

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

EXPERIMENTAL
(Nature of Service)

WG2XDD
(Call Sign)

XD FX
(Class of Station)

0263-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(j) of the Commission's Rules

Station Locations

- (1) Renton (KING), WA - NL 47-29-25; WL 122-12-47
- (2) Everett (SNOHOMISH), WA - NL 47-54-22; WL 122-16-53
- (3) Seattle (KING), WA - NL 47-31-48; WL 122-18-07

Frequency Information

Renton (KING), WA - NL 47-29-25; WL 122-12-47

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
417 MHz	FX	NON	18 W (ERP)	
427 MHz	FX	NON	18 W (ERP)	
437 MHz	FX	NON	18 W (ERP)	
447 MHz	FX	NON	18 W (ERP)	

This authorization effective August 01, 2019 and
will expire 3:00 A.M. EST August 01, 2021

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

Renton (KING), WA - NL 47-29-25; WL 122-12-47

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
457 MHz	FX	N0N	18 W (ERP)	
468 MHz	FX	N0N	18 W (ERP)	
479 MHz	FX	N0N	18 W (ERP)	
484-490 MHz	FX	N0N	10 W (ERP)	
708 MHz	FX	N0N	10 W (ERP)	
724 MHz	FX	N0N	10 W (ERP)	
741 MHz	FX	N0N	10 W (ERP)	
755 MHz	FX	N0N	10 W (ERP)	
772 MHz	FX	N0N	10 W (ERP)	
776 MHz	FX	N0N	10 W (ERP)	

Frequency Information

Renton (KING), WA - NL 47-29-25; WL 122-12-47

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
782 MHz	FX	N0N	10 W (ERP)	
787 MHz	FX	N0N	10 W (ERP)	
813 MHz	FX	N0N	18 W (ERP)	
822.5 MHz	FX	N0N	10 W (ERP)	
832 MHz	FX	N0N	18 W (ERP)	
851 MHz	FX	N0N	18 W (ERP)	
871 MHz	FX	N0N	18 W (ERP)	
891 MHz	FX	N0N	18 W (ERP)	
912 MHz	FX	N0N	18 W (ERP)	
933 MHz	FX	N0N	10 W (ERP)	

Frequency Information

Renton (KING), WA - NL 47-29-25; WL 122-12-47

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
955 MHz	FX	N0N	10 W (ERP)	
1437.9 MHz	FX	N0N	10 W (ERP)	
1455.4 MHz	FX	N0N	10 W (ERP)	
1480.3 MHz	FX	N0N	10 W (ERP)	
1643.5 MHz	FX	N0N	10 W (ERP)	
1738 MHz	FX	N0N	10 W (ERP)	
1778 MHz	FX	N0N	10 W (ERP)	
1819.2-1819.8 MHz	FX	N0N	10 W (ERP)	
1862 MHz	FX	N0N	10 W (ERP)	
1905 MHz	FX	N0N	10 W (ERP)	

Frequency Information

Renton (KING), WA - NL 47-29-25; WL 122-12-47

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1920 MHz	FX	N0N	10 W (ERP)	
1950 MHz	FX	N0N	10 W (ERP)	
1953.1-1999 MHz	FX	N0N	10 W (ERP)	
2018 MHz	FX	N0N	10 W (ERP)	
2130-2159 MHz	FX	N0N	10 W (ERP)	
2310 MHz	FX	N0N	10 W (ERP)	
2357.5 MHz	FX	N0N	10 W (ERP)	
2455 MHz	FX	N0N	10 W (ERP)	
2512 MHz	FX	N0N	10 W (ERP)	
2570 MHz	FX	N0N	10 W (ERP)	

Frequency Information

Renton (KING), WA - NL 47-29-25; WL 122-12-47

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2630 MHz	FX	N0N	10 W (ERP)	
2638-2689 MHz	FX	N0N	10 W (ERP)	
3467 MHz	FX	N0N	10 W (ERP)	
3548 MHz	FX	N0N	10 W (ERP)	
3650 MHz	FX	N0N	10 W (ERP)	
3750 MHz	FX	N0N	10 W (ERP)	
5012 MHz	FX	N0N	10 W (ERP)	
5248 MHz	FX	N0N	10 W (ERP)	
5300 MHz	FX	N0N	10 W (ERP)	
5369-5424 MHz	FX	N0N	10 W (ERP)	

Frequency Information

Renton (KING), WA - NL 47-29-25; WL 122-12-47

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5495 MHz	FX	N0N	10 W (ERP)	
5623 MHz	FX	N0N	10 W (ERP)	
5754 MHz	FX	N0N	10 W (ERP)	
5765-5889 MHz	FX	N0N	10 W (ERP)	

Everett (SNOHOMISH), WA - NL 47-54-22; WL 122-16-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
417 MHz	FX	N0N	18 W (ERP)	
427 MHz	FX	N0N	18 W (ERP)	
437 MHz	FX	N0N	18 W (ERP)	
447 MHz	FX	N0N	18 W (ERP)	
457 MHz	FX	N0N	18 W (ERP)	

