

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

EXPERIMENTAL

(Nature of Service)

WF2XUQ

(Call Sign)

XT FX MO

(Class of Station)

0044-EX-ML-2013

(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(i) of the Commission's Rules

Station Locations

- (1) MOBILE: Flight Level up 25,000 feet AGL, Victorville, CA, within 65 km, centered around NL 34-35-16; WL 117-22-31
- (2) San Antonio, TX - NL 29-22-35; WL 98-34-29
- (3) North Charleston, SC - NL 32-52-48; WL 80-02-02
- (4) MOBILE: Rectangular area bounded by 38 00N Lat, 122 00W Long; 38 00N Lat, 128 30W Long; 32 00N Lat, 122 00W Long; 33 00N Lat, 116 30W Long
- (5) MOBILE: Rectangular area bounded by 27 12 56N Lat, 92 48 45W Long; 25 6 41.27N Lat, 93 31 9.44W Long; 25 6 41.27N Lat, 86 27 57.83W Long; 27 12 56N Lat, 86 5 33.11W Long
- (6) MOBILE: Rectangular area bounded by 32 30N Lat, 76W Long; 32 30N Lat, 73W Long; 26 30N Lat, 70W Long; 26 30N Lat, 73W Long
- (7) MOBILE: Everett, WA, within 120 km, centered around NL 47-54-22; WL 122-16-56
- (8) MOBILE: Seattle, WA, within 1 km, centered around NL 47-31-48; WL 122-18-07
- (9) MOBILE: Renton, WA, within 1 km, centered around NL 47-29-35; WL 122-12-56
- (10) MOBILE: Moses Lake, WA, within 120 km, centered around NL 47-12-30; WL 119-19-08
- (11) MOBILE: Klamath Falls, OR, within 40 km, centered around NL 42-09-22; WL 121-43-59
- (12) MOBILE: Rectangular area bounded by 48-00-00N Lat, 123-30-00W Long; 38-00-00N Lat, 123-30-00W Long; 48-00-00N Lat, 128-30-00W Long; 38-00-00N Lat, 128-30-00W Long, West Coastal Water, US

This authorization effective April 24, 2013 and
will expire 3:00 A.M. EST December 01, 2013

**FEDERAL
COMMUNICATIONS
COMMISSION**

Frequency Information

MOBILE: Flight Level up 25,000 feet AGL, Victorville, CA, within 65 km, centered around NL 34-35-16; WL 117-22-31

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
420.00000000-430.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
460.00000000-470.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
488.80000000-496.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
810.00000000-826.00000000 MHz	MO	N0N	4.000000 mW (ERP)	
832.00000000-894.00000000 MHz	FX	N0N	6.180000 mW (ERP)	
915.00000000-960.00000000 MHz	FX	N0N	1.600000 mW (ERP)	
1710.00000000-1785.00000000 MHz	MO	200KG7W	1.000000 W (ERP)	
1805.00000000-1880.00000000 MHz	FX	N0N	12.300000 mW (ERP)	
1930.00000000-1990.00000000 MHz	FX	N0N	12.300000 mW (ERP)	
2110.00000000-2170.00000000 MHz	FX	N0N	9.900000 mW (ERP)	

Frequency Information

MOBILE: Flight Level up 25,000 feet AGL, Victorville, CA, within 65 km, centered around NL 34-35-16; WL 117-22-31

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2620.00000000-2690.00000000 MHz	FX	N0N	9.900000 mW (ERP)	

San Antonio, TX - NL 29-22-35; WL 98-34-29

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
420.00000000-430.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
460.00000000-470.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
488.80000000-496.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
810.00000000-826.00000000 MHz	FX	N0N	4.000000 mW (ERP)	
832.00000000-894.00000000 MHz	FX	N0N	6.180000 mW (ERP)	
915.00000000-960.00000000 MHz	FX	N0N	1.600000 mW (ERP)	
1710.00000000-1785.00000000 MHz	FX	200KG7W	1.000000 W (ERP)	
1805.00000000-1880.00000000 MHz	FX	N0N	12.300000 mW (ERP)	

Frequency Information

San Antonio, TX - NL 29-22-35; WL 98-34-29

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1930.00000000-1990.00000000 MHz	FX	N0N	12.300000 mW (ERP)	
2110.00000000-2170.00000000 MHz	FX	N0N	9.900000 mW (ERP)	
2620.00000000-2690.00000000 MHz	FX	N0N	9.900000 mW (ERP)	

