Date & Time Filed: May 14 2010 3:54:28:690PM

File Number: SES-MFS-20100514-00592

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:

Modification

Legal Name of A	pplicant		
Name:	STM Networks Inc	Phone Number:	949-273-6800
DBA Name:		Fax Number:	949–273–6020
Street:	2 Faraday	E-Mail:	gdarbyshire@stmi.com
	Suite B		
City:	Irvine	State:	CA
Country:	USA	Zipcode:	92618 –
Attention	Mr Geoff Darbyshire		

9–16. Name of Contact Representative

Name: Carly T. Didden Phone Number: 202–457–6323

Company: Patton Boggs LLP **Fax Number:** 202–457–6315

Street: 2550 M Street, NW E-Mail: cdidden@pattonboggs.com

City: Washington State: DC

Country: USA Zipcode: 20037–

Attention: Carly T. Didden 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

b3. Amendment to a Pending Application

b4. Modification of License or Registration

b5. Assignment of License or Registration

b6. Transfer of Control of License or Registration

b7. Notification of Minor Modification

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

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

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

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

(N/A) b12. Application for Database Entry

b 13. Amendment to a Pending Database Entry Application

o b14. 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	n (see 47 C.F.R.Section 1.1114).				
Governmental Entity Noncommo	ercial educational licensee					
Other(please explain):	Other(please explain):					
17d.	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 pending application enter both fields, if this filing is a modification please enter only the file number:					
(a) Call sign of station: E070026	(a) Date pending application was filed:	(b) File number:				
E070020		SESLIC2007020500187				

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 station that applies. Choose only one.	
a. Fixed Earth Station	
• b. Temporary–Fixed Earth Station	
c. 12/14 GHz VSAT Network	
d. Mobile Earth Station	
e. Geostationary Space Station	
f. Non–Geostationary Space Station	
g. Other (please specify)	
26. TYPE OF EARTH STATION FACILITY:	
Transmit/Receive Transmit-Only Receive-Only N/A	
"For Space Station applications, select N/A."	

PURPOSE OF MODIFICATION

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

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.	_		•			
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 er	ı roı	ıte o	r	
29. Is the applicant a foreign government or the representative of any foreign government?	٥	Yes	•	, No)	
30. Is the applicant an alien or the representative of an alien?	0	Yes	•	. No	0	N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	0	Yes	•	, No	, o	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	•	. No	· o	N/A

O Yes No

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental

		
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 •	No O N/A
34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit an identification of the aliens or foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.		
BASIC QUALIFICATIONS		
35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules? If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.	• Yes	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	O No
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, w coordinated or is in the process of coordinating the space station?	hat administr	ration has
43. Description. (Summarize the nature of the application and the services to be provided). (If the complete description box, please go to the end of the form to view it in its entirety.) STM Networks seeks authority to modify its Ku-Band VSAT system. See Attachme		ppear in this
Attachment 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.

44. Applicant is a (an): (Choose the button next to applic	able response.)	
 Individual Unincorporated Association Partnership Corporation Governmental Entity Other (please specify) 		
45. Name of Person Signing Emil Youssefzadeh >	46. Title of Person Signing CEO	
(U.S. Code, Title 18, Section 100	ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT 1), AND/OR REVOCATION OF ANY STATION AUTHORIZATION (1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).	

Location of Earth St	ation Site					
E1: Site Identifier:	Jacksonville1	E5. Call Sign:				
E2: Contact Name	Andrew Mametz	E6. Phone Number:	904-279-1777			
E3. Street:	4905 Belfort Road, Ste 145	E7. City:	Jacksonville			
		E8. County:	Duval			
E4. State	FL	E9. Zip Code	32256			
E10. Area of Operat	ion:	CONUS, Alaska, an	d Hawaii			
E11. Latitude:	30°14'44.0"N					
E12. Longitude:	81 °34 '53.0 "W					
E13. Lat/Lon Coord	linates are:	O NAD-27	● NAD-83	O N/A		
E14. Site Elevation	(AMSL):	4.0 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
two degree spacing poney.			

