

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

EXPERIMENTAL

(Nature of Service)

WQ9XZZ

(Call Sign)

XT MO

(Class of Station)

1386-EX-ST-2020

(File Number)

NAME Firefly Aerospace

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:

The main purpose of the launch vehicle is to provide commercial space launch services.

Station Locations

- (1) MOBILE: Launch from VAFB, CA to 300km orbit., centered around NL 34-45-20; WL 120-37-20

Frequency Information

MOBILE: Launch from VAFB, CA to 300km orbit., centered around NL 34-45-20; WL 120-37-20

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2205 MHz	MO	780KG1D	5.5 W (ERP)	1 %
2215 MHz	MO	3M90G1D	5.5 W (ERP)	1 %

Special Conditions:

- (1) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.

This authorization effective December 11, 2020 and
will expire 3:00 A.M. EST May 22, 2021

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COMMUNICATIONS
COMMISSION**



Special Conditions:

- (2) Licensee should be aware that other stations may be licensed on these frequencies and if any interference occurs, the licensee of this authorization will be subject to immediate shut down.
- (3) Operations are limited to a single Firefly Aerospace launch from Vandenberg AFB, CA. This STA will expire as soon as the launch has been completed or 21 May 2021, whichever occurs first. Applications for any future launches, or modifications to this STA, shall be submitted to the FCC for re-coordination with NTIA.
- (4) All operations shall be limited to telemetry, tracking and launch vehicle communications to provide commercial space launch services
- (5) Firefly Aerospace shall be aware that future requests for non-federal operations in the 2200-2290 MHz band will be considered on a case-by-case basis, and Firefly Aerospace shall have no expectations that future requests will be approved.
- (6) 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.
- (7) As soon as possible, but no later than 60 business days prior to the planned launch, Firefly Aerospace 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, AFSMO), Felipe Arroyo (felipe.arroyo-1@nasa.gov, NASA/WFF), NASA GSFC Spectrum Office (NASA-DL-GSFC-Spectrum-Management@mail.nasa.gov), 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), NOAA Satellite Operations Control Center (Matt.G.Sullivan@noaa.gov), Richard Ontiveros, (richard.ontiveros1@navy.mil, NMSC), Cathy Sham (catherine.c.sham@nasa.gov), and NASA JSC Spectrum Office (JSC-DL-Spectrum-Management@mail.nasa.gov). In the event of last-minute changes, 48-hour notice is required.
- (8) Firefly Aerospace shall coordinate all operations with the NASA JSC Spectrum Management Office (JSC-DL-Spectrum-Management@mail.nasa.gov), at least 15 business days prior to operation.
- (9) Prior to operating at VAFB, Firefly Aerospace requires to coordinate and schedule operations with:
 - a.2 ROPS (COMM: 805-606-8825);
 - b.Range Control: Prior to or after an operation (COMM: 805-606-0002). During the operation (COMM: 805-606-4508); and
 - c.Frequency Control Analysis Center (COMM: 805-606-9247).

Special Conditions:

- (10) In the event that any changes occur to the mission's parameters, Firefly Aerospace shall provide updated documentation and parameters to be submitted NLT 60 days prior to launch to the Naval Surface Warfare Center, Dahlgren Division (NSWCDD). In the event that these changes result in any potential harmful interference to Navy and DoD operations, Firefly Aerospace must comply with any and all restrictions that may be levied by the Naval Surface Warfare Center, Dahlgren Division.
- a. The primary contacts for frequency coordination: Mr. James Moneyhon, (540) 653-3477- james.moneyhon@navy.mil, Mr. A. Jason Verdugo, (540) 653-9590 – Anthony.J.Verdugo@navy.mil, and/or Mr. Phillip B. Scyphers, (540) 653-6071 – Phillip.scyphers@navy.mil. Group email box. - W_DLGR_NSWC_FTMA_FM@navy.mil.
- (11) Firefly Aerospace shall be aware that future requests for commercial launch vehicle transmissions within the 2200-2290 MHz frequency band should be limited the following recommended frequencies 2211.0 +/-4 MHz, 2215.0 +/-4 MHz, 2272.5 +/-2 MHz, or 2285-2290 MHz (for communication with NASA Tracking and Data Relay Satellite (TDRS) only), to avoid impact to NASA operations that may result in unfavorable findings.
- (12) The Stop Buzzer information, for launch operations shall be provided to NTIA (ravery@ntia.gov). This phone shall be manned 24/7.
- (13) Firefly Aerospace 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, date, time, vehicle position, frequency, EIRP density, and 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: ravery@ntia.gov and edrocella@ntia.gov