

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

EXPERIMENTAL

(Nature of Service)

WO9XEH

(Call Sign)

XT FX

(Class of Station)

2079-EX-ST-2018

(File Number)

NAME The Johns Hopkins University Applied Physics Laboratory (JHU/APL

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:

The purpose of the experiment is to measure RF attenuation through the plume of a rocket motor to determine plasma properties and validate plume simulations

Station Locations

(1) Camden (OUACHITA), AR - NL 33-37-02; WL 92-40-38

Frequency Information

Camden (OUACHITA), AR - NL 33-37-02; WL 92-40-38

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2-20 GHz	FX	18G0FXX	6.4 mW (ERP)	

Special Conditions:

- (1) Operation in the 1695-1780 MHz, 1915-1920 MHz, 1995-2020 MHz or 2110-2200 MHz band requires consent of local Advanced Wireless Service (AWS) licensee(s) to avoid interference.
- (2) Operation is subject to prior coordination with affected Educational Broadband Service/Broadband Radio Service (EBS/BRS) licensees.
- (3) Licensee is required to coordinate operations with existing microwave users in the area to avoid interference.

This authorization effective March 22, 2019 and
will expire 3:00 A.M. EST August 11, 2019

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COMMISSION**



Special Conditions:

- (4) This frequency assignment in one of the bands 1435-1525, 2310-2320 and 2345-2390 MHz was coordinated prior to its authorization with AFMO CONUS, Ft. Sam Houston, TX, who also coordinated it, as appropriate, with the Aerospace and Flight Test Radio Coordinating Council. Use of this frequency under the authority of this assignment is subject to such further coordination with AFMO CONUS, Ft. Sam Houston, TX, as necessary to ensure compatibility with existing uses.
- (5) 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.
- (6) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (7) Operation is subject to prior coordination with the local Society of Broadcast Engineers, Inc. (SBE) frequency coordinator. Consult the list at https://www.sbe.org/sections/freq_local.php to find the appropriate coordinator.
- (8) Maintain operation separation from the grandfathered earth stations as defined in Part 90, Subpart Z, or coordinate an agreement with the grandfathered earth station licensees prior to operation in 3650-3700 MHz band.
- (9) Consult the ULS database to ensure that the operation will not cause harmful interference to any existing registered stations in the 3650-3700 MHz band, and notify the registered users in the proposed geographic area.
- (10) Prior to commencing any operations in WCS (2305-2320 MHz/2345-2360 MHz) frequencies, the applicant must obtain consent from the WCS licensee (AT&T).
- (11) Operation is not permitted in 12.2-12.75 GHz and 17.3-17.8 GHz bands.
- (12) Licensee must avoid pointing the transmitting antenna within 15 degrees of any point on the geostationary orbit arc while transmitting signals in the 3700-4200 MHz, 5850-7075 MHz, 6615.17-6701.42 MHz, 10.7-12.7 GHz, 12.75-14.5 GHz, 17.3-17.7 GHz, and 17.7-20 GHz bands.
- (13) Operations in the 4500-4800 MHz (space-to-Earth), 6725-7025 MHz (Earth-to-space), 10.70-10.95 GHz (space-to-Earth), 11.20-11.45 GHz (space-to-Earth), and 12.75-13.25 GHz (Earth-to-space) bands must be on a non-harmful interference and unprotected basis to authorized stations that are in compliance with the applicable requirements of Appendix 30B of the ITU Radio Regulations.
- (14) For operations in the 15.43-15.63 GHz, the effective EIRP must be in accordance with Recommendation ITU-R S. 1340.
- (15) Licensee must ensure that the transmitting antenna(s) main beam do not point above the horizon in order to protect satellite space stations operating in overlapping frequency bands.