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Callsign/Satellite ID:

# APPLICATION FOR EARTH STATION AUTHORIZATIONS 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:

HNS 95W Reno NV

Name: HNS License Sub, LLC **Phone Number:** 301–428–5893

**DBA Fax Number:** 301–428–2818

Name:

Street: 11717 Exploration Lane E–Mail: jennifer.manner@echostar.com

City: Germantown State: MD

Country: USA Zipcode: 20876 -

**Attention:** Jennifer A. Manner

9–16. Name of Contact Representative

Name: Jennifer A. Manner Phone Number: 301–428–5893

Company: Hughes Network Systems, LLC Fax Number: 301–428–2818

**Street:** 11717 Exploration Lane **E–Mail:** 

City: Germantown State: MD

Country: USA Zipcode: 20876–

Attention: Relationship:

#### **CLASSIFICATION OF FILING**

17. Choose the button next to the	b.
classification that applies to this filing for	b1. Application for License of New Station
both questions a. and b. Choose only one	b2. Application for Registration of New Domestic Receive–Only Station
for 17a and only one for 17b.	
	(N/A) b3. Amendment to a Pending Application (N/A) b4. Modification of License or Registration
a.	(N/A) b5. Assignment of License or Registration
a1. Earth Station	(N/A) b6. Transfer of Control of License or Registration
(N/A) a2. Space Station	(N/A) 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  h 10. Other (Please specify)
	o b10. Other (Please specify)
	▶ 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) b13. Amendment to a Pending Database Entry Application
	(N/A) b14. Modifiction of Database Entry
17c. Is a fee submitted with this applicati	on?
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 Noncomme	ercial educational licensee
Other(please explain):	
17d.	
Fee Classification BAX – Fixed Satellite T	ransmit/Receive Earth
Station	

18. If this filing is in reference to an existing station, enter:  (a) Call sign of station:  Not Applicable  19. If this filing is an amendment to a pending application enter:  (a) Date pending application was filed:  (b) File number of pending application:  Not Applicable  Not Applicable
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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	22. If earth station applicant, check all that apply.
only one.	Using U.S. licensed satellites
O Common Carrier Non–Common Carrier	Using Non–U.S. licensed satellites
23. If applicant is providing INTERNATIONAL COMMON CARRIER sefacilities:	ervice, see instructions regarding Sec. 214 filings. Choose one. Are these
O Connected to a Public Switched Network Not connected to	o a Public Switched Network

2	4. 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)
X	c.Other (Please specify upper and lower frequencies in MHz.)
	Frequency Lower: 27500 Frequency Upper: 51400
TY	PE 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
	(N/A) e. Geostationary Space Station
	(N/A) f. Non-Geostationary Space Station
	g. Other (please specify)
26.	TYPE OF EARTH STATION FACILITY: Choose only one.
	Transmit/Receive Transmit-Only Receive-Only N/A
PUI	RPOSE OF MODIFICATION
27	The manner of this manner of many 1'ferrois is to (Discourable).
27.	The purpose of this proposed modification is to: (Place an 'X' in the box(es) next to all that apply.)
	A A well works.
INO	t Applicable
1	

#### 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 Exhibit E
ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aerona aeronautical fixed radio station services are not required to respond to Items 30–34.	utical en route or
29. Is the applicant a foreign government or the representative of any foreign government?	O Yes O No
30. Is the applicant an alien or the representative of an alien?	O Yes O No O N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	O Yes O 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?	O Yes O 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?	O Yes O No	o 👩 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	O No
	Exhibit C	
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	O No
2 200, miles in companies of the commissions of circumstances.	Exhibit F	

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.	O Yes	<b>⊚</b> 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	O Yes	<b>⊚</b> 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.	O Yes	<b>⊘</b> 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	O 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	<b>⊚</b> No
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, v coordinated or is in the process of coordinating the space station?	vhat administi	ration has

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

(If the complete description does

Applicant seeks authority to operate a gateway earth station to facilitate operation of a geostationary orbit Ka-band and Q/V-band satellite at the nominal 95 W.L. orbital location. See attachment 1.

