

**United States of America**  
**FEDERAL COMMUNICATIONS COMMISSION**  
**EXPERIMENTAL**  
**RADIO STATION CONSTRUCTION PERMIT**  
**AND LICENSE**

EXPERIMENTAL

(Nature of Service)

XT      FX

(Class of Station)

WJ2XRX

(Call Sign)

0517-EX-CR-2019

(File Number)

NAME The Boeing Company

Subject to the provisions of the Communications Act of 1934, subsequent acts, and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions and requirements set forth in this license, the licensee hereof is hereby authorized to use and operate the radio transmitting facilities hereinafter described for radio communications in accordance with the program of experimentation described by the licensee in its application for license.

Operation: In accordance with Sec. 5.3(h) of the Commission's Rules

Station Locations

(1) Herndon (FAIRFAX), VA - NL 38-57-31; WL 77-22-33

Frequency Information

Herndon (FAIRFAX), VA - NL 38-57-31; WL 77-22-33

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 20.2-21.2 GHz | FX            | 64M0M1D             | 251189 W (ERP)   |                           |
| 30-31 GHz     | FX            | 20M0M1D             | 79433 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 should be aware that conditional concurrence is based upon the understanding that this experiment is for demonstration purposes only, since power exceeds acceptable levels for other types of operations.

This authorization effective January 01, 2020 and  
will expire 3:00 A.M. EST August 01, 2020

**FEDERAL  
COMMUNICATIONS  
COMMISSION**



**Special Conditions:**

- (4) The Boeing Company shall ensure that all testing shall be conducted IAW the configuration and parameters that the Boeing Company coordinated with Air Force Jimmy Nguyen.
- (5) The Boeing Company should be aware that only the emissions designators listed in this grant are approved for the stated occupied bandwidth only. Occupied bandwidths that are less than the above emissions are not authorized.
- (6) The Boeing Company shall, as soon as possible but no later than 3 business days prior to any planned testing, provide Jimmy Nguyen (Email: jimmy.nguyen@us.af.mil, AFSMO) and Travis J. Inghram (Email: travis.j.ingham.civ@mail.mil, ARSTRAT) with the planned testing date/duration and the stop buzzer POC for the testing. If planned testing conflicts with DoD operations, additional evaluations and/or restrictions will be required.
- (7) Experimental station shall use the minimum power level necessary to establish communications links to minimize potential interference to licensed users.
- (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) This authorization is without prejudice to any determination that the Commission may make regarding pending or future experimental satellite earth station applications.
- (11) 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.
- (12) Stop buzzer, Boeing 24-hour NOC hotline 855-556-1001.
- (13) Operation is subject to prior coordination with the Fixed Microwave Service licensees in accordance with 47 C.F.R. Part 101.103(d).