E16. If the proposed antenna(s) do not operate in the Fixed Satellite Se Satellite Service (FSS) with non–geostationary satellites, do(es) the progain patterns specified in Section 25.209(a2) and (b) as demonstrated by measurements?	O Yes	O No	⊚ N/A	
E17. Is the facility operated by remote control? If YES, provide the loca point.	ntion and telephone number of the control	O Yes	0	No
E18. Is frequency coordination required? If YES, attach a frequency coordination	ordination report as	O Yes	•	No
E19. Is coordination with another country required? If YES, attach the 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: ALSAT ALL AUTHORIZED U.S. ALSAT If you s	elected OTHER, please enter the following:			
E21. Common Name:	E22. ITU Name:			
E23. Orbit Location:	E24. Country:			
Satellite Name: NSS-7 NSS-7 22 W.L. If you selected OTHER, pl	ease enter the following:			

E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
POINTS OF COMMUNICATION (Destination Points)	
E25. Site Identifier: Jacksonville1	
E26. Common Name:	E27. Country: USA

E25. Site Identifier: Jacksonville1 E26. Common Name: E27. Country: USA

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)	
Jacksonville1	Hub1	2	Shaanxi Probecom	K45T	4.5	53.2 dBi at 11.950	
Jacksonville1	Hub1	2	Shaanxi Probecom	K45T	4.5	54.5 dBi at 14.250	

Id	Diameter		, ,	Height Above Ground Level	Input Power at antenna flange	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
Hub1	0.0/0.0	5.5	9.5	0.0	200.0	0.0	76.5

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)
Hub1	11700 12200	R	Linear and Circular	4M50G7W	0.0	0.0
E50. Modulation entirety.) Digital V	and Services (If the land services) (If the land services) (If the land services)		tion does not appear in	this box, please go	to the end of the form	to view it in its
Hub1	11700.0 12200.0	R	Linear and Circular	2M20G7W	0.0	0.0
E50. Modulation entirety.)	and Services (If the	ne complete descrip	tion does not appear in	this box, please go	to the end of the form	to view it in its
Digital V	ideo, Voice and	l Data				
Hub1	14000.0 14500.0	Т	Linear and Circular	2M20G7W	67.9	40.5

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 Video, Voice, and Data

** 1.4	1 1000 0	m	r · 1 G' 1	13.650.05333	71 0	140.5
Hub1	14000.0	T	Linear and Circular	4M50G7W	[71.0	40.5
	14500.0					

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 Video, Voice, and Data

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	Station Azimuth Angle	E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
Hub1	Geostationary	11700.0 12200.0	22.0/143.0	106.5	17.7	254.7	16.1	0.0
	Geostationary	14000.0 14500.0	22.0/143.0	106.5	17.7	254.7	16.1	-12.1

REMOTE CONTROL POINT LOCATION

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

Location of Earth St	tation Site					
E1: Site Identifier:	Irvine2	E5. Call Sign:				
E2: Contact Name	Geoff Darbyshire	E6. Phone Number:	949-273-6800			
E3. Street:	2 Faraday	E7. City:	Irvine			
		E8. County:	Orange			
E4. State	CA	E9. Zip Code	92618			
E10. Area of Opera	tion:	CONUS, Alaska, ar	nd Hawaii			
E11. Latitude:	33 °38 '27.6 "N					
E12. Longitude:	117 °43 '19.1 "W					
E13. Lat/Lon Coord	linates are:	O NAD-27	⊚ NAD-83	O N/A		
E14. Site Elevation	(AMSL):	94.5 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.	O Yes	No	
E18. Is frequency coordination required? If YES, attach a frequency coordination	rdination report as	Ι	
12. Is frequency coordination required: if TES, attach a frequency coordination required:	tumation report as	O Yes	⊚ No
E19. Is coordination with another country required? If YES, attach the na 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 RAPPLICATION.	's study regarding the potential hazard of	O Yes	No
POINTS OF COMMUNICATION		!	
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: ALSAT ALL AUTHORIZED U.S. ALSAT 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)	I		
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)
Irvine2	Hub2	1	Andrew	ES46MP- 4124W	4.6	53.1 dBi at 11.950
Irvine2	Hub2	1	Andrew	ES46MP- 4124W	4.6	54.7 dBi at 14.250

Id			, ,	Height Above Ground Level	Input Power at antenna flange	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
Hub2	0.0/0.0	5.5	100.0	0.0	125.9	0.0	75.7

