

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

EXPERIMENTAL

(Nature of Service)

XD FX

(Class of Station)

WD2XJU

(Call Sign)

0137-EX-ML-2005

(File Number)

NAME Hughes Network Systems, sub LLC

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(g & i) of the Commission's Rules

Station Locations

- (1) San Diego (SAN DIEGO), CA - NL 32-54-31; WL 117-11-26
- (2) Gaithersburg, MD - NL 39-09-02; WL 77-12-31
- (3) Onley (ACCOMACK), VA - NL 37-37-24; WL 75-22-50
- (4) Maxwelton (GREENBRIER), WV - NL 37-51-59; WL 80-22-52
- (5) Luray (HAMPTON), SC - NL 32-50-01; WL 81-18-40
- (6) Ashby (BIBB), AL - NL 33-00-50; WL 86-55-25
- (7) Mountain Dale (SULLIVAN), NY - NL 41-40-13; WL 74-31-15
- (8) Fort Lauderdale (BROWARD), FL - NL 25-07-30; WL 80-07-30
- (9) San Francisco (SAN FRANCISCO), CA - NL 37-46-12; WL 122-27-00

Frequency Information

San Diego (SAN DIEGO), CA - NL 32-54-31; WL 117-11-26

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1627.1-1627.7 MHz	FX	156KG7W 156KD7W 31K2G7W 31K2D7W	51.8 W (ERP)	
1639.2-1639.5 MHz	FX	156KG7W	51.8 W (ERP)	

This authorization effective March 07, 2006 and
will expire 3:00 A.M. EST June 01, 2006

**FEDERAL
COMMUNICATIONS
COMMISSION**

Frequency Information

San Diego (SAN DIEGO), CA - NL 32-54-31; WL 117-11-26

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1639.2-1639.5 MHz	FX	156KD7W 31K2G7W 31K2D7W	51.8 W (ERP)	
1642.5-1642.7 MHz	FX	31K2D7W 31K2G7W 156KD7W 156KG7W	51.8 W (ERP)	
1642.8-1643 MHz	FX	31K2D7W 31K2G7W 156KD7W 156KG7W	51.8 W (ERP)	
1643.9-1644.3 MHz	FX	31K2D7W 31K2G7W 156KD7W 156KG7W	51.8 W (ERP)	
1646.5-1647.7 MHz	FX	31K2D7W 31K2G7W 156KD7W 156KG7W	51.8 W (ERP)	

Frequency Information

Gaithersburg, MD - NL 39-09-02; WL 77-12-31

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1627.1-1627.7 MHz	FX	156KG7W 156KD7W 31K2G7W 31K2D7W	51.8 W (ERP)	
1639.2-1639.5 MHz	FX	31K2D7W 31K2G7W 156KD7W 156KG7W	51.8 W (ERP)	
1642.5-1642.7 MHz	FX	156KG7W 156KD7W 31K2G7W 31K2D7W	51.8 W (ERP)	
1642.8-1643 MHz	FX	156KD7W 156KG7W 31K2D7W 31K2G7W	51.8 W (ERP)	
1643.9-1644.3 MHz	FX	156KG7W 156KD7W 31K2G7W 31K2D7W	51.8 W (ERP)	
1646.5-1647.7 MHz	FX	31K2D7W 31K2G7W 156KD7W	51.8 W (ERP)	

Frequency Information

Gaithersburg, MD - NL 39-09-02; WL 77-12-31

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1646.5-1647.7 MHz	FX	156KG7W	51.8 W (ERP)	

Onley (ACCOMACK), VA - NL 37-37-24; WL 75-22-50

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1627.1-1627.7 MHz	FX	156KG7W 156KD7W 31K2G7W 31K2D7W	51.8 W (ERP)	
1639.2-1639.5 MHz	FX	156KG7W 156KD7W 31K2G7W 31K2D7W	51.8 W (ERP)	
1642.5-1642.7 MHz	FX	31K2D7W 31K2G7W 156KD7W 156KG7W	51.8 W (ERP)	
1642.8-1643 MHz	FX	31K2G7W 31K2D7W 156KG7W 156KD7W	51.8 W (ERP)	
1643.9-1644.3 MHz	FX	31K2D7W	51.8 W (ERP)	

