

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

EXPERIMENTAL

(Nature of Service)

WJ2XNZ

(Call Sign)

XT MO

(Class of Station)

1111-EX-ST-2018

(File Number)

NAME Space Explorations Technologies

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:**

Low-power, pre-flight checkout/testing of flight hardware prior to launch.

**Station Locations**

- (1) MOBILE: Hawthorne, CA: Mobile within the SpaceX factory, within 0.05 km, centered around NL 33-55-14; WL 118-19-41
- (2) MOBILE: CCAFS, FL: Mobile within integration facility DPF, within 0.1 km, centered around NL 28-28-14; WL 80-34-48
- (3) MOBILE: CCAFS, FL: Mobile within integration facility NPF, within 0.1 km, centered around NL 28-28-11; WL 80-34-44
- (4) MOBILE: CCAFS, FL: Mobile within integration facility PPF, within 0.1 km, centered around NL 28-32-37; WL 80-35-24

**Frequency Information**

MOBILE: Hawthorne, CA: Mobile within the SpaceX factory, within 0.05 km, centered around NL 33-55-14; WL 118-19-41

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
400.5 MHz	MO	338KF1D 24K0F1D	15 W (ERP)	0.001 %

This authorization effective July 03, 2018 and will expire 3:00 A.M. EST January 03, 2019

**FEDERAL  
COMMUNICATIONS  
COMMISSION**



## Frequency Information

MOBILE: Hawthorne, CA: Mobile within the SpaceX factory, within 0.05 km, centered around NL 33-55-14; WL 118-19-41

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1575.42 MHz	MO	20M0G1X	10 pW (ERP)	0.001 %
2028.78 MHz	MO	4M15G1D	10 mW (ERP)	0.001 %
2106.40625 MHz	MO	4M31G1D	10 mW (ERP)	0.001 %
2203.2 MHz	MO	4M15G1D	193 W (ERP)	0.001 %
2209 MHz	MO	4M14F1D 4M84F1D	11.8 W (ERP)	0.000225 %
2216 MHz	MO	2M73F1D 1M76F1D 347KF1D	193 W (ERP)	0.001 %
2287.5 MHz	MO	4M80G1D	193 W (ERP)	0.001 %

MOBILE: CCAFS, FL: Mobile within integration facility DPF, within 0.1 km, centered around NL 28-28-14; WL 80-34-48

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
400.5 MHz	MO	338KF1D 24K0F1D	15 W (ERP)	0.001 %

## Frequency Information

MOBILE: CCAFS, FL: Mobile within integration facility DPF, within 0.1 km, centered around NL 28-28-14; WL 80-34-48

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1575.42 MHz	MO	20M0G1X	10 pW (ERP)	0.001 %
2028.78 MHz	MO	4M15G1D	10 mW (ERP)	0.001 %
2106.40625 MHz	MO	4M31G1D	10 mW (ERP)	0.001 %
2203.2 MHz	MO	4M15G1D	193 W (ERP)	0.001 %
2209 MHz	MO	4M14F1D 4M16F1D	11.8 W (ERP)	0.000225 %
2216 MHz	MO	2M73F1D 1M76F1D 347KF1D	193 W (ERP)	0.001 %
2287.5 MHz	MO	4M80G1D	193 W (ERP)	0.001 %

MOBILE: CCAFS, FL: Mobile within integration facility NPF, within 0.1 km, centered around NL 28-28-11; WL 80-34-44

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
400.5 MHz	MO	338KF1D 24K0F1D	15 W (ERP)	0.001 %

## Frequency Information

MOBILE: CCAFS, FL: Mobile within integration facility NPF, within 0.1 km, centered around NL 28-28-11; WL 80-34-44

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1575.42 MHz	MO	20M0G1X	10 pW (ERP)	0.001 %
2028.78 MHz	MO	4M15G1D	10 mW (ERP)	0.001 %
2106.40625 MHz	MO	4M31G1D	10 mW (ERP)	0.001 %
2203.2 MHz	MO	4M15G1D	193 W (ERP)	0.001 %
2216 MHz	MO	2M73F1D 1M76F1D 347KF1D	193 W (ERP)	0.001 %
2287.5 MHz	MO	4M80G1D	193 W (ERP)	0.001 %

MOBILE: CCAFS, FL: Mobile within integration facility PPF, within 0.1 km, centered around NL 28-32-37; WL 80-35-24

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
400.5 MHz	MO	338KF1D 24K0F1D	15 W (ERP)	0.001 %
1575.42 MHz	MO	20M0G1X	10 pW (ERP)	0.001 %

## Frequency Information

MOBILE: CCAFS, FL: Mobile within integration facility PPF, within 0.1 km, centered around NL 28-32-37; WL 80-35-24

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2028.78 MHz	MO	4M15G1D	10 mW (ERP)	0.001 %
2106.40625 MHz	MO	4M31G1D	10 mW (ERP)	0.001 %
2203.2 MHz	MO	4M15G1D	193 W (ERP)	0.001 %
2209 MHz	MO	4M14F1D 4M84F1D	11.8 W (ERP)	0.000225 %
2216 MHz	MO	2M73F1D 1M76F1D 347KF1D	193 W (ERP)	0.001 %
2287.5 MHz	MO	4M80G1D	193 W (ERP)	0.001 %

## Special Conditions:

- (1) No substantial emissions shall occur outside the Space Exploration Technologies facilities in Hawthorne, CA and Cape Canaveral Air Force Station, FL.
- (2) GPS L1 testing must operate per NTIA Manual Section 8.3.28.
- (3) Due to potential harmful interference to naval activities, SpaceX's RF operations plan shall be submitted, at least 60 days prior to planned launch date, to the Naval Surface Warfare Center, Dahlgren Division (NSWCDD), Mr. James Moneyhon (540) 653-3477, or james.moneyhon@navy.mil, for assessment.

**Special Conditions:**

- (4) In order to mitigate the potential for interference with these naval activities, four blackout zones (BOZs) shall be assumed as follows: (1) 1500 nautical mile radius centered at 22N160W; (2) 1500 nautical mile radius centered at 33.25N119.57W; (3) 1500 nautical mile radius centered at 4.11N175.2W; and (4) 1500 nautical mile radius centered at 57.46N152.38W. These BOZs shall be implemented, unless otherwise coordinated and agreed to by the Naval Surface Warfare Center, Dahlgren Division (NSWCDD). In addition, SpaceX must also comply with any and all restrictions that may be levied by NSWCDD. Coordination of the SpaceX operations schedule and timeline, and all restrictions levied by the NSWCDD, including imposition and implementation of any BOZs, shall be coordinated through NASA JSC Spectrum Manager, Cathy Sham (catherine.c.sham@nasa.gov).
- (5) NMSC also request to be notified via email 24 hours prior to testing events at Richard.ontiveros1@navy.mil to monitor potential interference within the 400 -401 MHz band to naval systems near the vicinity of the SpaceX test areas.
- (6) Licensee must maintain a point of contact available 24 hours per day, seven days per week, with the authority and ability to terminate operations authorized herein, for discussing interference concerns with other licensees, and must submit a letter to be included in its license file with the name and telephone number of the point of contact prior to commencing operation.