

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

EXPERIMENTAL

(Nature of Service)

XT MO

(Class of Station)

WL2XAJ

(Call Sign)

0178-EX-CM-2020

(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: 42,000 Feet AGL Flight Level, San Antonio, TX, within 100 km, centered around NL 29-22-20; WL 98-34-52

Frequency Information

MOBILE: 42,000 Feet AGL Flight Level, San Antonio, TX, within 100 km, centered around NL 29-22-20; WL 98-34-52

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2-2.494 MHz	MO	100HA1A 2K70J3E 3K00Q3E 6K00B8E 6K72F1D	400 W (ERP)	
2.506-4.994 MHz	MO	100HA1A 2K70J3E 3K00Q3E 6K00B8E 6K72F1D	400 W (ERP)	

This authorization effective September 21, 2020 and
will expire 3:00 A.M. EST June 01, 2022

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

MOBILE: 42,000 Feet AGL Flight Level, San Antonio, TX, within 100 km, centered around NL 29-22-20; WL 98-34-52

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5.006-9.994 MHz	MO	100HA1A 2K70J3E 3K00Q3E 6K00B8E 6K72F1D	400 W (ERP)	
10.006-14.989 MHz	MO	100HA1A 2K70J3E 3K00Q3E 6K00B8E 6K72F1D	400 W (ERP)	
15.011-19.989 MHz	MO	100HA1A 2K70J3E 3K00Q3E 6K00B8E 6K72F1D	400 W (ERP)	
20.011-24.989 MHz	MO	100HA1A 2K70J3E 3K00Q3E 6K00B8E 6K72F1D	400 W (ERP)	
25.011-29.9999 MHz	MO	100HA1A 2K70J3E 3K00Q3E 6K00B8E 6K72F1D	400 W (ERP)	

Special Conditions:

- (1) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (2) 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.
- (3) The Boeing Company must notch out the following bands:

2495 - 2505 kHz
2850 - 3025 kHz
3400 - 3500 kHz
4650 - 4700 kHz
4995 - 5005 kHz
5450 - 5680 kHz
6525 - 6685 kHz
8815 - 8965 kHz
9995 - 10005 kHz
10005 - 10100 kHz
11275 - 11400 kHz
13260 - 13360 kHz
14990 - 15010 kHz
17900 - 17970 kHz
19990 - 20010 kHz
21924 - 22000 kHz
24990 - 25010 kHz

Special Conditions:

- (4) The Boeing Company must notch out the following frequencies:
- a. (+/- 1.4 kHz) 2660.4 kHz, 2679.4 kHz, 2749.4 kHz, 3054.4 kHz, 3057.4 kHz, 3120.4 kHz, 3123.4 kHz, 4126.4 kHz, 4177.5 kHz, 4207.5 kHz, 4572.5 kHz, 4576.4 kHz, 4731.4 kHz, 4734.4 kHz, 4821 kHz, 4902 kHz, 4965 kHz, 5108 kHz, 5681.4 kHz, 5694.4 kHz, 5697.4 kHz, 5700.4 kHz, 5885 kHz, 5943.5 kHz, 6216.4 kHz, 6268 kHz, 6312 kHz, 6502.4 kHz, 6517.4 kHz, 6710.4 kHz, 6743.4 kHz, 7419.5 kHz, 7630.5 kHz, 7669.5 kHz, 7736 kHz, 7743 kHz, 7747 kHz, 7775 kHz, 7793 kHz, 7821 kHz, 8292.4 kHz, 8414.5 kHz, 8765.4 kHz, 8981.4 kHz, 8984.4 kHz, 9035.4 kHz, 9038.4 kHz, 10540 kHz, 10774 kHz, 10810 kHz, 10891 kHz, 10918 kHz, 11197.4 kHz, 11200.4 kHz, 11203.4 kHz, 12081.5 kHz, 12291.4 kHz, 12520 kHz, 12577 kHz, 13219.4 kHz, 13222.4 kHz, 13434 kHz, 13493 kHz, 13496 kHz, 14428.5 kHz, 14461 kHz, 15083.4 kHz, 15086.4 kHz, 15089.4 kHz, 15640.5 kHz, 16027.5 kHz, 16421.4 kHz, 16695 kHz, 16804.5 kHz, 17989.4 kHz, 17922.4 kHz, 18186.5 kHz, 20137 kHz, 20247.5 kHz, 20330 kHz, 20843 kHz, 20882.5 kHz, 20985 kHz, 23074 kHz, 23077 kHz, 23091 kHz, 23094 kHz, 23840.5 kHz, 24228.5 kHz, 24793.5 kHz, 26582.5 kHz, 26640.5 kHz, 27590.5 kHz
- b. (+/- 1.5 kHz) 5107 kHz, 5108.5 kHz, 5110 kHz, 5215.5 kHz, 5217 kHz, 5221.5 kHz, 5223 kHz, 5224.5 kHz, 5264.5 kHz, 5266 kHz, 5267.5 kHz, 5270.5 kHz, 5272 kHz, 5418 kHz, 5419.5 kHz, 5421 kHz, 5931 kHz, 5934 kHz, 5941 kHz, 5942.5 kHz, 5944 kHz, 6961 kHz, 7439 kHz, 7577 kHz, 7617 kHz, 7626 kHz, 7754.5 kHz, 7845 kHz, 7884 kHz, 7909 kHz, 8459 kHz, 8503.9 kHz, 8682 kHz, 9110 kHz, 9169 kHz, 9291 kHz, 9332 kHz, 10297.5 kHz, 10338.5 kHz, 10354.5 kHz, 10378 kHz, 10675 kHz, 10759 kHz, 10788 kHz, 10929.5 kHz, 10935.5 kHz, 11024 kHz, 11045 kHz, 11157.5 kHz
- (5) The applicant is not permitted to operate in the following HF Broadcasting bands:
5900-6200 kHz
7300-7400 kHz
9400-9900 kHz
11600-12100 kHz
13570-13870 kHz
15100-15800 kHz
17480-17900 kHz
18900-19020 kHz
21450-21850 kHz
25670-26100 kHz
- (6) Experimental station shall use the minimum power level necessary to establish communications links to minimize potential interference to licensed users.
- (7) The designated point of contact to terminate the system if interference occurs is Gregg Allred at 425-234-6241.
- (8) The applicant must coordinate with the local Society of Broadcast Engineers frequency coordinator prior to operation in 25.011-29.999 MHz band to protect the Broadcast Auxiliary Services operations.

Special Conditions:

- (9) During transmission, aircraft shall not exceed the altitude 42,000 ft AGL