

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

EXPERIMENTAL

(Nature of Service)

XT      FX

(Class of Station)

WH2XXR

(Call Sign)

0178-EX-CM-2018

(File Number)

NAME General Motors Research Corporation

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) of the Commission's Rules

Station Locations

- (1) Milford (LIVINGSTON), MI - NL 42-33-57; WL 83-40-43
- (2) Milford (LIVINGSTON), MI - NL 42-33-56; WL 83-40-43
- (3) Milford (LIVINGSTON), MI - NL 42-33-54; WL 83-40-43
- (4) Milford (LIVINGSTON), MI - NL 42-33-53; WL 83-40-43
- (5) Milford (LIVINGSTON), MI - NL 42-33-55; WL 83-40-42
- (6) Milford (LIVINGSTON), MI - NL 42-33-54; WL 83-40-42
- (7) Milford (LIVINGSTON), MI - NL 42-33-53; WL 83-40-42
- (8) Milford (LIVINGSTON), MI - NL 42-33-53; WL 83-40-43

Frequency Information

Milford (LIVINGSTON), MI - NL 42-33-57; WL 83-40-43

|             |               |                     |                  |                           |
|-------------|---------------|---------------------|------------------|---------------------------|
| Frequency   | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
| 1575.42 MHz | FX            | 24M4W7D             | 32.9 pW (ERP)    | 1 %                       |

This authorization effective October 26, 2018 and  
will expire 3:00 A.M. EST September 01, 2019

**FEDERAL  
COMMUNICATIONS  
COMMISSION**



## Frequency Information

Milford (LIVINGSTON), MI - NL 42-33-56; WL 83-40-43

| Frequency   | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-------------|---------------|---------------------|------------------|---------------------------|
| 1575.42 MHz | FX            | 24M4W7D             | 34.2 pW (ERP)    | 1 %                       |

Milford (LIVINGSTON), MI - NL 42-33-54; WL 83-40-43

| Frequency   | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-------------|---------------|---------------------|------------------|---------------------------|
| 1575.42 MHz | FX            | 24M4W7D             | 28.2 pW (ERP)    | 1 %                       |

Milford (LIVINGSTON), MI - NL 42-33-53; WL 83-40-43

| Frequency   | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-------------|---------------|---------------------|------------------|---------------------------|
| 1575.42 MHz | FX            | 24M4W7D             | 28.2 pW (ERP)    | 1 %                       |

Milford (LIVINGSTON), MI - NL 42-33-55; WL 83-40-42

| Frequency   | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-------------|---------------|---------------------|------------------|---------------------------|
| 1575.42 MHz | FX            | 24M4W7D             | 28.2 pW (ERP)    | 1 %                       |

## Frequency Information

Milford (LIVINGSTON), MI - NL 42-33-54; WL 83-40-42

| Frequency   | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-------------|---------------|---------------------|------------------|---------------------------|
| 1575.42 MHz | FX            | 24M4W7D             | 28.2 pW (ERP)    | 1 %                       |

Milford (LIVINGSTON), MI - NL 42-33-53; WL 83-40-42

| Frequency   | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-------------|---------------|---------------------|------------------|---------------------------|
| 1575.42 MHz | FX            | 24M4W7D             | 28.2 pW (ERP)    | 1 %                       |

Milford (LIVINGSTON), MI - NL 42-33-53; WL 83-40-43

| Frequency   | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-------------|---------------|---------------------|------------------|---------------------------|
| 1575.42 MHz | FX            | 24M4W7D             | 35.5 pW (ERP)    | 1 %                       |

## Special Conditions:

- (1) GPS re-radiators are limited to a maximum ERP value that will result in power levels not to exceed a power spectral density of -140 dBm/24 MHz measured at a distance of 100 ft outside the building of operation. Any malfunction, misalignment, or tampering of the equipment or its location which results in an increased power spectral density outside the building could cause harmful radio frequency interference to GPS receivers, including those in aircraft and/or ground based facilities.
- (2) This license is for indoor use only.
- (3) Licensee has submitted calculations that predict that the installation will be at or below the limit specified in NTIA manual section 8.3.28 condition 6.
- (4) Licensee must post a sign on doors to the testing area stating GPS re-radiator in use and GPS information may be impacted for periods of time.
- (5) Area of potential interference to GPS reception is under the control of licensee.
- (6) Stop buzzer is: Primary-Robert Van Ham--Engineer 248-515-5939, robert.vanham@gm.com, Backup-Douglas Blodgett -- Global Functional Test Lead-248-904-7428, doug.blodgett@gm.com