

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

EXPERIMENTAL

(Nature of Service)

WN9XMH

(Call Sign)

XT MO

(Class of Station)

0520-EX-ST-2019

(File Number)

NAME The Boeing Company

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 test use case of MIMO systems for future development

Station Locations

- (1) MOBILE: AIR OPS UP TO 10,000FT AGL, Culpeper, VA, within 50 km, centered around NL 38-40-58; WL 78-01-14
- (2) MOBILE: AIR OPS UP TO 10,000FT AGL, Rome, NY, within 50 km, centered around NL 43-14-05; WL 75-24-27

Frequency Information

MOBILE: AIR OPS UP TO 10,000FT AGL, Culpeper, VA, within 50 km, centered around NL 38-40-58; WL 78-01-14

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2480 MHz	MO	5M00G1D 10M0G1D 20M0G1D	8 W (ERP)	
2480 MHz	MO	5M00G1D 10M0G1D	1 W (ERP)	

This authorization effective May 02, 2019 and
will expire 3:00 A.M. EST November 02, 2019

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

MOBILE: AIR OPS UP TO 10,000FT AGL, Culpeper, VA, within 50 km, centered around NL 38-40-58; WL 78-01-14

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2480 MHz	MO	20M0G1D	1 W (ERP)	

MOBILE: AIR OPS UP TO 10,000FT AGL, Rome, NY, within 50 km, centered around NL 43-14-05; WL 75-24-27

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2480 MHz	MO	5M00G1D 10M0G1D 20M0G1D	8 W (ERP)	
2480 MHz	MO	5M00G1D 10M0G1D 20M0G1D	1 W (ERP)	

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) The Boeing Company must coordinate with the local Society of Broadcast Engineer frequency coordinator and the affected Fixed Microwave Service licensees prior to operation on 2480 MHz.
- (4) Operation is not permitted using the frequency 4410 MHz due to current ongoing operations.
- (5) The authorized station herein must not be used for air traffic control communications.
- (6) Aircraft operations are limited to U.S.-registered aircraft.
- (7) The stop buzzer contact for this project is Daniel McNeil
Phone: 714-642-7485
Email: daniel.p.mcneil@boeing.com

Special Conditions:

- (8) The authorized station must be in compliance with the Federal Aviation Administration (FAA) requirements as set forth in Section 17.4 of the Commission's Rules.
- (9) The authorized station must be in compliance with environmental requirement set forth in Section 1.1307 of the Commission's Rules.
- (10) Experimental station shall use the minimum power level necessary to establish communications links to minimize potential interference to licensed users.
- (11) This authorization is without prejudice to any determination that the Commission may make regarding pending or future experimental satellite earth station applications.
- (12) Operations are on a non-interference basis (NIB) and shall not cause harmful interference to, and shall not claim protection from, interference caused to it by any other lawfully operating station and it shall cease transmission(s) immediately upon notice of such interference and notify the FCC in writing.