Approved by OMB 3060–0678

Date & Time Filed: Jul 21 2005 3:04:07:560PM File Number: SES-MFS-20050721-00951

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: DW 7000 Mods for EXP

1–8. Legal Name of Applicant HNS License Sub, LLC **Phone Number:** Name: 301-601-7226 DBA Fax Number: 301-428-2802 Name: Street: 11717 Exploration Lane E-Mail: jread@hns.com City: Germantown State: MD **Country:** USA Zipcode: 20876 Attention: Ms Joslyn Read

me of Contact	Representative		
Name:	Steven Doiron	Phone Number:	301-428-5506
Company:	HNS License Sub, LLC	Fax Number:	301-428-2802
Street:	11717 Exploration Lane	E-Mail:	sdoiron@hns.com
City:	Germantown	State:	MD
Country:	USA	Zipcode:	20876-
Attention:		Relationship:	Engineer

CLASSIFICATION OF FILING

17. Choose the button next to the	
classification that applies to this filing for	(N/A) b1. Application for License of New Station
both questions a. and b. Choose only one	(N/A) 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
a1. Earth Station	(N/A) b4. Modification of License or Registration
	b5. Assignment of License or Registration
• a2. Space Station	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 application?								
● If Yes, complete and attach FCC Form	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 O Noncommercial educational licensee								
• Other(please explain):								
17d.								
Fee Classification CGV – Fixed Satellite	assification 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 number	ng application enter both fields, if this filing is a er:						
(a) Call sign of station:	(a) Date pending application was filed:	iled: (b) File number:						
E000166		SESMOD2004002001479						
		SESMOD2004093001478						

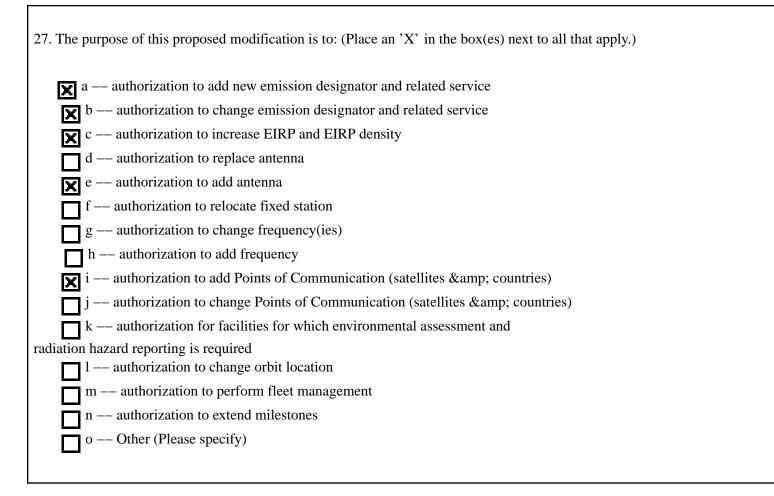
TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provid	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	Using Non–U.S. licensed satellites
23. If applicant is providing INTERNATIONAL COMMON CARRIER 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	applicable frequency band(s).
a. C–Band (4/6 GHz) k. Ku–Band (12/14 GHz)	
c.Other (Please specify upper and lower frequencies in MHz.)	
Frequency Lower: Frequency Upper: (Please specify addition	onal 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.
o a. Fixed Earth Station
• b. Temporary–Fixed Earth Station
● c. 12/14 GHz VSAT Network
O 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



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 Exhil					
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.	autic	al en	rou	te oi	ſ		_
29. Is the applicant a foreign government or the representative of any foreign government?	0	Yes	۲	No			
30. Is the applicant an alien or the representative of an alien?	0	Yes	۲	No	0	N/A	
31. Is the applicant a corporation organized under the laws of any foreign government?	0	Yes	۲	No	0	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	۲	No	0	N/A	

33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than	0	Yes	6	No	O i	N/A
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?						

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
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.	O 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	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.

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 No

Yes

42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, what administration has coordinated or is in the process of coordinating the space station?

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.)

See exhibit A

Exhibit A

CERTIFICATION

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

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

Individual

Unincorporated Association

- Partnership
- Corporation

Governmental Entity

Other (please specify)

45. Name of Person Signing	46. Title of Person Signing
Joslyn Read	AVP Regulatory Affairs

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WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT (U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).

