Joshua Kirschenheiter, 2100 Commonwealth Blvd., Ann Arbor, MI 48105,

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

| EXPERIMENTAL | WP9XTA |
|---|---|
| (Nature of Service) | (Call Sign) |
| XT MO | 2064-EX-ST-2019 |
| (Class of Station) | (File Number) |

NAME SRI International

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:
Testing an experimental S-band radar system on a high-altitude balloon.

Station Locations
(1) MOBILE: 29.25N-32N lat, 83.5W-89W long, up to 65,000 ft
(2) MOBILE: 29.25N-32N lat, 83.5W-89W long, up to 65,000 ft
(3) MOBILE: 29.25N-32N lat, 83.5W-89W long, up to 65,000 ft
(4) MOBILE: 29.25N-32N lat, 83.5W-89W long, up to 65,000 ft

Frequency Information

MOBILE: 29.25N-32N lat, 83.5W-89W long, up to 65,000 ft

| Frequency | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---|---|---|---|---|
| 910-920 MHz | MO | 10M0F3D | 2 W (ERP) | 0.00001 % |
| 910-920 MHz | MO | 10M0F3D | 22 W (ERP) | 0.00001 % |

This authorization effective December 17, 2019 and
will expire 3:00 A.M. EST June 12, 2020

**FEDERAL COMMUNICATIONS COMMISSION**

## Frequency Information

MOBILE: 29.25N-32N lat, 83.5W-89W long, up to 65,000 ft

| Frequency | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---|---|---|---|---|
| 2.93625-3.35 GHz | MO | 200MM3N | 7500 W (ERP) | 0.00001 % |

MOBILE: 29.25N-32N lat, 83.5W-89W long, up to 65,000 ft

| Frequency | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---|---|---|---|---|
| 1616-1626.5 MHz | MO | 10M5M7D | 14 W (ERP) | 0.00001 % |

MOBILE: 29.25N-32N lat, 83.5W-89W long, up to 65,000 ft

| Frequency | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---|---|---|---|---|
| 1625.5-1675 MHz | MO | 50K0D7W | 10 W (ERP) | 0.00001 % |

Special Conditions:

(1) 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.

(2) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.

(3) SRI International must schedule operations through the Eglin Center Scheduling Enterprise (CSE) System.
POC: Chief of flight operation, Gary Wesolowski @ 850-882-3883

(4) Prior to commencing any operations in the frequencies below:
a. The applicant must obtain consent from the Location & Monitoring Service licensees (902-928 MHz) within 360 miles of the contours of the testing area
b. The applicant must obtain consent from 1670-1675 MHz Band licensee (Crown Castle International), and the lessee (One Dot Six Corp)

(5) Stop Buzzer: Scott Williams: 650-455-6925; Simon Lee: 805-801-9223

Special Conditions:

(6) Communication between Inmarsat Cobham Aviator UAV 200 Modem antenna(s) and Inmarsat-4 F3's GSO (geostationary orbit space stations) satellite using the 1626.5-1660.5 MHz frequency band is subject to the following conditions:
a. POINT OF COMMUNICATION: Inmarsat-4 F3 satellite @ 98 W.L. ( call sign S2932).
b. Operations must comply with the conditions set forth in the IB's License IBFS File NO. SAT-PPL-20141003-00106, Call sign S2932.

(7) Communication between Iridium Aero antenna(s) and Iridium's NGSO satellites using the 1617.775-1626.5 MHz frequency band is subject to the following conditions:
a. POINT OF COMMUNICATION: Iridium's NGSO (non-geostationary orbit space stations) satellites ( call sign S2110).
b. licensee is authorized to operate Iridium Aero antenna(s) in the 1617.775-1618.725 MHz frequency band via Iridium's NGSO satellites for mobile-satellite service on a shared basis with Globalstar system.

c. licensee is authorized to operate Iridium Aero antenna(s) in the 1618.725-1626.5 MHz frequency band via Iridium's NGSO satellites for mobile-satellite service on an exclusive basis.

d. Use of the 1617.775-1626.5 MHz frequency band is subject to Section 25.213 and footnote 5.372 of the Table of Frequency Allocation, which require protection of stations in the radio astronomy service operating in the band 1610.6-1613.8 MHz band.

(8) Experimental station shall use the minimum power level necessary to establish communications links to minimize potential interference to licensed users.