

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

EXPERIMENTAL

(Nature of Service)

WG9XHP

(Call Sign)

XT    FX MO

(Class of Station)

0168-EX-ST-2015

(File Number)

NAME Space Exploration Technologies Corp. (SpaceX)

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:**

Launch vehicle communications. ISS commercial re-supply run, for NASA customer. SpX-6 mission.

**Station Locations**

- (1) MOBILE: Complex 40, Cape Canaveral AFS: Launch vehicle 1st stage, sub-orbital
- (2) MOBILE: Launch vehicle 2nd stage, orbital
- (3) MOBILE: BOAT, within 20 nautical miles, within 38 km, centered around NL 30-49-54; WL 78-06-29
- (4) MOBILE: BARGE, within 20 nautical miles, within 38 km, centered around NL 30-49-54; WL 78-06-29
- (5) Cape Canaveral AFS (BREVARD), FL - NL 28-33-00; WL 80-34-00

**Frequency Information**

MOBILE: Complex 40, Cape Canaveral AFS: Launch vehicle 1st stage, sub-orbital

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2221.5 MHz	MO	3M27F1D	33.9 W (ERP)	

This authorization effective April 01, 2015 and will expire 3:00 A.M. EST October 01, 2015

**FEDERAL  
COMMUNICATIONS  
COMMISSION**



## Frequency Information

MOBILE: Complex 40, Cape Canaveral AFS: Launch vehicle 1st stage, sub-orbital

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2273.5 MHz	MO	3M27F1D	33.9 W (ERP)	

MOBILE: Launch vehicle 2nd stage, orbital

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2213.5 MHz	MO	3M27F1D 1M00F1D	32.4 W (ERP)	
2251.5 MHz	MO	3M27F1D 2M00F1D	33.9 W (ERP)	
5765 MHz	MO	2M00LXN	193 W (ERP)	

MOBILE: BOAT, within 20 nautical miles, within 38 km, centered around NL 30-49-54; WL 78-06-29

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2090 MHz	MO	800KG1D	61 W (ERP)	

## Frequency Information

MOBILE: BARGE, within 20 nautical miles, within 38 km, centered around NL 30-49-54; WL 78-06-29

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2090 MHz	MO	800KG1D	1 W (ERP)	

Cape Canaveral AFS (BREVARD), FL - NL 28-33-00; WL 80-34-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2090 MHz	FX	800KG1D	1 W (ERP)	

## Special Conditions:

- (1) All SpaceX operations granted on an experimental basis shall be on an unprotected, non-interference basis to authorized federal stations. All Falcon 9 launch vehicle transmissions to the ground including pre-launch check out shall be pre-coordinated for clearance for operation in accordance with each conditions specified below.
- (2) This STA is limited to no earlier than 08 April 2015, to support the Falcon launch vehicle communications for the upcoming SpX-6 mission to the International Space Station. This STA will expire as soon as the launch is complete or by 01 October 2015, whichever occurs first. Applications for any future launches will need to be submitted to the FCC to be re-coordinated with NTIA.
- (3) SpaceX shall be aware that future requests will be considered on a case-by-case basis, especially for requests in the band 2200-2290 MHz, and that SpaceX shall have no expectations that future applications will be approved.
- (4) As soon as possible, but no later than seven days prior to the planned launch, SpaceX is required to provide the following with the planned launch date/time/window, planned trajectories (1st and 2nd stages), transmission start/end time/receiving stations from liftoff through end of transmission for both the 1st and 2nd stage rockets:  
 Jimmy Nguyen (jimmy.nguyen@us.af.mil, (301-225- 3729), Air Force Spectrum Management Office (AFSMO)  
 Rich Rood (richard.l.rood@nasa.gov, 661-276-2138, NASA Dryden SMO)  
 Farzin Manshadi (farzin.manshadi@jpl.nasa.gov, 818-354-0068, NASA JPL/DSN SMO)  
 Scott Galbraith (vincent.s.galbraith@nasa.gov, 301-286-5089, NASA GSFC SMO)  
 Cathy Sham (catherine.c.sham@nasa.gov, 281-483-0124, NASA JSC SMO)  
 Ken Stowe (ken.stowe@navy.mil, 301-225-3833, NMSC)  
 Johnnie Best (johnnie.w.best1@navy.mil, 301-225-3826, NMSC)  
 Alfredo Mistichelli (Alfredo.Mistichelli@noaa.gov, 301-713-1647, NOAA/NESDIS).  
 In the event of last minute changes, 48 hours notice is requested.

## Special Conditions:

- (5) Prior to transmitting (both the spacecraft and ground station operation) at Cape Canaveral AFS, Florida or Kennedy Space Center, Florida, SpaceX shall coordinate and schedule its operations by contacting the following:  
Steve Parish (Stephen.Parish.1@us.af.mil, 321-853-2012, USAF AFSPC 1 ROPS/DOUS Eastern Range Scheduling Office)  
Steven Schindler (steven.f.schindler@nasa.gov, 321-867-2520, NASA KSC SMO)  
Ashley Stockbridge (ashley.n.stockbridge@nasa.gov, 321.867.0218, NASA KSC SMO)  
Scott Galbraith (vincent.s.galbraith@nasa.gov, 301-286-5089, NASA GSFC SMO)
- (6) The STOP BUZZER POC information, for launch operations shall be provided to Brandon Mitchell at bmittchell@ntia.doc.gov. This phone shall be manned 24/7.
- (7) All transmissions in the band 2200-2290 MHz shall comply with national and international power flux-density limits, except in cases where expected exceedance are pre-coordinated with affected Federal operators identified in conditions 5 and 9.
- (8) SpaceX shall keep a log of all transmissions in the band 2200-2290 MHz that shall be provided to NTIA after the mission. This log should include, at a minimum, the date, time, frequency, e.i.r.p density, and pointing direction of the antennae. The log must be provided to the following no later than 30 days after completion of the mission:  
Brandon Mitchell at bmittchell@ntia.doc.gov  
Edward Drocella at edrocella@ntia.doc.gov
- (9) SpaceX must coordinate with the Naval Surface Warfare Center, Dahlgren Division (NSWCDD), Mr. James Moneyhon (540) 653-3477 or james.moneyhon@navy.mil, a minimum of 30-days prior to any operations to mitigate harmful interference to Navy and Marine Corps operations. SpaceX must also comply with any and all restrictions that may be levied by the Naval Surface Warfare Center, Dahlgren Division (NSWCDD).