

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

EXPERIMENTAL

(Nature of Service)

WG9XHP

(Call Sign)

XT MO

(Class of Station)

2104-EX-ST-2018

(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.

Station Locations

- (1) MOBILE: SLC 4E, VAFB: Launch vehicle stage 1, sub-orbital
- (2) MOBILE: SLC 4E, VAFB: Launch vehicle 2nd stage, orbital

Frequency Information

MOBILE: SLC 4E, VAFB: Launch vehicle stage 1, sub-orbital

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2209 MHz	MO	4M14F1D 4M84F1D	11.8 W (ERP)	
2255.5 MHz	MO	4M14F1D 4M84F1D	10.8 W (ERP)	

This authorization effective February 11, 2019 and will expire 3:00 A.M. EST August 11, 2019

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

MOBILE: SLC 4E, VAFB: Launch vehicle 2nd stage, orbital

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2221.5 MHz	MO	4M14F1D	9.4 W (ERP)	0.000225 %
2272.5 MHz	MO	4M14F1D	9.6 W (ERP)	0.000225 %

Special Conditions:

- (1) All operations shall be limited to telemetry, tracking, and launch vehicle communications for SpaceX Mission 1349. This STA is limited to a single SpaceX Falcon 9 launch supporting SpaceX Mission 1349. This STA will expire as soon as the launch has been completed or 11 August 2019, whichever occurs first. Any future launches will need to submit applications to the FCC to be re-coordinated with the NTIA.
- (2) SpaceX shall be aware that future non-federal launches will be considered on a case-by-case basis, especially for requests in the band 2200-2290 MHz, and SpaceX shall have no expectations that future launches will be approved.
- (3) As soon as possible, but no later than 60 business days prior to the planned launch, SpaceX is required to provide, as a minimum, launch date/time/window and planned first- and second-stage trajectory, transmission frequencies with associated duration/cut-off time to Jimmy Nguyen (jimmy.nguyen@us.af.mil, AFSMO), Felipe Arroyo (felipe.arroyo-1@nasa.gov, NASA/WFF), Scott Galbraith (vincent.s.galbraith@nasa.gov, NASA/GSFC), Stephen Horan (stephen.j.horan@nasa.gov, NASA/LaRC), Kevin Vipavetz (keven.g.vipavetz@nasa.gov, NASA/LaRC), NOAA Satellite Operations Control Center (philip.l.whaley@noaa.gov), Richard Ontiveros, (richard.ontiveros1@navy.mil, NMSC), and Cathy Sham (catherine.c.sham@nasa.gov, NASA/JSC). In the event of last-minute changes, 48-hour notice is required.

Special Conditions:

- (4) Due to potential harmful interference to naval activities, SpaceX 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. 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 any and all restrictions that may be 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) during the ISS Cargo Mission Service by SpaceX.. SpaceX, Inc. must also comply with any and all restrictions that may be levied by the Naval Surface Warfare Center, Dahlgren Division (NSWCDD).
- (5) All transmissions in the band 2200-2290 MHz shall comply with national and international power flux density limits, unless otherwise coordinated and agreed to. PFD analysis and exceedances shall be provided in the FCC application and provided to the NTIA for US Government review.
- (6) The STOP BUZZER POC information, for launch operations shall be provided to NTIA (bmitchell@ntia.doc.gov). This phone shall be manned 24/7.