

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

EXPERIMENTAL

(Nature of Service)

XD MO

(Class of Station)

WD9XSI

(Call Sign)

0013-EX-TC-2009

(File Number)

NAME SWE-DISH Satellite Systems, 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.

Station Locations

(1) MOBILE: US

Frequency Information

MOBILE: US

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14-14.5 GHz	MO	10M0G1D	166 kW (ERP)	

Special Conditions:

- (1) All customers participating in the experiment shall be informed that this operation is for experimental purposes only and can be cancelled at any time.
- (2) All operations subject to prior coordination with Area Frequency Coordinator Pacific Missile Range, Point Mugu, California: (805) 989-7983.
- (3) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (4) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.

This authorization effective May 29, 2009 and
will expire 3:00 A.M. EST June 30, 2009

**FEDERAL
COMMUNICATIONS
COMMISSION**



Special Conditions:

- (5) There shall be a point of contact in the United States, with phone number and address included with the application, available 24 hours a day, seven days a week, with authority and ability to cease all emissions from the earth stations, either directly or through the facilities of a U.S. Hub or a Hub located in another country with which the U.S. has a bilateral agreement that enables such cessation of emissions. The designated point-of-contact to terminate transmissions if interference occurs is Mr. Mark Steel, Cell: 703-409-1595 and Tel: 703-476-1826 (Extn. 2215).
- (6) POINTS OF COMMUNICATION: AMC-21, Galaxy 28, and Horizons 1.
- (7) In accordance with Article 4.4 of the ITU Radio Regulations, the operations authorized herein shall not cause harmful interference to, and shall not claim protection from harmful interference caused by, a station operating in accordance with the provisions of the ITU Constitution, the ITU Convention, and the ITU Radio Regulations.
- (8) Licensee shall comply with the EIRP density criteria set forth in Part 25.222(a)(1) through (a)(4) of the FCC's rules.
- (9) No transmissions are permitted between 14.0 GHz and 14.2 GHz within 125 km of White Sands, NM (latitude: 32° 20' 59" N, longitude 106° 36' 31" W and latitude: 32° 32' 40" N, longitude 106° 36' 48" W).
- (10) No transmissions are permitted between 14.47 GHz and 14.5 GHz within 125 km of Mauna Kea, HI (at latitude 19° 48' N, longitude 155° 28' W).
- (11) National Science Foundation (NSF) requests that SWE-DISH Satellite Communications, Inc.:
 - 1) Coordinate operation at the Taunton, MA site with the National Radio Astronomy Observatory's VLBA site at Hancock, NH. (POC Mr. Dan Mertely at Socorro, NM, Phone: 505- 835-7027 and e-mail: dmertely@nrao.edu).
 - 2) Coordinate operation at the Fredericksburg, VA site with Wes Sizemore at Green Bank. (Phone: 304-456-2107, e-mail:wsizemor@nrao.edu).
- (12) Prior to commencement of operation with Galaxy 28, AMC-21, or Horizons 1 pursuant to this experimental license, licensee shall obtain a certification from the owners of Galaxy 28, AMC-21, or Horizons 1 that they have notified all satellite operators with co-frequency operations within 6 degrees longitude of their respective satellite, generally describing the experimental operations authorized herein, including the term thereof, and providing a point of contact for the purpose of resolving any complaints of interference. Licensee shall obtain a similar certification from the owners of Galaxy 28, AMC-21, or Horizons 1 if, during the term of this STA, a new or different satellite operator commences co-frequency operations within 6 degrees longitude of their respective satellite. If the point of contact receives a complaint of harmful interference, the party receiving the complaint (if not the licensee) will notify licensee, and licensee shall immediately cease such operations or adjust such operations to avoid harmful interference. Licensee will submit a copy of the certification(s) to the Commission for incorporation into the record of this file.
- (13) No transmissions are permitted between 14.0 GHz and 14.2 GHz within 125 km of Blossom Point, MD (latitude: 38° 25' 44" N, longitude 77° 05' 20" W)

Special Conditions:

- (14) Prior to operating in the 14.47-14.5 GHz frequency band, in the listed locations, SWE-DISH Satellite Communications, Inc. will coordinate with the National Academy of Sciences (NSF) and notify the Commission of the results of that coordination:
Within 45 km of the radio observatory on St. Croix, Virgin Islands (latitude 17° 46' N, longitude 64° 35' W);
Within 125 km of the radio observatory on Mauna Kea, Hawaii (latitude 19° 48' N, longitude 155° 28' W);
Within 90 km of the Arecibo Observatory on Puerto Rico (latitude 18° 20' 46" N, longitude 66° 45' 11" W); and
Within 160 km of the radio observatories listed in US203 as observing in the 14.47-14.5 GHz band.
- (15) Licensee shall maintain a pointing error of less than 0.2°, between the orbital location of the target satellite and the axis of the main lobe of the earth station antenna. All emissions from the earth station shall automatically cease within 100 milliseconds if the angle between the orbital location of the target satellite and the axis of the main lobe of the earth station antenna exceeds 0.5°, and transmission will not resume until such angle is less than 0.2°.
- (16) Maximum antenna flange input power density does not exceed -18.67 dBw/4kHz.