

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:  
STA request to test gateway Earth station in Albuquerque, NM

1. Applicant

Name: HNS License Sub, LLC Phone Number: 301-428-5893  
DBA Name: Fax Number: 301-428-2818  
Street: 11717 Exploration Lane E-Mail: jennifer.manner@echostar.com  
City: Germantown State: MD  
Country: USA Zipcode: 20876  
Attention: Jennifer Manner



File # SES-STA-20160316-00245  
E150084  
Call Sign Grant Date 4/21/16  
(or other identifier)  
Term Dates  
From: 4-22-16 To: 6-21-16  
Approved: Jennifer Manner

Applicant: HNS License Sub, LLC  
File No.: SES-STA-20160316-00245  
Call Sign: E150084  
Special Temporary Authority (STA)

HNS License Sub, LLC is granted Special Temporary Authority (STA) for 60 days, beginning April 22, 2016, to test its fixed earth station in Albuquerque, NM for operations with the Jupiter 2 (EchoStar XIX) satellite network. Testing will only occur at 28500.5 MHz for the uplink frequency and within 19700-20200 MHz downlink frequency range. The earth station is to communicate with AMC-15 satellite at 105° W.L. (call sign S2180), EchoStar XVII (Jupiter 1) satellite at 107.1 W.L. (call sign S2753), AMC-16 satellite at 85° W.L. (call sign S2181), EchoStar IX satellite at 121° W.L. (call sign S2179), Galaxy 28 (nee IA-8) S2160/Telstar 8(IA-8) S2205 at 89°W.L, and ViaSat-1 satellite at 115° W.L. (call sign S2747) on the following conditions:

1. Operations will be limited to the coordinated power and emissions.
2. In the event of any harmful interference as a result of operations under this grant of STA, HNS shall cease operations immediately upon notification of such interference and shall immediately inform the Commission, in writing, of such an event.
3. All operations shall be on an unprotected, non-interference basis to both government and non-government operations.
4. Any action taken or expense incurred as a result of operations pursuant to this STA is solely at HNS's own risk.
5. HNS's point of contact for the STA operation is telephone number (301) 428-7205, Germantown, Maryland and must be available while the frequencies are in use.
6. Grant of this authorization is without prejudice to any determination that the Commission may make regarding any pending or future HNS's applications.

This action is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. §0.261, and is effective immediately.



File # SES-STA-20160316-00245  
E150084  
Call Sign E150084 Grant Date 4-21-16  
(or other identifier)  
Term Dates  
From: 4-22-16 To: 6-2-16  
Approved: Paul E. Harris

**2. Contact**

**Name:** Jennifer A. Manner      **Phone Number:** 301-428-5893  
**Company:** HNS License Sub, LLC      **Fax Number:** 301-428-2818  
**Street:** 11717 Exploration Lane      **E-Mail:** jennifer.manner@echostar.com  
**City:** Germantown      **State:** MD  
**Country:** USA      **Zipcode:** 20876  
**Attention:**      **Relationship:**

(If your application is related to an application filed with the Commission, enter either the file number or the IB Submission ID of the related application. Please enter only one.)

3. Reference File Number SESLIC2015060400340 or Submission ID

4a. Is a fee submitted with this application?

If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).

Governmental Entity     Noncommercial educational licensee

Other (please explain):

4b. Fee Classification    CGX - Fixed Satellite Transmit/Receive Earth Station

5. Type Request

Use Prior to Grant       Change Station Location       Other

6. Requested Use Prior Date  
04/18/2016

7. City Albuquerque      8. Latitude (dd mm ss.s h)    35 5 32.3 N

9. State NM	10. Longitude (dd mm ss.s h) 106 39 10.8 W
11. Please supply any need attachments. Attachment 1: Narrative Attachment 2: Attachment 1 Attachment 3: Attachment 3:	
12. Description. (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) <div style="border: 1px solid black; padding: 5px; margin-top: 10px;">60 Day STA request to test gateway Earth station in Albuquerque, NM for Jupiter 2 (EchoStar XIX). See attached narrative.</div>	
13. By checking Yes, the undersigned certifies that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application"; for these purposes. Yes <input checked="" type="radio"/> No <input type="radio"/>	
14. Name of Person Signing Alexander Gerdienitsch	15. Title of Person Signing Senior Principal Engineer, Regulatory Affairs
WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT (U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).	

