

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

EXPERIMENTAL

(Nature of Service)

WL9XAF

(Call Sign)

XT FX MO

(Class of Station)

0990-EX-ST-2018

(File Number)

NAME Astranis Space Technologies Corp.

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:

Demonstration of innovative satellite technology.

Station Locations

- (1) Fairbanks (Fairbanks North Star), AK - NL 64-51-31; WL 147-50-07
- (2) Fairbanks (Fairbanks North Star), AK - NL 64-51-31; WL 147-50-07
- (3) MOBILE: NGSO cubesat- Incl 97.4 deg, App 500km, Per 500km
- (4) MOBILE: NGSO cubesat- Incl 97.4 deg, App 500km, Per 500km

Frequency Information

Fairbanks (Fairbanks North Star), AK - NL 64-51-31; WL 147-50-07

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5950-5960 MHz	FX	7M65D7W	48.417 kW (ERP)	0.0001 %
5950-5960 MHz	FX	3M82D7W	24.209 kW (ERP)	0.0001 %

This authorization effective June 15, 2018 and
will expire 3:00 A.M. EST December 15, 2018

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

Fairbanks (Fairbanks North Star), AK - NL 64-51-31; WL 147-50-07

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5950-5960 MHz	FX	1M91D7W	12.105 kW (ERP)	0.0001 %

Fairbanks (Fairbanks North Star), AK - NL 64-51-31; WL 147-50-07

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
401.6-401.75 MHz	FX	99K1G1D 66K0G1D 33K0G1D 16K5G1D 8K26G1D 4K13G1D	764 W (ERP)	0.00025 %

MOBILE: NGSO cubesat- Incl 97.4 deg, App 500km, Per 500km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2390-2400 MHz	MO	3M82D7W	5.51 W (ERP)	0.0008 %
2390-2400 MHz	MO	7M65D7W	11.02 W (ERP)	0.0008 %
2390-2400 MHz	MO	1M91D7W	2.76 W (ERP)	0.0008 %

Frequency Information

MOBILE: NGSO cubesat- Incl 97.4 deg, App 500km, Per 500km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
401.6-401.75 MHz	MO		0.84 W (ERP)	0.00025 %
		99K1G1D		
		66K0G1D		
		33K0G1D		
		16K5G1D		
		8K20G1D		
		4K13G1D		

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) Licensee shall coordinate with the Fixed Microwave Service licensees in accordance with 47 CFR, Part 101.103(d) prior to commencing the experiments.
- (5) Operation in the 5950-5960 MHz band is subject to prior coordination with the local Society of Broadcast Engineers, Inc. (SBE) frequency coordinator. Consult the list at http://freq.sbe.org/pdf_files/coordinators.pdf to find the appropriate coordinator.
- (6) Astranis must notch the frequency 401.65 +/- 4 KHz to protect Department of Commerce operations in the Fairbanks area.
- (7) POINT OF COMMUNICATIONS: Demosat-2