Date & Time Filed: Dec 4 2020 5:50:36:276PM File Number: SES-MOD-INTR2020-03673

FCC APPLICATION FOR SPACE AND EARTH STATION:MOD OR AMD – MAIN FORM	FCC Use Only
FCC 312 MAIN FORM FOR OFFICIAL USE ONLY	

#### APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:

Bismarck Jupiter 3 Gateway Modification

Sismarck Jupiter 5 Gateway Mounication								
1–8. Legal Name of Ap	plicant							
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							

#### 9–16. Name of Contact Representative

Name: Jennifer 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:

#### **CLASSIFICATION OF FILING**

17. Choose the button next to the classification that applies to this filing for both questions a. and b. Choose only one for 17a and only one for 17b.

(N/A) b1. Application (N/A) b2. Application (N/A) b3. Amendment (N/A) b4. Application (N/A) b4. A

- a1. Earth Station
- a2. Space Station

(N/A) b1. Application for License of New Station

(N/A) b2. Application for Registration of New Domestic Receive-Only Station

b3. Amendment to a Pending Application

b4. Modification of License or Registration

b5. Assignment of License or Registration

b6. Transfer of Control of License or Registration

b7. Notification of Minor Modification

(N/A) b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite

(N/A) b9. Letter of Intent to Use Non–U.S. Licensed Satellite to Provide Service in the United States

(N/A) b10. Other (Please specify)

(N/A) b11. Application for Earth Station to Access a Non–U.S.satellite Not Currently Authorized to Provide the Proposed Service in the Proposed Frequencies in the United States

(N/A) b12. Application for Database Entry

b13. Amendment to a Pending Database Entry Application

b14. Modification of Database Entry

17c. 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): 17d. Fee Classification CGX – Fixed Satellite Transmit/Receive Earth Station 18. If this filing is in reference to an 19. If this filing is an amendment to a pending application enter both fields, if this filing is a existing station, enter: modification please enter only the file number: (a) Call sign of station: (a) Date pending application was filed: (b) File number: E170169 SESLIC2017080700894

#### TYPE OF SERVICE

- 20. NATURE OF SERVICE: This filing is for an authorization to provide or use the following type(s) of service(s): Select all that apply:
- a. Fixed Satellite
- b. Mobile Satellite
- c. Radiodetermination Satellite
- d. Earth Exploration Satellite
- e. Direct to Home Fixed Satellite
- f. Digital Audio Radio Service
- g. Other (please specify)

21. STATUS: Choose the button next to the applicable status. Choose only one.

Common Carrier Non–Common Carrier Using U.S. licensed satellites

Using Non–U.S. licensed satellites

23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities:

Connected to a Public Switched Network Not connected to a Public Switched Network N/A

24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all applicable frequency band(s).

a. C-Band (4/6 GHz) b. Ku-Band (12/14 GHz)

c.Other (Please specify upper and lower frequencies in MHz.)

Frequency Lower: 27500 Frequency Upper: 51400 (Please specify additional frequencies in an attachment)

#### TYPE OF STATION

- 25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.
- a. Fixed Earth Station
- b. Temporary-Fixed Earth Station
- c. 12/14 GHz VSAT Network
- d. Mobile Earth Station
- e. Geostationary Space Station
- f. Non-Geostationary Space Station
- g. Other (please specify)

#### 26. TYPE OF EARTH STATION FACILITY:

Transmit/Receive Transmit-Only Receive-Only N/A

"For Space Station applications, select N/A."

#### PURPOSE OF MODIFICATION

- 27. The purpose of this proposed modification is to: (Place an 'X' in the box(es) next to all that apply.)
  - a authorization to add new emission designator and related service
  - b authorization to change emission designator and related service
  - c authorization to increase EIRP and EIRP density
  - d authorization to replace antenna
  - e authorization to add antenna
  - f authorization to relocate fixed station
  - g authorization to change frequency(ies)
  - h authorization to add frequency
  - i authorization to add Points of Communication (satellites & Double of Communication (satellites & Double
  - j authorization to change Points of Communication (satellites & Double Communication)
  - k -- authorization for facilities for which environmental assessment and

#### radiation hazard reporting is required

- 1 authorization to change orbit location
- m authorization to perform fleet management
- n authorization to extend milestones
- o --- Other (Please specify)

#### **ENVIRONMENTAL POLICY**

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. 1.1308 and 1.1311, as an exhibit to this application. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments.

Yes No

C-Rad Haz

ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeronautical en route or aeronautical fixed radio station services are not required to respond to Items 30–34.

29. Is the applicant a foreign government or the representative of any foreign government?	Yes	No	
30. Is the applicant an alien or the representative of an alien?	Yes	No	N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	Yes	No	N/A
32. Is the applicant a corporation of which more than one–fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	Yes	No	N/A
33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than one—fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	Yes	No	N/A
34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit an identification of the aliens or foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.			

