

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

EXPERIMENTAL

(Nature of Service)

XC MO

(Class of Station)

WJ2XJA

(Call Sign)

0303-EX-CR-2019

(File Number)

NAME NCSU

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) of the Commission's Rules

Station Locations

- (1) MOBILE: NCSU Centennial Campus Raleigh NC, within 5 km, centered around NL 35-46-29; WL 78-39-24

Frequency Information

MOBILE: NCSU Centennial Campus Raleigh NC, within 5 km, centered around NL 35-46-29; WL 78-39-24

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
28 GHz	MO	2G00A0N	16 W (ERP)	

Special Conditions:

- (1) Licensee is required to coordinate operations with existing microwave users in the area to avoid interference.
- (2) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (3) This authorization is issued for the express purpose of conducting experimental operations described in the related application and required by NASA contract no. NNX17AJ94A. 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.

This authorization effective April 01, 2019 and
will expire 3:00 A.M. EST April 01, 2020

**FEDERAL
COMMUNICATIONS
COMMISSION**



Special Conditions:

- (4) Licensee must avoid pointing the transmitting antenna main beam gain within 10 degrees of any point on the geostationary orbital arc while transmitting signals in the 27.5-29 GHz band
- (5) Licensee shall ensure that the transmitting station antenna(s) main beam gain tip down when possible and avoid pointing above the horizon to protect satellite stations.
- (6) This authorization is without prejudice to any determination that the Commission may make regarding pending or future experimental satellite earth station applications.