

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

EXPERIMENTAL

(Nature of Service)

WA8XES

(Call Sign)

XT MO

(Class of Station)

1160-EX-ST-2026

(File Number)

NAME SMARHub

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:

To conduct experiments with the radar network and demonstrate the developed technology.

Station Locations

- (1) MOBILE: Army Research Lab in Adelphi Maryland, within 0.1 km, centered around NL 39-02-12; WL 76-57-21
- (2) MOBILE: Army Research Lab in Adelphi Maryland, within 0.1 km, centered around NL 39-02-12; WL 76-57-21
- (3) MOBILE: Army Research Lab in Adelphi Maryland, within 0.1 km, centered around NL 39-02-12; WL 76-57-21
- (4) MOBILE: Army Research Lab in Adelphi Maryland, within 0.1 km, centered around NL 39-02-12; WL 76-57-21
- (5) MOBILE: Army Research Lab in Adelphi Maryland, within 0.1 km, centered around NL 39-02-12; WL 76-57-21
- (6) MOBILE: Army Research Lab in Adelphi Maryland, within 0.1 km, centered around NL 39-02-12; WL 76-57-21
- (7) MOBILE: Army Research Lab in Adelphi Maryland, within 0.1 km, centered around NL 39-02-12; WL 76-57-21
- (8) MOBILE: Army Research Lab in Adelphi Maryland, within 0.1 km, centered around NL 39-02-12; WL 76-57-21
- (9) MOBILE: Army Research Lab in Adelphi Maryland, within 0.1 km, centered around NL 39-02-12; WL 76-57-21

This authorization effective July 27, 2026 and
will expire 3:00 A.M. ET November 20, 2026

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

MOBILE: Army Research Lab in Adelphi Maryland, within 0.1 km, centered around NL 39-02-12; WL 76-57-21

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
3.3846-3.4154 GHz	MO	30M7G1D	1.45 W (ERP)	1 %

MOBILE: Army Research Lab in Adelphi Maryland, within 0.1 km, centered around NL 39-02-12; WL 76-57-21

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2.98-3.18 GHz	MO	160MQ3N	2 W (ERP)	1 %
3.438-3.52 GHz	MO	80M0Q3N	2 W (ERP)	1 %

MOBILE: Army Research Lab in Adelphi Maryland, within 0.1 km, centered around NL 39-02-12; WL 76-57-21

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
3.3846-3.4154 GHz	MO	30M7G1D	1.45 W (ERP)	1 %

MOBILE: Army Research Lab in Adelphi Maryland, within 0.1 km, centered around NL 39-02-12; WL 76-57-21

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
3.3846-3.4154 GHz	MO	30M7G1D	1.45 W (ERP)	1 %

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
3.3846-3.4154 GHz	MO	30M7G1D	1.45 W (ERP)	1 %

MOBILE: Army Research Lab in Adelphi Maryland, within 0.1 km, centered around NL 39-02-12; WL 76-57-21

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
4.2-4.7 GHz	MO	50M0G7D	2 W (ERP)	1 %

MOBILE: Army Research Lab in Adelphi Maryland, within 0.1 km, centered around NL 39-02-12; WL 76-57-21

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
4.2-4.7 GHz	MO	50M0G7D	2 W (ERP)	1 %

MOBILE: Army Research Lab in Adelphi Maryland, within 0.1 km, centered around NL 39-02-12; WL 76-57-21

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2.98-3.18 GHz	MO	100MQ3N	200 mW (ERP)	1 %

Frequency Information

MOBILE: Army Research Lab in Adelphi Maryland, within 0.1 km, centered around NL 39-02-12; WL 76-57-21

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2.98-3.18 GHz	MO	100MQ3N	200 mW (ERP)	1 %

Special Conditions:

- (1) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (2) Prior to commencing operations in the authorized frequency band(s), the experimental licensee must notify the potentially affected licensees below. The notice must include the name and contact information of the stop buzzer personnel that will be available to cease operations in the event of reported interference. The notification should also include the testing parameters (e.g., specific location(s), frequency bands, antenna gain(s), antenna height(s), antenna orientation, EIRP, EIRP density) and day and times of each test.

Special Conditions:

(3)

Potentially affected licensees below to be notified:

Frequency Bands: 2000-4000 MHz (S-band) (Call sign S3213) Licensee: Spire Global, Inc. Phone Number: 415-356-3400 ATTN: Ms Francisca Adeuyi E-Mail: francisca.adeuyi@spire.com

Frequency Bands: 2.9-3.1 GHz (Call sign S3170) Licensee: Loft Orbital Solutions Inc. Phone Number: 410-382-5050 ATTN: Alex Greenberg E-Mail: alex@loftorbital.com

Frequency Bands: 3400-3700 MHz (s-E) (Call sign S2887, S2924) Frequency Bands: 3700-4200 MHz (s-E) (Call sign S2715, S2160, S3148) Licensee: Intelsat License LLC Phone Number: 703-559-7799 ATTN: Mr. W. Ray Rutngamlug, E-Mail: ray.rutngamlugintelsat.com

Frequency Bands: 3700-4200 MHz (E-s) (Call sign S2990, S3059) Licensee: Space Logistics, LLC Phone Number: 703-406-5000 ATTN: Mr. Joseph Anderson E-Mail: joseph.Anderson@orbitalatk.com

Frequency Bands: 3700-4200 MHz (s-E) (Call sign S2162, S2826) Licensee: SES Americom, Inc. Phone Number: 202-280-8657 ATTN: Mr. Daniel C.H. Mah, E-Mail: daniel.mah@ses.com

Frequency Bands: 3700-4200 MHz (s-E) (Call sign S2956) Licensee: Empresa Argentina de Soluciones Satelitales S.A. Phone Number: 5411 5811 2600 ATTN: Mr. Carlos M del Valle Campos, E-Mail: cdelvalle@arsat.com.ar

Frequency Bands: 4500-4800 MHz (Call sign S3226) Licensee: Eutelsat do Brasil Ltda Phone Number: 5521992605775 ATTN: Rodrigo Campos E-Mail: rodrigo.campos@eutelsat.com

(4)

Prior to commencing any operations in the 3.45-3.55 GHz band, SMARHub must obtain consent from 3.45 GHz band licensees (3.45-3.55 GHz) within 50 miles of the contours of the operating area.

(5)

SMARHub should be aware that other stations may be licensed on these frequencies and if any interference occurs, SMARHub may be subject to immediate shut down.

(6)

Stop Buzzer Information:
Samuel Shebert
sshebert@vt.edu
585-200-7034

(7)

SMARHub may not operate in the 4200-4400 MHz band, this band is exclusively for radio altimeter equipment.

Special Conditions:

- (8) For 2.98-3.18 GHz band, email Christopher.S.Jones@faa.gov and Vaibhav.Shah@faa.gov, within 24 hours after activation with start time(s) and stop time(s) of transmissions, antenna bearing(s), and transmit power(s) (ERP: 200mW or 2W).