

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

EXPERIMENTAL

(Nature of Service)

XC FX

(Class of Station)

WK2XYQ

(Call Sign)

0107-EX-CN-2020

(File Number)

NAME Raytheon Missile Systems

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) Tucson (PIMA), AZ - NL 32-06-10; WL 110-56-58

Frequency Information

Tucson (PIMA), AZ - NL 32-06-10; WL 110-56-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2-2.69 GHz	FX	2M00P0N	300 mW (ERP)	
2.7-3 GHz	FX	2M00P0N	300 mW (ERP)	
3-4 GHz	FX	2M00P0N	400 mW (ERP)	
4-4.2 GHz	FX	2M00P0N	600 mW (ERP)	

This authorization effective June 05, 2020 and
will expire 3:00 A.M. EST March 31, 2022

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

Tucson (PIMA), AZ - NL 32-06-10; WL 110-56-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
4.4-5 GHz	FX	2M00P0N	600 mW (ERP)	
5-6 GHz	FX	2M00P0N	800 mW (ERP)	
6-8 GHz	FX	2M00P0N	1 W (ERP)	
8-10 GHz	FX	2M00P0N	1.4 W (ERP)	
10.5-10.68 GHz	FX	N0N	1.9 W (ERP)	
10.7-12 GHz	FX	2M00P0N	1.9 W (ERP)	
12-14 GHz	FX	2M00P0N	2.6 W (ERP)	
14-15.35 GHz	FX	2M00P0N	3.5 W (ERP)	
15.4-16 GHz	FX	2M00P0N	3.5 W (ERP)	
16.2-17 GHz	FX	2M00P0N	4.7 W (ERP)	

Frequency Information

Tucson (PIMA), AZ - NL 32-06-10; WL 110-56-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
17-18 GHz	FX	2M00P0N	6.3 W (ERP)	

Special Conditions:

- (1) Operation requires consent of affected Educational Broadband Service/Broadband Radio Service (EBS/BRS) licensees.
- (2) This frequency assignment in one of the bands 1435-1525, 2310-2320 and 2345-2390 MHz was coordinated prior to authorization with the Area Frequency Coordinator, Ft. Huachuca, AZ, who also coordinated it, as appropriate, with the Aerospace and Flight Test Radio Coordinating Council. Use of this frequency under the authority of this assignment is subject to such further coordination with the AFC, Ft. Huachuca, as necessary to ensure compatibility with existing uses.
- (3) Operation in the 1695-1780 MHz, 1915-1920 MHz, 1995-2020 MHz or 2110-2200 MHz band requires consent of local Advanced Wireless Service (AWS) licensee(s) to avoid interference.
- (4) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (5) Operation is subject to prior coordination with the local Society of Broadcast Engineers, Inc. (SBE) frequency coordinator. Consult the list at https://www.sbe.org/sections/freq_local.php to find the appropriate coordinator.
- (6) 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.
- (7) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (8) Licensee is required to coordinate operations with existing microwave users in the area to avoid interference.
- (9) 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 N00019-15-C-0092. 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) Raytheon Missile Systems must notch out the following (+/- 4 MHz) 4455 MHz.
- (11) Raytheon Missile Systems must coordinate with the Navy POC at (520) 794-4218 at least 24 hours prior to testing.
- (12) Raytheon Missile Systems must coordinate with Mr. Dan Mertly, nrao-rfi@nrao.edu, or (575) 835-7128 for any bands covered under Footnote US342.

Special Conditions:

- (13) Raytheon Missile Systems must limit all operations to 100mW CW transmissions, not to exceed 40 nanoseconds in duration per frequency step, with transmission steps no less than 10 MHz increments, and a duty cycle not to exceed 1.2%. Testing shall limit the use of a single frequency to no more than a total of 3 minutes each day.
- (14) Prior to commencing any operations in the frequencies below, the applicant must obtain consent from the following within 50 miles of the contours of the testing area:
 - WCS (2305-2320 MHz/2345-2360 MHz) licensee (AT&T)
- (15) Stop buzzer point of contact is Jim Ortega at (520) 794-0227.
- (16) Operation in 2-3 GHz band must be sector blanked 110-136 degrees reference to True North.
- (17) Emission in 10.5-10.68 GHz is restricted to NON.