Abel Avellan, 2901 Enterprise Lane, Midland, TX 79706,

United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
SPECIAL TEMPORARY AUTHORIZATION

EXPERIMENTAL	WY9XMK
(Nature of Service)	(Call Sign)
XT MO	2224-EX-ST-2024
(Class of Station)	(File Number)

NAME AST&Science LLC

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:
Please see Exhibit A for description of test effort with Vodafone.

Station Locations
(1) MOBILE: Non-geostationary LEO satellites; Call Sign S3065
(2) MOBILE: Non-geostationary LEO satellites; Call Sign S3065

Frequency Information

MOBILE: Non-geostationary LEO satellites; Call Sign S3065

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
37.5-42 GHz	MO	10M0G1D	640 W (ERP)	0.00001 %

This authorization effective January 03, 2025 and
will expire 3:00 A.M. EST June 03, 2025

FEDERAL COMMUNICATIONS COMMISSION

Frequency Information

MOBILE: Non-geostationary LEO satellites; Call Sign S3065

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
937.1-942.1 MHz	MO	5M00G1W	9637.6 W (ERP)	0.00001 %
937.1-942.1 MHz	MO	3M00G1W	5782.6 W (ERP)	0.00001 %
937.1-942.1 MHz	MO	1M43G1W	2698.5 W (ERP)	0.00001 %

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) 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.

(3) 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.

(4) This is for experimental purpose only and doesn’t permit commercial service or market access.

(5) Licensee must notch the following frequency band
a) 47.2 - 50.2 GHz

Special Conditions:

(6) Licensee to prior coordinate testing on Band 14 with AT&T/ FirstNet.

(7) Licensee must accept interference from others operating on Band 14 and must not cause interference to FirstNet operations.

(8) Licensee to submit a "Stop Buzzer" contact with "kill switch" authority to FirstNet at: peter.tomczak@firstnet.gov; Licensee agrees to immediately cease operations on Band 14 if notified of any interference concerns.

(9) License subject to further review by the FCC and possible re-coordination with FirstNet.

(10) Prior to commencing any operations in the frequencies below, the experimental licensee must obtain consent from the following within 316 miles of the contours of the testing area:
a. Cellular licensees (824-849 MHz/869-894 MHz)

(11) Point of Communication: BLUEWALKER 3

(12) Stop Buzzer Point of Contact is Huiwen Yao,
5825 University Research Court, Building 2, Suite 2300, College Park, MD 20737,
Telephone: (301) 793-3416
Email: hyao@ast-science.com

(13) Experimental Licensee is authorized to conduct tests on 20 GSM handsets (with antenna gain 0dBi) located at Hana, HI, within 24 km radius, center around coordinates of NL 20-45-15; WL 155-50-55; in the 830-835 MHz frequency band via the BlueWalker 3 ("BW3") non-geostationary orbit ("NGSO") satellites. The maximum EIRP of GSM handset must not exceed 0.2 W /0.12W ERP.

(14) All space-to-Earth transmissions at angles greater than 65.0° from nadir relative to each AST&Science LLC satellite (Callsign S3065) shall not exceed an unwanted equivalent isotropically radiated power (EIRP) density of -21 dB(W/100 MHz) in the frequency band 36-37 GHz.

(15) All applicable power flux-density (PFD) limits provided in 47 CFR 25.208(r) through 47 CFR 25.208(u) shall apply to operations under this STA.