

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

EXPERIMENTAL

(Nature of Service)

WD9XSI

(Call Sign)

XD MO

(Class of Station)

0305-EX-ST-2009

(File Number)

NAME SWE-DISH Satellite Communications, 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:

New experimental in 14-14.5 GHz to demonstrate Satcom-on-the-move.

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) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.

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

**FEDERAL
COMMUNICATIONS
COMMISSION**



Special Conditions:

- (4) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (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.