Date & Time Filed: Apr 19 2007 8:12:23:916PM File Number: SES-MFS-20070419-00489

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: April 2007 Modification to Germantown VSAT Network

gal Name of Ap	pplicant		
Name:	HNS License Sub, LLC	Phone Number:	301-428-5506
DBA Name:		Fax Number:	301–428–2802
Street:	11717 Exploration Lane	E–Mail:	sdoiron@hns.com
City:	Germantown	State:	MD
Country:	USA	Zipcode:	20876 –
Attention:	Mr. Steven Doiron		

9–16. Name of Contact Representative

Name: Stephen D. Baruch Phone Number: 202–416–6782

Company: Leventhal Senter & Lerman PLLC **Fax Number:** 202–429–4626

Street: 2000 K Street, N.W. E-Mail: sbaruch@lsl-law.com

Suite 600

City: Washington State: DC

Country: USA Zipcode: 20006–

Attention: Relationship: Legal Counsel

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

b 3. 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

b 14. Modification of Database Entry

17c. Is a fee submitted with this applicat The image of the submitted with this applicat in the submitted with this application. If Yes, complete and attach FCC Form	ion? 159. If No, indicate reason for fee exemption	on (see 47 C.F.R.Section 1.1114).
Governmental Entity Noncomme	ercial educational licensee	
Other(please explain):		
17d.		
Fee Classification CGV – Fixed Satellite	VSAT System	
18. If this filing is in reference to an existing station, enter:	19. If this filing is an amendment to a pendir modification please enter only the file numb	ng application enter both fields, if this filing is a er:
(a) Call sign of station: E000166	(a) Date pending application was filed:	(b) File number:
E000100		SESMFS2006072601265

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
Common Carrier
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: Frequency Upper: (Please specify additional frequencies in an attachment)

TYPE OF STATION

25. CLASS OF STATION: Choose the button	next to the class of sta	tion that applies. Choose only	one.	
a. Fixed Earth Station				
o b. Temporary–Fixed Earth Station				
o. 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/Δ		
Transmit/Receive Transmit-Only "For Space Station applications, select N/A."	O Receive—Only	O 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
j — authorization to change Points of Communication (satellites & Double of Communication (satellites & Doub
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

under the laws of a foreign country?

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.		Exhi	bit C			
ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeronateronautical fixed radio station services are not required to respond to Items 30–34.	autic	cal en	rou	te or		
29. Is the applicant a foreign government or the representative of any foreign government?	0	Yes	•	No		
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	0	Yes	0	No	•	N/A

O Yes O No

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

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.		
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	• 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	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 Exhibit D	O No
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued,	what administ	ration has
coordinated or is in the process of coordinating the space station? See Exhibit D.		
43. Description. (Summarize the nature of the application and the services to be provided). (If the complete description, please go to the end of the form to view it in its entirety.)	tion does not a	ppear in this
See Exhibit A.		
Exhibit A		

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.	● 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.	o c

CERTIFICATION

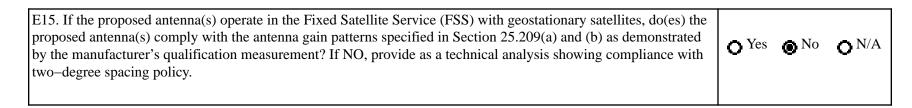
The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The 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) 45. Name of Person Signing Steven Doiron 46. Title of Person Signing Senior Director, Regulatory Affairs 	
Partnership Corporation Governmental Entity Other (please specify) 45. Name of Person Signing Steven Doiron 46. Title of Person Signing Senior Director, Regulatory Affairs	
Partnership Corporation Governmental Entity Other (please specify) 45. Name of Person Signing Steven Doiron 46. Title of Person Signing Senior Director, Regulatory Affairs	
Corporation Governmental Entity Other (please specify) 45. Name of Person Signing Steven Doiron 46. Title of Person Signing Senior Director, Regulatory Affairs	
Governmental Entity Other (please specify) 45. Name of Person Signing Steven Doiron 46. Title of Person Signing Senior Director, Regulatory Affairs	
Other (please specify) 45. Name of Person Signing Steven Doiron 46. Title of Person Signing Senior Director, Regulatory Affairs	
45. Name of Person Signing Steven Doiron 46. Title of Person Signing Senior Director, Regulatory Affairs	
Steven Doiron Senior Director, Regulatory Affairs	
Steven Doiron Senior Director, Regulatory Affairs	
Steven Doiron Senior Director, 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).