Frequency Information

Everett (SNOHOMISH), WA - NL 47-54-22; WL 122-16-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
468 MHz	FX	N0N	18 W (ERP)	
479 MHz	FX	N0N	18 W (ERP)	
484-490 MHz	FX	N0N	10 W (ERP)	
708 MHz	FX	N0N	10 W (ERP)	
724 MHz	FX	N0N	10 W (ERP)	
741 MHz	FX	N0N	10 W (ERP)	
755 MHz	FX	N0N	10 W (ERP)	
772 MHz	FX	N0N	10 W (ERP)	
776 MHz	FX	N0N	10 W (ERP)	
782 MHz	FX	N0N	10 W (ERP)	

Frequency Information

Everett (SNOHOMISH), WA - NL 47-54-22; WL 122-16-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
787 MHz	FX	N0N	10 W (ERP)	
813 MHz	FX	N0N	18 W (ERP)	
822.5 MHz	FX	N0N	10 W (ERP)	
832 MHz	FX	N0N	18 W (ERP)	
851 MHz	FX	N0N	18 W (ERP)	
871 MHz	FX	N0N	18 W (ERP)	
891 MHz	FX	N0N	18 W (ERP)	
912 MHz	FX	N0N	18 W (ERP)	
933 MHz	FX	N0N	10 W (ERP)	
955 MHz	FX	N0N	10 W (ERP)	

Frequency Information

Everett (SNOHOMISH), WA - NL 47-54-22; WL 122-16-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1437.9 MHz	FX	N0N	10 W (ERP)	
1455.4 MHz	FX	N0N	10 W (ERP)	
1480.3 MHz	FX	N0N	10 W (ERP)	
1643.5 MHz	FX	N0N	10 W (ERP)	
1738 MHz	FX	N0N	10 W (ERP)	
1778 MHz	FX	N0N	10 W (ERP)	
1819.2-1819.8 MHz	FX	N0N	10 W (ERP)	
1862 MHz	FX	N0N	10 W (ERP)	
1905 MHz	FX	N0N	10 W (ERP)	
1920 MHz	FX	N0N	10 W (ERP)	

Frequency Information

Everett (SNOHOMISH), WA - NL 47-54-22; WL 122-16-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1950 MHz	FX	N0N	10 W (ERP)	
1953.1-1999 MHz	FX	N0N	10 W (ERP)	
2018 MHz	FX	N0N	10 W (ERP)	
2130-2159 MHz	FX	N0N	10 W (ERP)	
2310 MHz	FX	N0N	10 W (ERP)	
2357.5 MHz	FX	N0N	10 W (ERP)	
2455 MHz	FX	N0N	10 W (ERP)	
2512 MHz	FX	N0N	10 W (ERP)	
2570 MHz	FX	N0N	10 W (ERP)	
2630 MHz	FX	N0N	10 W (ERP)	

Frequency Information

Everett (SNOHOMISH), WA - NL 47-54-22; WL 122-16-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2638-2689 MHz	FX	N0N	10 W (ERP)	
3467 MHz	FX	N0N	10 W (ERP)	
3548 MHz	FX	N0N	10 W (ERP)	
3650 MHz	FX	N0N	10 W (ERP)	
3750 MHz	FX	N0N	10 W (ERP)	
5012 MHz	FX	N0N	10 W (ERP)	
5248 MHz	FX	N0N	10 W (ERP)	
5300 MHz	FX	N0N	10 W (ERP)	
5369-5424 MHz	FX	N0N	10 W (ERP)	
5495 MHz	FX	N0N	10 W (ERP)	

Frequency Information

Everett (SNOHOMISH), WA - NL 47-54-22; WL 122-16-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5623 MHz	FX	N0N	10 W (ERP)	
5754 MHz	FX	N0N	10 W (ERP)	
5765-5889 MHz	FX	N0N	10 W (ERP)	

Seattle (KING), WA - NL 47-31-48; WL 122-18-07

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
417 MHz	FX	N0N	18 W (ERP)	
427 MHz	FX	N0N	18 W (ERP)	
437 MHz	FX	N0N	18 W (ERP)	
447 MHz	FX	N0N	18 W (ERP)	
457 MHz	FX	N0N	18 W (ERP)	
468 MHz	FX	N0N	18 W (ERP)	

Frequency Information

Seattle (KING), WA - NL 47-31-48; WL 122-18-07

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
479 MHz	FX	N0N	18 W (ERP)	
484-490 MHz	FX	N0N	10 W (ERP)	
708 MHz	FX	N0N	10 W (ERP)	
724 MHz	FX	N0N	10 W (ERP)	
741 MHz	FX	N0N	10 W (ERP)	
755 MHz	FX	N0N	10 W (ERP)	
772 MHz	FX	N0N	10 W (ERP)	
776 MHz	FX	N0N	10 W (ERP)	
782 MHz	FX	N0N	10 W (ERP)	
787 MHz	FX	N0N	10 W (ERP)	

