

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

EXPERIMENTAL
(Nature of Service)

XT MO
(Class of Station)

WF2XTG
(Call Sign)

0333-EX-CR-2017
(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: CONUS, Alaska, Hawaii, U.S Territories

Frequency Information

MOBILE: MOBILE: CONUS, Alaska, Hawaii, U.S Territories

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14000-14500 MHz	MO	6M75G7D 11M9G7D 20M0G7D 24M3G7D 29M5G7D 29M5G7D 32M4G7D 3M40G7D	24 kW (ERP)	
14000-14500 MHz	MO	6M75G7D 11M9G7D 20M0G7D 24M3G7D	26 kW (ERP)	

This authorization effective October 01, 2017 and
will expire 3:00 A.M. EST October 01, 2019

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Frequency Information

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14000-14500 MHz	MO	29M5G7D 29M5G7D 32M4G7D 3M40G7D	26 kW (ERP)	
14000-14500 MHz	MO	6M75G7D 11M9G7D 20M0G7D 24M3G7D 29M5G7D 29M5G7D 32M4G7D 3M40G7D	7.2 kW (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 station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (4) The designated point-of-contact to terminate the systems if having interference occurs is Gary Lantz, 443-273-5871.
- (5) Licensee shall comply with the EIRP density criteria set forth in Part 25.222(a)(1) through (a)(4) of the FCC's rules.
- (6) No transmissions are permitted between 14.47 GHz - 14.5 GHz within 125 km of Mauna Kea, HI (at latitude 19° 48' N, longitude 155° 28' W).
- (7) 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.

Special Conditions:

- (8) National Science Foundation (NSF) requests that licensee:
- 1) Coordinate operation at the Taunton, MA site with the National Radio Astronomy Observatory's VLBA site at Hancock, NH. (POC Mr. Dan Mertely at Socorro, NM, Phone: 505- 835-7027 and e-mail: dmertely@nrao.edu).
 - 2) Coordinate operation at the Fredericksburg, VA site with Wes Sizemore at Green Bank. (Phone: 304-456-2107, e-mail:wsizemor@nrao.edu).
- (9) Note that if, during the term of this authorization, NASA seeks to provide protection to a future TDRSS site that has been coordinated through the National Telecommunications and Information Administration (NTIA) Interdepartment Radio Advisory Committee (IRAC) Frequency Assignment Subcommittee process, NTIA will notify the Commission that the site is nearing operational status. Upon notice from the Commission, licensee must cease operations in the 14.0-14.2 GHz band within 125 km of the new TDRSS site until The Boeing Company has coordinated with the new site. After coordination, operations will then again be permitted in the 14.0-14.2 GHz band within 125 km of the new TDRSS site, subject to any operational constraints developed in the coordination process.
- (10) Subject to coordination with the Western Area Frequency Coordinator located at the Navy Pacific Missile Test Center, Pt. Mugu, Cal., prior to use within a 322 kilometer radius of Pt. Mugu or in California south of Latitude 37° 30' North.
- (11) No transmissions are permitted between 14.0 GHz and 14.2 GHz within 125 km of White Sands, NM (latitude: 32° 20' 59" N, longitude 106° 36' 31" W and latitude: 32° 32' 40" N, longitude 106° 36' 48" W) and of NASA TDRSS facilities on Guam (latitude: 13° 36' 55" N, longitude 144° 51' 22" W).
- (12) POINTS OF COMMUNICATION: ALSAT satellites
- (13) Prior to operating in the 14.47-14.5 GHz frequency band, in the listed locations, The Boeing Company will coordinate with the National Academy of Sciences (NSF) and notify the Commission of the results of that coordination:
Within 45 km of the radio observatory on St. Croix, Virgin Islands (latitude 17° 46' N, longitude 64° 35' W);
Within 90 km of the Arecibo Observatory on Puerto Rico (latitude 18° 20' 46" N, longitude 66° 45' 11" W); and
Within 160 km of the radio observatories listed in US203 as observing in the 14.47-14.5 GHz band.
- (14) No transmissions are permitted in the 14.00 - 14.2 GHz band within 125 km of Blossom Point, MD (latitude: 38° 25' 44" N, longitude 77° 05' 20" W).
- (15) Operation is subject to prior coordinate with White Sands Missile Range (WSMR) and Reston Arsenal.
- (16) Operation is subject to immediate cessation, if it causes harmful interference to Health and Human Service (HHS) Medical operations.
- (17) Licensee shall maintain location information according to Section 25.222(c)(1) of the Commission rules.
- (18) Licensee must notify adjacent satellite operators within six degrees prior to operation.
- (19) Earth station operations are limited to U.S.-registered vessels only.
- (20) Operation within 100 miles of NASA Dryden Flight Research Center (355630N 1175312W) is subject to prior coordination with NASA: Rich Rood at 661-276-2138.

Special Conditions:

- (21) NASA requires notification and coordination with GSFC Spectrum Office prior to any operation within 125 km of any NASA Center or earth stations (e.g., White Sands, NM, Guam, and Blossom Point, MD). POC is NASA/GSFC SPECTRUM MANAGER, SCOTT GALBRAITH AT 301.286.5089, VINCENT.S.GALBRAITH@NASA.GOV."