

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

EXPERIMENTAL
(Nature of Service)

WF2XCK
(Call Sign)

XT FX MO
(Class of Station)

0541-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(i) of the Commission's Rules

Station Locations

- (1) Kent, WA - NL 47-25-08; WL 122-15-08; MOBILE: Kent, WA, within 8 km, centered around NL 47-25-08; WL 122-15-08
- (2) Pinnacle Peak, WA - NL 47-10-07; WL 121-58-39; MOBILE: Pinnacle Peak, WA, within 80 km, centered around NL 47-10-07; WL 121-58-39
- (3) Grass Mountain, WA - NL 47-14-52; WL 121-51-17; MOBILE: Grass Mountain, WA, within 80 km, centered around NL 47-14-52; WL 121-51-17
- (4) ST Louis, MO - NL 38-45-44; WL 90-22-00; MOBILE: St Louis, MO, within 8 km, centered around NL 38-45-44; WL 90-22-00
- (5) White Sands, NM - NL 32-56-39; WL 106-25-11; MOBILE: White Sands, NM, within 80 km, centered around NL 32-56-39; WL 106-25-11
- (6) Edwards AFB, CA - NL 34-57-03; WL 117-53-12; MOBILE: Edwards AFB, CA, within 280 km, centered around NL 34-57-03; WL 117-53-12

Frequency Information

Kent, WA - NL 47-25-08; WL 122-15-08; MOBILE: Kent, WA, within 8 km, centered around NL 47-25-08; WL 122-15-08

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14400-14930 MHz	MO		8.2 W (ERP)	
		800KG1D		
		8M00G1D		
		21M4G1D		
		42M8G1D		
		64M0G1D		

This authorization effective January 22, 2020 and
will expire 3:00 A.M. EST February 01, 2022

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

Kent, WA - NL 47-25-08; WL 122-15-08; MOBILE: Kent, WA, within 8 km, centered around NL 47-25-08; WL 122-15-08

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14400-14930 MHz	MO	89M5G1D	8.2 W (ERP)	
15150-15350 MHz	FX	800KG1D 8M00G1D 21M4G1D 42M8G1D 64M0G1D 89M5G1D	54345 W (ERP)	

Pinnacle Peak, WA - NL 47-10-07; WL 121-58-39; MOBILE: Pinnacle Peak, WA, within 80 km, centered around NL 47-10-07;

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14400-14930 MHz	MO	800KG1D 8M00G1D 21M4G1D 42M8G1D 64M0G1D 89M5G1D	8.2 W (ERP)	
15150-15350 MHz	FX	800KG1D 8M00G1D 21M4G1D 42M8G1D 64M0G1D 89M5G1D	54345 W (ERP)	

Frequency Information

Grass Mountain, WA - NL 47-14-52; WL 121-51-17; MOBILE: Grass Mountain, WA, within 80 km, centered around NL 47-14-!

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14400-14930 MHz	MO	800KG1D 8M00G1D 21M4G1D 42M8G1D 64M0G1D 89M5G1D	8.2 W (ERP)	
15150-15350 MHz	FX	800KG1D 8M00G1D 21M4G1D 42M8G1D 64M0G1D 89M5G1D	54345 W (ERP)	

ST Louis, MO - NL 38-45-44; WL 90-22-00; MOBILE: St Louis, MO, within 8 km, centered around NL 38-45-44; WL 90-22-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14400-14930 MHz	MO	800KG1D 8M00G1D 21M4G1D 42M8G1D 64M0G1D 89M5G1D	8.2 W (ERP)	
15150-15350 MHz	FX	800KG1D 8M00G1D 21M4G1D 42M8G1D 64M0G1D	54345 W (ERP)	

Frequency Information

ST Louis, MO - NL 38-45-44; WL 90-22-00; MOBILE: St Louis, MO, within 8 km, centered around NL 38-45-44; WL 90-22-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
15150-15350 MHz	FX	89M5G1D	54345 W (ERP)	

White Sands, NM - NL 32-56-39; WL 106-25-11; MOBILE: White Sands, NM, within 80 km, centered around NL 32-56-39; WL

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14400-14930 MHz	MO	800KG1D 8M00G1D 21M4G1D 42M8G1D 64M0G1D 89M5G1D	8.2 W (ERP)	
15150-15350 MHz	FX	800KG1D 8M00G1D 21M4G1D 42M8G1D 64M0G1D 89M5G1D	54345 W (ERP)	

Edwards AFB, CA - NL 34-57-03; WL 117-53-12; MOBILE: Edwards AFB, CA, within 280 km, centered around NL 34-57-03; V

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14400-14930 MHz	MO	800KG1D 8M00G1D 21M4G1D 42M8G1D 64M0G1D	8.2 W (ERP)	

Frequency Information

Edwards AFB, CA - NL 34-57-03; WL 117-53-12; MOBILE: Edwards AFB, CA, within 280 km, centered around NL 34-57-03; V

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14400-14930 MHz	MO	89M5G1D	8.2 W (ERP)	
15150-15350 MHz	FX	800KG1D	54345 W (ERP)	
		8M00G1D		
		21M4G1D		
		42M8G1D		
		64M0G1D		
		89M5G1D		

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) Prior to operating in the 14.47-14.5 GHz frequency band within 160 km of the radio observatories listed in US 203, licensee shall coordinate with the National Science Foundation (NSF) and notify the Commission of the results of that coordination.
- (4) Operation is NOT PERMITTED using the frequency 14518-14548 MHz in Edwards AFB, CA.
- (5) The designated point-of-contact to terminate the system if interference occurs is Joe Thorsheim at 206-544-6066.
- (6) All testing at the Department of Defense facilities will be pre-coordinated with the range frequency manager, and operations will be restricted to specific frequency channels authorized by the facility.
- (7) Boeing will be coordinated with FAA office to complete certificate of authority as required by FAA regulation.
- (8) Operation must be scheduled as a WSMR range mission through the program's range sponsor. Final authority to radiate is contingent upon successful scheduling and de-confliction of both spectrum and airspace with other area operations.
- (9) Operation is subject to coordination with the area frequency coordinator located at White Sands Missile Range (WSMR), New Mexico, prior to use in the state of New Mexico or other US territory within a 240 km radius of WSMR plus the area of Utah and Colorado that lies South of 41 North and between 108 and 111 West.
- (10) Prior to activation, the applicant must coordinate with Edwards AFB, 661-277-4763.