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

E1: Site Identifier: TR 98 CM E5. Call Sign: E000166 E2: Contact Name Dave Zatloukal E6. Phone Number: 301–428–5500 E3. Street: 11717 Exploration Lane E7. City: Germantown E4. State MD E9. Zip Code 20876 E10. Area of Operation: CONUS, AK, HI, VI, PR E11. Latitude: 0 °0 '0.0 "N CONUS, AK, HI, VI, PR E12. Longitude: 0 °0 '0.0 "W NAD–27 NAD–83 N/A E14. Site Elevation: AMSL): 0.0 meters							
E2: Contact Name Dave Zatloukal E6. Phone Number: E3. Street: 11717 Exploration Lane E7. City: Germantown E8. County: Montgomery E4. State MD E9. Zip Code 20876 E10. Area of Operation: CONUS, AK, HI, VI, PR E11. Latitude: 0 °0 '0.0 "N E12. Longitude: 0 °0 '0.0 "W E13. Lat/Lon Coordinates are: NAD-27 NAD-83 N/A	Location of Earth Sta	ation Site					
E3. Street: 11717 Exploration Lane E7. City: Germantown E8. County: Montgomery E4. State MD E9. Zip Code 20876 E10. Area of Operation: CONUS, AK, HI, VI, PR E11. Latitude: 0 °0 '0.0 "N E12. Longitude: 0 °0 '0.0 "W E13. Lat/Lon Coordinates are: NAD-27 NAD-83 N/A	E1: Site Identifier:	TR 98 CM	E5. Call Sign:	E000166			
E4. State MD E9. Zip Code 20876 E10. Area of Operation: CONUS, AK, HI, VI, PR E11. Latitude: 0 °0 '0.0 "N E12. Longitude: 0 °0 '0.0 "W E13. Lat/Lon Coordinates are: NAD-27 NAD-83 N/A	E2: Contact Name	Dave Zatloukal		301-428-5500			
E4. State MD E9. Zip Code 20876 E10. Area of Operation: CONUS, AK, HI, VI, PR E11. Latitude: 0 °0 '0.0 "N E12. Longitude: 0 °0 '0.0 "W E13. Lat/Lon Coordinates are: NAD-27 NAD-83 N/A		•	E7. City:	Germantown			
E10. Area of Operation: CONUS, AK, HI, VI, PR E11. Latitude: 0 °0 '0.0 "N E12. Longitude: 0 °0 '0.0 "W E13. Lat/Lon Coordinates are: NAD-27 NAD-83 N/A			E8. County:	Montgomery			
E11. Latitude: 0 °0 '0.0 "N E12. Longitude: 0 °0 '0.0 "W E13. Lat/Lon Coordinates are: NAD-27 NAD-83 NAD-83	E4. State	MD	E9. Zip Code	20876			
E12. Longitude: 0 °0 '0.0 "W E13. Lat/Lon Coordinates are: NAD-27 NAD-83 NAD-83	E10. Area of Operati	ion:	CONUS, AK, HI, V	I, PR			
E13. Lat/Lon Coordinates are: NAD-27 NAD-83 NAD-83	E11. Latitude:	0 °0 '0.0 "N					
	E12. Longitude:	0 °0 '0.0 "W					
E14. Site Elevation (AMSL): 0.0 meters	E13. Lat/Lon Coordi	inates are:	O NAD-27	● NAD-83	O N/A		
	E14. Site Elevation ((AMSL):	0.0 meters				



E16. If the proposed antenna(s) do not operate in the Fixed Satellite Set Satellite Service (FSS) with non–geostationary satellites, do(es) the progain patterns specified in Section 25.209(a2) and (b) as demonstrated by measurements?	oposed antenna(s) comply with the antenna	O Yes	O No	● N/A
E17. Is the facility operated by remote control? If YES, provide the loc point.	ation and telephone number of the control	Yes	٥	No
E18. Is frequency coordination required? If YES, attach a frequency co	ordination report as	O Yes	•	No
E19. Is coordination with another country required? If YES, attach the coordination contours as	name of the country(ies) and plot of	• 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.	A's study regarding the potential hazard of	O Yes	•	No
POINTS OF COMMUNICATION		•		
Satellite Name: SATMEX 6 SATMEX 6 113 W.L. If you selected	OTHER, please enter the following:			
E21. Common Name:	E22. ITU Name:			
E23. Orbit Location:	E24. Country:			
Satellite Name: AMC-6 AMC-6 72 W.L. If you selected OTHER,	please enter the following:			

E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
Satellite Name: AMC-4 (formerl GE-4 AMC-4 101 W.L. If you s	selected OTHER, please enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
Satellite Name: SATMEX-5 SATMEX-5 116.8 W.L. If you select	ed OTHER, please enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
Satellite Name: INTELSAT AMERICAS-6 INTELSAT AMERICAS-	-6 93 W.L. If you selected OTHER, please enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
Satellite Name: IA-8 IA-8 89 W.L. If you selected OTHER, pleas	e enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
Satellite Name: GALAXY III–C GALAXY III–C 95 W.L. If you s	selected OTHER, please enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
Satellite Name: GALAXY 4R GALAXY 4R 99 W.L. If you select	ed OTHER, please enter the following:

E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
Satellite Name: INTELSAT AMERICAS-6 INTELSAT AMERICAS-6	93 W.L. If you selected OTHER, please enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
Satellite Name: HORIZONS 1 HORIZONS 1 127 DEG WL If you s	selected OTHER, please enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
Satellite Name: INTELSAT AMERICAS 5 USASAT-24D 97 W.L.	If you selected OTHER, please enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
Satellite Name: AMSC-9 AMERICOM 9 85 W.L. If you selected O	THER, please enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
Satellite Name: GALAXY 10R GALAXY 10R 123 W.L. If you sele	cted OTHER, please enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
Satellite Name: GALAXY XI GALAXY XI 91 W.L. If you selected	OTHER, please enter the following:

E21. Common	Name:			E22. ITU Name:				
E23. Orbit Loc	cation:		E24. Country:					
Satellite Name	:AMC-3 AMC-3	87 W.L. If you	selected OTHER,	please enter the f	following:			
E21. Common	Name:			E22. ITU Nam	e:			
E23. Orbit Loc	cation:			E24. Country:				
				•				
Satellite Name	:INTELSAT AMER	RICAS-6 INTELS	SAT AMERICAS-	6 93 W.L. If 2	you selected OTHE	R, please enter the fo	ollowing:	
E21. Common	Name:			E22. ITU Nam	e:			
E23. Orbit Loc	cation:			E24. Country:				
POINTS OF	COMMUNICAT	ION (Destination	Points)	•				
E25. Site Ident	tifier:							
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 Gain Transmint and/or Recieve (dBi atGHz)		
TR 98 CM	TR 98CM	60000	Prodelin	3981–226	0.98	39.9 dBi at 11.9500		
TR 98 CM	TR 98CM	60000	Prodelin	3981–226	0.98	41.3 dBi at 14.5000		

Id	Diameter		` ′	Height Above	E38. Total Input Power at antenna flange (Watts)		EIRP for al
TR 98CM	0.0/0.0	0.0	0.0	0.0	2.0	0.0	44.3

FREQUENCY

	E43/44. Frequency Bands (MHz)	E45. T/R Mode			E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
TR 98CM	11700.0000 12200.0000	R	Horizontal and Vertical	6M00G7D	0.0	0.0

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.)