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

Location of Earth St	ation Site					
E1: Site Identifier:	TR 74–2 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, V	'I, 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				
E14. She Elevation	(AMDL).	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 [№]	N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	• Yes	0	No

E18. Is frequency coordination required? If YES, attach a frequency coordination report as	0	Yes	۲	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	0	Yes	۲	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.	0	Yes	۲	No

POINTS OF COMMUNICATION

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 Location:	E24. Country:

Satellite Name: IA-8 | IA-8 | 89 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 (formerly GE-4 AMC-4 101 W.L. If yo	u selected OTHER, please enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:

Satellite Name: AMC–9 AMERICOM 9 83 W.L. If	you selected OTHER, please enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:

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: SATMEX-5 SATMEX-5 116.8 W.L.	If you selected	d 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: 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: GALAXY 10R GALAXY 10R 123 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	If you selected OTHER, please 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	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:						
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 at GHz)	
TR 74–2 CM	TR 74–2	500000	RAVEN	HNS-1035610	0.74	36.7 dBi at 11.95	
TR 74–2 CM	TR 74–2	500000	RAVEN	HNS-1035610	0.74	38.7 dBi at 14.25	

Id	Diameter		· · · ·	Height Above	Input Power at	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
TR 74–2	0.69/0.84	0.0	0.0	0.0	2.0	0.0	41.7

FREQUENCY

	E43/44. Frequency Bands (MHz)				EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
TR 74–2	11700 12200	R	Horizontal and Vertical	6M00G7D	0.0	0.0

E50. Modulatio entirety.)	n and Services (If t	he complete description	on does not appear ir	n this box, please go t	o the end of the form	to view it in its
QPSK, DAT	A, 5 MSPS, MUL'	FIMEDIA				
TR 74–2	11700 12200	R	Horizontal and Vertical	12M0G7D	0.0	0.0
E50. Modulatio entirety.)	n and Services (If t	he complete descript	on does not appear ir	n this box, please go t	o the end of the form	to view it in its
QPSK, DAT	A, 10 MSPS, MU	LTIMEDIA				
TR 74–2	11700 12200	R	Horizontal and Vertical	24M0G7D	0.0	0.0
E50. Modulatio entirety.)	n and Services (If t	he complete descript	on does not appear ir	n this box, please go t	o the end of the form	to view it in its
QPSK, DAT	A, 20 MSPS, MU	LTIMEDIA				
TR 74–2	11700 12200	R	Horizontal and Vertical	36M0G7D	0.0	0.0

E50. Modulation entirety.)	n 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
QPSK, DATA	A, 30 MSPS, MU	LTIMEDIA				
TR 74–2	14000 14500	Т	Horizontal and Vertical	200KG7D	38.7	21.7
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
QPSK, DIG	ITAL, 128 KSPS	, RETURN CARRIE	ER			
TR 74–2	14000 14500	Т	Horizontal and Vertical	400KG7D	41.7	21.7
E50. Modulatior 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
QPSK, DIG	ITAL, 256 KSPS	, RETURN CARRIE	ER			
TR 74–2	14000 14500	Т	Horizontal and Vertical	800KG7D	41.7	18.7

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.)

QPSK, DIGITAL, 512 KSPS, RETURN CARRIER

TR 74–2	14000 14500	Т	Horizontal and Vertical	1M60G7D	41.7	15.7

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.)

QPSK, DIGITAL, 1024 KSPS, RETURN CARRIER

FREQUENCY COORDINATION

E28. Antenna Id		E52/53. Frequency Limits(MHz)	Range of Satellite Arc Eastern/West	0		Station Azimuth Angle	Elevation Angle Western	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
TR 74–2	Geostationary	14000 14500	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

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:	TFTR 74–2 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 Opera	tion:	CONUS, AK, HI, V	/I, 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 location and telephone number of the control			
point.		O No	

E18. Is frequency coordination required? If YES, attach a frequency coordination report as	0	Yes	۲	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	0	Yes	۲	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.	0	Yes	۲	No

POINTS OF COMMUNICATION

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: 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: 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-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: GALAXY 10R GALAXY 10R 123 W.L. If	If you 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 selected	d OTHER, please enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:

Satellite Name: AMC-4 (formerly GE-4 AMC-4 101 W.L. If yo	u selected 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 sele	ected 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, 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 selected OTHER, please enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:

