

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

EXPERIMENTAL

(Nature of Service)

WH2XZS

(Call Sign)

XC FX MO

(Class of Station)

0398-EX-TC-2019

(File Number)

NAME Raytheon 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(c) of the Commission's Rules

Station Locations

- (1) Gila Bend Mountains (MARICOPA), AZ - NL 33-03-04; WL 113-08-18
- (2) MOBILE: , within 100 km, centered around NL 33-03-04; WL 113-08-18
- (3) Waddell (MARICOPA), AZ - NL 33-34-32; WL 112-34-41
- (4) MOBILE: , within 100 km, centered around NL 33-34-32; WL 112-34-41
- (5) Sacaton (PINAL), AZ - NL 33-00-08; WL 111-40-26
- (6) MOBILE: , within 100 km, centered around NL 33-00-08; WL 111-40-26
- (7) Kitt Peak (PIMA), AZ - NL 31-57-39; WL 111-35-59
- (8) MOBILE: , within 100 km, centered around NL 31-57-39; WL 111-35-59
- (9) Quijotoa (PIMA), AZ - NL 32-07-59; WL 112-09-31
- (10) MOBILE: , within 100 km, centered around NL 32-07-59; WL 112-09-31
- (11) Nogales (SANTA CRUZ), AZ - NL 31-25-15; WL 111-08-49
- (12) MOBILE: , within 100 km, centered around NL 31-25-15; WL 111-08-49
- (13) Hereford (COCHISE), AZ - NL 31-28-53; WL 109-57-33
- (14) MOBILE: , within 100 km, centered around NL 31-28-53; WL 109-57-33
- (15) Pima (GRAHAM), AZ - NL 31-52-38; WL 111-12-55
- (16) MOBILE: , within 100 km, centered around NL 31-52-38; WL 111-12-55
- (17) Phoenix (MARICOPA), AZ - NL 33-20-04; WL 112-03-35
- (18) MOBILE: , within 100 km, centered around NL 33-20-04; WL 112-03-35
- (19) Ajo (PIMA), AZ - NL 32-26-44; WL 112-57-14
- (20) MOBILE: , within 100 km, centered around NL 32-26-44; WL 112-57-14
- (21) Gila Bend (MARICOPA), AZ - NL 32-50-37; WL 112-18-22
- (22) MOBILE: , within 100 km, centered around NL 32-50-37; WL 112-18-22

This authorization effective January 23, 2020 and
will expire 3:00 A.M. EST October 01, 2021

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

Gila Bend Mountains (MARICOPA), AZ - NL 33-03-04; WL 113-08-18

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
470-608 MHz	FX	1M20G2D	32 W (ERP)	
614-698 MHz	FX	1M20G2D	32 W (ERP)	

MOBILE: , within 100 km, centered around NL 33-03-04; WL 113-08-18

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
470-608 MHz	MO	1M20G2D	32 W (ERP)	
614-698 MHz	MO	1M20G2D	32 W (ERP)	

Waddell (MARICOPA), AZ - NL 33-34-32; WL 112-34-41

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
470-608 MHz	FX	1M20G2D	32 W (ERP)	
614-698 MHz	FX	1M20G2D	32 W (ERP)	

Frequency Information

MOBILE: , within 100 km, centered around NL 33-34-32; WL 112-34-41

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
470-608 MHz	MO	1M20G2D	32 W (ERP)	
614-698 MHz	MO	1M20G2D	32 W (ERP)	

Sacaton (PINAL), AZ - NL 33-00-08; WL 111-40-26

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
470-608 MHz	FX	1M20G2D	32 W (ERP)	
614-698 MHz	FX	1M20G2D	32 W (ERP)	

MOBILE: , within 100 km, centered around NL 33-00-08; WL 111-40-26

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
470-608 MHz	MO	1M20G2D	32 W (ERP)	
614-698 MHz	MO	1M20G2D	32 W (ERP)	

Frequency Information

Kitt Peak (PIMA), AZ - NL 31-57-39; WL 111-35-59

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
470-608 MHz	FX	1M20G2D	32 W (ERP)	
614-698 MHz	FX	1M20G2D	32 W (ERP)	

