

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

EXPERIMENTAL

(Nature of Service)

WR9XYK

(Call Sign)

XT MO

(Class of Station)

0566-EX-ST-2021

(File Number)

NAME Space Exploration Holdings, LLC

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:

Operate a single user terminal on an experimental basis.

Station Locations

- (1) MOBILE: Boca Chica, TX: max altitude 41,000 ft. AGL, within 5 km, centered around NL 26-00-00; WL 97-09-36

Frequency Information

MOBILE: Boca Chica, TX: max altitude 41,000 ft. AGL, within 5 km, centered around NL 26-00-00; WL 97-09-36

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14000-14500 MHz	MO	60MOD7W	4.06 W (Output Power)	0.001 %

Special Conditions:

- (1) Operations should be conducted in accordance with Footnote NG527A.
- (2) Licensee is authorized to conduct tests on one SpaceX UTA-201 earth station aboard aircraft (ESAA) in the 14.0-14.5 GHz frequency band via SpaceX's NGSO satellites.
- (3) POINT OF COMMUNICATION: Space Exploration Technologies Corp. ("SpaceX")'s Ku-band non-geostationary- orbit (NGSO) satellites (S2983/S3018).

This authorization effective June 01, 2021 and will expire 3:00 A.M. EST June 28, 2021

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COMMISSION**



Special Conditions:

- (4) ESAA in aircraft on the ground must not transmit at elevation angles less than three degrees. There is no minimum angle of antenna elevation for ESAA while airborne.
- (5) ESAA's operations authorized pursuant to this license are operations by U.S.-registered aircraft.
- (6) ESAA authorized herein must not be used to provide air traffic control communications.
- (7) The ESAA must be self-monitoring and, should a condition occur that causes it to exceed EIRP, EIRP density or EIRP mask limits, the ESAA will automatically cease transmissions within 100 milliseconds and not resume transmissions until the condition that caused the experimental ESAA to exceed those limits is corrected.
- (8) Operations of the authorized ESAA operating in the 14.14.5 GHz band must be in compliance with the following additional conditions:
 - a. Licensee's ESAA must employ a tracking algorithm that is resistant to capturing and tracking adjacent satellite signals, and each station must be capable of inhibiting its own transmission in the event it detects unintended satellite tracking.
 - b. Licensee's ESAA must be monitored and controlled by a ground-based network control and monitoring center. Such stations must be able to receive "enable transmission" and "disable transmission" commands from the network control center and must cease transmission immediately after receiving a "parameter change" command until receiving an "enable transmission" command from the network control center. The network control center must monitor operation of each earth station to determine if it is malfunctioning, and each earth station must self-monitor and automatically cease transmission on detecting an operational fault that could cause harmful interference to a fixed satellite service network.
 - c. Licensee must maintain a point of contact available 24 hours per day, seven days per week, with the authority and ability to terminate operations authorized herein, for discussing interference concerns with other licensees, and must submit a letter to be included in its license file with the name and telephone number of the point of contact prior to commencing operation.
- (9) This authorization SUPERSEDES the previously issued authorization with the same call sign and file number: adds Special Conditions 2-8.