# BASIC QUALIFICATIONS

35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules? If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.	Yes	No
36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explination of circumstances.	Yes Exhibit 2	No
37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explination of circumstances.	Yes	No
38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances	Yes	No
39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhinit, an explanation of the circumstances.	Yes	No

40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, address, and citizenship of those stockholders owning a record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of		
beneficiaries. Also list the names and addresses of the officers and directors of the Filer.		
41. 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	No
42a. Does the applicant intend to use a non–U.S. licensed satellite to provide service in the United States? If Yes, answer 42b and attach an exhibit providing the information specified in 47 C.F.R. 25.137, as appropriate. If No, proceed to question 43.	Yes KMZ Files	No
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued coordinated or is in the process of coordinating the space station?	d, what admin	istration has
12 Description (Summarize the nature of the application and the services to be provided). (If the complete description	:	4

43. Description. (Summarize the nature of the application and the services to be provided). (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

Seeking modification to change antenna site and update technical parameters. See Exhibit 1.

Exhibit 1-Narrative

43a. Geographic Service Rule Certification
By selecting A, the undersigned certifies that the applicant is not subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25.

By selecting B, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will comply with such requirements.

C

By selecting C, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will not comply with such requirements because it is not feasible as a technical matter to do so, or that, while technically feasible, such services would require so many compromises in satellite design and operation as to make it economically unreasonable. A narrative description and technical analysis demonstrating this claim are attached.

B-UMFUS

#### **CERTIFICATION**

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The applicant certifies that grant of this application would not cause the applicant to be in violation of the spectrum aggregation limit in 47 CFR Part 20. All statements made in exhibits are a material part hereof and are incorporated herein as if set out in full in this application. The undersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are true, complete and correct to the best of his or her knowledge and belief, and are made in good faith.

44. Applicant is a (an): (Choose the button next to applicable response.)

Individual

Unincorporated Association

Partnership

Corporation

Governmental Entity

Other (please specify)

45. Name of Person Signing
Jennifer A. Manner

46. Title of Person Signing

Senior Vice President, Regulatory Affairs

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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).

# SATELLITE EARTH STATION AUTHORIZATIONS FCC Form 312 – Schedule B:(Technical and Operational Description) FOR OFFICIAL USE ONLY

Location of Earth Station Site

E1: Site Identifier: 1 E5. Call Sign: E170169

E2: Contact Name Hughes Network E6. Phone 301−

Management Number: 428−7205

Center

E3. Street: 4202 Coleman E7. City: Bismarck

Street

E8. County: Burleigh

E4. State ND E9. Zip Code 58503

E10. Area of Operation: CONUS

E11. Latitude: 46 ° 51 '6.0 "N

E12. Longitude: 100 °46 '58.5 "W

E13. Lat/Lon Coordinates are: NAD-27 NAD-83 N/A

E14. Site Elevation (AMSL): 583.94 meters

E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide as a technical analysis showing compliance with two–degree spacing policy.

E16. If the proposed antenna(s) do not operate in the Fixed Satellite So Satellite Service (FSS) with non–geostationary satellites, do(es) the progain patterns specified in Section 25.209(a2) and (b) as demonstrated by measurements?	Yes	No	N/A	
E17. Is the facility operated by remote control? If YES, provide the loc point.	Yes		No	
E18. Is frequency coordination required? If YES, attach a frequency co	ordination report as A–Comsearch Rep	Yes		No
E19. Is coordination with another country required? If YES, attach the coordination contours as	Yes		No	
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25.1 have you attached a copy of a completed FCC Form 854 and/or the FA the structure to aviation?  FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL APPLICATION.	Yes		No	
POINTS OF COMMUNICATION				
Satellite Name: If you selected OTHER, please enter the following:				
E21. Common Name:	E22. ITU Name:			
E23. Orbit Location:				
POINTS OF COMMUNICATION (Destination Points)				
E25. Site Identifier:			_	
E26. Common Name:				

ANTENNA

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	Size <meters></meters>	E41/42. Antenna Gain Transmint and/or Recieve (dBi atGHz)	
1	1	1	SED	10 meter		67.91 dBi at 27.5	
1	1	1	SED	10 meter		71.61 dBi at 47.2	
1	1	1	SED	10 meter	10.0	72.01 dBi at 51.4	

Id	Diameter		` ′	Height Above Ground Level	Input Power at	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
1	0.0/0.0	12.0	595.94	0.0	0.0	0.0	0.0

## FREQUENCY

	E43/44. Frequency Bands (MHz)	E45. T/R Mode			EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
1	27500 28000	Т	Left and Right Circular	470MG7W	73.7	23.1

E50. Modula entirety.)	tion and Services	(If the complete de	escription does not appear	in this box, please	go to the end of th	ne form to view it in its	S		
M−	M−ary PSK inroute								
1	28100 29100	Т	Left and Right Circular	470MG7W	73.7	23.1			
entirety.)	E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)  M−ary PSK inroute								
1	47200 50200	Т	Left and Right Circular	470MG7W	72.7	22.1			
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)  M−ary PSK inroute									
1	50400 51400	Т	Left and Right Circular	470MG7W	72.7	22.1			

E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

M− ary PSK inroute

### FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	Station Azimuth Angle	E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
1	Geostationary	27500 28000	95.2/95.2	172.4	35.9	172.4	35.9	-51.6
	Geostationary	28100 29100	95.2/95.2	172.4	35.9	172.4	35.9	-51.6
	Geostationary	47200 48200	95.2/95.2	172.4	35.9	172.4	35.9	-56.3

## REMOTE CONTROL POINT LOCATION

REMOTE CONTINUE FOR THE EAST OF THE PROPERTY O	
E61. Call Sign	E66. Phone Number
NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.	
E62. Street Address	

E63. City	E68. County	E67/68.	E64. Zip Code
		State/Country	
		/	

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