.4 MHz	MO	5M00F8W	255 W (ERP)	
2147.4 MHz	MO	4M20F9W	250 mW (ERP)	

Frequency Information

Fort Bliss (DONA ANA), NM - NL 33-20-56; WL 106-26-08; MOBILE: , within 80.46 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1922.4 MHz	MO	5M00F8W	2 W (ERP)	
1927.4 MHz	MO	5M00F8W	2 W (ERP)	
1957.4 MHz	MO	4M20F9W	250 mW (ERP)	
2112.6 MHz	MO	5M00F8W	255 W (ERP)	
2117.4 MHz	MO	5M00F8W	255 W (ERP)	
2147.4 MHz	MO	4M20F9W	250 mW (ERP)	

Yuma (YUMA), AZ - NL 33-26-40; WL 114-18-32; MOBILE: , within 50 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1957.4 MHz	MO	4M20F9W	250 mW (ERP)	
2147.4 MHz	MO	4M20F9W	250 mW (ERP)	

Frequency Information

Yuma (YUMA), AZ - NL 32-54-00; WL 113-56-15; MOBILE: , within 50 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1957.4 MHz	MO	4M20F9W	250 mW (ERP)	
2147.4 MHz	MO	4M20F9W	250 mW (ERP)	

MOBILE: San Diego (SAN DIEGO), CA, within 32 km, centered around NL 32-53-01; WL 117-06-49

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1922.6 MHz	MO	5M00F8W	2 W (ERP)	
1927.4 MHz	MO	5M00F8W	2 W (ERP)	
1957.4 MHz	MO	4M20F9W	250 mW (ERP)	
2112.6 MHz	MO	5M00F8W	2 W (ERP)	
2117.4 MHz	MO	5M00F8W	2 W (ERP)	
2147.4 MHz	MO	4M20F9W	250 mW (ERP)	

Special Conditions:

- (1) Licensee is required to coordinate operations with existing microwave users in the area to avoid interference.

Special Conditions:

- (2) Operation in the 1710-1755 or 2110-2155 MHz band requires consent of local Advanced Wireless Service (AWS) licensee(s) to avoid interference.
- (3) Operation in the 1850-1910 or 1930-1990 MHz band requires prior frequency coordination with 2 GHz microwave users and consent of PCS licensees to avoid interference.
- (4) The station identification requirements of Section 5.115 of the Commission's Rules are waived.