MOBILE: , within 100 km, centered around NL 31-57-39; WL 111-35-59

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
470-608 MHz	MO	1M20G2D	32 W (ERP)	
614-698 MHz	MO	1M20G2D	32 W (ERP)	

Quijotoa (PIMA), AZ - NL 32-07-59; WL 112-09-31

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
470-608 MHz	FX	1M20G2D	32 W (ERP)	
614-698 MHz	FX	1M20G2D	32 W (ERP)	

Frequency Information

MOBILE: , within 100 km, centered around NL 32-07-59; WL 112-09-31

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
470-608 MHz	MO	1M20G2D	32 W (ERP)	
614-698 MHz	MO	1M20G2D	32 W (ERP)	

Nogales (SANTA CRUZ), AZ - NL 31-25-15; WL 111-08-49

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
470-608 MHz	FX	1M20G2D	32 W (ERP)	
614-698 MHz	FX	1M20G2D	32 W (ERP)	

MOBILE: , within 100 km, centered around NL 31-25-15; WL 111-08-49

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
470-608 MHz	MO	1M20G2D	32 W (ERP)	
614-698 MHz	MO	1M20G2D	32 W (ERP)	

Frequency Information

Hereford (COCHISE), AZ - NL 31-28-53; WL 109-57-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
470-608 MHz	FX	1M20G2D	32 W (ERP)	
614-698 MHz	FX	1M20G2D	32 W (ERP)	

MOBILE: , within 100 km, centered around NL 31-28-53; WL 109-57-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
470-608 MHz	MO	1M20G2D	32 W (ERP)	
614-698 MHz	MO	1M20G2D	32 W (ERP)	

Pima (GRAHAM), AZ - NL 31-52-38; WL 111-12-55

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
470-608 MHz	FX	1M20G2D	32 W (ERP)	
614-698 MHz	MO	1M20G2D	32 W (ERP)	

Frequency Information

MOBILE: , within 100 km, centered around NL 31-52-38; WL 111-12-55

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
470-608 MHz	MO	1M20G2D	32 W (ERP)	
614-698 MHz	MO	1M20G2D	32 W (ERP)	

Phoenix (MARICOPA), AZ - NL 33-20-04; WL 112-03-35

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
470-608 MHz	FX	1M20G2D	32 W (ERP)	
614-698 MHz	FX	1M20G2D	32 W (ERP)	

MOBILE: , within 100 km, centered around NL 33-20-04; WL 112-03-35

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
470-608 MHz	MO	1M20G2D	32 W (ERP)	
614-698 MHz	MO	1M20G2D	32 W (ERP)	

Frequency Information

Ajo (PIMA), AZ - NL 32-26-44; WL 112-57-14

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
470-608 MHz	FX	1M20G2D	32 W (ERP)	
614-698 MHz	FX	1M20G2D	32 W (ERP)	

MOBILE: , within 100 km, centered around NL 32-26-44; WL 112-57-14

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
470-608 MHz	MO	1M20G2D	32 W (ERP)	
614-698 MHz	MO	1M20G2D	32 W (ERP)	

Gila Bend (MARICOPA), AZ - NL 32-50-37; WL 112-18-22

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
470-608 MHz	FX	1M20G2D	32 W (ERP)	
614-698 MHz	FX	1M20G2D	32 W (ERP)	

Frequency Information

MOBILE: , within 100 km, centered around NL 32-50-37; WL 112-18-22

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
470-608 MHz	MO	1M20G2D	32 W (ERP)	
614-698 MHz	MO	1M20G2D	32 W (ERP)	

Special Conditions:

- (1) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (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) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (4) This authorization is issued for the express purpose of conducting experimental operations described in the related application and required by the U.S. Government; contract number W911NF-15-C-0016. 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.
- (5) Operation must be prior coordinated with the local Society of Broadcast Engineers, Inc. (SBE) frequency coordinator for each requested location. Consult the list at http://freq.sbe.org/pdf_files/coordinators.pdf to find the appropriate coordinator.