Date & Time Filed: Nov 20 2003 10:59:13:470AM File Number: SES-MOD-INTR2003-02360

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:

Germantown SST Modification to add satellite at 103 WL

1–8. Lega	l Name of Ap	plicant		
	Name:	Hughes Network Systems, Inc.	Phone Number:	301–428–5500
	DBA Name:		Fax Number:	
	Street:	11717 Exploration Lane	E-Mail:	sahai@hns.com
	City:	Germantown	State:	MD
	Country:	USA	Zipcode:	20876 –
	Attention:	Ken Sahai		

9–16. Name of Contact Representative (If other than applicant)

Name: John Janka Phone Number: (202) 637–2200

Company: Latham & Watkins Fax Number: (202) 637–2201

Street: 555 Eleventh Street, NW E–Mail:

Suite 1000

City: Washington State: DC

Country: USA **Zipcode:** 20004–1304

Contact Relationship: Legal Counsel

Title:

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.

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

(N/A) b3. Amendment to a Pending Application

(N/A) b4. Modification of License or Registration

b5. Assignment of License or Registration

b6. Transfer of Control of License or Registration

(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

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

17c. Is a fee submitted with this applicati							
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):	Other(please explain):						
17d.							
Fee Classification A CGX – Fixed Satellite Transmit/Receive Earth Station							
18. If this filing is in reference to an existing station, enter:	19. If this filing is an amendment to a pending a modification please enter only the file number:	oplication enter both fields, if this filing is a					
(a) Call sign of station:	(a) Date pending application was filed:	(b) File number:					
E030005		SESLIC2002121902184					

TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provide	e 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
Common Carrier Non–Common Carrier	Using Non–U.S. licensed satellites
23. If applicant is providing INTERNATIONAL COMMON CARRIER s facilities:	service, see instructions regarding Sec. 214 filings. Choose one. Are these
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 a	pplicable 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: 20000 Frequency Upper: 30000	(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 & tountries)
j — authorization to change Points of Communication (satellites & touther)
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	O Yes O No
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.	RadHaz1.8

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?	0	Yes	•	No	0	N/A
30. Is the applicant an alien or the representative of an alien?	0	Yes	0	No	•	N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	0	Yes	0	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?	0	Yes	0	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 🍙 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.	RadHaz3.5	
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.	O 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.	O Yes	⊚ 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	o 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 pendinglit	O 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.	O Yes	No
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, we coordinated or is in the process of coordinating the space station? N/A	vhat administr	ration has

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.)

This application requests modification of earth station authorization E030005 (SES-LIC-20021219-02184) to add as a point of communication space station S2191 at 103 degrees W.L. This satellite has been coordinated with the U.S. Government. In addition, this application corrects the common name of the points of communication at 99 degrees W.L. and

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.

true	, complete and correct to the best of his or he	r knowledge and belief	, and are made in good fa	aith.		
44.	Applicant is a (an): (Choose the button next t	o applicable response.)				
 Individual Unincorporated Association Partnership Corporation Governmental Entity Other (please specify) 						
	45. Name of Person Signing Joslyn Read		46. Title of Person Sign Assistant Vice Presiden			
_	Please supply any need attachments.	Attachment 2:		Attachment 3:		

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 S	tation Site					
E1: Site Identifier:	SST 1.8M	E5. Call Sign:	E030005			
E2: Contact Name	Bill Johnston	E6. Phone Number:	(301) 428–5500			
E3. Street:	11717 Exploration Lane	E7. City:	Germantown			
		E8. County:	Montgomery			
E4. State	MD	E9. Zip Code	20876			
E10. Area of Opera	tion:	N/A				
E11. Latitude:	0 °0 '0.0 "					
E12. Longitude:	0 °0 '0.0 "					
E13. Lat/Lon Coord	dinates are:	O NAD-27	NAD-83	O N/A		
E14. Site Elevation (AMSL):		0.0 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 Se Satellite Service (FSS) with non–geostationary satellites, do(es) the progain patterns specified in Section 25.209(a2) and (b) as demonstrated by measurements?	posed antenna(s) comply with the antenna	O Yes	O No	⊚ N/A
E17. Is the facility operated by remote control? If YES, provide the loca point.	ntion and telephone number of the control	O Yes	•	No
E18. Is frequency coordination required? If YES, attach a frequency coordination	ordination report as	O Yes	•	No
E19. Is coordination with another country required? If YES, attach the recoordination contours as	name of the country(ies) and plot of	O 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 FAA the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL APPLICATION.	O Yes	•	No	
POINTS OF COMMUNICATION		•		
Satellite Name: OTHER If you selected OTHER, please enter the	following:			
E21. Common Name: S2132	E22. ITU Name: USASAT-31M			
E23. Orbit Location: 101 WL				

OTHER If you selected OTHER, please enter the following:

Satellite Name:

E21. Common Name: S2133	E22. ITU Name: USASAT-31N
E23. Orbit Location: 99 WL	E24. Country: USA

Satellite Name: OTHER If you selected OTHER, please enter the fo	f you selected OTHER, please enter the following:					
E21. Common Name: S2191	E22. ITU Name: USASAT-31L					
E23. Orbit Location: 103 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		Size <meters></meters>	E41/42. Antenna Gain Transmint and/or Recieve (dBi atGHz)
SST 1.8M	TR 1.8	1	PRODELIN	3180–130	1.8	0 dBi at 0

Id			` ′	Height Above Ground Level	Input Power at antenna flange	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
TR 1.8	0.0/0.0	9.6	152.6	7.3	8.5	2.3	62.6