Satellite Name: AMC 9 AMC 9 85 W.L.	If you selected OTHER, please 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 sele	ected 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	Size <meters></meters>	E41/42. Antenna Gain Transmint and/or Recieve (dBi at GHz)
TFTR 74–2 CM	TFTR 74–2	50000	RAVEN	HNS-1035610	0.74	36.7 dBi at 11.95

TFTR 74–2 CM	TFTR 74–2	50000	RAVEN	HNS-1035610	0.74	38.7 dBi at	
						14.25	

Id			· · · ·	Height Above	E38. Total Input Power at antenna flange (Watts)	0	EIRP for al
TFTR 74–2	0.69/0.84	0.0	0.0	0.0	2.0	0.0	41.7

FREQUENCY

E28. Antenna Id	E43/44. Frequency Bands (MHz)	E45. T/R Mode	E46. Antenna Polarization(H,V, L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
TFTR 74–2	11700 12200	R	Horizontal and Vertical	6M00G7D	0.0	0.0
E50. Modulation entirety.)	and Services (If th		on does not appear in	this box, please go t	o the end of the form	to view it in its

TFTR 74–2	11700 12200	R	Horizontal and Vertical	12M0G7D	0.0	0.0

E50. Modulation entirety.)	n and Services (If t	he complete descripti	on does not appear in	n this box, please go t	to the end of the form	to view it in its
QPSK, DAT	A, 10 MSPS, MU	LTIMEDIA				
TFTR 74–2	11700 12200	R	Horizontal and Vertical	24M0G7D	0.0	0.0
E50. Modulation entirety.)	n and Services (If t	he complete descripti	on does not appear in	n this box, please go t	to the end of the form	to view it in its
QPSK, DAT	A, 20 MSPS, MU	LTIMEDIA				
TFTR 74–2	11700 12200	R	Horizontal and Vertical	36M0G7D	0.0	0.0
E50. Modulation entirety.)	n and Services (If t	he complete descripti	on does not appear in	n this box, please go t	to the end of the form	to view it in its
QPSK, DAT	A, 30 MSPS, MUI	LTIMEDIA				
TFTR 74–2	14000 14500	Т	Horizontal and Vertical	200KG7D	38.7	21.7

E50. Modulation entirety.)	on and Services (1	f the complete de	escription does not appear	in this box, please	go to the end of t	he form to view it in its
QPSK, DIC	GITAL, 128 KSP	S, RETURN C.	ARRIER			
TFTR 74–2	14000 14500	Т	Horizontal and Vertical	400KG7D	41.7	21.7
E50. Modulation entirety.)	on and Services ()	f the complete de	escription does not appear	in this box, please	go to the end of t	he form to view it in its
QPSK, DIC	GITAL, 256 KSE	S, RETURN C.	ARRIER			
TFTR 74–2	14000 14500	Т	Horizontal and Vertical	800KG7D	41.7	18.7
E50. Modulation entirety.)	on and Services ()	f the complete de	escription does not appear	in this box, please	go to the end of t	he form to view it in its
QPSK, DIC	GITAL, 512 KSP	S, RETURN C.	ARRIER			
TFTR 74–2	14000 14500	Т	Horizontal and Vertical	1M60G7D	41.7	15.7

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.)

QPSK, DIGITAL, 1024 KSPS, 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)
TFTR 74–2	Geostationary	14000 14500	50.0/150.0	134.3	36.7	257.0	8.3	-9.0

REMOTE CONTROL POINT LOCATION

E61. Call Sign E000166 NOTE: Please enter the callsign of the controlling station, not the 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 St	ation Site					
E1: Site Identifier:	TR 98CM	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, V	I, PR			
E11. Latitude:	0 °0 '0.0 "N					
E12. Longitude:	0 °0 '0.0 "W					
E13. Lat/Lon Coord	linates are:	O ^{NAD-27}	O 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}
two degree spacing policy.			

