

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

EXPERIMENTAL

(Nature of Service)

XC      FX

(Class of Station)

WL2XYC

(Call Sign)

0460-EX-CN-2021

(File Number)

NAME MIT Lincoln Laboratory

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(j,c) of the Commission's Rules

Station Locations

(1) Lancaster (MIDDLESEX), MA - NL 42-29-38; WL 71-40-39

Frequency Information

Lancaster (MIDDLESEX), MA - NL 42-29-38; WL 71-40-39

| Frequency     | Station Class | Emission Designator           | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|-------------------------------|------------------|---------------------------|
| 28.5-30.5 kHz | FX            | 100HN0N<br>600HG1D<br>150HG1D | 1 kW (ERP)       | 0.05 %                    |
| 33.5-36.5 kHz | FX            | 100HN0N<br>600HG1D<br>150HG1D | 1 kW (ERP)       | 0.05 %                    |
| 38-40 kHz     | FX            | 100HN0N<br>600HG1D            | 1 kW (ERP)       | 0.05 %                    |

This authorization effective July 22, 2021 and  
will expire 3:00 A.M. EST February 01, 2023

**FEDERAL  
COMMUNICATIONS  
COMMISSION**



## Frequency Information

Lancaster (MIDDLESEX), MA - NL 42-29-38; WL 71-40-39

| Frequency     | Station Class | Emission Designator           | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|-------------------------------|------------------|---------------------------|
| 38-40 kHz     | FX            | 150HG1D                       | 1 kW (ERP)       | 0.05 %                    |
| 42-45 kHz     | FX            | 100HN0N<br>600HG1D<br>150HG1D | 1 kW (ERP)       | 0.05 %                    |
| 48-52 kHz     | FX            | 100HN0N<br>600HG1D<br>150HG1D | 1 kW (ERP)       | 0.05 %                    |
| 56.5-58.5 kHz | FX            | 100HN0N<br>600HG1D<br>150HG1D | 1 kW (ERP)       | 0.05 %                    |
| 63-65 kHz     | FX            | 100HN0N<br>600HG1D<br>150HG1D | 1 kW (ERP)       | 0.05 %                    |
| 69-72 kHz     | FX            | 100HN0N<br>600HG1D<br>150HG1D | 1 kW (ERP)       | 0.05 %                    |
| 74-76 kHz     | FX            | 100HN0N<br>600HG1D<br>150HG1D | 1 kW (ERP)       | 0.05 %                    |

## Frequency Information

Lancaster (MIDDLESEX), MA - NL 42-29-38; WL 71-40-39

| Frequency     | Station Class | Emission Designator           | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|-------------------------------|------------------|---------------------------|
| 78-80 kHz     | FX            | 100HN0N<br>600HG1D<br>150HG1D | 1 kW (ERP)       | 0.05 %                    |
| 83.5-86.5 kHz | FX            | 100HN0N<br>600HG1D<br>150HG1D | 1 kW (ERP)       | 0.05 %                    |

## Special Conditions:

- (1) 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.
- (2) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (3) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (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 FA8702-15-D-0001. 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.