E28. Antenna Id	E43/44. Frequency Bands (MHz)			Designator	EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
Hub2	00 00	R	Linear and Circular	00	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
NULL						
Hub2	00 00	Т	Linear and Circular	00	0.0	0.0
entirety.)	•	ne complete description	••			
Hub2	11700.0 12200.0	R	Linear and Circular	4M50G7W	0.0	0.0
E50. Modulation entirety.) Digital Vi	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
Hub2	14000.0 14500.0	Т	Linear and Circular	4M50G7W	71.0	40.5

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 Video, Voice, and Data

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	Range of Satellite Arc Eastern/West	Station Azimuth Angle	E57. Antenna Elevation Angle Eastern Limit	Station Azimuth Angle	Antenna Elevation	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
Hub2	Geostationary	11700.0 12200.0	50.0/143.0	102.8	9.8	220.4	42.4	0.0
	Geostationary	14000.0 14500.0	50.0/143.0	102.8	9.8	220.4	42.4	-5.5

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. State/Country	E64. Zip Code

Location of Earth Station Site E1: Site Identifier: Irvine3 E5. Call Sign: E2: Contact Name Geoff Darbyshire E6. Phone 949-273-6800 Number: E3. Street: 2 Faraday E7. City: Irvine E8. County: Orange E9. Zip Code E4. State CA 92618 E10. Area of Operation: CONUS, Alaska, and Hawaii 33 °38 '27.6 "N E11. Latitude: E12. Longitude: 117 °43 '19.1 "E E13. Lat/Lon Coordinates are: NAD-27 **⋒** NAD-83 N/A E14. Site Elevation (AMSL): 94.5 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 Ser Satellite Service (FSS) with non–geostationary satellites, do(es) the progain patterns specified in Section 25.209(a2) and (b) as demonstrated by measurements?	posed antenna(s) comply with the antenna	O Yes	O No	⊚ N/A
E17. Is the facility operated by remote control? If YES, provide the loca point.	tion and telephone number of the control	O Yes	•	No
E18. Is frequency coordination required? If YES, attach a frequency coordination	ordination report as	O Yes	•	No
E19. Is coordination with another country required? If YES, attach the n coordination contours as	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 I APPLICATION.	a's study regarding the potential hazard of	O Yes	•	No
POINTS OF COMMUNICATION		•		
Satellite Name: ALSAT ALL AUTHORIZED U.S. ALSAT If you so	elected OTHER, please enter the following:			
E21. Common Name:	E22. ITU Name:			
E23. Orbit Location:	E24. Country:			
Satellite Name: GE-23 GE-23 172 E. L. If you selected OTHER, p	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)	
Irvine3	Hub 3	1	Patriot Antenna System	2M38091	3.8	51.8 dBi at 11.950	
Irvine3	Hub 3	1	Patriot Antenna System	2M38091	3.8	53.5 dBi at 14.250	

Id	Diameter		` ′	Height Above Ground Level	Input Power at	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
Hub 3	0.0/0.0	14.9	109.4	9.1	200.0	5.8	76.5

E43/44. Frequency Bands				E48. Maximum EIRP per Carrier	E49. Maximum ERIP Density per
(MHz)	1/11 (01) 1/1040	L,R)	2 congruence	(dBW)	Carrier
					(dBW/4kHz)

Hub 3	11700.0 12200.0	R	Linear and Circular	2M20G7W	0.0	0.0
E50. Modulation entirety.)	and Services (If t	he complete descrip	otion does not appear in	this box, please	go to the end of t	the form to view it in its
Digital Vi	deo, Voice, ar	nd Data				
Hub 3	11700.0 12200.0	R	Linear and Circular	2M20G7W	0.0	0.0
Digital Vi	deo, Voice, ar	nd Data				
Hub 3	11700.0 12200.0	R	Linear and Circular	2M20G7W	0.0	0.0
E50. Modulation entirety.)	and Services (If t	he complete descrip	otion does not appear in	this box, please	go to the end of t	the form to view it in its
Digital Vi	deo, Voice, ar	nd Data				

Hub 3	11700.0 12200.0	R	Linear and Circular	4M50G7W	0.0	0.0
E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go t	to the end of the form	to view it in its
Digital Vi	deo, Voice, ar	nd Data				
Hub 3	14000.0 14500.0	Т	Linear and Circular	2M20G7W	66.9	39.5
Digital Vi	deo, Voice, ar	nd Data				
Hub 3	14000.0 14500.0	Т	Linear and Circular	2M20G7W	66.9	39.5
E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go t	to the end of the form	to view it in its
Digital Vi	deo, Voice, ar	nd Data				