North Charleston, SC - NL 32-52-48; WL 80-02-02

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
420.00000000-430.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
460.00000000-470.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
488.80000000-496.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
810.00000000-826.00000000 MHz	FX	N0N	4.000000 mW (ERP)	
832.00000000-894.00000000 MHz	FX	N0N	6.180000 mW (ERP)	
915.00000000-960.00000000 MHz	FX	N0N	1.600000 mW (ERP)	

Frequency Information

North Charleston, SC - NL 32-52-48; WL 80-02-02

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1710.00000000-1785.00000000 MHz	FX	200KG7W	1.000000 W (ERP)	
1805.00000000-1880.00000000 MHz	FX	N0N	12.300000 mW (ERP)	
1930.00000000-1990.00000000 MHz	FX	N0N	12.300000 mW (ERP)	
2110.00000000-2170.00000000 MHz	FX	N0N	9.900000 mW (ERP)	
2620.00000000-2690.00000000 MHz	FX	N0N	9.900000 mW (ERP)	

MOBILE: Rectangular area bounded by 38 00N Lat, 122 00W Long; 38 00N Lat, 128 30W Long; 32 00N Lat, 122 00W Long; 33 00N Lat, 116 30W Long

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
420.00000000-430.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
460.00000000-470.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
488.80000000-496.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
810.00000000-826.00000000 MHz	MO	N0N	4.000000 mW (ERP)	

Frequency Information

MOBILE: Rectangular area bounded by 38 00N Lat, 122 00W Long; 38 00N Lat, 128 30W Long; 32 00N Lat, 122 00W Long; 33 00N Lat, 116 30W Long

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
832.00000000-894.00000000 MHz	FX	N0N	6.180000 mW (ERP)	
915.00000000-960.00000000 MHz	FX	N0N	1.600000 mW (ERP)	
1710.00000000-1785.00000000 MHz	MO	200KG7W	1.000000 W (ERP)	
1805.00000000-1880.00000000 MHz	FX	N0N	12.300000 mW (ERP)	
1930.00000000-1990.00000000 MHz	FX	N0N	12.300000 mW (ERP)	
2110.00000000-2170.00000000 MHz	FX	N0N	9.900000 mW (ERP)	
2620.00000000-2690.00000000 MHz	MO	N0N	9.900000 mW (ERP)	

MOBILE: Rectangular area bounded by 27 12 56N Lat, 92 48 45W Long; 25 6 41.27N Lat, 93 31 9.44W Long; 25 6 41.27N Lat, 86 27 57.83W Long; 27 12 56N Lat, 86 5 33.11W Long

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
420.00000000-430.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
460.00000000-470.00000000 MHz	FX	N0N	243.200000 uW (ERP)	

Frequency Information

MOBILE: Rectangular area bounded by 27 12 56N Lat, 92 48 45W Long; 25 6 41.27N Lat, 93 31 9.44W Long; 25 6 41.27N Lat, 86 27 57.83W Long; 27 12 56N Lat, 86 5 33.11W Long

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
488.80000000-496.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
810.00000000-826.00000000 MHz	FX	N0N	4.000000 mW (ERP)	
832.00000000-894.00000000 MHz	FX	N0N	6.180000 mW (ERP)	
915.00000000-960.00000000 MHz	FX	N0N	1.600000 mW (ERP)	
1710.00000000-1785.00000000 MHz	MO	200KG7W	1.000000 W (ERP)	
1805.00000000-1880.00000000 MHz	FX	N0N	12.300000 mW (ERP)	
1930.00000000-1990.00000000 MHz	FX	N0N	12.300000 mW (ERP)	
2110.00000000-2170.00000000 MHz	FX	N0N	9.900000 mW (ERP)	
2620.00000000-2690.00000000 MHz	MO	N0N	9.900000 mW (ERP)	

Frequency Information

MOBILE: Rectangular area bounded by 32 30N Lat, 76W Long; 32 30N Lat, 73W Long; 26 30N Lat, 70W Long; 26 30N Lat, 73W Long

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
420.00000000-430.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
460.00000000-470.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
488.80000000-496.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
810.00000000-826.00000000 MHz	FX	N0N	4.000000 mW (ERP)	
832.00000000-894.00000000 MHz	FX	N0N	6.180000 mW (ERP)	
915.00000000-960.00000000 MHz	FX	N0N	1.600000 mW (ERP)	
1710.00000000-1785.00000000 MHz	MO	200KG7W	1.000000 W (ERP)	
1805.00000000-1880.00000000 MHz	FX	N0N	12.300000 mW (ERP)	
1930.00000000-1990.00000000 MHz	FX	N0N	12.300000 mW (ERP)	
2110.00000000-2170.00000000 MHz	FX	N0N	9.900000 mW (ERP)	