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 [№]	N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	• Yes	0	No

E18. Is frequency coordination required? If YES, attach a frequency coordination report as	0	Yes	۲	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	0	Yes	۲	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.	0	Yes	۲	No

POINTS OF COMMUNICATION

Satellite Name: AMC 9 AMC 9 85 W.L.	If you selected OTHER, please enter the following:	
E21. Common Name:		E22. ITU Name:
E23. Orbit Location:		E24. Country:

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: SATMEX-5 SATMEX-5 116.8 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 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: GALAXY XI GALAXY XI 91 W.L. If you selected	d OTHER, please enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:

Satellite Name: AMC-4 (formerly GE-4 AMC-4 101 W.L. If yo	u 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, please 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	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.	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: GALAXY 10R GALAXY 10R 123 W.L. If you 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 at GHz)
TR 98CM	TR 98 CM	60000	Prodelin	9008668	0.98	39.9 dBi at 11.95
TR 98CM	TR 98 CM	60000	Prodelin	9008668	0.98	41.3 dBi at 14.25

Id	Diameter	E35. Above Ground Level (meters)		Height Above Ground Level	Input Power at antenna flange	0	EIRP for al
TR 98 CM	0.98/0.98	0.0	0.0	0.0	2.0	0.0	44.3

FREQUENCY

	E43/44. Frequency Bands (MHz)			Designator	EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
TR 98 CM		R	OTHER	0	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.)

(Deleted)

TR 98 CM		R	OTHER	0	0.0	0.0
E50. Modulation entirety.)	on and Services (I	f the complete d	escription does not appear	in this box, please	go to the end of t	he form to view it in its
(Deleted)						
TR 98 CM	14000 14500	Т	Horizontal and Vertical	800KG7D	44.3	21.3
E50. Modulation	on and Services (I		escription does not appear	in this box, please	go to the end of t	he form to view it in its
TR 98 CM	14000 14500	Т	Horizontal and Vertical	1M60G7D	44.3	18.3
E50. Modulation entirety.)	on and Services (I	f the complete d	escription does not appear	in this box, please	go to the end of t	he form to view it in its
QPSK, DIG	ITAL, 1024 KS	PS, RETURN	CARRIER			

FREQUENCY COORDINATION

E28.	E51. Satellite	E52/53.	E54/55.	E56. Earth	E57.	E58. Earth	E59.	E60.
Antenna Id	Orbit Type	Frequency Limits(MHz)	Satellite Arc Eastern/West		Elevation Angle	Station Azimuth Angle Western Limit	Antenna Elevation Angle Western Limit	Maximum EIRP Density toward the Horizon (dBW/4kHz)
			/					

REMOTE CONTROL POINT LOCATION

E61. Call Sign		E66. Phone Number		
NOTE: Please enter the callsign of the contro callsign for which this application is being filed.				
E62. Street Address				
E63. City	E68. County		E67/68.	E64. Zip Code
			State/Country /	

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:	TF TR 98CM	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 Coordinates 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 location and telephone number of the control		
point.	• Yes	O No

E18. Is frequency coordination required? If YES, attach a frequency coordination report as	0	Yes	۲	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	0	Yes	۲	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.	0	Yes	۲	No

Satellite Name: AMC 9 AMC 9 85 W.L.	If you selected OTHER, please enter the following:	
E21. Common Name:		E22. ITU Name:
E23. Orbit Location:		E24. Country:

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: SATMEX-5 | SATMEX-5 | 116.8 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 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: GALAXY XI GALAXY XI 91 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 (formerly GE-4 AMC-4 101 W.L. If yo	u 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	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, please 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 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-6 AMC-6 72 W.L.	If you selected OTHER, p	lease 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 s	elected OTHER, please enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
DOINTS OF COMMUNICATION (Destination Doints)	•

1 OIN 15 OF COMMONICATION (Destination Founds)	
E25 Site Identifier	

E23. She 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 at GHz)
TF TR 98CM	TF TR 98 C	54000	Prodelin	9008668	0.98	39.9 dBi at 11.95

TF TR 98CM	TF TR 98 C	54000	Prodelin	9008668	0.98	41.3 dBi at	
						14.25	

Id	Diameter		· · · ·	Height Above Ground Level	E38. Total Input Power at antenna flange (Watts)	0	EIRP for al
TF TR 98 C	0.98/0.98	0.0	0.0	0.0	2.0	0.0	44.3

FREQUENCY

E28. Antenna Id	E43/44. Frequency Bands (MHz)	E45. T/R Mode	E46. Antenna Polarization(H,V, L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
TF TR 98 C		R	OTHER	0	0.0	0.0
E50. Modulation entirety.)	and Services (If the service se	ne complete descrip	tion does not appear in	i this box, please go	o to the end of the form	to view it in its
TF TR 98 C		R	OTHER	0	0.0	0.0