Digital PSK, DATA, 5 MSPS, MULTIMEDIA

TR 98CM	11700.0000	R	Horizontal and	12M0G7D	0.0	0.0
	12200.0000		Vertical			

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.)

Digital PSK, DATA, 10 MSPS, MULTIMEDIA

TR 98CM	11700.0000 12200.0000	R	Horizontal and Vertical	24M0G7D	0.0	0.0
E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear i	n this box, please go t	o the end of the form	to view it in its
Digital PS	K, DATA, 20 MS	PS, MULTIMEDIA				
TR 98CM	11700.0000 12200.0000	R	Horizontal and Vertical	36M0G7D	0.0	0.0
E50. Modulation entirety.) Digital PS	·	PPS, MULTIMEDIA		n this box, please go t	o the end of the form	to view it in its
TR 98CM	14000.0000 14500.0000	Т	Horizontal and Vertical	200KG7D	44.3	27.3
E50. Modulation entirety.)				n this box, please go t	o the end of the form	to view it in its
Digital PS	k, DIGITAL, 12	8 KSPS, RETURN	CARRIER			

TR 98CM	14000.0000 14500.0000	Т	Horizontal and Vertical	400KG7D	44.3	24.3
E50. Modulati entirety.)	ion and Services (I	f the complete de	escription does not appear	in this box, please	go to the end of the	he form to view it in its
Digital	PSK, DIGITAL,	256 KSPS, R.	ETURN CARRIER			
TR 98CM	14000.0000 14500.0000	Т	Horizontal and Vertical	800KG7D	44.3	21.3
	PSK, DIGITAL,					
TR 98CM	14000.0000 14500.0000	Т	Horizontal and Vertical	1M60G7D	44.3	18.3
E50. Modulati entirety.)	ion and Services (I	f the complete de	escription does not appear	in this box, please	go to the end of the	he form to view it in its
Digital	PSK, DIGITAL,	1024 KSPS, 1	RETURN CARRIER			

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	E56. Earth Station Azimuth Angle Eastern Limit	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)
TR 98CM	Geostationary	11700.0000 12200.0000	62.0/143.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	14000.0000 14500.0000	99.0/143.0	0.0	5.0	0.0	5.0	-2.5
	Geostationary	11700.0000 12200.0000	50.0/150.0	134.0	36.7	257.0	8.3	0.0
	Geostationary	14000.0000 14500.0000	50.0/150.0	134.0	36.7	257.0	8.3	-9.0

REMOTE CONTROL POINT LOCATION

E61. Call Sign E000166 NOTE: Please enter the callsign of the contro callsign for which this application is being filed.	-	E66. Phone Number 301–428–5500		
E62. Street Address 11717 Exploration Lane				
E63. City Germantown	E68. County Montgomery		E67/68. State/Country MD/ USA	E64. Zip Code 20876

E61. Call Sign E940460 NOTE: Please enter the callsign of the contro callsign for which this application is being filed.	E66. Phone Number 702–271–6048			
E62. Street Address One Aerojet Way				
E63. City North Las Vegas	E68. County Clark		E67/68. State/Country NV/ USA	E64. Zip Code 89030

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:	TFTR 98 CM	E5. Call Sign:	E000166				
E2: Contact Name	Dave Zatloukal	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 Operation:		CONUS, AK, HI, VI, PR					
E11. Latitude:	0 °0 '0.0 "N						
E12. Longitude:	0 °0 '0.0 "W						
E13. Lat/Lon Coord	linates 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.	O Yes	● 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?	O Yes	O No	● N/A

E17. Is the facility operated by remote control? If YES, provide the loca point.	• Yes	O No	
E18. Is frequency coordination required? If YES, attach a frequency coordination required?	ordination report as	O Yes	No
E19. Is coordination with another country required? If YES, attach the r coordination 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.	A's study regarding the potential hazard of	O Yes	No
POINTS OF COMMUNICATION		•	
Satellite Name: AMC-3 AMC-3 87 W.L. If you selected OTHER,	please enter the following:		
E21. Common Name:	E22. ITU Name:		
E23. Orbit Location:	E24. Country:		
Satellite Name: INTELSAT AMERICAS-6 INTELSAT AMERICAS-	6 93 W.L. If you selected OTHER, pleas	e enter the following	lowing:
E21. Common Name:	E22. ITU Name:		
E23. Orbit Location:	E24. Country:		
	•		
Satellite Name: SATMEX 6 SATMEX 6 113 W.L. If you selected 0	OTHER, please enter the following:		

E21. Common Name:	E22. ITU Name:								
E23. Orbit Location:	E24. Country:								
Satellite Name: INTELSAT AMERICAS 5 USASAT-24D 97 W.L. If you selected OTHER, please enter the following:									
E21. Common Name:	E22. ITU Name:								
E23. Orbit Location:	E24. Country:								
Satellite Name: HORIZONS 1 HORIZONS 1 127 DEG WL If y	ou selected OTHER, please enter the following:								
E21. Common Name:	E22. ITU Name:								
E23. Orbit Location:	E24. Country:								
Satellite Name: IA-8 IA-8 89 W.L. If you selected OTHER, ple	ase enter the following:								
E21. Common Name:	E22. ITU Name:								
E23. Orbit Location:	E24. Country:								
Satellite Name: GALAXY XI GALAXY XI 91 W.L. If you select	cted OTHER, please enter the following:								
E21. Common Name:	E22. ITU Name:								
E23. Orbit Location:	E24. Country:								
Satellite Name: SATMEX-5 SATMEX-5 116.8 W.L. If you sele	ected OTHER, please enter the following:								
· · · · · · · · · · · · · · · · · · ·									
E21. Common Name:	E22. ITU Name:								
E23. Orbit Location:	E24. Country:								
Satellite Name: INTELSAT AMERICAS-6 INTELSAT AMERICA	S-6 93 W.L. If you selected OTHER, please enter the following:								