Hub 3	14000.0 14500.0	Т	Linear and Circular	2M20G7W	66.9	39.5
E50. Modulatior entirety.)	and Services	(If the complete d	lescription does not appear in	this box, please	go to the end of the	he form to view it in its
Digital Vi	14000.0 14500.0	and Data	Linear and Circular	4M50G7W	70.0	39.5
E50. Modulation entirety.) Digital V	and Services	· •	lescription does not appear in	this box, please	go to the end of the	he form to view it in its

FREQUENCY COORDINATION

E28. Antenna Id		Limits(MHz)	Satellite Arc Eastern/West	Station Azimuth Angle		Station Azimuth Angle	Antenna Elevation Angle	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
Hub 3	Geostationary	11700.0 12200.0	50.0/188.0	102.8	9.8	258.8	7.7	0.0

	Geostationary	14000.0 14500.0	50.0/188.0	102.8	9.8	258.8	7.7	-2.5
REMOTE CO	NTROL POIN	T LOCATION	•	•	•	•	•	•
	E61. Call Sign					ımber		
	se enter the calls ch this application	•	•	ot the				
E62. Street A	E62. Street Address							
E63. City	E63. City E68. County			y		E67/68. State/Count	try	E64. Zip Code
CATELLITE EADTH CTATION AUTHODIZATIONS								
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:	Remote1	E5. Call Sign:				
E2: Contact Name	Geoff Darbyshire	E6. Phone Number:	949-273-6800			
E3. Street:		E7. City:				
		E8. County:				
E4. State		E9. Zip Code	92618			
E10. Area of Operat	ion:	CONUS, Alaska, and Hawaii				
E11. Latitude:	0 °0 '0.0 "					
E12. Longitude:	0 °0 '0.0 "					
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.	● 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 lepoint.	ocation and telephone number of the control	O Yes	No
E18. Is frequency coordination required? If YES, attach a frequency	coordination report as	O Yes	No
E19. Is coordination with another country required? If YES, attach the coordination contours as	ne name of the country(ies) and plot of	O Yes	No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25 have you attached a copy of a completed FCC Form 854 and/or the F the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WIL APPLICATION.	FAA's study regarding the potential hazard of	O Yes	No
POINTS OF COMMUNICATION		1	
Satellite Name: SATMEX-5 SATMEX-5 116.8 W.L. If you seld	ected OTHER, please enter the following:		
E21. Common Name:	E22. ITU Name:		
E23. Orbit Location:	E23. Orbit Location: E24. Country:		
Satellite Name: TELSTAR 11N USASAT26A 37.55 W.L. If you	selected OTHER, please enter the following:		
E21. Common Name:	E22. ITU Name:		
E23. Orbit Location:	E24. Country:		
Satellite Name: NSS-7 NSS-7 22 W.L. If you selected OTHER	, please enter the following:		

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

Satellite Name: ALSAT ALL AUTHORIZED U.S. ALSAT If y	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 atGHz)	
Remote1	R10	200	Patriot Antenna Sys.	100KUG	1.0	40.2 dBi at 11.950	
Remote1	R10	200	Patriot Antenna Sys.	100KUG	1.0	41.9 dBi at 14.250	

E28. Antenna Id			` ′	Height Above	Input Power at	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
R10	0.0/0.0	1.5	0.0	0.0	3.0	0.0	46.7

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)
R10	11700.0 12200.0	R	Linear and Circular	2M20G7W	0.0	0.0
entirety.) Digital Vi	ideo, Voice, an		tion does not appear in			
R10	11700.0 12200.0	R	Linear and Circular	4M50G7W	0.0	0.0
E50. Modulation entirety.) Digital Vi	and Services (If the		tion does not appear in	this box, please go	to the end of the form	to view it in its
R10	14000.0 14500.0	Т	Linear and Circular	2M20G7W	46.7	19.3

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 Video, Voice, and Data

R10	14000.0	Т	Linear and Circular	4M50G7W	46.7	16.2
	14500.0					

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 Video, Voice, and Data

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	Station Azimuth Angle	E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
R10	Geostationary	11700.0 12200.0	22.0/143.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	14000.0 14500.0	22.0/143.0	0.0	5.0	0.0	5.0	-9.0

