Umer A Qureshi, 4022 E Conant St, Long Beach, CA 90808

United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
SPECIAL TEMPORARY AUTHORIZATION

EXPERIMENTAL	WQ9XSV
(Nature of Service)	(Call Sign)
XT MO	1004-EX-ST-2020
(Class of Station)	(File Number)

NAME Virgin Orbit

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:
S-Band transmitter will be used for telemetry and video transmission from the launch vehicle.

Station Locations
(1) MOBILE: Mojave, CA, centered around NL 35-03-24; WL 118-09-28

Frequency Information

MOBILE: Mojave, CA, centered around NL 35-03-24; WL 118-09-28

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2215.5 MHz	MO	4M99G1W	80 W (ERP)	0.002 %
2215.5 MHz	MO	2M73G1W	25 W (ERP)	0.002 %

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 September 01, 2020 and will expire 3:00 A.M. EST March 01, 2021

FEDERAL 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) This STA is limited to launch vehicle communications for the telemetry transmissions and reception of the Launcher One satellite launch vehicle. This STA will expire as soon as the launch has been completed or 28 February 2021, whichever occurs first. Applications for any future launches shall be submitted to the FCC for re-coordination with NTIA.

(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) As soon as possible, but no later than 60 business days prior to commencing flight operations, Virgin Orbit shall provide, as a minimum, launch date/window, planned aircraft flight path, and planned Launch One trajectory, transmission frequencies with associated duration/cut-off time to: Jimmy Nguyen (jimmy.nguyen@us.af.mil), David Pooley (david.pooley@us.af.mil, USSF), NASA GSFC Spectrum Management Office (NASA-DL-GSFC-SPECTRUM-MANAGEMENT@MAIL.NASA.GOV), Kenneth Dudley (kenneth.l.dudley@nasa.gov, NASA/LaRC), Felipe Arroyo (felipe.arroyo-1@nasa.gov, NASA/WFF), Richard Ontiveros (richard.ontiveros1.civ@mail.mil), Stephen Harris (stephen.b.harris6.civ@mail.mil), Carmelo Rivera (carmelo.rivera@noaa.gov), and Cathy Sham (catherine.c.sham@nasa.gov). In the event of last-minute changes, 48-hour notice is required.

(6) Virgin Orbit shall notify the NASA GSFC Spectrum Management Office at NASA-DL-GSFC-SPECTRUM-MANAGEMENT@MAIL.NASA.GOV of the specific launch time once it is finalized. In the event of last-minute changes, notification shall be provided as soon as possible.

(7) Due to potential conflict, Virgin Orbit must contact the following personnel for pre-coordination and be prepared to provide both launching aircraft flight path data and launch vehicle trajectory; W_DLGR_NSWC_FTMA_FM@navy.mil, Mr. James Moneyhon, (540) 653-3477- james.moneyhon@navy.mil, Mr. A. Jason Verdugo, (540) 653-9590 – Anthony.J.Verdugo@navy.mil, Mr. Phillip B. Scyphers, (540) 653-6071 – Phillip.scyphers@navy.mil.

(8) Virgin Orbit shall be aware that future non-federal launches requests for the use of 2200-2290 MHz band will be considered on a case-by-case basis and Virgin Orbit shall have no expectations that future launches will be approved for operation in this band.