E21. Common Name:	E22. ITU Name:					
E23. Orbit Location:	E24. Country:					
Satellite Name: AMC-6 AMC-6 72 W.L. If you selec	ted OTHER, please enter the following:					
E21. Common Name: E22. ITU Name:						
E23. Orbit Location:	E24. Country:					
Satellite Name: INTELSAT AMERICAS-6 INTELSAT A	MERICAS-6 93 W.L. If you selected OTHER, please enter the following:					
E21. Common Name:	E22. ITU Name:					
E23. Orbit Location:	E24. Country:					
	•					
Satellite Name: GALAXY 4R GALAXY 4R 99 W.L.	If you selected OTHER, please enter the following:					
E21. Common Name:	E22. ITU Name:					
E23. Orbit Location:	E24. Country:					
Satellite Name: AMC-4 (formerl GE-4 AMC-4 101 W.	L. If you selected OTHER, please enter the following:					
E21. Common Name:	E22. ITU Name:					
E23. Orbit Location:	E24. Country:					
Satellite Name: AMSC-9 AMERICOM 9 85 W.L. If y	you selected OTHER, please enter the following:					
E21. Common Name:	E22. ITU Name:					
E23. Orbit Location:	E24. Country:					
	!					

E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:

Satellite Name: GALAXY III-C GALAXY III-C 95 W.L. If yo	u selected OTHER, please enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:

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 Gain Transmint and/or Recieve (dBi atGHz)	
TFTR 98 CM	TFTR 98CM	54000	Prodelin	3981–226	0.98	39.9 dBi at 11.9500	
TFTR 98 CM	TFTR 98CM	54000	Prodelin	3981–226	0.98	41.3 dBi at 14.2500	

Id	Diameter		` /	Height Above	Input Power at antenna flange	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
TFTR 98CM	0.0/0.0	0.0	0.0	0.0	2.0	0.0	44.3

FREQUENCY

TFTR 98CM			L,R)	Designator	EIRP per Carrier (dBW)	ERIP Density per Carrier (dBW/4kHz)
	11700.0000 12200.0000	R	Horizontal and Vertical	6M00G7D	0.0	0.0
E50. Modulation entirety.) Digital PS	SK, DATA, 5 MSP			this box, please go	to the end of the form	to view it in its
TFTR 98CM E50. Modulation	11700.0000 12200.0000 and Services (If the	R ne complete descript	Horizontal and Vertical	12M0G7D this box, please go	0.0 to the end of the form	0.0 to view it in its
entirety.)	SK, DATA, 10 MS			24M0G7D	0.0	0.0

E50. Modulation entirety.)	and Services (If the	e complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
Digital PS	K, DATA, 20 MS	PS, MULTIMEDIA				
TFTR 98CM	11700.0000 12200.0000	R	Horizontal and Vertical	36M0G7D	0.0	0.0
E50. Modulation entirety.) Digital PS	and Services (If the			this box, please go to	o the end of the form	to view it in its
TFTR 98CM	14000.0000 14500.0000	Т	Horizontal and Vertical	200KG7D	44.3	27.3
E50. Modulation entirety.)	and Services (If th	e complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
Digital PS	K, DIGITAL, 12	8 KSPS, RETURN	CARRIER			
TFTR 98CM	14000.0000 14500.0000	Т	Horizontal and Vertical	400KG7D	44.3	24.3

E50. Modulation	and Services (If th	e complete description	on does not appear	in this box, please	go to the end of th	e form to view it in its
entirety.)						
Digital PS	K, DIGITAL, 25	6 KSPS, RETURN	CARRIER			
TFTR 98CM	14000.0000 14500.0000	Т	Horizontal and Vertical	800KG7D	44.3	21.3
entirety.) Digital PS	K, DIGITAL, 51			· ·		ne form to view it in its
TFTR 98CM	14000.0000 14500.0000	Т	Horizontal and Vertical	1M60G7D	44.3	18.3
E50. Modulation entirety.) Digital PS	and Services (If th			in this box, please	go to the end of th	ne form to view it in its

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	E56. Earth Station Azimuth Angle Eastern Limit	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)
TFTR 98CM	Geostationary	11700.0000 12200.0000	62.0/143.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	14000.0000 14500.0000	62.0/143.0	0.0	5.0	0.0	5.0	-2.5

REMOTE CONTROL POINT LOCATION

E61. Call Sign E000166 NOTE: Please enter the callsign of the contro callsign for which this application is being filed.		E66. Phone Number 301–428–5500		
E62. Street Address 11717 Exploration Lane				
E63. City Germantown	E68. County Montgomery		E67/68. State/Country MD/ USA	E64. Zip Code 20876

E66. Phone Number
702–271–6048

E62. Street Address One Aerojet Way			
E63. City North Las Vegas	E68. County Clark	E67/68. State/Country NV/ USA	E64. Zip Code 89030

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

Location of Earth St	tation Site					
E1: Site Identifier:	Hub H	E5. Call Sign:	E000166			
E2: Contact Name	Dave Zatloukal	E6. Phone Number:	301-428-5500			
E3. Street:	17633 Technology Blvd.	E7. City:	Hagerstown			
		E8. County:	Washington			
E4. State	MD	E9. Zip Code	21740			
E10. Area of Operat	tion:	CONUS, AK, HI, P	R, VI			
E11. Latitude:	39 °35 '56.3 "N					
E12. Longitude:	77 °45 '17.9 "W					
E13. Lat/Lon Coord	linates are:	NAD-27	NAD-83	O N/A		
E14. Site Elevation	(AMSL):	164.9 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.	• 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?	O Yes	O No	● N/A

E17. Is the facility operated by remote control? If YES, provide the locat point.	ion and telephone number of the control	Yes No
E18. Is frequency coordination required? If YES, attach a frequency coordination	rdination report as	Yes o No
E19. Is coordination with another country required? If YES, attach the na coordination contours as	ame of the country(ies) and plot of	• Yes • No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25.11 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 RAPPLICATION.	's study regarding the potential hazard of	• Yes • No
POINTS OF COMMUNICATION		
Satellite Name: INTELSAT AMERICAS-6 INTELSAT AMERICAS-6	5 93 W.L. If you selected OTHER, please	e enter the following:
E21. Common Name:	E22. ITU Name:	
E23. Orbit Location:	E24. Country:	
Satellite Name: INTELSAT AMERICAS-6 INTELSAT AMERICAS-6	5 93 W.L. If you selected OTHER, please	e enter the following:
E21. Common Name:	E22. ITU Name:	
E23. Orbit Location:	E24. Country:	
Satellite Name: INTELSAT AMERICAS-6 INTELSAT AMERICAS-6	5 93 W.L. If you selected OTHER, please	e enter the following:

