

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

EXPERIMENTAL

(Nature of Service)

WG9XHP

(Call Sign)

XT MO

(Class of Station)

1379-EX-ST-2020

(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 for mission launching from Vandenberg Air Force Base.

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 (+/-)
2247.5 MHz	MO	4M84F1D	11.8 W (ERP)	0.000225 %
2255.5 MHz	MO	4M84F1D	10.8 W (ERP)	0.000225 %

This authorization effective November 03, 2020 and will expire 3:00 A.M. EST May 03, 2021

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

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

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2232.5 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 1478. This STA is limited to a single SpaceX Falcon 9 launch supporting SpaceX Mission 1478 from Space Launch Complex 4E at Vandenberg Air Force Base, CA. This STA will expire as soon as the launch operations are completed or 3 May 2021, whichever occurs first.
- (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 30 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 Shane Berg (Shane.berg@us.af.mil, COMM: 805-605-3660, 30 SW), Jimmy Nguyen (jimmy.nguyen@us.af.mil, AFSMO), Shaobei Xu (shaobei.xu.1@us.af.mil), Felipe Arroyo (felipe.arroyo-1@nasa.gov, NASA/WFF), NASA GSFC Spectrum Management Office (NASA-DL-GSFC-Spectrum-Management@mail.nasa.gov), Richard S. Tseng (Richard.S.Tseng@nasa.gov, NASA/GSFC), Stephen Horan (stephen.j.horan@nasa.gov, NASA/LaRC), NOAA Satellite Operations Control Center (Matt.G.Sullivan@noaa.gov), Richard Ontiveros, (richard.ontiveros1@navy.mil, NMSC), Scott Galbraith (vincent.s.galbraith@nasa.gov, NASA/GSFC), Stephen Horan and Kenneth Dudley (stephen.j.horan@nasa.gov and kenneth.l.dudley@nasa.gov, NASA/LaRC), Mr. James Moneyhon (james.moneyhon@navy.mil, COMM: (540) 653-3477), Mr. A. Jason Verdugo (Anthony.J.Verdugo@navy.mil COMM: (540) 653-9590), Mr. Phillip B. Scyphers (Phillip.scyphers@navy.mil COMM: (540) 653-6071). Navy group email (W_DLGR_NSWC_FTMA_FM@navy.mil) and Cathy Sham (catherine.c.sham@nasa.gov). In the event of last-minute changes, 24-hour notice is required.
- (4) 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.
- (5) The STOP BUZZER POC information, for launch operations shall be provided to NTIA (bmitchell@ntia.doc.gov). This phone shall be manned 24/7.

Special Conditions:

- (6) All SpaceX operations, granted on an experimental basis, shall conduct on an unprotected, non-interference basis to authorized AF stations.
- (7) Any changes to this STA or future launches will need to submit applications to the FCC to be re-coordinated with the NTIA.