

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

EXPERIMENTAL

(Nature of Service)

XC FX MO

(Class of Station)

WK2XOV

(Call Sign)

0455-EX-CR-2021

(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) Cambridge (MIDDLESEX), MA - NL 42-23-23; WL 71-08-47
- (2) Devens (MIDDLESEX), MA - NL 42-30-29; WL 71-38-28
- (3) Hattiesburg (FORREST), MS - NL 31-08-13; WL 89-03-51
- (4) MOBILE: Cambridge, MA, within 0.1 km, centered around NL 42-23-23; WL 71-08-47
- (5) MOBILE: Devens, MA, within 0.8 km, centered around NL 42-30-29; WL 71-38-28
- (6) MOBILE: Hattiesburg, MS, within 0.8 km, centered around NL 31-08-13; WL 89-03-51
- (7) Jacksonville (ONslow), NC - NL 34-39-58; WL 77-14-59
- (8) MOBILE: Jacksonville, NC, within 0.12 km, centered around NL 34-39-58; WL 77-14-59
- (9) Joint Base Lewis-McC (PIERCE), WA - NL 47-01-48; WL 122-33-05
- (10) MOBILE: Joint Base Lewis-McC, WA. 2 km radius with a flight level of 400 feet, within 2 km, centered around NL 47-01-48; WL 122-33-05

Frequency Information

Cambridge (MIDDLESEX), MA - NL 42-23-23; WL 71-08-47

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2110-2200 MHz	FX	5M00W7W	63.1 W (ERP)	

This authorization effective November 01, 2021 and
will expire 3:00 A.M. EST November 01, 2023

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

Devens (MIDDLESEX), MA - NL 42-30-29; WL 71-38-28

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2110-2200 MHz	FX	5M00W7W	63.1 W (ERP)	

Hattiesburg (FORREST), MS - NL 31-08-13; WL 89-03-51

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2110-2200 MHz	FX	5M00W7W	63.1 W (ERP)	

MOBILE: Cambridge, MA, within 0.1 km, centered around NL 42-23-23; WL 71-08-47

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1710-1780 MHz	MO	5M00W7W	0.4 W (ERP)	

MOBILE: Devens, MA, within 0.8 km, centered around NL 42-30-29; WL 71-38-28

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1710-1780 MHz	MO	5M00W7W	0.4 W (ERP)	

Frequency Information

MOBILE: Hattiesburg, MS, within 0.8 km, centered around NL 31-08-13; WL 89-03-51

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1710-1780 MHz	MO	5M00W7W	0.4 W (ERP)	

Jacksonville (ONSLOW), NC - NL 34-39-58; WL 77-14-59

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1755-1760 MHz	FX	5M00W7W	63.1 W (ERP)	
2150-2160 MHz	FX	5M00W7W	63.1 W (ERP)	

MOBILE: Jacksonville, NC, within 0.12 km, centered around NL 34-39-58; WL 77-14-59

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1755-1760 MHz	MO	5M00W7W	0.398 W (ERP)	
2155-2160 MHz	MO	5M00W7W	0.398 W (ERP)	

Joint Base Lewis-McC (PIERCE), WA - NL 47-01-48; WL 122-33-05

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1755-1760 MHz	FX	5M00W7W	63 W (ERP)	

Frequency Information

Joint Base Lewis-McC (PIERCE), WA - NL 47-01-48; WL 122-33-05

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2155-2160 MHz	FX	5M00W7W	63 W (ERP)	

MOBILE: Joint Base Lewis-McC, WA. 2 km radius with a flight level of 400 feet, within 2 km, centered around NL 47-01-48; WL 122-33-05

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1755-1760 MHz	MO	5M00W7W	0.3981 W (ERP)	
2155-2160 MHz	MO	5M00W7W	0.3981 W (ERP)	

Special Conditions:

- (1) 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.
- (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) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (5) Experimental station shall use the minimum power level necessary to establish communications links to minimize potential interference to licensed users.
- (6) 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 N66001-17-C-4067. 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.
- (7) All of the experimental devices will be under control of Raytheon Company and they will be retrieved by Raytheon Company from the participants upon completion of the experiment.
- (8) Stop buzzer point of contact is: Craig Mauldin at (310) 647-8102.

Special Conditions:

- (9) Operation is subject to prior coordination with the Fixed Microwave Service licensees in accordance with 47 C.F.R, Part 101.103(d).