

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

EXPERIMENTAL

(Nature of Service)

XC FX MO

(Class of Station)

WL2XEM

(Call Sign)

0541-EX-CR-2021

(File Number)

NAME Aerospace Corporation, The

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 & j) of the Commission's Rules

Station Locations

- (1) Vandenberg (LOS ANGELES), CA - NL 34-38-55; WL 120-36-53
- (2) Bryan (BRAZOS), TX - NL 30-38-35; WL 96-28-21
- (3) Gainesville (ALACHUA), FL - NL 29-37-37; WL 82-21-39
- (4) MOBILE: NonGeoStationary, SP
- (5) MOBILE: NonGeoStationary, SP
- (6) MOBILE: NonGeoStationary, SP
- (7) MOBILE: Non-geostationary
- (8) MOBILE: Nongeostationary

Frequency Information

Vandenberg (LOS ANGELES), CA - NL 34-38-55; WL 120-36-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2055 MHz	FX	4M91G1D	8960 W (ERP)	0.016 %

This authorization effective October 31, 2021 and
will expire 3:00 A.M. EST November 01, 2023

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

Bryan (BRAZOS), TX - NL 30-38-35; WL 96-28-21

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
914.7 MHz	FX	1M09F1D	1084 W (ERP)	0.00016 %

Gainesville (ALACHUA), FL - NL 29-37-37; WL 82-21-39

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
914.7 MHz	FX	1M09F1D	1084 W (ERP)	0.00016 %

MOBILE: NonGeoStationary, SP

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
914.7 MHz	MO	1M09F1D	1.2 W (ERP)	0.016 %

MOBILE: NonGeoStationary, SP

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2280 MHz	MO	4M91G1D	7.5 W (ERP)	0.016 %

Frequency Information

MOBILE: NonGeoStationary, SP

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5020 MHz	MO	16M3G1D	25.7 W (ERP)	0.016 %

MOBILE: Nongeostationary

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2248-2252 MHz	MO	3M23G1D	5.8 W (ERP)	0.016 %

Special Conditions:

- (1) Upon receipt of a conjunction warning from the JSpOC or other source, the licensee must review the warning and take all possible steps to assess and, if necessary, to mitigate collision risk, including, but not limited to: contacting the operator of any active spacecraft involved in such warning; sharing ephemeris data and other appropriate operational information with any such operator; modifying spacecraft attitude and/or operations.
- (2) Following launch of the satellite, the licensee must notify the FCC through electronic submission to the license file, of the status of the satellite (transmissions commenced, etc.), not later than 7 days after commencement or expected commencement of transmissions, and of termination of transmissions, not later than three months after such termination.
- (3) The licensee shall provide the Commission with all information required for the Advance Publication, Coordination and Notification of frequency assignments pursuant to the International Radio Regulations. This includes the preparation of draft materials, to be provided to the Commission prior to submission to the International Telecommunication Union. The authorized operations require notification of frequency assignments pursuant to Article 11 of the ITU Radio Regulations. Licensee shall provide the FCC, not later than 30 days after a frequency assignment is brought into use, the documents required for notification (including SpaceCap Notification MDB file) of such frequency assignments. The licensee shall also prepare materials for informing the ITU that a frequency assignments has been brought into use, or that its use has been suspended or permanently discontinued.
- (4) Prior to commencing any operations in the frequencies below, the Aerospace Corporation must obtain consent from the following within 50 miles of the contours of the testing area:
 - > Location & Monitoring Service licensees (902-928 MHz)

Special Conditions:

- (5) This authorization is issued for the express purpose of conducting experimental operations described in the related application and required by US Air Force contract number FA8802-19-C-0001. 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.
- (6) Licensee must coordinate with the local Society of Broadcast Engineers frequency coordinator prior to operation in the frequency band centered at 2055 MHz. Consult the list at https://www.sbe.org/sections/freq_local.php to find the appropriate coordinator.
- (7) All operations are on a strict non-interference basis to authorized federal users.
- (8) Transmission from The Aerospace Corporation ground station shall cease when the NASA International Space Station (NORAD designation 25544, International Spacecraft ID 1998-067A) is within horizon to horizon view of the Vandenberg, CA ground station.
- (9) All operations of the SLINGSHOT-1 satellite and corresponding ground stations shall be in accordance with the terms of the coordination agreement with federal agencies (2020MAR/24), including an on-orbit operational duration of one year. The Aerospace Corporation shall be aware that requests for operation in the 2200-2290 MHz band are considered on a case-by-case basis, and The Aerospace Corporation shall have no expectations that future requests, including requests for renewal, will be approved.
- (10) All transmissions in the band 2200-2290 MHz shall comply with national and international power flux density limits, unless otherwise coordinated and agreed to. PFD analysis and exceedances shall be provided in the FCC application and provided to the NTIA for US Government review.
- (11) OPERATIONS OF SPACE STATION/S THAT COMMUNICATE/S TO ASSOCIATED GROUND STATION/S OUTSIDE OF THE USP REQUIRE THE AEROSPACE CORPORATION TO INITIATE AND COMPLETE THE ADVANCE PUBLICATION, COORDINATION, DUE DILIGENCE, AND NOTIFICATION PROCESS FOR THESE SPACE STATIONS AND OBTAINS AUTHORIZATION FROM APPROPRIATE ADMINISTRATION/S WHERE THE FOREIGN GROUND STATION/S IS/ARE LOCATED.
- (12) PRIOR TO ACTIVATION, APPLICANT MUST COORDINATE WITH NASA OPS.