

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

EXPERIMENTAL

(Nature of Service)

WN9XJC

(Call Sign)

XT MO

(Class of Station)

1493-EX-ST-2018

(File Number)

NAME Scientific Applications and Research Associates, Inc.

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:

RF coupling experiment over a broad range of frequencies.

Station Locations

(1) MOBILE: 1860 Commerce Rd Richmond VA 23224

Frequency Information

MOBILE: 1860 Commerce Rd Richmond VA 23224

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
100-200 kHz	MO	NON NON	44 W (ERP)	1.0E-8 %
200-300 kHz	MO	NON	44 W (ERP)	1.0E-8 %
300-400 kHz	MO	NON	44 W (ERP)	1.0E-8 %

This authorization effective September 17, 2018 and
will expire 3:00 A.M. EST December 01, 2018

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
400-500 kHz	MO	N0N	44 W (ERP)	1.0E-8 %
500-600 kHz	MO	N0N	44 W (ERP)	1.0E-8 %
600-700 kHz	MO	N0N	44 W (ERP)	1.0E-8 %
700-800 kHz	MO	N0N	44 W (ERP)	1.0E-8 %
800-900 kHz	MO	N0N	44 W (ERP)	1.0E-8 %
900-1000 kHz	MO	N0N	44 W (ERP)	1.0E-8 %
1-2 MHz	MO	N0N	44 W (ERP)	1.0E-8 %
2-3 MHz	MO	N0N	44 W (ERP)	1.0E-8 %
3-4 MHz	MO	N0N	44 W (ERP)	1.0E-8 %
4-5 MHz	MO	N0N	44 W (ERP)	1.0E-8 %

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5-6 MHz	MO	N0N	44 W (ERP)	1.0E-8 %
6-7 MHz	MO	N0N	44 W (ERP)	1.0E-8 %
7-8 MHz	MO	N0N	44 W (ERP)	1.0E-8 %
8-9 MHz	MO	N0N	44 W (ERP)	1.0E-8 %
9-10 MHz	MO	N0N	44 W (ERP)	1.0E-8 %
10-20 MHz	MO	N0N	44 W (ERP)	1.0E-8 %
20-30 MHz	MO	N0N	44 W (ERP)	1.0E-8 %
30-40 MHz	MO	N0N	44 W (ERP)	1.0E-8 %
40-50 MHz	MO	N0N	44 W (ERP)	1.0E-8 %
50-60 MHz	MO	N0N	44 W (ERP)	1.0E-8 %

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
60-70 MHz	MO	N0N	44 W (ERP)	1.0E-8 %
70-80 MHz	MO	N0N	44 W (ERP)	1.0E-8 %
80-90 MHz	MO	N0N	44 W (ERP)	1.0E-8 %
90-100 MHz	MO	N0N	44 W (ERP)	1.0E-8 %
100-200 MHz	MO	N0N	44 W (ERP)	1.0E-8 %
200-300 MHz	MO	N0N	44 W (ERP)	1.0E-8 %
300-400 MHz	MO	N0N	44 W (ERP)	1.0E-8 %
400-500 MHz	MO	N0N	44 W (ERP)	1.0E-8 %
500-600 MHz	MO	N0N	44 W (ERP)	1.0E-8 %
600-700 MHz	MO	N0N	44 W (ERP)	1.0E-8 %

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
700-800 MHz	MO	NON	44 W (ERP)	1.0E-8 %
800-900 MHz	MO	NON	44 W (ERP)	1.0E-8 %
900-1000 MHz	MO	NON	44 W (ERP)	1.0E-8 %

Special Conditions:

- (1) Operation 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.
- (2) Licensee is required to coordinate operations with existing microwave users in the area to avoid interference.
- (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) Scientific Applications and Research Associates, Inc. must notch out and not interfere with 2.495 - 2.505 MHz and 4.995 - 5.0 MHz in order not to interfere with the Standard Frequency and Time Signal bands.
- (5) Scientific Applications and Research Associates, Inc. must notch out the frequencies listed in the attachment to the STA application entitled "STA1493 CG Notch list."
- (6) Scientific Applications and Research Associates, Inc. must notch out the following (+/- 2 kHz): 226 kHz, 237 kHz, 261 kHz, 274 kHz, 280 kHz, 284 kHz, 326 kHz, 367 kHz, 382 kHz, 392 kHz, in order not to interfere with air traffic operations.
- (7) Scientific Applications and Research Associates, Inc. must notch out the following bands; 2.85 - 3.025 MHz, 3.4 - 3.5 MHz, 4.650 - 4.700 MHz, 5.45 - 5.68 MHz, 6.525 - 6.685 MHz, 8.815 - 8.965 MHz, 10.005 - 10.100 MHz, 11.275 - 11.400 MHz, 13.260 - 13.360 MHz, 17.900 - 17.970 MHz, 21.925 - 22.000 MHz, 108 - 137 MHz, 225 - 390 MHz, 406.1 - 420 MHz, 970 - 1000 MHz in order not to interfere with air traffic operations.
- (8) Scientific Applications and Research Associates, Inc. must notch out the following (+/- 12.5 kHz): 72.1 MHz, 162.475 MHz, 163.125 MHz, 163.3375 MHz, 164.475 MHz, 164.625 MHz, 165.725 MHz, 166.325 MHz, 166.950 MHz, 167.6750 MHz, 168.325 MHz, 168.425 MHz, 168.6125 MHz, 169.125 MHz, 169.800 MHz, 170.025 MHz, 170.7500 MHz, 171.1625 MHz, 171.725 MHz, 172.475 MHz, 406.6625 MHz, 410.4875 MHz, 412.1125 MHz in order not to interfere with ongoing operations in the area.

Special Conditions:

- (9) Scientific Applications and Research Associates, Inc. must notch out the following (+/- 2 kHz); 3300 kHz, 4900.5 kHz, 7700 kHz in order to avoid ongoing operations in the area.
- (10) Scientific Applications and Research Associates, Inc. must notch out the following:
- 5.9 - 6.2 MHz
 - 7.2 - 7.3 MHz
 - 7.3 - 7.4 MHz
 - 7.4 - 7.45 MHz
 - 9.4 - 9.9 MHz
 - 11.6 - 12.1 MHz
 - 13.57 - 13.87 MHz
 - 15.1 - 15.8 MHz
 - 17.48 - 17.9 MHz
 - 18.9 - 19.02 MHz
 - 21.45 - 21.85 MHz
 - 25.67 - 26.1 MHz
- (11) Scientific Applications and Research Associates, Inc. must notch out the following:
- 137-138 MHz, 148-150.05 MHz, 161-163 MHz, and 400.15-401 MHz
 - 156.0125-162.0375 MHz
 - 156.7625-156.7875 MHz, 156.8125-156.8375 MHz, 1575.42 MHz (GPS),
 - 161.9625-161.9875 MHz, 162.0125-162.0375 MHz, 161.9375-161.9625 MHz,
 - 161.9875-162.0125 MHz, and 402-403 MHz
 - 161.9625-161.9875 MHz, 162.0125-162.0375 MHz, 401-402 MHz, 449.75-450.25 MHz