FREQUENCY

E43/44.	E45.	E46. Antenna	E47. Emission	E48. Maximum	E49. Maximum
Frequency Bands	T/R Mode	Polarization(H,V,	Designator	EIRP per Carrier	ERIP Density per
(MHz)		L , R)		(dBW)	Carrier
					(dBW/4kHz)
	Frequency Bands	Frequency Bands T/R br>Mode	Frequency Bands T/R br>Mode Polarization(H,V,	Frequency Bands T/R br>Mode Polarization(H,V, Designator	Frequency Bands (MHz) T/R Brown Polarization(H,V, Designator (H)) L,R) EIRP per Carrier (dBW)

E50. Modula entirety.)	ation and Service	es (If the com	plete description	does not appear	in this box, plea	se go to the end	d of the form	to view it in its
FREQUENCY E28. Antenna Id		E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	1 0	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)
			/					
E61. Call Sign	NTROL POIN	T LOCATION		F66	. Phone Number			
NOTE: Pleas	se enter the calls ch this application				. Phone Number			
E62. Street A	Address							
E63. City			E68. County	у		E67/68. State/Country		E64. Zip Code

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

Location of Earth St	ation Site					
E1: Site Identifier:	SST 3.5M	E5. Call Sign:	E030005			
E2: Contact Name	Bill Johnston	E6. Phone Number:	(301) 428–5500			
E3. Street:	11717 Exploration Lane	E7. City:	Germantown			
		E8. County:	Montgomery			
E4. State	MD	E9. Zip Code	20876			
E10. Area of Operat	tion:	N/A				
E11. Latitude:	0 °0 '0.0 "					
E12. Longitude:	0 °0 '0.0 "					
E13. Lat/Lon Coordinates are:		O NAD-27	NAD-83	O N/A		
E14. Site Elevation	(AMSL):	0.0 meters				
l						

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.	● Yes ○ No ○) N/A
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E16. If the proposed antenna(s) do not operate in the Fixed Satellite Ser Satellite Service (FSS) with non–geostationary satellites, do(es) the progain patterns specified in Section 25.209(a2) and (b) as demonstrated by measurements?	posed antenna(s) comply with the antenna	O Yes	O No	● N/A
E17. Is the facility operated by remote control? If YES, provide the loca point.	tion and telephone number of the control	O Yes	•	No
E18. Is frequency coordination required? If YES, attach a frequency coordination	ordination report as	O Yes	•	No
E19. Is coordination with another country required? If YES, attach the n 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.			•	No
POINTS OF COMMUNICATION				
Satellite Name: OTHER If you selected OTHER, please enter the f	following:			
E21. Common Name: S2132 E22. ITU Name: USASAT-31M				
E23. Orbit Location: 101 WL	E24. Country: USA			
Satellite Name: OTHER If you selected OTHER, please enter the	following:			

E21. Common Name: S2133	E22. ITU Name: USASAT-31N
E23. Orbit Location: 99 WL	E24. Country: USA

Satellite Name: OTHER If you selected OTHER, please enter the fe	If you selected OTHER, please enter the following:				
E21. Common Name: S2191	E22. ITU Name: USASAT-31L				
E23. Orbit Location: 103 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		Size <meters></meters>	E41/42. Antenna Gain Transmint and/or Recieve (dBi atGHz)
SST 3.5M	TR 3.5	1	ANDREW	ES35SRT-1	3.73	0 dBi at 0

Id	Diameter		` /	Height Above	E38. Total Input Power at antenna flange (Watts)		EIRP for al
TR 3.5	0.0/0.0	11.2	154.5	0.0	87.0	0.0	78.3

FREQUENCY

E43/44.	E45.	E46. Antenna	E47. Emission	E48. Maximum	E49. Maximum
Frequency Bands	T/R Mode	Polarization(H,V,	Designator	EIRP per Carrier	ERIP Density per
(MHz)		L , R)		(dBW)	Carrier
					(dBW/4kHz)
	Frequency Bands	Frequency Bands T/R br>Mode	Frequency Bands T/R T/R Polarization(H,V,	Frequency Bands T/R br>Mode Polarization(H,V, Designator	Frequency Bands (MHz) T/R Brown Polarization(H,V, Designator (H)V) EIRP per Carrier (H)V (H)V (H)V (H)V (H)V (H)V (H)V (H)V

entirety.)	ation and Service	·	plete description	n does not appear	in this box, plea	se go to the end	d of the form	to view it in its
E28. Antenna Id	COORDINATES COORDI	FION E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	0	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)
			/					
E61. Call Si NOTE: Plea	_	sign of the contr	olling station, no		. Phone Number			
E62. Street A	Address							
E63. City			E68. County	у		E67/68. State/Country		E64. Zip Code

FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

The public reporting for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the required data, and completing and reviewing the collection of information. If you have any comments on this burden estimate, or how we can improve the collection and reduce the burden it causes you, please write to the Federal Communications Commission, AMD–PERM, Paperwork Reduction Project (3060–0678), Washington, DC 20554. We will also accept your comments regarding the Paperwork Reduction Act aspects of this collection via the Internet if you send them to jboley@fcc.gov. PLEASE DO NOT SEND COMPLETED FORMS TO THIS ADDRESS.

Remember – You are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number or if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060–0678.

THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104–13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.

43. Description. (Summarize the nature of the application and the services to be provided).

This application requests modification of earth station authorization E030005 (SES-LIC-20021219-02184) to add as a point of communication space station S2191 at 103 degrees W.L. This satellite has been coordinated with the U.S. Government. In addition, this application corrects the common name of the points of communication at 99 degrees W.L. and 101 degrees W.L. to be S2133 and S2132, respectively. Also, this application requests authorization to modify the license by increasing the maximum input power for the fixed 1.8 meter transmit/receive terminal to the 8.5 watts at the antenna flange from the currently authorized 3.5 watts in order to provide higher propagation availability. Finally, this application corrects the dimensions of the 3.5 meter antenna.