

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

EXPERIMENTAL

(Nature of Service)

WI2XJL

(Call Sign)

XC FX MO

(Class of Station)

0309-EX-PL-2016

(File Number)

NAME General Atomics Aeronautcial 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(c) of the Commission's Rules

Station Locations

- (1) Grand Forks (GRAND FORKS), ND - NL 47-57-39; WL 97-24-03; MOBILE: Airborne:
Max altitude 29,000 ft MSL, within 148 km

Frequency Information

Grand Forks (GRAND FORKS), ND - NL 47-57-39; WL 97-24-03; MOBILE: Airborne: Max altitude 29,000 ft MSL, within 148 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5260 MHz	FX	15M0F9W	501 W (ERP)	0.005 %
5260 MHz	MO	15M0F9W	501 W (ERP)	0.005 %
5280 MHz	MO	15M0F9W	126 kW (ERP)	0.005 %
5280 MHz	FX	15M0F9W	126 kW (ERP)	0.005 %

This authorization effective June 17, 2016 and
will expire 3:00 A.M. EST July 01, 2018

**FEDERAL
COMMUNICATIONS
COMMISSION**



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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5300 MHz	MO	15M0F9W	501 W (ERP)	0.005 %
5300 MHz	FX	15M0F9W	501 W (ERP)	0.005 %
5315 MHz	MO	15M0F9W	631 W (ERP)	0.005 %
5315 MHz	FX	15M0F9W	631 W (ERP)	0.005 %
5335 MHz	MO	15M0F9W	631 W (ERP)	0.005 %
5335 MHz	FX	15M0F9W	631 W (ERP)	0.005 %
5350 MHz	MO	15M0F9W	501 W (ERP)	0.005 %
5350 MHz	FX	15M0F9W	501 W (ERP)	0.005 %
5365 MHz	MO	15M0F9W	631 W (ERP)	0.005 %
5365 MHz	FX	15M0F9W	631 W (ERP)	0.005 %

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5380 MHz	FX	15M0F9W	631 W (ERP)	0.005 %
5380 MHz	MO	15M0F9W	631 W (ERP)	0.005 %
5400 MHz	MO	15M0F9W	501 W (ERP)	0.005 %
5400 MHz	FX	15M0F9W	501 W (ERP)	0.005 %
5420 MHz	MO	15M0F9W	126 kW (ERP)	0.005 %
5420 MHz	FX	15M0F9W	126 kW (ERP)	0.005 %
5430 MHz	MO	15M0F9W	126 kW (ERP)	0.005 %
5430 MHz	FX	15M0F9W	126 kW (ERP)	0.005 %
5440 MHz	MO	15M0F9N	501 W (ERP)	0.005 %
5440 MHz	FX	15M0F9W	501 W (ERP)	0.005 %

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5460 MHz	MO	15M0F9W	501 W (ERP)	0.005 %
5460 MHz	FX	15M0F9W	501 W (ERP)	0.005 %
5480 MHz	MO	15M0F9W	501 W (ERP)	0.005 %
5500 MHz	MO	15M0F9W	501 W (ERP)	0.005 %
5520 MHz	MO	15M0F9W	501 W (ERP)	0.005 %
5540 MHz	MO	15M0F9W	501 W (ERP)	0.005 %
5555 MHz	MO	15M0F9W	501 W (ERP)	0.005 %
5575 MHz	MO	15M0F9W	501 W (ERP)	0.005 %
5595 MHz	MO	15M0F9W	501 W (ERP)	0.005 %
5615 MHz	MO	15M0F9W	501 W (ERP)	0.005 %

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5650 MHz	MO	15M0F9W	126 kW (ERP)	0.005 %
5650 MHz	FX	15M0F9W	126 kW (ERP)	0.005 %
5660 MHz	MO	15M0F9W	126 kW (ERP)	0.005 %
5660 MHz	FX	15M0F9W	126 kW (ERP)	0.005 %
5675 MHz	MO	15M0F9W	501 W (ERP)	0.005 %
5675 MHz	FX	15M0F9W	501 W (ERP)	0.005 %
5700 MHz	MO	15M0F9W	126 kW (ERP)	0.005 %
5700 MHz	FX	15M0F9W	126 kW (ERP)	0.005 %
5710 MHz	MO	15M0F9W	20 kW (ERP)	0.005 %
5710 MHz	FX	15M0F9W	20 kW (ERP)	0.005 %