E50. Modulati entirety.)	on and Services	(If the complete de	escription does not appear	in this box, please	go to the end of t	he form to view it in its
(deleted)					
TF TR 98 C	14000 14500	Т	Horizontal and Vertical	800KG7D	44.3	21.3
entirety.)	GITAL, 512 KS	PS, RETURN C	ARRIER			
TF TR 98 C	14000 14500	Т	Horizontal and Vertical	1M60G7D	44.3	18.3
entirety.)			escription does not appear	in this box, please	go to the end of t	he form to view it in its
QPSK, DI	GITAL, 1024 K	SPS, RETURN	CARRIER			

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	Frequency Limits(MHz)	Range of Satellite Arc Eastern/West	Station Azimuth	Antenna Elevation Angle	Station Azimuth Angle	Antenna Elevation Angle Western	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
			/					

E61. Call Sign		E66. Phone Number		
NOTE: Please enter the callsign of the contro callsign for which this application is being filed.				
E62. Street Address				
E63. City	E68. County		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 S	tation Site						
E1: Site Identifier:	Tx & Rx- 0.74M	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 Opera	tion:	CONUS, AK, HI, VI, PR					
E11. Latitude:	0 °0 '0.0 "N						
E12. Longitude:	0 °0 '0.0 "W						
E13. Lat/Lon Coordinates are:		ONAD-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 location and telephone number of the control		
point.	• Yes	O No

E18. Is frequency coordination required? If YES, attach a frequency coordination report as	0	Yes	۲	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	0	Yes	۲	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.	0	Yes	۲	No

Satellite Name: AMC-6 AMC-6 72 W.L.	If you selected OTHER, p	blease 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 s	selected OTHER, please 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 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, 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 sel	lected OTHER, please enter the following:
E21. Common Name:	E	E22. ITU Name:
E23. Orbit Location:	E	E24. Country:

Satellite Name: GALAXY 10R GALAXY 10R 123 W.L. If you see	lected 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 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: SATMEX-5 | SATMEX-5 | 116.8 W.L. If you selected OTHER, please enter the following:

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

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: AMC 9 AMC 9 85 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 (formerly GE-4 AMC-4 101 W.L.	If you se	elected OTHER, please enter the following:
E21. Common Name:		E22. ITU Name:
E23. Orbit Location:		E24. Country:
POINTS OF COMMUNICATION (Destination Points)		

TORVES OF COMMENTENTION (Destination Folias)	
E25. Site Identifier:	
E26. Common Name:	E27. Country:

ANTENNA

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	Size <meters></meters>	E41/42. Antenna Gain Transmint and/or Recieve (dBi at GHz)
Tx & Rx– 0.74M	TR 74	350000	Prodelin	HANT–91TR	0.74	37.9 dBi at 11.95

Tx & Rx-	TR 74	350000	Prodelin	HANT-91TR	0.74	39.0 dBi at	
0.74M						14.250	

E28. Antenna Id	E33/34. Diameter Minor/Major (meters)	E35. Above Ground Level (meters)	· · · ·	Height Above	Input Power at	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
TR 74	0.56/0.98	0.0	0.0	0.0	2.0	0.0	42.0

FREQUENCY

	E43/44. Frequency Bands (MHz)				E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
TR 74	14000 14500	Т	Horizontal and Vertical	400KG7D	42.0	22.0

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.)

OQPSK,	DIGITAL, 256 K	SPS, RETURN C	ARRIER			
74	14000	T	II arizontal and	200VC7D	42.0	10.0
274	14000	1	Horizontal and Vertical	800KG7D	42.0	19.0

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.)

OQPSK, DIGITAL, 512 KSPS, RETURN CARRIER

TR 74	14000 14500	Т	Horizontal and Vertical	1M60G7D	42.0	16.0

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.)