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**Technical Data for Special Temporary Authority Request**

Location (City, State, Coordinates)	Albuquerque, NM Latitude: 35° 5' 32.3" N Longitude: 106° 39' 10.8" W
Site Elevation	1511.4 meters
Antenna Diameter	8.1m
Height Above the Ground	8.3m
Antenna Gain Transmit	65.2 dB
Antenna Gain Receive	65.2 dB
Total Input Power at antenna flange	Up to 6 dBW (4 watts)
Total EIRP for all carries (dBW)	71.2 dBW
Transmit Frequency Range	28.5005 GHz
Receive Frequency Range	19.7-20.2 GHz
Transmit antenna polarization	Left Hand Circular
Receive antenna polarization	Right Hand Circular
Maximum Bandwidth	4kHz
Maximum EIRP per carrier (dBW)	71.2 dBW
Maximum EIRP Density per Carrier (dBW/4kHz)	71.2 dBW/4kHz
Transmit Modulation	Continuous Wave (CW)
Receive Modulation	Continuous Wave (CW)
Range of Satellite Arc E/W Limit	85° W.L to 121° W.L.
Earth Station Azimuth Angle Eastern Limit	145.4°
Antenna Elevation Angle Eastern Limit	43.2°
Earth Station Azimuth Angle Western Limit	204°
Antenna Elevation Angle Western Limit	46.5°
Maximum EIRP Density toward the Horizon	-2.89 dBW/4kHz
Will the tests be operated by remote?	No

**Request for Special Temporary Authority**

Pursuant to Section 25.120(b)(4),<sup>1</sup> HNS License Sub, LLC (Hughes) requests special temporary authority (STA) for a period of 60 days starting on April 18, 2016 to test a fixed Earth station in Albuquerque, NM.<sup>2</sup> Grant of this STA serves the public interest as Hughes needs to run time sensitive testing of new gateway Earth stations to ensure that they are properly installed.

The Earth station which we are seeking STA authority for testing will be used as one of the gateways for the Jupiter 2 (EchoStar XIX) satellite network.<sup>3</sup> The application for regular authority for this Earth station was granted on December 2, 2015.<sup>4</sup>

Grant of this STA is in the public interest because it will enable Hughes to test the antenna of this Earth station upon installation. This test will enable Hughes to ensure that the earth station antenna is properly installed and can successfully operate with the Jupiter 2 satellite. Hughes agrees to perform this test on a non-interference basis. Accordingly, there is no interference concern. In addition, testing will only occur at 28500.5 MHz within the frequency range where Fixed Satellite Services operate on a primary basis (29.5 GHz to 30.0 GHz). The receive frequency range is 19.7-20.2 GHz.

For purposes of this STA, Hughes requests authority for the Earth station to communicate with the AMC-15 satellite at 105° W.L. (call sign S2180). This is the primary satellite that Hughes will transmit to for the testing purposes. Hughes' testing may require the Earth station to transmit to the:

- EchoStar XVII (Jupiter 1) satellite at 107.1 W.L. (call sign S2753),
- AMC-16 satellite at 85° W.L. (call sign S2181),
- EchoStar IX satellite at 121° W.L. (call sign S2179),
- Galaxy 28 (nee IA-8) S2160/Telstar 8(IA-8) S2205 at 89°W.L, and
- ViaSat-1 satellite at 115° W.L. (call sign S2747)

Accordingly, Hughes requests special temporary authority to transmit to those satellites as well. The location data and technical parameters for the testing are provided in Attachment 1 provided with the application.

For the reasons stated herein, Hughes request that the Commission grant the STA request.

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<sup>1</sup> 47 C.F.R. § 25.120(b)(4).

<sup>2</sup> While an STA is being requested for 60 days, testing is planned to occur over approximately a four-day time period within the 60 days.

<sup>3</sup> See IBFS File Nos. SAT-LOI-20110809-00148 (granted Jul 27, 2012) and SAT-MOD-20141201-00127 (granted Jun. 23, 2015). The Jupiter 2 satellite is a next generation satellite that will provide increased capacity for Hughes' satellite broadband services.

<sup>4</sup> See IBFS File No. SES-LIC-20150604-00340 (granted Dec. 2, 2015).