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5725 MHz	MO	15M0F9W	501 W (ERP)	0.005 %
5725 MHz	FX	15M0F9W	501 W (ERP)	0.005 %
5750 MHz	MO	15M0F9W	126 kW (ERP)	0.005 %
5750 MHz	FX	15M0F9W	126 kW (ERP)	0.005 %
5762 MHz	FX	15M0F9W	126 kW (ERP)	0.005 %
5766 MHz	FX	15M0F9W	126 kW (ERP)	0.005 %
5770 MHz	FX	15M0F9W	126 kW (ERP)	0.005 %
5775 MHz	MO	15M0F9W	501 W (ERP)	0.005 %
5775 MHz	FX	15M0F9N	501 W (ERP)	0.005 %
5780 MHz	FX	15M0F9W	126 kW (ERP)	0.005 %

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5784 MHz	FX	15M0F9W	126 kW (ERP)	0.005 %
5788 MHz	FX	15M0F9W	126 kW (ERP)	0.005 %
5792 MHz	FX	15M0F9W	126 kW (ERP)	0.005 %
5796 MHz	FX	15M0F9W	126 kW (ERP)	0.005 %
5800 MHz	FX	15M0F9W	126 kW (ERP)	0.005 %
5800 MHz	MO	15M0F9W	126 kW (ERP)	0.005 %
5805 MHz	FX	15M0F9W	126 kW (ERP)	0.005 %
5810 MHz	FX	15M0F9W	20 kW (ERP)	0.005 %
5810 MHz	MO	15M0F9W	20 kW (ERP)	0.005 %
5815 MHz	FX	15M0F9W	126 kW (ERP)	0.005 %

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5820 MHz	FX	15M0F8W	501 W (ERP)	0.005 %
5820 MHz	MO	15M0F9W	501 W (ERP)	0.005 %
5825 MHz	FX	15M0F9W	126 kW (ERP)	0.005 %
5830 MHz	MO	15M0F9W	501 W (ERP)	0.005 %
5830 MHz	FX	15M0F9W	501 W (ERP)	0.005 %
5834 MHz	FX	15M0F9W	126 kW (ERP)	0.005 %
5838 MHz	FX	15M0F9W	126 kW (ERP)	0.005 %
5842 MHz	FX	15M0F9W	126 kW (ERP)	0.005 %
5846 MHz	FX	15M0F9W	126 kW (ERP)	0.005 %
5850 MHz	FX	15M0F9W	501 W (ERP)	0.005 %

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5850 MHz	MO	15M0F9W	501 W (ERP)	0.005 %
5850 MHz	MO	15M0F9W	126 kW (ERP)	0.005 %
5850 MHz	FX	15M0F9W	126 kW (ERP)	0.005 %

Special Conditions:

- (1) GA-ASI will utilize frequencies identified in this license while conducting flight operations in the Grand Forks Air Force Base (RDR) Class D airspace as the primary Radio Line of Sight (RLOS) datalink for UAS Command and Control (C2). A Satellite Communication (SATCOM) datalink shall be available as a back-up during Class D flight operations. When departing Class D and climbing overhead RDR in adjacent Sectors A-E, the transition from RLOS to SATCOM Beyond Radio Line of Sight (BRLOS) datalink shall be accomplished prior to reaching 10,000 feet Mean Sea Level (MSL). SATCOM shall be the primary UAS C2 datalink when operating in Sectors A-E, Restricted Areas R-5401/2/3 or Sectors F-M airspace between 10,000 feet MSL and FL290. When RTB during normal operations, the primary UAS C2 datalink transition from SATCOM to RLOS shall be initiated no earlier than descending through 10,000 feet MSL. RLOS must be established as the primary UAS C2 datalink prior to entering Class D airspace with SATCOM available as back-up.
- (2) During transmission, aircraft shall not exceed 29,000 feet MSL.
- (3) This authorization is issued for the express purpose of conducting experimental operations described in the related application and required by AFLCMC/WIHK contract nos. FA8620-10-G-3038 / DO 50 and FA8620-10-G-3038 / DO 77 and 645th AESG contract nos. FA8620-11-G-4038-0030, FA8620-11-G-4038-0023, FA8620-11-G-4038-0028, FA8620-11-G-4038-0035. 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.