

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

EXPERIMENTAL

(Nature of Service)

WC9XET

(Call Sign)

XD MO

(Class of Station)

0573-EX-ST-2005

(File Number)

NAME Hughes Network Systems, sub LLC

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:

Testing, demonstration and training of a Ka and Ku-band VSAT-type satcom network utilizing sub-meter mobile terminals to provide services for military applications.

Station Locations

- (1) MOBILE: Germantown, MD, within 55 km, centered around NL 39-10-49; WL 77-14-47
- (2) MOBILE: Ft. Huachuca, AZ, within 55 km, centered around NL 31-33-09; WL 110-20-50
- (3) MOBILE: Ft. Monmouth, NJ, within 80 km, centered around NL 40-18-25; WL 74-02-24
- (4) MOBILE: Vertex RSI facility in Richardson, TX facility, within 5 km, centered around NL 32-58-27; WL 96-42-15
- (5) MOBILE: General Dynamics facility in Tauton, MA, within 5 km
- (6) MOBILE: Fort Gordon, GA, within 5 km, centered around NL 33-24-36; WL 82-08-24
- (7) MOBILE: VertexRSI facility in Duluth, GA, within 5 km, centered around NL 33-55-10; WL 84-16-12
- (8) MOBILE: Coherent Systems facility in Fredricksburg, VA, within 5 km, centered around NL 38-19-50; WL 77-28-56

This authorization effective October 27, 2005 and
will expire 3:00 A.M. EST April 27, 2006

**FEDERAL
COMMUNICATIONS
COMMISSION**

Frequency Information

MOBILE: Germantown, MD, within 55 km, centered around NL 39-10-49; WL 77-14-47

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14-14.5 GHz	MO	1M60G7D	44 kW (ERP)	
29.5-30 GHz	MO	800KG7D	93 kW (ERP)	

MOBILE: Ft. Huachuca, AZ, within 55 km, centered around NL 31-33-09; WL 110-20-50

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14-14.5 GHz	MO	1M60G7D	44 kW (ERP)	
29.5-30 GHz	MO	800KG7D	93 kW (ERP)	

MOBILE: Ft. Monmouth, NJ, within 80 km, centered around NL 40-18-25; WL 74-02-24

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14-14.5 GHz	MO	1M60G7D	44 kW (ERP)	
29.5-30 GHz	MO	800KG7D	93 kW (ERP)	

Frequency Information

MOBILE: Vertex RSI facility in Richardson, TX facility, within 5 km, centered around NL 32-58-27; WL 96-42-15

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14-14.5 GHz	MO	1M60G7D	44 kW (ERP)	
29.5-30 GHz	MO	800KG7D	93 kW (ERP)	

MOBILE: General Dynamics facility in Tauton, MA, within 5 km

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14-14.5 GHz	MO	1M60G7D	44 kW (ERP)	
29.5-30 GHz	MO	800KG7D	93 kW (ERP)	

MOBILE: Fort Gordon, GA, within 5 km, centered around NL 33-24-36; WL 82-08-24

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14-14.5 GHz	MO	1M60G7D	44 kW (ERP)	
29.5-30 GHz	MO	800KG7D	93 kW (ERP)	

Frequency Information

MOBILE: VertexRSI facility in Duluth, GA, within 5 km, centered around NL 33-55-10; WL 84-16-12

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14-14.5 GHz	MO	1M60G7D	44 kW (ERP)	
29.5-30 GHz	MO	800KG7W	93 kW (ERP)	

MOBILE: Coherent Systems facility in Fredricksburg, VA, within 5 km, centered around NL 38-19-50; WL 77-28-56

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14-14.5 GHz	MO	1M60G7D	44 kW (ERP)	
29.5-30 GHz	MO	800KG7D	93 kW (ERP)	

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) 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.
- (3) POINTS OF COMMUNICATION: Ku-band: Galaxy 10-R at 123.0 West Longitude or SATMEX-5 at 116.8 degrees West Longitude; Ka-band: SpaceWay-1, SpaceWay-2, AMC-15 and AMC-16.

Special Conditions:

- (4) Prior to commencement of operation with Galaxy 10-R satellite at 123.0 WL or SATMEX-5 at 116.8 degrees WL pursuant to this special temporary authority (STA), licensee shall obtain a certification from the owners of Galaxy 10-R and/or SATMEX-5 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 10-R and/or SATMEX-5 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.
- (5) National Science Foundation (NSF) requests that licensee:
- 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).
- (6) This license SUPERSEDES the previously issued authorization with the same call sign and file number: adds Ka band points of communication.