

**United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
SPECIAL TEMPORARY AUTHORIZATION**

EXPERIMENTAL

(Nature of Service)

WP9XTH

(Call Sign)

XT MO

(Class of Station)

2292-EX-ST-2019

(File Number)

NAME The Boeing Company

This Special Temporary Authorization is granted upon the express condition that it may be terminated by the Commission at any time without advance notice or hearing if in its discretion the need for such action arises. Nothing contained herein shall be construed as a finding by the Commission that the authority herein granted is or will be in the public interest beyond the express terms hereof.

This Special Temporary Authorization shall not vest in the grantee any right to operate the station nor any right in the use of the frequencies designated in the authorization beyond the term hereof, nor in any other manner than authorized herein. Neither the authorization nor the right granted hereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934. This authorization is subject to the right of use of control the Government of the United States conferred by Section 706 of the Communications Act of 1934.

Special Temporary Authority is hereby granted to operate the apparatus described below:

Purpose Of Operation:

The objective of this requirement is to develop and test the HF-121C system on Boeing aircraft.

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	400 W (ERP)	

This authorization effective January 10, 2020 and
will expire 3:00 A.M. EST July 11, 2020

**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 (+/-)
2.506-4.994 MHz	MO	3K00Q3E 6K00B8E 6K72F1D	400 W (ERP)	
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	400 W (ERP)	

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 (+/-)
25.011-29.9999 MHz	MO		400 W (ERP)	
		2K70J3E		
		3K00Q3E		
		6K00B8E		
		6K72F1D		

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 designated point-of-contact to terminate transmissions if interference occurs is Will Wicks at 253-657-9464.
- (4) Operation is subject to follow the restrictions in 47 CFR US340.
- (5) The applicant must coordinate with the local Society of Broadcast Engineers frequency coordinator prior to performing the ground and flight test operations.

- (6) 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:

(7) 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

(8) 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

(9) Experimental station shall use the minimum power level necessary to establish communications links to minimize potential interference to licensed users.

(10) The designated point of contact to terminate the system if interference occurs is Blair Peterson at (206) 852-6271.