REMOTE CONTROL POINT LOCATION

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

Location of Earth St	ation Site				
E1: Site Identifier:	Remote2	E5. Call Sign:			
E2: Contact Name	Geoff Darbyshire	E6. Phone Number:	949-273-6800		
E3. Street:		E7. City:			
		E8. County:			
E4. State		E9. Zip Code			
E10. Area of Operat	ion:	CONUS, Alaska, an	nd Hawaii		
E11. Latitude:	0 °0 '0.0 "				
E12. Longitude:	0 °0 '0.0 "				
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 lopoint.	cation and telephone number of the control	O Yes	No
E18. Is frequency coordination required? If YES, attach a frequency c	oordination report as	O Yes	No
E19. Is coordination with another country required? If YES, attach the coordination contours as	e name of the country(ies) and plot of	O Yes	No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25 have you attached a copy of a completed FCC Form 854 and/or the Fathe structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL APPLICATION.	AA's study regarding the potential hazard of	O Yes	No
POINTS OF COMMUNICATION		!	
Satellite Name: TELSTAR 11N USASAT26A 37.55 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 sele	cted OTHER, please enter the following:		
E21. Common Name:	E22. ITU Name:		
E23. Orbit Location:	E24. Country:		
	•		
Satellite Name: NSS-7 NSS-7 22 W.L. If you selected OTHER,	please enter the following:		

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

Satellite Name: ALSAT ALL AUTHORIZED U.S. ALSAT	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 atGHz)	
Remote2	R12	200	Prodelin Corporation	1123	1.2	41.7 dBi at 11.950	
Remote2	R12	200	Prodelin Corporation	1123	1.2	43.2 dBi at 14.250	

E28. Antenna Id			` ′	Height Above	Input Power at	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
R12	0.0/0.0	1.8	0.0	0.0	3.0	0.0	48.0

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)
R12	11700.0 12200.0	R	Linear and Circular	2M20G7W	0.0	0.0
E50. Modulation entirety.) Digital Vi	and Services (If the land services) (If the land services)		otion does not appear in	this box, please go	to the end of the form	to view it in its
R12	11700.0 12200.0	R	Linear and Circular	4M50G7W	0.0	0.0
E50. Modulation entirety.)	and Services (If the	ne complete descrip	otion does not appear in	this box, please go	to the end of the form	to view it in its
Digital Vi	deo, Voice, ar	nd Data				
R12	14000.0 14500.0	Т	Linear and Circular	2M20G7W	48.0	20.6

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 Video, Voice, and Data

R12	14000.0	T	Linear and Circular	4M50G7W	48.0	17.5
	14500.0					

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 Video, Voice, and Data

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	Station Azimuth Angle	E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
R12	Geostationary	11700.0 12200.0	50.0/143.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	14000.0 14500.0	50.0/143.0	0.0	5.0	0.0	5.0	-9.0

E61. Call Sign		E66. Phone Number		
NOTE: Please enter the callsign of the colcallsign for which this application is being fit				
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 St	ation Site				
E1: Site Identifier:	Remote3	E5. Call Sign:			
E2: Contact Name	Geoff Darbyshire	E6. Phone Number:	949-273-6800		
E3. Street:		E7. City:			
		E8. County:			
E4. State		E9. Zip Code			
E10. Area of Operat	ion:	CONUS, Alaska, an	nd Hawaii		
E11. Latitude:	0 °0 '0.0 "				
E12. Longitude:	0 °0 '0.0 "				
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 lopoint.	ocation and telephone number of the control	O Yes	No
E18. Is frequency coordination required? If YES, attach a frequency of	coordination report as	O Yes	No
E19. Is coordination with another country required? If YES, attach th coordination contours as	e name of the country(ies) and plot of	O Yes	No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25 have you attached a copy of a completed FCC Form 854 and/or the Fithe structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WIL APPLICATION.	AA's study regarding the potential hazard of	O Yes	No
POINTS OF COMMUNICATION		!	
Satellite Name: ALSAT ALL AUTHORIZED U.S. ALSAT If you	u selected OTHER, please enter the following:		
E21. Common Name:	E22. ITU Name:		
E23. Orbit Location:	E24. Country:		
Satellite Name: TELSTAR 11N USASAT26A 37.55 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 sele	cted OTHER, please enter the following:		

