

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

EXPERIMENTAL

(Nature of Service)

WD2XSB

(Call Sign)

XD      FX MO

(Class of Station)

0017-EX-AL-2019

(File Number)

NAME General Dynamics Mission Systems, Inc.

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(e & j) of the Commission's Rules

Station Locations

- (1) Richardson, TX - NL 32-58-27; WL 96-42-15
- (2) Taunton, MA - NL 41-57-05; WL 71-07-48
- (3) Duluth, GA - NL 34-00-46; WL 84-16-12
- (4) Scottsdale, AZ - NL 33-28-20; WL 111-54-22
- (5) MOBILE: US
- (6) Plano (COLLIN), TX - NL 33-00-40; WL 96-40-05

Frequency Information

Richardson, TX - NL 32-58-27; WL 96-42-15

| Frequency   | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-------------|---------------|---------------------|------------------|---------------------------|
| 14-14.5 GHz | FX            | 2M60G1D             | 80.1 kW (ERP)    | 0.00001 %                 |

This authorization effective August 05, 2019 and  
will expire 3:00 A.M. EST June 01, 2020

**FEDERAL  
COMMUNICATIONS  
COMMISSION**



## Frequency Information

Taunton, MA - NL 41-57-05; WL 71-07-48

| Frequency   | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-------------|---------------|---------------------|------------------|---------------------------|
| 14-14.5 GHz | FX            | 2M60G1D             | 80.1 kW (ERP)    | 0.00001 %                 |

Duluth, GA - NL 34-00-46; WL 84-16-12

| Frequency   | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-------------|---------------|---------------------|------------------|---------------------------|
| 14-14.5 GHz | FX            | 2M60G1D             | 80.1 kW (ERP)    | 0.00001 %                 |

Scottsdale, AZ - NL 33-28-20; WL 111-54-22

| Frequency   | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-------------|---------------|---------------------|------------------|---------------------------|
| 14-14.5 GHz | FX            | 2M60G1D             | 80.1 kW (ERP)    | 0.00001 %                 |

MOBILE: US

| Frequency   | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-------------|---------------|---------------------|------------------|---------------------------|
| 14-14.5 GHz | MO            | 2M60G1D             | 48.8 kW (ERP)    | 0.00001 %                 |

## Frequency Information

Plano (COLLIN), TX - NL 33-00-40; WL 96-40-05

| Frequency   | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-------------|---------------|---------------------|------------------|---------------------------|
| 14-14.5 GHz | FX            | 2M60G1D             | 80.1 kW (ERP)    | 0.00001 %                 |

## Special Conditions:

- (1) In accordance with Article 4.4 of the ITU Radio Regulations, the operations authorized herein shall not cause harmful interference to, and shall not claim protection from harmful interference caused by, a station operating in accordance with the provisions of the ITU Constitution, the ITU Convention, and the ITU Radio Regulations.
- (2) POINTS OF COMMUNICATION: ALSAT Ku.
- (3) National Science Foundation (NSF) requests that General Dynamics Mission Systems, Inc.:
  - 1) Coordinate operation at the Taunton, MA site with the National Radio Astronomy Observatory's VLBA site at Hancock, NH. (POC Mr. Dan Mertely at Socorro, NM, Phone: 505- 835-7027 and e-mail: dmertely@nrao.edu).
  - 2) Coordinate operation at the Fredericksburg, VA site with Wes Sizemore at Green Bank. (Phone: 304-456-2107, e-mail:wsizemor@nrao.edu).
- (4) Prior to commencement of operation with any satellite listed as a point of communication pursuant to this experimental license, General Dynamics Mission Systems, Inc. shall obtain certifications from the owners of the satellites used as points of communication that the respective owners have notified all satellite operators with co-frequency operations within 6 degrees longitude of the respective satellites used as points of communication, generally describing the experimental operations authorized herein, including the term thereof, and providing a point of contact for the purpose of resolving any complaints of interference. General Dynamics Mission Systems, Inc. shall obtain a similar certification from the owner of any satellite used as a point of communication if, during the term of this STA, a new or different satellite operator commences co-frequency operations within 6 degrees longitude of any satellite used as a point of communication. If the point of contact receives a complaint of harmful interference, the party receiving the complaint (if not General Dynamics Mission Systems, Inc.) will notify General Dynamics Mission Systems, Inc., and General Dynamics Mission Systems, Inc. shall immediately cease such operations or adjust such operations to avoid harmful interference. General Dynamics Mission Systems, Inc. will submit a copy of certification(s) from all satellite owners used as points of communication to the Commission for incorporation into the record of this file.
- (5) No transmissions are permitted between 14.0 GHz and 14.2 GHz within 125 km of White Sands, NM (latitude: 32° 20' 59" N, longitude 106° 36' 31" W and latitude: 32° 32' 40" N, longitude 106° 36' 48" W).
- (6) No transmissions are permitted between 14.47 GHz and 14.5 GHz within 125 km of Mauna Kea, HI (at latitude 19° 48' N, longitude 155° 28' W).

**Special Conditions:**

- (7) In accordance with 47CFR25.222(d), licensee must cease operations between 14.0 GHz and 14.2 GHz within 125 km of the new Blossom Point, MD, TDRSS facilities, whose coordinates are 38°25'44"N, 77°05'20"W, when those facilities become operational, unless and until licensee reaches an agreement with NASA permitting such operations.