

**United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
RADIO STATION CONSTRUCTION PERMIT
AND LICENSE**

EXPERIMENTAL

(Nature of Service)

XD FX

(Class of Station)

WN2XUU

(Call Sign)

1028-EX-CN-2023

(File Number)

NAME SES Space & Defense, Inc.

Subject to the provisions of the Communications Act of 1934, subsequent acts, and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions and requirements set forth in this license, the licensee hereof is hereby authorized to use and operate the radio transmitting facilities hereinafter described for radio communications in accordance with the program of experimentation described by the licensee in its application for license.

Operation: In accordance with Sec. 5.3(j) of the Commission's Rules

Station Locations

- (1) Port St. Lucie, FL - NL 27-16-57; WL 80-28-58
- (2) Bristow, VA - NL 38-46-59; WL 77-34-27
- (3) Clearwater, FL - NL 27-55-12; WL 82-42-24

Frequency Information

Port St. Lucie, FL - NL 27-16-57; WL 80-28-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
28.35-29.1 GHz	FX	100MG7D	327000 W (ERP)	3.0E-6 %
29.5-30 GHz	FX	100MG7D	327000 W (ERP)	3.0E-6 %

This authorization effective August 17, 2023 and
will expire 3:00 A.M. EST September 01, 2025

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Frequency Information

Bristow, VA - NL 38-46-59; WL 77-34-27

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Clearwater, FL - NL 27-55-12; WL 82-42-24

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
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29.5-30 GHz	FX	100MG7D	327000 W (ERP)	3.0E-6 %

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) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (3) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (4) Licensee is authorized to test and demonstrate two units of the 1.3-meter Tampa Microwave antenna (Model: 220334-03G) at geographical coordinates 27°55'12" N, 82°42'24" W in Clearwater, FL; 27°16'57" N, 80°28'58" W in Port St. Lucie, FL; and 38°46'59" N, 77°34'27" W in Bristow, VA, to support satellite communications to U.S. Government customers deployed around the world by using the 28.35-29.1 GHz and the 29.5-30.0 GHz frequency bands.
- (5) Point of Communication: O3b Ka-band NGSO satellite (Call Sign S2935).
- (6) Experimental operation must be on an unprotected and non-interference basis (NIB), i.e., licensee must not cause harmful interference to and must not claim protection from interference caused to it by, any other lawfully operating stations.

Special Conditions:

- (7) Experimental operation in the 28.35-29.1 GHz and the 29.5-30.0 GHz frequency bands and use of the 1.3-meter Tampa Microwave antennas (Model: 220334-03G) must be in compliance with the following:
- | Emission | Power | ERP | EIRP | EIRP Density |
|----------|-------|----------|----------|----------------|
| 100MG7W | 4 W | 327000 W | 57.3 dBW | 13.31 dBW/4KHz |
- (8) Communications between the 1.3-meter Tampa Microwave antennas (Model: 220334-03G) and the O3b satellite must be in compliance with all existing and future space station coordination agreements reached between the O3b satellite operators and all affected NGSO and GSO satellites with co-frequency operations.
- (9) Experimental operation in the 28.35-28.6 GHz and 29.5-30.0 GHz frequency bands must be in compliance with the equivalent power flux-density limit (-162 dBW/m²/40 kHz) set-forth in Table 22-2, Section II, Article 22, Chapter VI of the ITU Radio Regulations (Edition of 2020).
- (10) Experiential operation must be in compliance with Commission's rule 47 CFR § 25.289 to protect a GSO FSS or GSO BSS network.
- (11) This authorization is without prejudice to any determination that the Commission may make regarding pending or future experimental satellite earth station applications.
- (12) In the event any harmful interference has been identified, the stop buzzer contact person is:
Name: Mike Blefko
Phone: (703) 610-0957 (office) & (571) 419-1333 (mobile)
Email: Mike.Blefko@ses-gs.com
- (13) Licensee must secure consents from the Upper Microwave Flexible Use Service licensees operating in the adjacent band in each proposed area prior to conducting the tests and demonstrations.
- (14) Licensee must coordinate with the Fixed Microwave Service licensees operating in adjacent band in the proposed venues prior to performing the tests and demonstration.