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

Satellite Name: NSS-7 NSS-7 22 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 atGHz)	
Remote3	R18	50	Prodelin Corporation	1184	1.8	45.0 dBi at 11.950	
Remote3	R18	50	Prodelin Corporation	1184	1.8	46.5 dBi at 14.250	

Id	Diameter		` /	Height Above	Input Power at	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
R18	0.0/0.0	2.1	0.0	0.0	4.0	0.0	52.5

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)
R18	11700.0 12200.0	R	Linear and Circular	2M20G7W	0.0	0.0
E50. Modulation entirety.) Digital Vi	and Services (If the land services) (If the land services) (If the land services)		otion does not appear in	this box, please go	to the end of the form	to view it in its
R18	11700.0 12200.0	R	Linear and Circular	4M50G7W	0.0	0.0
E50. Modulation entirety.)	and Services (If the	ne complete descrip	otion does not appear in	this box, please go	to the end of the form	to view it in its
Digital Vi	ldeo, Voice, ar	nd Data				
R18	14000.0 14500.0	Т	Linear and Circular	2M20G7W	52.5	25.1

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.)

Digital Video, Voice, and Data

				•	•	•
R18	14000.0	T	Linear and Circular	4M50G7W	1777	22.0
	14500.0					

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 Video, Voice, and Data

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	Station Azimuth Angle	E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit		E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
R18	Geostationary	11700.0 12200.0	50.0/143.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	14400.0 14500.0	50.0/143.0	0.0	5.0	0.0	5.0	-7.8

E61. Call Sign		E66. Phone Number		
NOTE: Please enter the callsign of the control 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 St	ation Site					
E1: Site Identifier:	Jacksonville2	E5. Call Sign:				
E2: Contact Name	Andrew Mametz	E6. Phone Number:	904-279-1777			
E3. Street:	4905 Belfort Road, Ste 145	E7. City:	Jacksonville			
		E8. County:	Duval			
E4. State	FL	E9. Zip Code	32256			
E10. Area of Operat	ion:	CONUS, Alaska, an	d Hawaii			
E11. Latitude:	30°14'44.0"N					
E12. Longitude:	81 °34 '53.0 "W					
E13. Lat/Lon Coord	linates are:	○ NAD-27	● NAD-83	O N/A		
E14. Site Elevation	(AMSL):	4.0 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 locat point.	ion and telephone number of the control	O Yes	No
E18. Is frequency coordination required? If YES, attach a frequency coordination	rdination report as	O Yes	⊚ No
E19. Is coordination with another country required? If YES, attach the national 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 RAPPLICATION.	's study regarding the potential hazard of	O Yes	No
POINTS OF COMMUNICATION		•	
·	ected OTHER, please enter the following:		
E21. Common Name:	E22. ITU Name:		
E23. Orbit Location:	E24. Country:		
Satellite Name: ALSAT ALL AUTHORIZED U.S. ALSAT 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)			
E25. Site Identifier:			

E26. Common Name:	E27. Country:
	1

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)
Jacksonville2	Hub4	1	Shaanxi Probecom	K45T	4.5	53.2 dBi at 11.950
Jacksonville2	Hub4	1	Shaanxi Probecom	K45T	4.5	54.5 dBi at 14.250

Id	Diameter		, ,	Height Above Ground Level	Input Power at	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
Hub4	0.0/0.0	5.5	9.5	0.0	50.0	0.0	71.5

	E43/44. Frequency Bands (MHz)			Designator	EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
Hub4	11700.0 12200.0	R	Linear and Circular	2M20G7W	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
	deo, Voice, an	d Data				
Hub4	11700.0 12200.0	R	Linear and Circular	4M50G7W	0.0	0.0
E50. Modulation entirety.) Digital Vi	deo, Voice, an		on does not appear in	this box, please go to	o the end of the form	to view it in its
Hub4	14000.0 14500.0	Т	Linear and Circular	2M20G7W	67.9	40.5
E50. Modulation entirety.) Digital Vi	and Services (If the		on does not appear in	this box, please go to	o the end of the form	to view it in its
Hub4	14000.0 14500.0	Т	Linear and Circular	4M50G7W	71.0	40.5

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 Video, Voice, and Data

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	Station Azimuth Angle	E57. Antenna Elevation Angle Eastern Limit	Station Azimuth Angle	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
Hub4	Geostationary	11700.0 12200.0	22.0/143.0	106.5	17.7	254.7	16.1	0.0
	Geostationary	14000.0 14500.0	22.0/143.0	106.5	17.7	254.7	16.1	-12.1

