

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

EXPERIMENTAL

(Nature of Service)

WS9XUT

(Call Sign)

XT FX MO

(Class of Station)

1503-EX-ST-2021

(File Number)

NAME Aerostar Technical Solutions

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 conduct high-altitude balloon testing using the mobile networked MIMI(MN-MIMO) radios in the Southern NM area. The ground stations will be land

Station Locations

- (1) Bingham (SOCORRO), NM - NL 33-39-08; WL 106-25-57
- (2) MOBILE: MOEA Bingham, NM max alt 70,000 ft., within 300 km, centered around NL 33-39-08; WL 106-25-57

Frequency Information

Bingham (SOCORRO), NM - NL 33-39-08; WL 106-25-57

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2370-2390 MHz	FX	20M0D7W	63 W (ERP)	0.002 %

This authorization effective October 04, 2021 and
will expire 3:00 A.M. EST October 23, 2021

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

MOBILE: MOEA Bingham, NM max alt 70,000 ft., within 300 km, centered around NL 33-39-08; WL 106-25-57

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2370-2390 MHz	MO	20MOD7W	25 W (ERP)	0.002 %

Special Conditions:

- (1) This frequency assignment in one of the bands 1435-1525, 2310-2320 and 2345-2390 MHz was coordinated prior to authorization with the Area Frequency Coordinator, Ft. Huachuca, AZ, who also coordinated it, as appropriate, with the Aerospace and Flight Test Radio Coordinating Council. Use of this frequency under the authority of this assignment is subject to such further coordination with the AFC, Ft. Huachuca, as necessary to ensure compatibility with existing uses.
- (2) 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.
- (3) Non-interference basis to other current authorized users within radio line-of-sight. May require pre-operations scheduling with DoD Arizona AFC.
- (4) Stop Buzzer POC: Martin Harms
Phone: 6053217162
- (5) AFC-WSMR understands that Raven/Aerostar is cognizant of the spectrum challenges associated with operations in the M2360-M2395 band, and is striving to move their high-altitude balloon initiatives to the C-Band - M4400-M4940 - by Spring 2022.
- (6) The operations described below, are in support of DoD operations, at White Sands Missile Range (WSMR), NM. As such, operations must be scheduled as a WSMR Range mission, through the program's Test Officer/Liaison.
- (7) As a WSMR Range mission, the WSMR Frequency Control office MUST schedule the operations in the Integrated Frequency De-confliction System (IFDS), in order to de-conflict with other operations in the region.
- (8) Raven/Aerostar shall work with the AFTRCC Community to de-conflict with AFTRCC Aeronautical Mobile Telemetry (AMT) operations in the region, and shall provide a link where users of the M2360-M2395 band can track the location of the balloon. This will assist other users to avoid pointing their ground station antennas towards the balloon, and desensitizing their AMT receivers.
- (9) Raven/Aerostar shall operate their airborne transmitter at the lowest output power necessary to establish, and maintain, a stable datalink.

Special Conditions:

- (10) Operations will only be limited to the duration of the DoD exercise, and to the minimum radiation time needed to execute a successful mission.