OQPSK, DIGITAL, 1024 KSPS, RETURN CARRIER

FREQUENCY COORDINATION

	E51. Satellite Orbit Type	Frequency Limits(MHz)	Range of Satellite Arc Eastern/West	Station Azimuth Angle		Station Azimuth Angle	Angle Western	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
TR 74	Geostationary	14000 14500	50.0/150.0	134.0	36.0	257.0	8.0	-9.0

E61. Call Sign		E66. Phone Number		
NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.				
E62. Street Address		•		
E63. City	E68. County		E67/68.	E64. Zip Code
			State/Country /	

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:	TF TR 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 Opera	tion:	CONUS, AK, HI, V	/I, 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 location and telephone number of the control		
point.	• Yes	O No

E18. Is frequency coordination required? If YES, attach a frequency coordination report as	0	Yes	۲	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	0	Yes	۲	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.	0	Yes	۲	No

Satellite Name: AMC-4 (formerly 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: GALAXY XI GALAXY XI 91 W.L. If you sel	ected 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: SATMEX-5 SATMEX-5 116.8 W.L.	If you selected OTHER, please enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:

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: AMC 9 AMC 9 85 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: GALAXY 4R GALAXY 4R 99 W.L. If you sel	ected OTHER, please 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 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, 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		elected OTHER, 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 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	Size <meters></meters>	E41/42. Antenna Gain Transmint and/or Recieve (dBi at GHz)
TF TR 74 CM	TF TR 74	60200	Prodelin	HANT–91TR	0.74	37.9 dBi at 11.95

TF TR 74 CM	TF TR 74	60200	Prodelin	HANT–91TR	0.74	39.0 dBi at 14.25	

Id			· · · ·	Height Above	E38. Total Input Power at antenna flange (Watts)	0	EIRP for al
TF TR 74	0.56/0.98	0.0	0.0	0.0	2.0	0.0	42.0

FREQUENCY

E28. Antenna Id	E43/44. Frequency Bands (MHz)	E45. T/R Mode	E46. Antenna Polarization(H,V, L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)		
TF TR 74	14000 14500	Т	Horizontal and Vertical	400KG7W	42.0	22.0		
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.)								
OQPSK, DIC	GITAL, 256 KSPS	, RETURN CARRI	ER					

TF TR 74	14000 14500	Т	Horizontal and Vertical	800KG7D	42.0	19.0

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.)

OQPSK,	DIGITAL,	512 KSPS	, RETURN	CARRIER			
TR 74	14000 14500		Т	Horizontal and Vertical	1M60G7D	42.0	16.0

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.)

OQPSK, DIGITAL, 1024 KSPS, RETURN CARRIER

FREQUENCY COORDINATION

	E51. Satellite Orbit Type	Frequency	E54/55. Range of Satellite Arc Eastern/West ern Limit	Station Azimuth Angle		Station Azimuth Angle	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
TF TR 74	Geostationary	14000 14500	50.0/150.0	134.0	36.0	257.0	8.0	-9.0

E61. Call Sign	E66. Phone Number			
NOTE: Please enter the callsign of the contro callsign for which this application is being filed.				
E62. Street Address		•		
E63. City	E68. County		E67/68.	E64. Zip Code
			State/Country /	

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

E10. Area of Operation:		CONUS, AK, HI			
E4. State	MD	E9. Zip Code	20876		
E3. Street:	11717 Exploration Lane	E7. City: E8. County:	Germantown Montgomery		
E2: Contact Name	Dave Zatloukal	E6. Phone Number:	301-428-5000		
E1: Site Identifier:	TR 1.2M	E5. Call Sign:	E000166		

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 location and telephone number of the control		
point.	• Yes	O No

E18. Is frequency coordination required? If YES, attach a frequency coordination report as	0	Yes	۲	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	0	Yes	۲	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.	0	Yes	۲	No

Satellite Name: If you 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 at GHz)	
TR 1.2M	TR 1.2M	100000	Prodelin	1134	1.2	41.5 dBi at 11.95	
TR 1.2M	TR 1.2M	100000	Prodelin	1134	1.2	43.1 dBi at 14.250	
E28. Antenna Id	E33/34. Diameter Minor/Major (meters)	E35. Above Ground Level (meters)	E36. Above Sea Level(meters)	E37. Building Height Above Ground Level (meters)	E38. Total Input Power at antenna flange (Watts)	E39. Maximum Antenna Height Above Rooftop (meters)	E40. Total EIRP for al carriers(dBW)
TR 1.2M	1.2/1.2	0.0	0.0	0.0	2.0	0.0	46.1
FREQUENCY							
E28. Antenna I	d E43/44. Frequency Ba (MHz)	E45. ands T/R M	E46. Ant lode Polarizat L,R)	enna E47. E tion(H,V, Design		P per Carrier E W) C	49. Maximum RIP Density per arrier BW/4kHz)
TR 1.2M	14000					23	

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.)