Frequency Information

Onley (ACCOMACK), VA - NL 37-37-24; WL 75-22-50

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1643.9-1644.3 MHz	FX	31K2G7W 156KD7W 156KG7W	51.8 W (ERP)	
1646.5-1647.7 MHz	FX	156KG7W 156KD7W 31K2G7W 31K2D7W	51.8 W (ERP)	

Maxwelton (GREENBRIER), WV - NL 37-51-59; WL 80-22-52

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1627.1-1627.7 MHz	FX	156KG7W 156KD7W 31K2G7W 31K2D7W	51.8 W (ERP)	
1639.2-1639.5 MHz	FX	156KG7W 156KD7W 31K2G7W 31K2D7W	51.8 W (ERP)	
1642.5-1642.7 MHz	FX	31K2D7W 31K2G7W 156KD7W 156KG7W	51.8 W (ERP)	

Frequency Information

Maxwelton (GREENBRIER), WV - NL 37-51-59; WL 80-22-52

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1642.8-1643 MHz	FX	156KG7W 156KD7W 31K2G7W 31K2D7W	51.8 W (ERP)	
1643.9-1644.3 MHz	FX	156KD7W 156KG7W 31K2D7W 31K2G7W	51.8 W (ERP)	
1646.5-1647.7 MHz	FX	156KG7W 156KD7W 31K2G7W 31K2D7W	51.8 W (ERP)	

Luray (HAMPTON), SC - NL 32-50-01; WL 81-18-40

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1627.1-1627.7 MHz	FX	156KG7W 156KD7W 31K2G7W 31K2D7W	51.8 W (ERP)	
1639.2-1639.5 MHz	FX	31K2D7W 31K2G7W 156KD7W	51.8 W (ERP)	

Frequency Information

Luray (HAMPTON), SC - NL 32-50-01; WL 81-18-40

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1639.2-1639.5 MHz	FX	156KG7W	51.8 W (ERP)	
1642.5-1642.7 MHz	FX	156KG7W 156KD7W 31K2G7W 31K2D7W	51.8 W (ERP)	
1642.8-1643 MHz	FX	31K2D7W 31K2G7W 156KD7W 156KG7W	51.8 W (ERP)	
1643.9-1644.3 MHz	FX	31K2G7W 31K2D7W 156KG7W 156KD7W	51.8 W (ERP)	
1646.5-1647.7 MHz	FX	31K2D7W 31K2G7W 156KD7W 156KG7W	51.8 W (ERP)	

Ashby (BIBB), AL - NL 33-00-50; WL 86-55-25

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1627.1-1627.7 MHz	FX	156KG7W	51.8 W (ERP)	

Frequency Information

Ashby (BIBB), AL - NL 33-00-50; WL 86-55-25

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1627.1-1627.7 MHz	FX	156KD7W 31K2G7W 31K2D7W	51.8 W (ERP)	
1639.2-1639.5 MHz	FX	156KG7W 156KD7W 31K2G7W 31K2D7W	51.8 W (ERP)	
1642.5-1642.7 MHz	FX	31K2D7W 31K2G7W 156KD7W 156KG7W	51.8 W (ERP)	
1642.8-1643 MHz	FX	156KG7W 156KD7W 31K2G7W 31K2D7W	51.8 W (ERP)	
1643.9-1644.3 MHz	FX	31K2D7W 31K2G7W 156KD7W 156KG7W	51.8 W (ERP)	
1646.5-1647.7 MHz	FX	31K2G7W 31K2D7W 156KG7W	51.8 W (ERP)	

Frequency Information

Ashby (BIBB), AL - NL 33-00-50; WL 86-55-25

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1646.5-1647.7 MHz	FX	156KD7W	51.8 W (ERP)	

