

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

EXPERIMENTAL
(Nature of Service)

WG2XFU
(Call Sign)

XT MO
(Class of Station)

0187-EX-RR-2016
(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: Mobile Air and Mobile Ground, Lakehurst, NJ, within 300 km, centered around NL 40-01-23; WL 74-23-57
- (2) MOBILE: Mobile Air and Mobile Ground, Aberdeen, MD, within 300 km, centered around NL 39-27-57; WL 76-10-10
- (3) MOBILE: Mobile Air and Mobile Ground, Ft Huachuca, AZ, within 300 km, centered around NL 31-35-18; WL 110-20-39
- (4) MOBILE: Mobile Air and Mobile Ground, Wichita, KS, within 300 km, centered around NL 37-38-59; WL 97-25-59
- (5) MOBILE: Mobile Air and Mobile Ground, Middletown, DE, within 300 km, centered around NL 39-31-15; WL 75-43-57
- (6) MOBILE: Mobile Air and Mobile Ground, Eglin AFB, FL, within 300 km, centered around NL 30-25-38; WL 86-32-00

Frequency Information

MOBILE: Mobile Air and Mobile Ground, Lakehurst, NJ, within 300 km, centered around NL 40-01-23; WL 74-23-57

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
13.75-14.5 GHz	MO		95727.375 W (ERP)	
		22M1G1D		
		26M1G1D		
		33M9G1D		
		36M0G1D		

This authorization effective July 01, 2016 and
will expire 3:00 A.M. EST July 01, 2018

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

MOBILE: Mobile Air and Mobile Ground, Lakehurst, NJ, within 300 km, centered around NL 40-01-23; WL 74-23-57

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
13.77177-13.79226 GHz	MO	18M4G1D	95727.375 W (ERP)	
13.93894-13.95738 GHz	MO	18M4G1D	95727.375 W (ERP)	
14.00246-14.404 GHz	MO	18M4G1D	95727.375 W (ERP)	
14.426-14.5 GHz	MO	18M4G1D	95727.375 W (ERP)	

MOBILE: Mobile Air and Mobile Ground, Aberdeen, MD, within 300 km, centered around NL 39-27-57; WL 76-10-10

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
13.75-14.5 GHz	MO	22M1G1D 26M1G1D 33M9G1D 36M0G1D	95727.375 W (ERP)	

MOBILE: Mobile Air and Mobile Ground, Ft Huachuca, AZ, within 300 km, centered around NL 31-35-18; WL 110-20-39

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
13.75-14.5 GHz	MO	22M1G1D 26M1G1D 33M9G1D 36M0G1D	95727.375 W (ERP)	

Frequency Information

MOBILE: Mobile Air and Mobile Ground, Ft Huachuca, AZ, within 300 km, centered around NL 31-35-18; WL 110-20-39

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
13.75-14.389 GHz	MO	36M0G1D 33M9G1D 26M1G1D 22M1G1D	95727.375 W (ERP)	
14.411-14.5 GHz	MO	36M0G1D 33M9G1D 26M1G1D 22M1G1D	95727.375 W (ERP)	

MOBILE: Mobile Air and Mobile Ground, Wichita, KS, within 300 km, centered around NL 37-38-59; WL 97-25-59

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
13.75-14.5 GHz	MO	22M1G1D 26M1G1D 33M9G1D 36M0G1D	95727.375 W (ERP)	
13.77177-13.79226 GHz	MO	18M4G1D	95727.375 W (ERP)	
13.93894-13.95738 GHz	MO	18M4G1D	95727.375 W (ERP)	
14.00246-14.404 GHz	MO	18M4G1D	95727.375 W (ERP)	

Frequency Information

MOBILE: Mobile Air and Mobile Ground, Wichita, KS, within 300 km, centered around NL 37-38-59; WL 97-25-59

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14.426-14.5 GHz	MO	18M4G1D	95727.375 W (ERP)	

MOBILE: Mobile Air and Mobile Ground, Middletown, DE, within 300 km, centered around NL 39-31-15; WL 75-43-57

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
13.75-14.5 GHz	MO	22M1G1D 26M1G1D 33M9G1D 36M0G1D	95727.375 W (ERP)	
13.77177-13.79226 GHz	MO	18M4G1D	95727.375 W (ERP)	
13.93894-13.95738 GHz	MO	18M4G1D	95727.375 W (ERP)	
14.00246-14.404 GHz	MO	18M4G1D	95727.375 W (ERP)	
14.426-14.5 GHz	MO	18M4G1D	95727.375 W (ERP)	

MOBILE: Mobile Air and Mobile Ground, Eglin AFB, FL, within 300 km, centered around NL 30-25-38; WL 86-32-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
13.99398-14.5 GHz	MO	22M1G1D 26M1G1D	95727.375 W (ERP)	

Frequency Information

MOBILE: Mobile Air and Mobile Ground, Eglin AFB, FL, within 300 km, centered around NL 30-25-38; WL 86-32-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
13.99398-14.5 GHz	MO	33M9G1D 36M0G1D	95727.375 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) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (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) The designated point-of-contact to terminate transmissions if the interference occurs is Eric Singer, 757-771-7259.
- (5) Operation is NOT PERMITTED using bandwidth exceed 18.4 MHz at three locations DE, NJ and KS.
- (6) Operation is NOT PERMITTED using the following frequency bands:
14389.00-14411.00 MHz for AZ.
- (7) Operation is NOT PERMITTED using the following frequency bands:
13750.00-13993.98 MHz for FL.
- (8) Prior to operating in the 14.0-14.2 GHz frequency band, in the listed locations, Boeing will coordinate with National Aeronautics and Space Administration (NASA) and notify the Commission of the results of that coordination:
Within 125 km of the NASA TDRSS facilities in Blossom Point, Maryland (latitude 38° 25' 44" N, longitude 77°05' 20" W).
- (9) This authorization is issued for the express purpose of conducting experimental operations described in the related application and required by U.S. Department of Defense. The use of this radio station in any other manner or for any other purpose will constitute a violation of the privileges herein authorized. Except as subsequently authorized by the Commission, this radio station shall not be operated after the expiration date of the contract designated in the related application and enumerated above.
- (10) POINTS OF COMMUNICATION: ALSAT.
- (11) In accordance with Article 4.4 of the ITU Radio Regulations, the operations authorized herein shall not cause harmful interference to, and shall not claim protection from harmful interference caused by, a station operating in accordance with the provisions of the ITU Constitution, the ITU Convention, and the ITU Radio Regulations.
- (12) Operation is subject to coordinate with National Science Foundation (NSF) at esm@nsf.gov prior using the band segment 14.47-14.5 GHz.

Special Conditions:

- (13) Operation is NOT PERMITTED using the following frequency bands:
13750-13771.77 MHz, 13792.26-13938.94 MHz, 13957.38-14002.46 MHz and
14404.00-14426.00 MHz for NJ, KS, DE due to potential harmful interference US
Navy operations.