E21. Common Na	. Common Name:				E22. ITU Name:				
E23. Orbit Locati	on:			E24. Country:					
Satellite Name: IN	NTELSAT AMERI	CAS-6 INTELS	AT AMERICAS-6	93 W.L. If you	u selected OTHER	, please enter the fo	ollowing:		
E21. Common Na	ame:			E22. ITU Name:					
E23. Orbit Locati	on:			E24. Country:					
Satellite Name: IN	NTELSAT AMERI	CAS-6 INTELS	AT AMERICAS-6	93 W.L. If you	u selected OTHER	, please enter the fo	ollowing:		
E21. Common Na	ame:			E22. ITU Name:					
E23. Orbit Locati	on:			E24. Country:					
Satellite Name: IN	NTELSAT AMERI	CAS-6 INTELS	AT AMERICAS-6	93 W.L. If you	u selected OTHER	, please enter the fo	ollowing:		
E21. Common Na	ame:			E22. ITU Name:					
E23. Orbit Locati	on:			E24. Country:					
POINTS OF C	OMMUNICATION	ON (Destination	Points)						
E25. Site Identifie	er:								
E26. Common Na	ame:			E27. Country:					
ANTENNA				·					
Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size <meters></meters>	E41/42. Antenna Gain Transmint and/or Recieve (dBi atGHz)			

Hub H	Hub H	1	Vertex	11.1 KPK	11.1	60.5 dBi at 12.0000	
Hub H	Hub H	1	Vertex	11.1 KPK	11.1	61.9 dBi at 14.0000	

Id	Diameter		` ′	Height Above	E38. Total Input Power at antenna flange (Watts)		EIRP for al
Hub H	0.0/0.0	11.1	175.99	0.0	407.4	0.0	88.0

FREQUENCY

	E43/44. Frequency Bands (MHz)			Designator	EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
Hub H	11769.0000 11823.0000	R	Horizontal	200KG7D	0.0	0.0

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.)

Digital, PSK, DATA, 128 KSPS, Inroute

Hub H	11769.0000	R	Horizontal	400KG7D	0.0	0.0
	11823.0000					

	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.)							
Digital, P	SK, DATA, 256	KSPS, Inroute					
Hub H	11769.0000 11823.0000	R	Horizontal	800KG7D	0.0	0.0	
E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go to	the end of the form	to view it in its	
Digital, P	SK, DATA, 512	KSPS, Inroute					
Hub H	11822.5000 11849.5000	R	Vertical	200KG7D	0.0	0.0	
E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go to	the end of the form	to view it in its	
Digital, P	SK, DATA, 128	KSPS, Inroute					
Hub H	11822.5000 11849.5000	R	Vertical	400KG7D	0.0	0.0	

E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
Digital, P	SK, DATA, 256	KSPS, Inroute				
Hub H	11822.5000 11849.5000	R	Vertical	800KG7D	0.0	0.0
E50. Modulation entirety.)	and Services (If the	e complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
Digital, P	SK, DATA, 512	KSPS, Inroute				
Hub H	11946.5000 12066.5000	R	Vertical	200KG7D	0.0	0.0
E50. Modulation entirety.)	and Services (If the	e complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
Digital, P	SK, DATA, 128	KSPS, Inroute				
Hub H	11946.5000 12066.5000	R	Vertical	400KG7D	0.0	0.0

E50. Modulation	and Services (If the	ne complete description	on does not appear in	this box, please go to	the end of the form	to view it in its
entirety.)						
Digital, P	SK, DATA, 256	KSPS, Inroute				
Hub H	11946.5000 12066.5000	R	Vertical	800KG7D	0.0	0.0
E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go to	the end of the form	to view it in its
Digital, P	SK, DATA, 512	KSPS, Inroute				
Hub H	11953.0000 12011.0000	R	Horizontal	200KG7D	0.0	0.0
E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go to	the end of the form	to view it in its
Digital, P	SK, DATA, 128	KSPS, Inroute				
Hub H	11953.0000 12011.0000	R	Horizontal	400KG7D	0.0	0.0

E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
Digital, P	SK, DATA, 256	KSPS, Inroute				
Hub H	11953.0000 12011.0000	R	Horizontal	800KG7D	0.0	0.0
E50. Modulation entirety.)	and Services (If the	e complete description	on does not appear in	this box, please go to	the end of the form	to view it in its
Digital, P	SK, DATA, 512	KSPS, Inroute				
Hub H	12170.0000 12197.0000	R	Horizontal	200KG7D	0.0	0.0
E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go to	the end of the form	to view it in its
Digital, P	SK, DATA, 128	KSPS, Inroute				
Hub H	12170.0000 12197.0000	R	Horizontal	400KG7D	0.0	0.0

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.)							
Digital, P	SK, DATA, 256	KSPS, Inroute					
Hub H	12170.0000 12197.0000	R	Horizontal	800KG7D	0.0	0.0	
E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go to	the end of the form	to view it in its	
Digital, P	SK, DATA, 512	KSPS, Inroute					
Hub H	11769.0000 11823.0000	R	Horizontal	1M60G7D	0.0	0.0	
E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go to	the end of the form	to view it in its	
Digital, PSK, DATA, 1024 KSPS, Inroute							
Hub H	11822.5000 11849.5000	R	Vertical	1M60G7D	0.0	0.0	

