

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

EXPERIMENTAL

(Nature of Service)

XR MO

(Class of Station)

WK2XJS

(Call Sign)

0385-EX-CN-2019

(File Number)

NAME University of Minnesota Twin Cities

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(a & d) of the Commission's Rules

Station Locations

(1) MOBILE: Low Earth Orbit 401 km

Frequency Information

MOBILE: Low Earth Orbit 401 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
914.7 MHz	MO	1M09F1D	1.35 W (ERP)	

Special Conditions:

- (1) 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.
- (2) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (3) 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.

This authorization effective September 05, 2019 and
will expire 3:00 A.M. EST September 01, 2021

**FEDERAL
COMMUNICATIONS
COMMISSION**



Special Conditions:

- (4) 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.
- (5) POINT OF COMMUNICATION: SOCRATES CubeSat.
- (6) University of Minnesota Twin Cities is authorized to use ground stations approved under experimental File No. 0580-EX-CN-2019 (The Aerospace Corporation)
- (7) Prior to commencing any operations in the frequencies below, University of Minnesota Twin Cities must obtain consent from the following within 50 miles of the contours of the testing area:
 - > Location & Monitoring Service licensees (902-928 MHz)