OQPSK,	DIGITAL,	512 KSPS,	RETURN	CARRIER			
R 1.2M	14000 14500		Г	Horizontal and Vertical	1M60G7D	46.1	20.1

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

OQPSK, DI	IGITAL,	1024	KSPS,	RETURN	CARRIER

FREQUENCY COORDINATION

E28.	E51. Satellite	E52/53.	E54/55.	E56. Earth	E57.	E58. Earth	E59.	E60.
Antenna Id	Orbit Type	Frequency	Range of	Station	Antenna	Station	Antenna	Maximum
		Limits(MHz)	Satellite Arc	Azimuth	Elevation	Azimuth	Elevation	EIRP Density
			Eastern/West	Angle	Angle	Angle	Angle	toward the
			ern Limit	Eastern Limit	Eastern Limit	Western	Western	Horizon
						Limit	Limit	(dBW/4kHz)

/

E61. Call Sign		E66. Phone Number		
NOTE: Please enter the callsign of the contro callsign for which this application is being filed.				
E62. Street Address		•		
E63. City	E68. County		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 Station Site

E1: Site Identifier:	TF TR 1.2M	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, V	VI, PR		
E11. Latitude:	0 °0 '0.0 "N	•			
E12. Longitude:	0 °0 '0.0 "W				
E13. Lat/Lon Coordinates are:		ONAD-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.	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 location and telephone number of the control				
point.	• Ye	es	O No	

E18. Is frequency coordination required? If YES, attach a frequency coordination report as	0	Yes	۲	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	0	Yes	۲	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.	0	Yes	۲	No

Satellite Name: If you 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 at GHz)
TF TR 1.2M	TF TR 1.2	50000	Prodelin	1134	1.2	41.5 dBi at 11.95
TF TR 1.2M	TF TR 1.2	50000	Prodelin	1134	1.2	43.1 dBi at 14.25

Id			· · · · ·	Height Above	Input Power at	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
TF TR 1.2	1.2/1.2	0.0	0.0	0.0	2.0	0.0	46.1

FREQUENCY

	E43/44. Frequency Bands (MHz)	E45. T/R Mode			EIRP per Carrier	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
TF TR 1.2	14000 14500	Т	Horizontal and Vertical	800KG7W	46.1	23.1

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

OQPSK, DIGITAL, 512 KSPS, RETURN CARRIER

TF TR 1.2	14000	Т	Horizontal and	1M60G7D	46.1	20.1
	14500		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.)

OQPSK, DIGITAL, 1024 KSPS, RETURN CARRIER

FREQUENCY COORDINATION

E28.	E51. Satellite	E52/53.	E54/55.	E56. Earth	E57.	E58. Earth	E59.	E60.
Antenna Id	Orbit Type	· · · ·	Range of Satellite Arc Eastern/West ern Limit		Elevation Angle	Station Azimuth Angle Western Limit		Maximum EIRP Density toward the Horizon (dBW/4kHz)
			/					

E61. Call Sign		E66. Phone Number		
NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.				
E62. Street Address		•		
E63. City	E68. County		E67/68.	E64. Zip Code
			State/Country /	

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

Earth Station Site				
1: Site Identifier:	TR 1.8M	E5. Call Sign:	E000166	
2: Contact Name	Dave Zatloukal	E6. Phone Number:	301-428-5500	
	11717 Exploration Lane	E7. City:	Germantown	
		E8. County:	Montgomery	
4. State	MD	E9. Zip Code	20876	
10. Area of Operati	ion:	CONUS, AK, HI, V	I, PR	
11. Latitude:	0 °0 '0.0 "N			
12. Longitude:	0 °0 '0.0 "W			
13. Lat/Lon Coordi	inates are:	○ NAD-27	NAD-83	O ^{N/A}
14. Site Elevation (AMSL):	0.0 meters		
1: 2: 3: 4: 1:	: Site Identifier: : Contact Name . Street: . State 0. Area of Operati 1. Latitude: 2. Longitude: 3. Lat/Lon Coordi	: Site Identifier: TR 1.8M : Contact Name Dave Zatloukal . Street: 11717 Exploration Lane MD 0. Area of Operation: 1. Latitude: 0 °0 '0.0 "N	: Site Identifier: TR 1.8M E5. Call Sign: : Contact Name Dave Zatloukal E6. Phone Number: . Street: 11717 Exploration E7. City: Lane E8. County: . State MD E9. Zip Code 0. Area of Operation: CONUS, AK, HI, V 1. Latitude: 0 °0 '0.0 "N 2. Longitude: 0 °0 '0.0 "W 3. Lat/Lon Coordinates are: NAD-27	 Site Identifier: TR 1.8M Contact Name Dave Zatloukal Bave Zatloukal E6. Phone Number: Street: 11717 Exploration Lane F7. City: Germantown Lane E8. County: Montgomery E8. County: Montgomery MD E9. Zip Code 20876 CONUS, AK, HI, VPR 1. Latitude: 0°0 '0.0 "N 2. Longitude: 0°0 '0.0 "W 3. Lat/Lon Coortwates are: NAD-27

