

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

EXPERIMENTAL

(Nature of Service)

XD FX MO

(Class of Station)

WI2XBG

(Call Sign)

0890-EX-CN-2020

(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(j) of the Commission's Rules

Station Locations

- (1) El Segundo (LOS ANGELES), CA - NL 33-54-52; WL 118-22-49
- (2) College Station (BRAZOS), TX - NL 30-36-41; WL 96-20-52
- (3) Gainesville (ALACHUA), FL - NL 29-38-53; WL 82-20-39
- (4) MOBILE: 500 x 500 km orbit at 51.6 degree inclination
- (5) Kihei (MAUI), HI - NL 20-44-44; WL 156-25-52
- (6) Mt. Wilson (LOS ANGELES), CA - NL 34-13-29; WL 118-03-23
- (7) Vandenberg AFB (SANTA BARBARA), CA - NL 34-38-57; WL 120-36-51

Frequency Information

El Segundo (LOS ANGELES), CA - NL 33-54-52; WL 118-22-49

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
914.7 MHz	FX	1M09F1D 1M23G1D	6908 W (ERP)	0.016 %

This authorization effective November 09, 2020 and
will expire 3:00 A.M. EST November 01, 2022

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

College Station (BRAZOS), TX - NL 30-36-41; WL 96-20-52

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
914.7 MHz	FX	1M23G1D 1M09F1D	869 W (ERP)	0.00016 %

Gainesville (ALACHUA), FL - NL 29-38-53; WL 82-20-39

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
914.7 MHz	FX	1M09F1D 1M23G1D	869 W (ERP)	0.00016 %

MOBILE: 500 x 500 km orbit at 51.6 degree inclination

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
914.7 MHz	MO	1M09F1D 1M23G1D	1 W (ERP)	0.016 %

Kihei (MAUI), HI - NL 20-44-44; WL 156-25-52

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
914.7 MHz	FX	1M09F1D 1M23G1D	869 W (ERP)	0.016 %

Frequency Information

Mt. Wilson (LOS ANGELES), CA - NL 34-13-29; WL 118-03-23

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
914.7 MHz	FX	1M09F1D 1M23G1D	869 W (ERP)	0.016 %

Vandenberg AFB (SANTA BARBARA), CA - NL 34-38-57; WL 120-36-51

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
914.7 MHz	FX	1M23G1D 1M09F1D	869 W (ERP)	0.016 %

Special Conditions:

- (1) 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.
- (2) 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.
- (3) 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.
- (4) 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.

Special Conditions:

- (5) This authorization is for 2 identical AeroCube-7s satellites.
- (6) Deployment into an orbit with an inclination of 51.6 degrees, plus or minus 0.1 degree, is only authorized for satellites to be launched on Cygnus re-supply missions and is subject to the following conditions:
 - a. Deployment shall be into an orbit that, if from below the ISS altitude, is not less than 15 km below and 15 km in front of ISS and, if above the ISS altitude, is to an orbit acceptable to NASA, which is currently defined as a co-elliptic orbit above the ISS semi-major axis with a relative perigee greater than 45km. If deployment is planned from an altitude above the ISS, not later than 10 business days prior to launch of the resupply mission, licensee shall provide documentation from NASA confirming that deployment from the Cygnus capsule is acceptable to NASA.
 - b. Deployment above the ISS altitude may proceed only if it is confirmed in a manner acceptable to NASA that, following launch and docking operations, there is sufficient fuel on Cygnus to execute both the planned satellite deployment and planned Cygnus disposal operations.
- (7) Point of Communication: AeroCube 7b and AeroCube 7c