Frequency Information

MOBILE: Rectangular area bounded by 32 30N Lat, 76W Long; 32 30N Lat, 73W Long; 26 30N Lat, 70W Long; 26 30N Lat, 73W Long

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2620.00000000-2690.00000000 MHz	MO	N0N	9.900000 mW (ERP)	

MOBILE: Everett, WA, within 120 km, centered around NL 47-54-22; WL 122-16-56

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
420.00000000-430.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
460.00000000-470.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
488.80000000-496.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
810.00000000-826.00000000 MHz	MO	N0N	4.000000 mW (ERP)	
832.00000000-894.00000000 MHz	MO	N0N	6.180000 mW (ERP)	
915.00000000-960.00000000 MHz	MO	N0N	1.600000 mW (ERP)	
1710.00000000-1785.00000000 MHz	MO	200KG7W	1.000000 W (ERP)	
1805.00000000-1880.00000000 MHz	MO	N0N	12.300000 mW (ERP)	

Frequency Information

MOBILE: Everett, WA, within 120 km, centered around NL 47-54-22; WL 122-16-56

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1930.00000000-1990.00000000 MHz	MO	N0N	12.300000 mW (ERP)	
2110.00000000-2170.00000000 MHz	FX	N0N	9.900000 mW (ERP)	
2620.00000000-2690.00000000 MHz	FX	N0N	9.900000 mW (ERP)	

MOBILE: Seattle, WA, within 1 km, centered around NL 47-31-48; WL 122-18-07

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
420.00000000-430.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
460.00000000-470.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
488.80000000-496.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
810.00000000-826.00000000 MHz	MO	N0N	4.000000 mW (ERP)	
832.00000000-894.00000000 MHz	MO	N0N	6.180000 mW (ERP)	
915.00000000-960.00000000 MHz	MO	N0N	1.600000 mW (ERP)	

Frequency Information

MOBILE: Seattle, WA, within 1 km, centered around NL 47-31-48; WL 122-18-07

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1710.00000000-1785.00000000 MHz	MO	200KG7W	1.000000 W (ERP)	
1805.00000000-1880.00000000 MHz	MO	N0N	12.300000 mW (ERP)	
1930.00000000-1990.00000000 MHz	FX	N0N	12.300000 mW (ERP)	
2110.00000000-2170.00000000 MHz	FX	N0N	9.900000 mW (ERP)	
2620.00000000-2690.00000000 MHz	FX	N0N	9.900000 mW (ERP)	

MOBILE: Renton, WA, within 1 km, centered around NL 47-29-35; WL 122-12-56

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
420.00000000-430.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
460.00000000-470.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
488.80000000-496.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
810.00000000-826.00000000 MHz	MO	N0N	4.000000 mW (ERP)	

Frequency Information

MOBILE: Renton, WA, within 1 km, centered around NL 47-29-35; WL 122-12-56

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
832.00000000-894.00000000 MHz	MO	N0N	6.180000 mW (ERP)	
915.00000000-960.00000000 MHz	MO	N0N	1.600000 mW (ERP)	
1710.00000000-1785.00000000 MHz	MO	200KG7W	1.000000 W (ERP)	
1805.00000000-1880.00000000 MHz	MO	N0N	12.300000 mW (ERP)	
1930.00000000-1990.00000000 MHz	FX	N0N	12.300000 mW (ERP)	
2110.00000000-2170.00000000 MHz	MO	N0N	9.900000 mW (ERP)	
2620.00000000-2690.00000000 MHz	FX	N0N	9.900000 mW (ERP)	

MOBILE: Moses Lake, WA, within 120 km, centered around NL 47-12-30; WL 119-19-08

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
420.00000000-430.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
460.00000000-470.00000000 MHz	FX	N0N	243.200000 uW (ERP)	

Frequency Information

MOBILE: Moses Lake, WA, within 120 km, centered around NL 47-12-30; WL 119-19-08

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
488.80000000-496.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
810.00000000-826.00000000 MHz	MO	N0N	4.000000 mW (ERP)	
832.00000000-894.00000000 MHz	MO	N0N	6.180000 mW (ERP)	
915.00000000-960.00000000 MHz	MO	N0N	1.600000 mW (ERP)	
1710.00000000-1785.00000000 MHz	MO	200KG7W	1.000000 W (ERP)	
1805.00000000-1880.00000000 MHz	MO	N0N	12.300000 mW (ERP)	
1930.00000000-1990.00000000 MHz	MO	N0N	12.300000 mW (ERP)	
2110.00000000-2170.00000000 MHz	MO	N0N	9.900000 mW (ERP)	
2620.00000000-2690.00000000 MHz	MO	N0N	9.900000 mW (ERP)	