E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	• Yes	0	No
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
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}

E18. Is frequency coordination required? If YES, attach a frequency coordination report as	0	Yes	۲	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	0	Yes	۲	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.	0	Yes	۲	No

Satellite Name: If you 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 at GHz)
TR 1.8M	TR 1.8M	50000	Prodelin	1184	1.8	45.0 dBi at 11.95
TR 1.8M	TR 1.8M	50000	Prodelin	1184	1.8	46.7 dBi at 14.250

E28. Antenna Id			` '	Height Above	Input Power at	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
TR 1.8M	1.8/1.8	0.0	0.0	0.0	2.0	0.0	49.7

FREQUENCY

E28. Antenna Id	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)

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.) OQPSK, DIGITAL, 512 KSPS, RETURN CARRIER TR 1.8M 14000 14500 T Horizontal and Vertical 1M60G7D 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.) OQPSK, DIGITAL, 1024 KSPS, RETURN CARRIER	TR 1.8M	14000 14500	Т	Horizontal and Vertical	800KG7D	49.7	26.7
TR 1.8M 14000 14500 T Horizontal and Vertical 1M60G7D 49.7 23.7 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.)		and Services (If th	ne complete descripti	on does not appear in	this box, please go to	o the end of the form	to view it in its
14500 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.)	OQPSK, DIG	ITAL, 512 KSPS	, RETURN CARRI	ER			
entirety.)	TR 1.8M		Т		1M60G7D	49.7	23.7
	entirety.)	×			this box, please go to	o the end of the form	to view it in its

E28. Antenna Id	E51. Satellite Orbit Type	Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	Station Azimuth Angle	E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
			/					

E61. Call Sign		E66. Phone Number		
NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.				
E62. Street Address		•		
E63. City	E68. County		E67/68.	E64. Zip Code
			State/Country /	

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 2.4M	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 Opera	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:	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.	• 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 location and telephone number of the control point.	•	Yes	0	No
E18. Is frequency coordination required? If YES, attach a frequency coordination report as Exhibit E	0	Yes	۲	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	0	Yes	۲	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.	0	Yes	۲	No

Satellite Name: If you 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	Size <meters></meters>	E41/42. Antenna Gain Transmint and/or Recieve (dBi at GHz)
TR 2.4M	TR 2.4M	11000	PRODELIN	1244	2.4	47.7 dBi at 11.95
TR 2.4M	TR 2.4M	11000	PRODELIN	1244	2.4	49.2 dBi at 14.250

Id	Diameter			Height Above	Input Power at	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
TR 2.4M	2.4/2.4	0.0	0.0	0.0	2.0	0.0	52.2

FREQUENCY

	E43/44. Frequency Bands (MHz)				E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
TR 2.4M	14000 14500	Т	Horizontal and Vertical	800KG7D	52.2	29.2

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.)

QPSK,	DIGITAL,	512 KS	SPS, REI	'URN CARRIER				
TR 2.4M	1400 1450		Т		Horizontal and Vertical	1M60G7D	52.2	26.2

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.)

QPSK, DIGITAL, 1024 KSPS, RETURN CARRIER

FREQUENCY COORDINATION

E28. Antenna Id	E52/53. Frequency Limits(MHz)	Range of Satellite Arc Eastern/West	Station Azimuth	E57. Antenna Elevation Angle Eastern Limit	Station Azimuth Angle	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
		/					

E61. Call Sign	E66. Phone Number			
NOTE: Please enter the callsign of the contro callsign for which this application is being filed.				
E62. Street Address				
E63. City	E68. County		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.

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