E50. Modulation entirety.)	and Services (If the	e complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its	
Digital, P	SK, DATA, 1024	KSPS, Inroute					
Hub H	11946.5000 12066.5000	R	Vertical	1M60G7D	0.0	0.0	
E50. Modulation entirety.)	and Services (If th	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its	
Digital, PSK, DATA, 1024 KSPS, Inroute							
Hub H	11953.0000 12011.0000	R	Horizontal	1M60G7D	0.0	0.0	
E50. Modulation entirety.)	and Services (If th	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its	
Digital, PSK, DATA, 1024 KSPS, Inroute							
Hub H	12170.0000 12197.0000	R	Horizontal	1M60G7D	0.0	0.0	

E50. Modulation entirety.)	and Services (If the	e complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
Digital, P	SK, DATA, 1024	KSPS, Inroute				
Hub H	14069.0000 14123.0000	Т	Vertical	6M00G7D	79.6	47.9
E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
Digital, P	SK, DATA, 5 MS	PS, Outroute				
Hub H	14122.5000 14149.5000	Т	Horizontal	6M00G7D	79.6	47.9
E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
Digital, P	SK, DATA, 5 MS	PS, Outroute				
Hub H	14246.5000 14366.5000	Т	Horizontal	6M00G7D	79.6	47.9

E50. Modulation entirety.)	and Services (If th	e complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its	
	SK, DATA, 5 MS	PS, Outroute					
Hub H	14253.0000 14311.0000	Т	Vertical	6M00G7D	79.6	47.9	
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.) Digital, PSK, DATA, 5 MSPS, Outroute							
Hub H	14470.0000 14497.0000	Т	Vertical	6M00G7D	79.6	47.9	
E50. Modulation entirety.)	and Services (If th	e complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its	
Digital, PSK, DATA, 5 MSPS, Outroute							
Hub H	14069.0000 14123.0000	Т	Vertical	12M0G7D	82.6	47.9	

E50. Modulation entirety.)	and Services (If the	e complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
	SK, DATA, 10 M	SPS, Outroute				
Hub H	14069.0000 14123.0000	Т	Vertical	24M0G7D	85.6	47.9
E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
Digital, P	SK, DATA, 20 M	SPS, Outroute				
Hub H	14069.0000 14123.0000	Т	Vertical	36M0G7D	87.4	47.9
E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
Digital, PSK, DATA, 30 MSPS, Outroute						
Hub H	14122.5000 14149.5000	Т	Horizontal	12M0G7D	82.6	47.9

E50. Modulation entirety.)	and Services (If t	he complete descripti	on does not appear in	n this box, please go t	o the end of the form	to view it in its
Digital, F	PSK, DATA, 10	MSPS, Outroute				
Hub H	14122.5000 14149.5000	Т	Horizontal	24M0G7D	85.6	47.9
E50. Modulation entirety.)	and Services (If t	he complete descripti	on does not appear in	n this box, please go t	o the end of the form	to view it in its
Digital, E	PSK, DATA, 20	MSPS, Outroute				
Hub H	14122.5000 14149.5000	Т	Horizontal	36M0G7D	87.4	47.9
E50. Modulation entirety.)	and Services (If t	he complete descripti	on does not appear in	n this box, please go t	o the end of the form	to view it in its
Digital, PSK, DATA, 30 MSPS, Outroute						
Hub H	14246.5000 14366.5000	Т	Horizontal	12M0G7D	82.6	47.9

E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
Digital, P	SK, DATA, 10 M	SPS, Outroute				
Hub H	14246.5000 14366.5000	Т	Horizontal	24M0G7D	85.6	47.9
E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
Digital, P	SK, DATA, 20 M	ISPS, Outroute				
Hub H	14246.5000 14366.5000	Т	Horizontal	36M0G7D	87.4	47.9
E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
Digital, P	SK, DATA, 30 M	SPS, Outroute				
Hub H	14253.0000 14311.0000	Т	Vertical	12M0G7D	82.6	47.9

E50. Modulation entirety.)	and Services (If the	e complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its		
	SK, DATA, 10 M	SPS, Outroute						
Hub H	14253.0000 14311.0000	Т	Vertical	24M0G7D	85.6	47.9		
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.) Digital, PSK, DATA, 20 MSPS, Outroute							
Digital, P	SK, DAIA, 20 M	SPS, Outloute						
Hub H	14253.0000 14311.0000	Т	Vertical	36M0G7D	87.4	47.9		
E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its		
Digital, P	SK, DATA, 30 M	SPS, Outroute						
Hub H	14470.0000 14497.0000	Т	Vertical	12M0G7D	82.6	47.9		

E50. Modulation	and Services (If t	he complete desc	crintion does not ann	ear in this how nlease	go to the end of th	ne form to view it in its
entirety.)	and Services (II t	ine complete desi	emption does not app	car in this box, picase	go to the end of th	ie form to view it in its
	SK, DATA, 10 I	MSPS, Outro	ute			
Hub H	14470.0000 14497.0000	Т	Vertical	24M0G7D	85.6	47.9
E50. Modulation entirety.) Digital, P	and Services (If t			ear in this box, please	go to the end of th	ne form to view it in its
Hub H	14470.0000 14497.0000	Т	Vertical	36M0G7D	87.4	47.9
E50. Modulation entirety.) Digital, P	and Services (If t			ear in this box, please	go to the end of th	ne form to view it in its

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	E56. Earth Station Azimuth Angle Eastern Limit	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)
Hub H	Geostationary	11769.0000 12197.0000	6.0/143.0	101.9	5.3	253.6	10.3	0.0
	Geostationary	11769.0000 12197.0000	6.0/143.0	101.9	5.3	253.6	10.3	0.0
	Geostationary	14069.0000 14497.0000	6.0/143.0	101.9	5.3	253.6	10.3	-0.7

REMOTE CONTROL POINT LOCATION

E61. Call Sign E000166 NOTE: Please enter the callsign of the contro callsign for which this application is being filed.	_	E66. Phone Number 301–428–5500		
E62. Street Address 11717 Exploration Lane				
E63. City Germantown	E68. County Montgomery		E67/68. State/Country MD/ USA	E64. Zip Code 20876