Mountain Dale (SULLIVAN), NY - NL 41-40-13; WL 74-31-15

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1627.1-1627.7 MHz	FX	156KG7W 156KD7W 31K2G7W 31K2D7W	51.8 W (ERP)	
1639.2-1639.5 MHz	FX	31K2D7W 31K2G7W 156KD7W 156KG7W	51.8 W (ERP)	
1642.5-1642.7 MHz	FX	156KG7W 156KD7W 31K2G7W 31K2D7W	51.8 W (ERP)	
1642.8-1643 MHz	FX	31K2D7W 31K2G7W 156KD7W 156KG7W	51.8 W (ERP)	
1643.9-1644.3 MHz	FX	156KG7W	51.8 W (ERP)	

Frequency Information

Mountain Dale (SULLIVAN), NY - NL 41-40-13; WL 74-31-15

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1643.9-1644.3 MHz	FX	156KD7W 31K2G7W 31K2D7W	51.8 W (ERP)	
1646.5-1647.7 MHz	FX	156KD7W 156KG7W 31K2D7W 31K2G7W	51.8 W (ERP)	

Fort Lauderdale (BROWARD), FL - NL 25-07-30; WL 80-07-30

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1627.1-1627.7 MHz	FX	156KG7W 156KD7W 31K2G7W 31K2D7W	51.8 W (ERP)	
1639.2-1639.5 MHz	FX	156KG7W 156KD7W 31K2G7W 31K2D7W	51.8 W (ERP)	
1642.5-1642.7 MHz	FX	31K2D7W 31K2G7W 156KD7W 156KG7W	51.8 W (ERP)	

Frequency Information

Fort Lauderdale (BROWARD), FL - NL 25-07-30; WL 80-07-30

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1642.8-1643 MHz	FX	156KG7W	51.8 W (ERP)	
		156KD7W		
		31K2G7W		
		31K2D7W		
1643.9-1644.3 MHz	FX	31K2D7W	51.8 W (ERP)	
		31K2G7W		
		156KD7W		
		156KG7W		
1646.5-1647.7 MHz	FX	156KG7W	51.8 W (ERP)	
		156KD7W		
		31K2G7W		
		31K2D7W		

San Francisco (SAN FRANCISCO), CA - NL 37-46-12; WL 122-27-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1627.1-1627.7 MHz	FX	156KD7W	51.8 W (ERP)	
		156KG7W		
		31K2D7W		
		31K2G7W		
1639.2-1639.5 MHz	FX	156KD7W	51.8 W (ERP)	
		156KG7W		
		31K2D7W		

Frequency Information

San Francisco (SAN FRANCISCO), CA - NL 37-46-12; WL 122-27-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1639.2-1639.5 MHz	FX	31K2G7W	51.8 W (ERP)	
1642.5-1642.7 MHz	FX	156KD7W 156KG7W 31K2D7W 31K2G7W	51.8 W (ERP)	
1642.8-1643 MHz	FX	156KD7W 156KG7W 31K2D7W 31K2G7W	51.8 W (ERP)	
1643.9-1644.3 MHz	FX	156KD7W 156KG7W 31K2D7W 31K2G7W	51.8 W (ERP)	
1646.5-1647.7 MHz	FX	156KD7W 156KG7W 31K2D7W 31K2G7W	51.8 W (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) POINT OF COMMUNICATION: INMARSAT 4F2 Satellite.
- (3) Hughes Network Systems, sub LLC shall assure that adequate guard bands are provided between the band edges of its carriers and the band edges of MSV's operations in order to preclude the possibility of unacceptable interference to MSV's operations.

Special Conditions:

- (4) Neither the aggregate uplink EIRP densities in the direction of any other L-band satellite serving the United States, nor the downlink EIRP densities at any geographical point within the United States, shall be increased as a result of the addition of experimental BGAN operations on the Inmarsat 4F2 satellite over those densities previously authorized on the Inmarsat 3F4 satellite.
- (5) Hughes Network Systems, sub LLC shall notify MSV prior to commencing operations and identify its point of contact.
- (6) This license SUPERSEDES the previously issued license with the same call sign and file number: changes authorized frequencies and adds several special conditions.