Frequency Information

MOBILE: Klamath Falls, OR, within 40 km, centered around NL 42-09-22; WL 121-43-59

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
420.00000000-430.00000000 MHz	MO	N0N	243.200000 uW (ERP)	
460.00000000-470.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
488.80000000-496.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
810.00000000-826.00000000 MHz	MO	N0N	4.000000 mW (ERP)	
832.00000000-894.00000000 MHz	MO	N0N	6.180000 mW (ERP)	
915.00000000-960.00000000 MHz	MO	N0N	1.600000 mW (ERP)	
1710.00000000-1785.00000000 MHz	MO	200KG7W	1.000000 W (ERP)	
1805.00000000-1880.00000000 MHz	MO	N0N	12.300000 mW (ERP)	
1930.00000000-1990.00000000 MHz	MO	N0N	12.300000 mW (ERP)	
2110.00000000-2170.00000000 MHz	MO	N0N	9.900000 mW (ERP)	

Frequency Information

MOBILE: Klamath Falls, OR, within 40 km, centered around NL 42-09-22; WL 121-43-59

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2620.00000000-2690.00000000 MHz	MO	N0N	9.900000 mW (ERP)	

MOBILE: Rectangular area bounded by 48-00-00N Lat, 123-30-00W Long; 38-00-00N Lat, 123-30-00W Long; 48-00-00N Lat, 128-30-00W Long; 38-00-00N Lat, 128-30-00W Long, West Coastal Water, US

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
420.00000000-430.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
460.00000000-470.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
488.80000000-496.00000000 MHz	FX	N0N	243.200000 uW (ERP)	
810.00000000-826.00000000 MHz	MO	N0N	4.000000 mW (ERP)	
832.00000000-894.00000000 MHz	MO	N0N	6.180000 mW (ERP)	
915.00000000-960.00000000 MHz	MO	N0N	1.600000 mW (ERP)	
1710.00000000-1785.00000000 MHz	MO	200KG7W	1.000000 W (ERP)	
1805.00000000-1880.00000000 MHz	FX	N0N	12.300000 mW (ERP)	

Frequency Information

MOBILE: Rectangular area bounded by 48-00-00N Lat, 123-30-00W Long; 38-00-00N Lat, 123-30-00W Long; 48-00-00N Lat, 128-30-00W Long; 38-00-00N Lat, 128-30-00W Long, West Coastal Water, US

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1930.00000000-1990.00000000 MHz	FX	NON	12.300000 mW (ERP)	
2110.00000000-2170.00000000 MHz	FX	NON	9.900000 mW (ERP)	
2620.00000000-2690.00000000 MHz	MO	NON	9.900000 mW (ERP)	

Special Conditions:

- (1) Operation in the 1850-1910 or 1930-1990 MHz band requires prior frequency coordination with 2 GHz microwave users and consent of PCS licensees to avoid interference.
- (2) Operation is subject to prior coordination with affected Educational Broadband Service/Broadband Radio Service (EBS/BRS) licensees.
- (3) Operation in the 1710-1755 or 2110-2155 MHz band requires consent of local Advanced Wireless Service (AWS) licensee(s) to avoid interference.
- (4) Operation in the 824-849 or 869-894 MHz band requires consent of local cellular licensee(s) to avoid interference.
- (5) Operation is subject to prior coordination with the Society of Broadcast Engineers, Inc. (SBE); ATTN: Executive Director; 9102 North Meridian Street, Suite 305; Indianapolis, IN 46260; telephone, (866) 632-4222; FAX, (317) 846-9120; e-mail, executivedir @ sbe.org; information, www.sbe.org.
- (6) Licensee must coordinate with Western Area Frequency Coordinator (760) 939-6948 prior to activation.
- (7) The designated point-of-contact to terminate transmission if interference occurs is Kenneth Kirchoff (425) 681-3802 and Harold Deremer (425) 443-4989.
- (8) Operation is subject to prior coordination with the Western Area Frequency Coordinator in the Navy Pacific Missile Test Center, Pt. Mugu, CA, prior to use within a 322 km radius of Pt. Mugu or in California South of Latitude 37 30' North.
- (9) Upon notification from the FCC, operation on this assignment is subject to immediate cessation, if it causes harmful interference to Navy assignments.
- (10) Prior to activation, licensee must coordinate the frequency 470 MHz with Navy, point-of-contact Russ Potter 360-396-7075.