

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

EXPERIMENTAL

(Nature of Service)

WR9XRB

(Call Sign)

XT MO

(Class of Station)

0131-EX-ST-2021

(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:

To demonstrate the viability of Alpha as a small-satellite launcher.

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	10.5 W (ERP)	1 %
2215 MHz	MO	3M90G1D	10.5 W (ERP)	1 %

This authorization effective May 21, 2021 and
will expire 3:00 A.M. EST September 15, 2021

**FEDERAL
COMMUNICATIONS
COMMISSION**



Special Conditions:

- (1) 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.
- (2) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (3) All operations are on a strict non-interference basis to authorized federal users.
- (4) 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 14 September 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.
- (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, except in cases where expected exceedances are pre-coordinated and agreed-upon.
- (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 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), 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), 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 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.
- (9) The Stop Buzzer information, for launch operations shall be provided to NTIA (ravery@ntia.gov). This phone shall be manned 24/7.
- (10) 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

Special Conditions:

- (11) Commercial launch service providers should be aware that a satellite integrated into a launch vehicle or deployment device without a current FCC authorization may need to be removed from that vehicle or deployment device if the satellite operator's application for an FCC authorization is not acted upon favorably, or for various reasons cannot be granted within a time frame consistent with the launch schedule. Commercial launch providers should exercise due diligence to verify satellite operator's regulatory approvals prior to launch (FCC Enforcement Advisory DA 18-368).
- (12) Firefly Aerospace must schedule their launches so that the launch vehicle won't be visible over Wallops, VA, during a COSMIC, JASON-3, or DSCOVR satellite pass in order to ensure the NOAA downlinks are not impacted by Firefly Aerospace operations.
- (13) Consistent with the Public Notice, "GUIDANCE ON OBTAINING EXPERIMENTAL AUTHORIZATIONS FOR COMMERCIAL SPACE LAUNCH ACTIVITIES" DA 13-446, RELEASED MARCH 15, 2013, review of the orbital debris mitigation materials submitted with this application has not been undertaken to completion. The grant of this license does not constitute approval of the licensee's orbital debris mitigation plans