Frequency Information

Seattle (KING), WA - NL 47-31-48; WL 122-18-07

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
813 MHz	FX	N0N	18 W (ERP)	
822.5 MHz	FX	N0N	10 W (ERP)	
832 MHz	FX	N0N	18 W (ERP)	
851 MHz	FX	N0N	18 W (ERP)	
871 MHz	FX	N0N	18 W (ERP)	
891 MHz	FX	N0N	18 W (ERP)	
912 MHz	FX	N0N	18 W (ERP)	
933 MHz	FX	N0N	10 W (ERP)	
955 MHz	FX	N0N	10 W (ERP)	
1437.9 MHz	FX	N0N	10 W (ERP)	

Frequency Information

Seattle (KING), WA - NL 47-31-48; WL 122-18-07

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1455.4 MHz	FX	N0N	10 W (ERP)	
1480.3 MHz	FX	N0N	10 W (ERP)	
1643.5 MHz	FX	N0N	10 W (ERP)	
1738 MHz	FX	N0N	10 W (ERP)	
1778 MHz	FX	N0N	10 W (ERP)	
1819.2-1819.8 MHz	FX	N0N	10 W (ERP)	
1862 MHz	FX	N0N	10 W (ERP)	
1905 MHz	FX	N0N	10 W (ERP)	
1920 MHz	FX	N0N	10 W (ERP)	
1950 MHz	FX	N0N	10 W (ERP)	

Frequency Information

Seattle (KING), WA - NL 47-31-48; WL 122-18-07

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1953.1-1999 MHz	FX	N0N	10 W (ERP)	
2018 MHz	FX	N0N	10 W (ERP)	
2130-2159 MHz	FX	N0N	10 W (ERP)	
2310 MHz	FX	N0N	10 W (ERP)	
2357.5 MHz	FX	N0N	10 W (ERP)	
2455 MHz	FX	N0N	10 W (ERP)	
2512 MHz	FX	N0N	10 W (ERP)	
2570 MHz	FX	N0N	10 W (ERP)	
2630 MHz	FX	N0N	10 W (ERP)	
2638-2689 MHz	FX	N0N	10 W (ERP)	

Frequency Information

Seattle (KING), WA - NL 47-31-48; WL 122-18-07

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
3467 MHz	FX	N0N	10 W (ERP)	
3548 MHz	FX	N0N	10 W (ERP)	
3650 MHz	FX	N0N	10 W (ERP)	
3750 MHz	FX	N0N	10 W (ERP)	
5012 MHz	FX	N0N	10 W (ERP)	
5248 MHz	FX	N0N	10 W (ERP)	
5300 MHz	FX	N0N	10 W (ERP)	
5369-5424 MHz	FX	N0N	10 W (ERP)	
5495 MHz	FX	N0N	10 W (ERP)	
5623 MHz	FX	N0N	10 W (ERP)	

Frequency Information

Seattle (KING), WA - NL 47-31-48; WL 122-18-07

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5754 MHz	FX	NON	10 W (ERP)	
5765-5889 MHz	FX	NON	10 W (ERP)	

Special Conditions:

- (1) Any operation in the 1850-1990 and 2130-2200 MHz band must be coordinated with the existing and future users to avoid interference. Emission types may vary under the experiment.
- (2) This frequency assignment in one of the bands 1435-1525, 2310-2320 and 2345-2390 MHz was coordinated prior to its authorization with AFMO CONUS, Ft. Sam Houston, TX, who also coordinated it, as appropriate, with the Aerospace and Flight Test Radio Coordinating Council. Use of this frequency under the authority of this assignment is subject to such further coordination with AFMO CONUS, Ft. Sam Houston, TX, as necessary to ensure compatibility with existing uses.
- (3) 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.
- (4) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (5) Operation in the 824-849 or 869-894 MHz band requires consent of local cellular licensee(s) to avoid interference.
- (6) Licensee must get consent from Advanced Wireless Service licensees prior to operation.
- (7) Licensee must get consent from Education Broadband Services /Broadband Radio Services licensees prior to operation on 2512MHz, 2570MHz and 2630MHz.
- (8) Operation is subject to coordinate with the local Society of Broadband Engineers coordinator prior to operation.
- (9) Operation on this assignment is subject to immediate cessation if it causes harmful interference to Federal Aviation Administration.
- (10) Operation is subject to prior coordination with FAA Northwest Regional Office, 1601 Lind Avenue, S.W Renton, Washington 98055, and phone: 206-227-2464.
- (11) The designated point of contact if having interference occurs is Daniel K Griffith 425-245-2043.
- (12) Operation is NOT PERMITTED using the frequencies 756-768 MHz and 788-798 MHz.
- (13) Maintain separation from the grandfathered earth stations as defined in Part 90, subpart Z, or coordinate an agreement with the grandfathered earth station licensees prior to operation in 3650-3700MHz.

Special Conditions:

- (14) Ensure that the operation will not cause harmful interference to any existing registered stations in the 3650-3700MHz, and notify the registered users in the area.
- (15) Operation is NOT Permitted using the frequency band 1479.3-1489.6 MHz except 1480.3 MHz.
- (16) Operation is NOT permitted using the frequency band 5091-5150 MHz.