

**United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
SPECIAL TEMPORARY AUTHORIZATION**

EXPERIMENTAL

(Nature of Service)

WQ9XFT

(Call Sign)

XT FX MO

(Class of Station)

0292-EX-ST-2020

(File Number)

NAME General Atomics Aeronautical Systems, Inc.

This Special Temporary Authorization is granted upon the express condition that it may be terminated by the Commission at any time without advance notice or hearing if in its discretion the need for such action arises. Nothing contained herein shall be construed as a finding by the Commission that the authority herein granted is or will be in the public interest beyond the express terms hereof.

This Special Temporary Authorization shall not vest in the grantee any right to operate the station nor any right in the use of the frequencies designated in the authorization beyond the term hereof, nor in any other manner than authorized herein. Neither the authorization nor the right granted hereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934. This authorization is subject to the right of use of control the Government of the United States conferred by Section 706 of the Communications Act of 1934.

Special Temporary Authority is hereby granted to operate the apparatus described below:

Purpose Of Operation:

GA-ASI has submitted this spectrum use request for its ADS-B, TCAS, CNPC c-band radio prototype, and Lynx synthetic aperture radar systems in conjunction with its contractual obligation

Station Locations

- (1) MOBILE: Grey Butte, CA airfield (04CA): Airborne max altitude 20,000 ft MSL, within 30 km, centered around NL 34-34-12; WL 117-40-48
- (2) Palmdale (LOS ANGELES), CA - NL 34-34-12; WL 117-40-48
- (3) MOBILE: Riverside County, CA: Airborne max altitude 20,000 ft MSL, within 140 km, centered around NL 33-30-00; WL 116-30-00
- (4) MOBILE: Riverside County, CA: Airborne max altitude 20,000 ft MSL, within 140 km, centered around NL 33-30-00; WL 116-30-00
- (5) MOBILE: Riverside County, CA: Airborne max altitude 20,000 ft MSL, within 140 km, centered around NL 33-30-00; WL 116-30-00

Frequency Information

MOBILE: Grey Butte, CA airfield (04CA): Airborne max altitude 20,000 ft MSL, within 30 km, centered around NL 34-34-12; WL 117-40-48

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5045.0325 MHz	MO	120KG2D	192.752 W (ERP)	0.00001 %

This authorization effective March 06, 2020 and
will expire 3:00 A.M. EST September 01, 2020

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

MOBILE: Grey Butte, CA airfield (04CA): Airborne max altitude 20,000 ft MSL, within 30 km, centered around NL 34-34-12; WL 117-40-48

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5046.3225 MHz	MO	120KG2D	192.752 W (ERP)	0.00001 %
5048.2575 MHz	MO	120KG2D	192.752 W (ERP)	0.00001 %

Palmdale (LOS ANGELES), CA - NL 34-34-12; WL 117-40-48

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5045.0325 MHz	FX	120KG2D	16 W (ERP)	0.00001 %
5046.3225 MHz	FX	120KG2D	16 W (ERP)	0.00001 %
5048.2575 MHz	FX	120KG2D	16 W (ERP)	0.00001 %

MOBILE: Riverside County, CA: Airborne max altitude 20,000 ft MSL, within 140 km, centered around NL 33-30-00; WL 116-30-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
16.4025-17.3 GHz	MO	295MQ3N 295MQ3N	460 kW (ERP)	0.0005 %
16.4025-17.3 GHz	MO	636MQ3N	460 kW (ERP)	0.0005 %

Frequency Information

MOBILE: Riverside County, CA: Airborne max altitude 20,000 ft MSL, within 140 km, centered around NL 33-30-00; WL 116-30-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
16.4025-16.9975 GHz	MO	295MQ3N	460 kW (ERP)	0.0005 %

MOBILE: Riverside County, CA: Airborne max altitude 20,000 ft MSL, within 140 km, centered around NL 33-30-00; WL 116-30-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1030 MHz	MO	20K0G2D	767 W (ERP)	0.001 %

MOBILE: Riverside County, CA: Airborne max altitude 20,000 ft MSL, within 140 km, centered around NL 33-30-00; WL 116-30-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1090 MHz	MO	13M5M1D	966 W (ERP)	0.001 %
		10M0M1D		
		18M8Q2D		
		11M9M1D		

Special Conditions:

- (1) NTIA objects to the request for 1.56 GHz bandwidth emissions.
- (2) Operations requested in the range 15.26 - 18.24 GHz, must be adjusted to 16.4025 - 18.24 GHz.
- (3) The 1030 MHz operations are for demonstration purposes only using a modified TCAS and may not be used for Detect and Avoid purposes to satisfy 14 CFR 91.113 requirements.
- (4) The 1090 MHz equipment is to be an AN/DPX-7 transponder that meets the DOD AIMS Box Level Certification CL 1922101 dated 26 September 2019 and has been shown to meet the installed performance requirements of TSO C112 and TSO-C166b.
- (5) Operations approved to a Flight Level of 20,000 feet above mean sea level.
- (6) C-band C2 link shall operate in accordance with FAA coordination NG T200081,82,92,93,96 and 97.

Special Conditions:

- (7) General Atomics Aeronautical Systems, Inc. must coordinate with the following at Least 5 days prior to operations:
- a. Navy and Marine Corps Spectrum Management Office management Office North West at russell.potter@navy.mil, (360) 396-7075.
 - b. Mr. Carl D. Tilander, Regional Spectrum Manager, Marine Corps Installations West (MCIWEST), (760) 725-2808, DSN 361-2808, MCIWEST NIPR OMB: MCIWEST_Spectrum@usmc.mil.
 - c. Jamie Heaton, CIV, DOD Western Area Frequency Coordinator, 760-939-6832, DSN: 437-6832.
 - d. Navy and Marine Corps Spectrum Management james.d.hunt2@navy.mil and (619) 545-9978.