

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

EXPERIMENTAL

(Nature of Service)

WH9XCM

(Call Sign)

XT MO

(Class of Station)

0845-EX-ST-2013

(File Number)

NAME Orbital Sciences Corporation

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:**

Orbital Sciences Corporation will utilize the Antares Launch Vehicle to deliver the Cygnus Spacecraft to Low Earth Orbit

**Station Locations**

- (1) MOBILE: From Launch Pad 0A at Wallops Flight Facility in Virginia through trajectory of launch mission into Low Earth Orbit - 350 km altitude, 52 degrees inclination, centered around NL 37-49-52; WL 75-29-28
- (2) MOBILE: From launch pad 0A at Wallops Flight Facility in Virginia through trajectory of launch mission into Low Earth Orbit - 350 km altitude, 52 degrees inclination, centered around NL 37-49-52; WL 75-29-28
- (3) MOBILE: From launch pad 0A at Wallops Flight Facility in Virginia through trajectory of launch mission into Low Earth Orbit - 350 km altitude, 52 degrees inclination, centered around NL 37-49-52; WL 75-29-28

**Frequency Information**

MOBILE: From Launch Pad 0A at Wallops Flight Facility in Virginia through trajectory of launch mission into Low Earth Orbit - 350 km altitude, 52 degrees inclination, centered around NL 37-49-52; WL 75-29-28

| Frequency           | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------------|---------------|---------------------|------------------|---------------------------|
| 2239.76-2243.24 MHz | MO            | 3M48F1D             | 4.6 W (ERP)      | 0.002 %                   |

This authorization effective November 15, 2013 and  
will expire 3:00 A.M. EST May 02, 2014

**FEDERAL  
COMMUNICATIONS  
COMMISSION**



## Frequency Information

MOBILE: From Launch Pad 0A at Wallops Flight Facility in Virginia through trajectory of launch mission into Low Earth Orbit - 350 km altitude, 52 degrees inclination, centered around NL 37-49-52; WL 75-29-28

| Frequency           | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------------|---------------|---------------------|------------------|---------------------------|
| 2267.76-2271.24 MHz | MO            | 3M48F1D             | 3.1 W (ERP)      | 0.002 %                   |

MOBILE: From launch pad 0A at Wallops Flight Facility in Virginia through trajectory of launch mission into Low Earth Orbit - 350 km altitude, 52 degrees inclination, centered around NL 37-49-52; WL 75-29-28

| Frequency           | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------------|---------------|---------------------|------------------|---------------------------|
| 2286.76-2290.24 MHz | MO            | 3M48F1D             | 3.2 W (ERP)      | 0.002 %                   |

MOBILE: From launch pad 0A at Wallops Flight Facility in Virginia through trajectory of launch mission into Low Earth Orbit - 350 km altitude, 52 degrees inclination, centered around NL 37-49-52; WL 75-29-28

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 5758-5772 MHz | MO            | 14M0P0N             | 400 W (ERP)      | 2 %                       |

## Special Conditions:

- (1) All OSC operations, granted on an experimental basis, shall be on an unprotected, non-interference basis to authorized federal stations.
- (2) All operations shall be limited to telemetry, tracking, and control (TT&C). This STA is limited to the single Antares launch scheduled for no earlier than 15 December 2013, for launching the CYGNUS spacecraft to low earth orbit. This STA will expire as soon as the launch has been completed. Any future launches will need to submit applications to the FCC to be re-coordinated with NTIA.
- (3) OSC shall be aware that future non-federal launches will be considered on a case-by-case basis, especially for requests in the band 2200-2290 MHz, and OSC shall have no expectations that future launches will be approved.
- (4) Prior to transmitting at Wallops Flight Facility, OSC shall coordinate and schedule their operations through NASA WFF Spectrum Manager, Felipe Arroyo, felipe.arroyo-1@nasa.gov, 757-824-1623 and NOAA Philip.L.Whaley@noaa.gov (757-824-7331, extension 331).

## Special Conditions:

- (5) As soon as possible, but no later than seven days prior to the planned demonstration mission launch, OSC is required to provide Mr. Jimmy Nguyen (jimmy.nguyen@pentagon.af.mil, (301-225-3729), Air Force Spectrum Management Office (AFSMO) with the planned launch date/time/window/duration. In the event of last minute changes, 48 hour notice is requested.
- (6) All transmissions in the band 2200-2290 MHz will comply with national and international power flux-density (PFD) limits.
- (7) OSC shall keep a log of all transmissions in the band 2200-2290 MHz that will be provided to NTIA after the mission. This log should include at least date, time, frequency, eirp density, and pointing direction of the transmitting antenna. The log should be provided to the following people at NTIA: skotler@ntia.doc.gov and edrocella@ntia.doc.gov
- (8) Orbital Sciences Corporation must coordinate with the Naval Surface Warfare Center, Dahlgren Division (NSWCDD), Mr. James Moneyhon (540)653-3477, or james.moneyhon@navy.mil a minimum of 30-days prior to any operations to mitigate harmful interference to Navy and Marine Corps operations. Orbital Sciences Corporation must also comply with any and all restrictions that may be levied by the Naval Surface Warfare Center, Dahlgren Division (NSWCDD).
- (9) When vehicle is in the horizontal integration facility:  
STOP BUZZER POC is Joe Carpico, phone no. 757-824-6510 (or 757-824-6509 phone manned 24/7) (Backup is Charles Lankford, phone no. 757-824-6522).  
When vehicle is on the pad:  
STOP BUZZER POC is Tony Gaio, Amanda Davis, or Dan Givens, phone no. 703-824-2886 (phone manned 24/7).
- (10) This license revised 12/12/13 supersedes previous grant to remove previous condition number 8 and to revise the stop buzzer contacts.