

**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)

0470-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) 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: , within 0.1 km, centered around NL 42-23-23; WL 71-08-47
- (5) MOBILE: , within 0.8 km, centered around NL 42-30-29; WL 71-38-28
- (6) MOBILE: , within 0.8 km, centered around NL 31-08-13; WL 89-03-51

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 January 23, 2020 and  
will expire 3:00 A.M. EST November 01, 2021

**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: , 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: , 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: , 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)      |                           |

## 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 retrieved by Raytheon SAS from the participants upon completion of the operation.