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: TR 74 CM E5. Call Sign: E000166 E6. Phone E2: Contact Name Dave Zatloukal 301-428-5500 Number: 11717 Exploration E7. City: E3. Street: Germantown Lane E8. County: Montgomery E4. State E9. Zip Code MD 20876 E10. Area of Operation: CONUS, AK, HI, VI, PR E11. Latitude: 0 °0 '0.0 "N E12. Longitude: 0 °0 '0.0 "W E13. Lat/Lon Coordinates are: N/A NAD-27 **⋒** NAD-83 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 Set Satellite Service (FSS) with non–geostationary satellites, do(es) the progain patterns specified in Section 25.209(a2) and (b) as demonstrated by measurements?	O Yes	O No	● N/A	
E17. Is the facility operated by remote control? If YES, provide the loc point.	Yes	0	No	
E18. Is frequency coordination required? If YES, attach a frequency co	ordination report as	O Yes	•	No
E19. Is coordination with another country required? If YES, attach the coordination contours as	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 FA the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL APPLICATION.	O Yes	•	No	
POINTS OF COMMUNICATION		•		
Satellite Name: INTELSAT AMERICAS-6 INTELSAT AMERICAS-	-6 93 W.L. If you selected OTHER, pleas	e enter the	followin	g:
E21. Common Name:	E22. ITU Name:			
E23. Orbit Location:	E24. Country:			
POINTS OF COMMUNICATION (Destination Points)	1			
E25. Site Identifier:				

E26. Common N	ame:				E27. Cou	intry:																
ANTENNA					!																	
Site ID	E28. Antenna Id	E29. Quantity	E30. Manuf	facturer			l												E32. Anten Size <meter< th=""><th></th><th>E41/42. Antenna Gain Transmint and/or Recieve (dBi atGHz)</th><th></th></meter<>		E41/42. Antenna Gain Transmint and/or Recieve (dBi atGHz)	
									dBi at													
E28. Antenna Id	E33/34. Diameter Minor/Major (meters)	E35. Above Ground Level (meters)		bove Sea meters)	E37. Bui Height A Ground (meters)	bove Level	ove Input Power at Antennative Antenna flange Above		E39. Maximur Antenna Heigl Above Roofton (meters)	nt EIRP for al												
FREQUENCY	/																					
E28. Antenna Id	E43/44. Frequency Ba (MHz)	E45. T/R	Aode	E46. Ant Polarizat L,R)		E47. E Design	Emission nator		P per Carrier	E49. Maximum ERIP Density per Carrier (dBW/4kHz)												
E50. Modulati	ion and Services	(If the complete	descripti	on does no	t appear ir	n this bo	x, please go t	to the	end of the form	to view it in its												

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	E56. Earth Station Azimuth Angle Eastern Limit	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)		
REMOTE CO	NTROL POIN	T I OCATION								
callsign for whi	se enter the calls			301-	Phone Number -428–5500					
E63. City Germantown					E67/68. I State/Country MD/ USA					
E61. Call Sign E940460 NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.					E66. Phone Number 702–721–6048					
E62. Street A	Address									

E63. City	E68. County	E67/68.	E64. Zip Code
North Las Vegas	Clark	State/Country	89030
		NV/ USA	

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: TR 74–2 CM E5. Call Sign: E000166

E2: Contact Name Dave Zatloukal E6. Phone 301–428–5500

Number:

E3. Street: 11717 Exploration E7. City: Germantown

Lane

E8. County: Montgomery

E4. State MD E9. Zip Code 20876

E10. Area of Operation: CONUS, AK, HI, VI, PR

E11. Latitude: 0 °0 '0.0 "N

E12. Longitude: 0 °0 '0.0 "W

E13. Lat/Lon Coordinates are: NAD-27 NAD-83 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.	O Ye	es	● N	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?	O Yo	es	01	lо	● N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	⊚ ,	es/		0	No
E18. Is frequency coordination required? If YES, attach a frequency coordination report as	0,	es		•	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	0,	/es		•	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. POINTS OF COMMUNICATION	o ,	'es		•	No

Satellite Name: INTELSAT AMERICAS-6 | INTELSAT AMERICAS-6 | 93 W.L. If you selected OTHER, please enter the following:

E21. Common Na	ame:				E22. ITU	Name:					
E23. Orbit Locati	ion:				E24. Cou	ntry:					
POINTS OF C	OMMUNICATI	ON (Destination	n Points)		,						
E25. Site Identific	er:										
E26. Common Na	ame:				E27. Country:						
ANTENNA					•						
Site ID	E28. Antenna Id	E29. Quantity	E30. Manu	facturer	E31. Mod	del	E32. Anten Size <meter< th=""><th></th><th>E41/42. Antenna Gain Transmint and/or Recieve (dBi atGHz)</th><th></th></meter<>		E41/42. Antenna Gain Transmint and/or Recieve (dBi atGHz)		
									dBi at		
Id Diameter Gro		E35. Above Ground Level (meters)		E36. Above Sea Level(meters)		Building E38. Total Input Power antenna flangers) (Watts)		ower at Antenna Heigh		t EIRP for al	
FREQUENCY	/										
E28. Antenna Id	E43/44. Frequency Back (MHz)	E45. T/R			enna tion(H,V,	E47. I Design	Emission nator		P per Carrier W)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)	

E50. Modula entirety.) FREQUENCY	ation and Servic	` ,	plete description	does not appear	in this box, plea	se go to the end	d of the for	rm to vie	ew it in its
E28. Antenna Id	E51. Satellite Orbit Type		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. Antenn Elevation Angle Western Limit	a on	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
REMOTE CO	 NTROL POIN	T LOCATION							
E61. Call Si E000166 NOTE: Plea	gn se enter the calls	sign of the contro		301-	. Phone Number -428–5500				
E62. Street A				!					
E63. City Germantowi	1		E68. County Montgomery			E67/68. State/Country MD/ US	ı	E64. 2087	Zip Code 76

