

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

EXPERIMENTAL

(Nature of Service)

WK2XPK

(Call Sign)

XT FX MO

(Class of Station)

1644-EX-ST-2020

(File Number)

NAME University of South Florida

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 operation is to support communications between the 3 ARCE1 satellites and the ground station, and to support communications among the 3 satellites.

Station Locations

- (1) Tampa (HILLSBOROUGH), FL - NL 28-03-28; WL 82-26-03
- (2) MOBILE: Nongeostationary

Frequency Information

Tampa (HILLSBOROUGH), FL - NL 28-03-28; WL 82-26-03

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2416.7185-2417.2815 MHz	FX		1607 W (ERP)	0.001 %
		35K2A1D		
		70K4A1D		
		140KA1D		
		280KA1D		
		563KA1D		
		17K6G1D		
		35K2G1D		
		70K4G1D		
		280KG1D		

This authorization effective December 14, 2020 and
will expire 3:00 A.M. EST June 14, 2021

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

Tampa (HILLSBOROUGH), FL - NL 28-03-28; WL 82-26-03

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2416.7185-2417.2815 MHz	FX	140KG1D 8K80D1D 17K6D1D 35K2D1D 70K4D1D 140KD1D	1607 W (ERP)	0.001 %
2417 MHz	FX	35K2A1D 70K4A1D 140KA1D 280KA1D 563KA1D 17K6G1D 35K2G1D 70K4G1D 280KG1D 140KG1D 8K80D1D 17K6D1D 35K2D1D 70K4D1D 140KD1D	1607 W (ERP)	0.001 %
2417 MHz	FX	35K2A1D 70K4A1D 140KA1D 280KA1D 563KA1D 17K6G1D 35K2G1D 70K4G1D 280KG1D 140KG1D	1607 W (ERP)	0.001 %

Frequency Information

Tampa (HILLSBOROUGH), FL - NL 28-03-28; WL 82-26-03

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2417 MHz	FX	8K80D1D	1607 W (ERP)	0.001 %
		17K6D1D		
		35K2D1D		
		70K4D1D		
		140KD1D		

MOBILE: Nongeostationary

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2416.7185-2417.2815 MHz	MO	35K2A1D	2 W (ERP)	0.001 %
		70K4A1D		
		140KA1D		
		280KA1D		
		563KA1D		
		17K6G1D		
		35K2G1D		
		70K4G1D		
		280KG1D		
		140KG1D		
		8K80D1D		
		17K6D1D		
		35K2D1D		
		70K4D1D		
		140KD1D		

2417 MHz	MO	35K2A1D	2 W (ERP)	0.001 %
		70K4A1D		
		140KA1D		
		280KA1D		
		563KA1D		
		17K6G1D		

Frequency Information

MOBILE: Nongeostationary

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2417 MHz	MO	35K2G1D 70K4G1D 280KG1D 140KG1D 8K80D1D 17K6D1D 35K2D1D 70K4D1D 140KD1D	2 W (ERP)	0.001 %
2417 MHz	MO	35K2A1D 70K4A1D 140KA1D 280KA1D 563KA1D 17K6G1D 35K2G1D 70K4G1D 280KG1D 140KG1D 8K80D1D 17K6D1D 35K2D1D 70K4D1D 140KD1D	2 W (ERP)	0.001 %
2449-2449.563 MHz	MO	35K2A1D 70K4A1D 140KA1D 280KA1D 563KA1D 17K6G1D 35K2G1D	2 W (ERP)	0.001 %

Frequency Information

MOBILE: Nongeostationary

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2449-2449.563 MHz	MO	70K4G1D 280KG1D 140KG1D 8K80D1D 17K6D1D 35K2D1D 70K4D1D 140KD1D	2 W (ERP)	0.001 %
2449.2815 MHz	MO	140KD1D 70K4D1D 35K2D1D 17K6D1D 8K80D1D 140KG1D 140KG1D 70K4G1D 35K2G1D 17K6G1D 563KA1D 280KA1D 140KA1D 70K4A1D 35K2A1D	2 W (ERP)	0.001 %
2449.2815 MHz	MO	140KD1D 70K4D1D 35K2D1D 17K6D1D 8K80D1D 140KG1D 280KG1D 70K4G1D	2 W (ERP)	0.001 %

Frequency Information

MOBILE: Nongeostationary

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2449.2815 MHz	MO	35K2G1D 17K6G1D 563KA1D 280KA1D 140KA1D 70K4A1D 35K2A1D	2 W (ERP)	0.001 %

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) 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) 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.
- (4) 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.
- (5) ARCE-1 CubeSat Stop Buzzer Designation
Peter Jorgensen, Program Manager
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pjorgensen@mail.usf.edu

Special Conditions:

(6) Point of Communication: CubeSat ARCE-1A, ARCE-1B, ARCE-1C