Attachment 1

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.	<b>●</b> A
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.	O B
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>o</b> c

#### **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.

Individual				
Unincorporated Association				
Partnership				
Corporation				
Governmental Entity				
Other (please specify)				
Limited Liability Company				
45. Name of Person Signing		46. Title of Person Signing		
Jennifer A. Manner		Senior Vice President, Reg	ulatory Affairs	
47. Please supply any need attachme	nts.			
47. Please supply any need attachmed Attachment 1:	Attachment 2:	A	tachment 3:	
		A	tachment 3:	
		A	tachment 3:	
Attachment 1:  WILLFUL FALSE STAT	Attachment 2:  EMENTS MADE ON THIS FO	ORM ARE PUNISHABLE BY F R REVOCATION OF ANY STA	INE AND / OR IMPRISON	MENT

#### 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: Reno NV E5. Call Sign:

E2: Contact Name Hughes Network E6. Phone 301–428–7205

Management Number:

Center

E3. Street: 1 Superloop Circle E7. City: McCarren

Suite 3 E8. County: Storey

E4. State NV E9. Zip Code 89434

E10. Area of Operation: CONUS

E11. Latitude: 39 °30 '53.0 "N

E12. Longitude: 119 °28 '25.6 "W

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

E14. Site Elevation (AMSL): 1494.98 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 Exhibit B a technical analysis showing compliance with two-degree spacing policy.	<b>●</b> Yes	O No	O N/A
E16. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with non–geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements?	<b>O</b> Yes	O No	<b>⊚</b> N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	Yes	٥	No
E18. Is frequency coordination required? If YES, attach a frequency coordination report as			
	Yes	٥	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	O Yes	•	No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25.113(c)) Where FAA notification is required, have you attached a copy of a completed FCC Form 854 and or the FAA's study regarding the potential hazard of the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.	O Yes	•	No
POINTS OF COMMUNICATION			
Satellite Name:OTHER   OTHER   If you selected OTHER, please enter the following:			

E21. Common Name: HNS 95W	E22. ITU Name: USASAT-76E
E23. Orbit Location: 95.2 WL	E24. Country: USA

# POINTS OF COMMUNICATION (Destination Points)

E25. Site Identifier:	
E26. Common Name:	E27. Country:

# ANTENNA

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size <meters></meters>	E41/42. Antenna GainTransmint and/or Recieve (dBi atGHz)
Reno NV	1	1	General Dynamics	9.2 meter	9.2	70.1 dBi at 41.0
						71.6 dBi at 48.7
						71.9 dBi at 50.9
						66.7 dBi at 27.75
						66.9 dBi at 28.35

E28. Antenna	E33/34.	E35. Above	E36. Above Sea	E37. Building	E38. Total	E39.	E40. Total
Id	Diameter	Ground	Level 	Height Above	Input Power at	Maximum	EIRP for al
	Minor/Major	Level 	(meters)	Ground	antenna	Antenna Height	carriers 
	(meters)	(meters)		Level 	flange 	Above	(dBW)
				(meters)	(Watts)	Rooftop 	
						(meters)	

1	0.0/0.0	10.2	15	505.2	1.0	2	200.0		10.2	73.8	
FREQUENCY			<b>_</b>			L					
E28. Antenna Id	E43/44. Frequency E (MHz)		. T/R Mod	·	enna tion(H,V,	E47. En Designa			Maximum P per Carrier V)	E49. Maxim ERIP Densit Carrier (dBW/4kHz)	y per
1	40000 42000	R		Left and Circular	Right	470MG7	7W	0.0		0.0	
E50. Modulation entirety.)	on and Services	(If the co	mplete desc	cription does no	ot appear in	this box,	please go	to the	end of the form	to view it in it	s
1											_
M-ary PSK	inroute										
M-ary PSK	27500 28000	Т		Left and Circular	Right	470MG7	7W	58.1		7.1	
M-ary PSK  1 E50. Modulation entirety.)	27500 28000		mplete desc						end of the form		s
E50. Modulation	27500 28000		mplete desc	Circular					end of the form		s

E50. Modulation entirety.)	and Services (If	the complete descr	ription does not appear	in this box, please	go to the end of th	ne form to view it in its
M-ary PSK	outroute					
1	47200 50200	Т	Left and Right Circular	470MG7W	62.7	11.9
E50. Modulation entirety.)  M-ary PSK		The complete deser		in this con, preuse		ne form to view it in its
1	50400 51400	Т	Left and Right Circular	470MG7W	63.0	12.2
E50. Modulation entirety.)  M-ary PSK		the complete descr	ription does not appear	in this box, please	go to the end of the	ne form to view it in its

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type		Range of Satellite Arc E/W Limit	Station Azimuth Angle	E57. Antenna Elevation Angle Eastern Limit	Station Azimuth Angle	Antenna Elevation Angle Western	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
1	Geostationary	27500 28600	95.2/ 95.2	144.7	37.8	144.7	37.8	-63.8

### REMOTE CONTROL POINT LOCATION

E61. Call Sign  NOTE: Please enter the callsign of the contro callsign for which this application is being filed.	E65. Phone Number 301–428–7205			
E62. Street Address 11717 Exploration Lane				
E63. City Germantown	E67. County Montgomery		E64/68. State/Country MD/ USA	E66. Zip Code 20876

#### FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

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