E61. Call Sign E940460 NOTE: Please enter the callsign of the contro callsign for which this application is being filed.		E66. Phone Number 702–721–6048		
E62. Street Address One Aerojet Way				
E63. City North Las Vegas	E68. County Clark		E67/68. State/Country NV/ USA	E64. Zip Code 89030

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:	TFTR 74 CM	E5. Call Sign:	E000166				
E2: Contact Name	Dave Zatloukal	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:	CONUS, AK, HI, VI, PR					
E11. Latitude:	0 °0 '0.0 "N						
E12. Longitude:	0 °0 '0.0 "W						
E13. Lat/Lon Coord	linates are:	○ 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.	O Yes	⊚ 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?	○ Yes	O No	● N/A

E17. Is the facility operated by remote control? If YES, provide the local point.	Yes	O No	
E18. Is frequency coordination required? If YES, attach a frequency coo	rdination report as	O Yes	No
E19. Is coordination with another country required? If YES, attach the no coordination contours as	ame of the country(ies) and plot of	O Yes	No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25.11 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 FAPPLICATION.	O Yes	No	
POINTS OF COMMUNICATION			
Satellite Name: INTELSAT AMERICAS-6 INTELSAT AMERICAS-6	5 93 W.L. If you selected OTHER, please	e enter the foll	owing:
E21. Common Name:			
E23. Orbit Location:			
POINTS OF COMMUNICATION (Destination Points)			
E25. Site Identifier:			
E26. Common Name: ANTENNA	E27. Country:		

Site ID	E28. Antenna Id	E29	. Quantity	E30. Manuf	facturer	E31. Mod	del	E32. Anten Size <meter< th=""><th></th><th>E41/42. Antenna Gain Transmint and/or Recieve (dBi atGHz)</th><th>,</th></meter<>		E41/42. Antenna Gain Transmint and/or Recieve (dBi atGHz)	,
										dBi at	
E28. Antenna Id	E33/34. Diameter Minor/Major (meters)	Gro	. Above und Level ters)	I	bove Sea meters)	E37. Buil Height A Ground I (meters)	bove	E38. Total Input Powe antenna fla (Watts)		E39. Maximum Antenna Heigh Above Roofton (meters)	nt EIRP for al
	/										
FREQUENCY											
E28. Antenna Id	E43/44. Frequency Ba (MHz)	ands	E45. T/R Mo	ode	E46. Ante Polarizat L,R)		E47. E Design	Emission nator		P per Carrier	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
E50. Modulat entirety.)	ion and Services	(If the	ne complete d	escripti	on does no	t appear in	this bo	x, please go t	o the	end of the form	to view it in its

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	E56. Earth Station Azimuth Angle Eastern Limit	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)	
			/						
REMOTE CO	NTROL POIN	T LOCATION	!						
callsign for who	ase enter the calls ich this application			301-	Phone Number -428–5500				
E63. City			E68. County	,		E67/68.		E64. Zip Code	
Germantown	Germantown Montgomery					State/Country 2087 MD/ USA			
	gn ase enter the calls ich this applicati			702-	Phone Number -721–6048	1	<u>'</u>		
E62. Street A				l					

E63. City	E68. County	E67/68.	E64. Zip Code
North Las Vegas	Clark	State/Country	89030
		NV/ USA	

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E8. County: Montgomery

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E10. Area of Operation: CONUS, AK, HI, VI, PR

E11. Latitude: 0 °0 '0.0 "N

E12. Longitude: 0 °0 '0.0 "W

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

E14. Site Elevation (AMSL): 0.0 meters

O Yes	⊚ No	O N/A
○ Yes	O No	● N/A
Yes	• 0	No
O Yes	· •	No
O Yes	•	No
O Yes	· •	No
	Yes Yes	O Yes ●

Satellite Name: INTELSAT AMERICAS-6 | INTELSAT AMERICAS-6 | 93 W.L. If you selected OTHER, please enter the following:

E21. Common Na	E21. Common Name:					E22. ITU Name:						
E23. Orbit Locati	on:				E24. Country:							
POINTS OF C	OMMUNICATI	ION (Destination	n Points)		•							
E25. Site Identific	er:											
E26. Common Na	ame:				E27. Cou	ntry:						
ANTENNA												
Site ID	E28. Antenna Id	E29. Quantity	E30. Manuf	facturer	E31. Mod	del	E32. Anten Size <meter< th=""><th></th><th>E41/42. Antenna Gain Transmint and/or Recieve (dBi atGHz)</th><th></th></meter<>		E41/42. Antenna Gain Transmint and/or Recieve (dBi atGHz)			
									dBi at			
E28. Antenna Id	E33/34. Diameter Minor/Major (meters)	E35. Above Ground Level (meters)		bove Sea meters)	E37. Bui Height A Ground (meters)	bove	E38. Total Input Powe antenna fla (Watts)		E39. Maximum Antenna Heigh Above Rooftop (meters)	t EIRP for al		
FREQUENCY	/											
E28. Antenna Id	E43/44. Frequency B: (MHz)	E45. T/R M	E45. T/R Mode		enna tion(H,V,	E47. I Design	Emission nator		P per Carrier W)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)		

entirety.)	lation and Servic	. ,	plete description	does not appea	in this box, plea	se go to the end	d of the fo	rm to vi	ew it in its
E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit		E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit	E59. Antenn Elevation Angle Wester Limit	on	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
			/						
REMOTE CO	ONTROL POIN	T LOCATION							
	ign ase enter the calls nich this applicati	_		301	5. Phone Number -428-5500				
E62. Street 11717 Expl	Address oration Lane			1					
E63. City Germantow	'n		E68. County Montgomery			E67/68. State/Country MD/ US	A	E64. 2087	. Zip Code 76

E61. Call Sign E940460 NOTE: Please enter the callsign of the controcallsign for which this application is being filed.		E66. Phone Number 702–721–6048		
E62. Street Address One Aerojet Way				
E63. City North Las Vegas	E68. County Clark		E67/68. State/Country NV/ USA	E64. Zip Code 89030

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