

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

EXPERIMENTAL

(Nature of Service)

WL2XQR

(Call Sign)

XT FX

(Class of Station)

0281-EX-CN-2021

(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(J) of the Commission's Rules

Station Locations

(1) Emerado (GRAND FORKS), ND - NL 47-56-07; WL 97-24-30

Frequency Information

Emerado (GRAND FORKS), ND - NL 47-56-07; WL 97-24-30

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1575.42 MHz	FX	2M04W7D	19.2 pW (ERP)	0.01 %

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) The occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (3) GPS re-radiators are limited to a maximum EIRP value that will result in power levels not to exceed a power spectral density of -140 dBm/24 MHz measured at a distance of 100 ft from the building where the test is being conducted. Any malfunction, misalignment, or tampering of the equipment or its location which results in an increased power spectral density outside the building could cause harmful radio frequency interference to GPS receivers, including those in aircraft and/or ground based facilities.
- (4) Authorization is for indoor use only.

This authorization effective May 20, 2021 and
will expire 3:00 A.M. EST April 15, 2023

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COMMUNICATIONS
COMMISSION**



Special Conditions:

- (5) The area of potential interference to GPS reception (e.g., military or contractor facility) has to be under the control of the user.
- (6) GPS users in the area of potential interference to GPS reception must be notified that GPS information may be impacted for periods of time.
- (7) Licensee shall post signs on doors to the test area notifying that, "GPS re-radiator is in use and the GPS information you receive may be in error."
- (8) GPS re-radiators must operate in accordance with Section 8.3.27 of the NTIA Manual. Power spectral density of the signal should be very well controlled beyond the building.
- (9) Operation is limited to activity for the purpose of testing radionavigation satellite service (RNSS) equipment and systems.
- (10) The designated point-of-contact to terminate transmissions if interference occurs is WILLIAM BELL 701-620-6319.