

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

EXPERIMENTAL

(Nature of Service)

WQ9XYN

(Call Sign)

XC MO

(Class of Station)

1165-EX-ST-2020

(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:

Purpose of operation is to evaluate one-way radio data transmission of command and control for an UAV, and command a software defined payload to transmit at a given frequency and power.

Station Locations

- (1) MOBILE: Max Altitude 5000 ft AMSL, within 40 km, centered around NL 37-58-20; WL 75-37-09

Frequency Information

MOBILE: Max Altitude 5000 ft AMSL, within 40 km, centered around NL 37-58-20; WL 75-37-09

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2500-2655 MHz	MO	5M00G7D 50K0G7D	13 W (ERP)	
4400-4940 MHz	MO	5M00G7D 50K0G7D	16 W (ERP)	

This authorization effective September 30, 2020 and
will expire 3:00 A.M. EST March 31, 2021

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

MOBILE: Max Altitude 5000 ft AMSL, within 40 km, centered around NL 37-58-20; WL 75-37-09

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5725-5875 MHz	MO	5M00G7D 50K0G7D	16 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) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (3) Stop Buzzer information is: John Stralka - 410-446-6485, or Lance Harper - 703-595-8673.
- (4) Northrop Grumman Systems Corporation must not use more than 3 five megahertz channels at any given time.
- (5) Northrop Grumman Systems Corporation must successfully obtain consents from the Educational Broadband Service and Broadband Radio Service licensees prior to accessing to the frequency range from 2500 MHz to 2655 MHz.
- (6) Northrup Grumman Systems Corporation must notch out the following:
 - a. 4455 MHz (+/- 7.68 MHz)
 - b. 4725 MHz (+/- 7.68 MHz)
 - c. 4530 MHz (+/- 20 MHz)
 - d. 4710 MHz (+/- 20 MHz)
- (7) At least 3 days prior to operation, notification of operations including the stop buzzer POC for each operation, shall be provided to the NASA Wallops Flight Facility Spectrum Manager, Felipe Arroyo at felipe.arroyo-1@nasa.gov.