Kristi Key, 1 Rocket Road, Hawthorne, CA 90250,

United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
SPECIAL TEMPORARY AUTHORIZATION

EXPERIMENTAL	WG9XHP
(Nature of Service)	(Call Sign)
XT MO	1514-EX-ST-2019
(Class of Station)	(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 Cape Canaveral.

Station Locations
(1) MOBILE: SLC 40, CCAFS; Launch vehicle 1st stage
(2) MOBILE: Launch vehicle 2nd stage, orbital

Frequency Information

MOBILE: SLC 40, CCAFS; Launch vehicle 1st stage

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2211 MHz	MO	4M14F1D 4M84F1D	11.8 W (ERP)	0.000225 %

This authorization effective October 22, 2019 and
will expire 3:00 A.M. EST April 10, 2020

FEDERAL COMMUNICATIONS COMMISSION

Frequency Information

MOBILE: 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 F9 Mission 1455 from Complex 40, Cape Canaveral AFS, FL. This STA is limited to the single SpaceX F9 Mission 1455 from Complex 40, Cape Canaveral AFS, FL. This STA will expire as soon as the launch has been completed or 10 April 2020, 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 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), Kevin Vipavetz (kevin.g.vipavetz@nasa.gov, NASA/LaRC), Stephen Horan (stephen.j.horan@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.

(4) Sixty (60) days prior to transmitting at Complex 40, Cape Canaveral AFS, FL, SpaceX shall coordinate and schedule their operations with Range Scheduling (1ropschd@us.af.mil, 321-853-5941), Jamie Bjornbak (James.P.Bjornbak@nasa.gov, 321-867-6905, NASA KSC SMO), and Scott Galbraith (vincent.s.galbraith@nasa.gov, 301-286-5089, NASA GSFC SMO) and provide a copy of FCC license to the 45th Space Wing Spectrum Management Office, (321)-853-8408, email: 45sw.erfmo@us.af.mil with Cc'ing DoD EAFC (321)853-8426 at 45sw.dodeafc@us.af.mil.

(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.

Special Conditions:

(6) 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. Four (4) 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.

(7) The STOP BUZZER POC information for launch operations shall be provided to NTIA (bmitchell@ntia.doc.gov). This phone shall be manned 24/7.

(8) SpaceX shall keep a log of all transmissions in the band 2200-2290 MHz and provide to the NTIA after the mission. This log shall include, as a minimum, at least date, time, frequency, EIRP density, pointing direction of all antennas. The log shall be provided to the following NTIA personnel no later than three (3) weeks after completing the mission: bmitchell@ntia.doc.gov and edrocella@ntia.doc.gov.

(9) NTIA does not concur with the use of frequency 2255.5 MHz due to frequency and geographical overlaps with Navy downlink space networks as registered in the ITU's IFIC 2903 of 09/03/2019.

(10) This application does not specifically define the spectrum requirements for its payload in Mission 1455; therefore, the spectrum requirements for that payload are not addressed in this response. Spectrum requirements for the payload may result in additional restrictions.