E61. Call Sign		E66. Phone Number		
NOTE: Please enter the callsign of the control 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 St	ation Site						
E1: Site Identifier:	Remote4	E5. Call Sign:					
E2: Contact Name	Geoff Darbyshire	E6. Phone Number:	949-273-6800				
E3. Street:		E7. City:					
		E8. County:					
E4. State		E9. Zip Code					
E10. Area of Operat	ion:	Maritime – Atlantic and Pacific Oceans					
E11. Latitude:	0 °0 '0.0 "						
E12. Longitude:	0 °0 '0.0 "						
E13. Lat/Lon Coord	inates 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.

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 loca point.	ation and telephone number of the control	O Yes	•	No
E18. Is frequency coordination required? If YES, attach a frequency coordination	ordination report as			
	•	O Yes	•	No
E19. Is coordination with another country required? If YES, attach the a 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 FAZ 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: ALSAT ALL AUTHORIZED U.S. ALSAT 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: GE-23 GE-23 172 E. L. If you selected OTHER, pl	lease enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
Satellite Name: ALSAT ALL AUTHORIZED U.S. ALSAT If you se	elected OTHER, please enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
Satellite Name: NSS-7 NSS-7 22 W.L. If you selected OTHER, ple	ease enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
Satellite Name: TELSTAR 11N USASAT26A 37.55 W.L. If you seld	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	E32. Antenna Size <meters></meters>	E41/42. Antenna Gain Transmint and/or Recieve (dBi atGHz)	
Remote4	R19	150	SeaTel	4006RZA	1.0	39.0 dBi at 12.50	
Remote4	R19	150	SeaTel	4006RZA	1.0	40.0 dBi at 14.00	

- 1	Id	Diameter		` ′	Height Above Ground Level	Input Power at antenna flange	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
	R19	0.0/0.0	5.5	20.0	0.0	8.0	0.0	52.0

	E43/44. Frequency Bands (MHz)	E45. T/R Mode			E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
R19	11700.0 12200.0	R	Linear and Circular	2M20G7W	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 Vi	deo, Voice, an	d Data				
R19	11700.0 12200.0	R	Linear and Circular	4M50G7W	0.0	0.0
E50. Modulation entirety.) Digital Vi	and Services (If the				o the end of the form	to view it in its
R19	14000.0 14500.0	Т	Linear and Circular	2M20G7W	46.7	19.3
E50. Modulation entirety.)	and Services (If th	e complete description	on does not appear in	this box, please go to	the end of the form	to view it in its
Digital Vi	deo, Voice, an	d Data				
R19	14000.0 14500.0	Т	Linear and Circular	4M50G7W	46.7	16.2

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.) Digital Video, Voice, and Data

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	Station Azimuth Angle	E57. Antenna Elevation Angle Eastern Limit	Station Azimuth Angle		E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
R19	Geostationary	11700.0 12200.0	22.0/143.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	14000.0 14500.0	22.0/143.0	0.0	5.0	0.0	5.3	-9.0

E61. Call Sign	E66. Phone Number			
NOTE: Please enter the callsign of the control 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:	Remote5	E5. Call Sign:			
E2: Contact Name	Geoff Darbyshire	E6. Phone Number:	949-273-6800		
E3. Street:		E7. City:			
		E8. County:			
E4. State		E9. Zip Code			
E10. Area of Opera	tion:	Maritime – Atlantic and Pacific Ocean			
E11. Latitude:	0 °0 '0.0"				
E12. Longitude:	0 °0 '0.0 "				
E13. Lat/Lon Coord	dinates 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.

E16. If the proposed antenna(s) do not operate in the Fixed Satellite Ser Satellite Service (FSS) with non–geostationary satellites, do(es) the progain patterns specified in Section 25.209(a2) and (b) as demonstrated by measurements?	posed antenna(s) comply with the antenna	O Yes	O No	● N/A
E17. Is the facility operated by remote control? If YES, provide the loca point.	tion and telephone number of the control	O Yes	•	No
E18. Is frequency coordination required? If YES, attach a frequency coordination	ordination report as	O Yes	•	No
E19. Is coordination with another country required? If YES, attach the n coordination contours as	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 I APPLICATION.	a's study regarding the potential hazard of	O Yes	•	No
POINTS OF COMMUNICATION		!		
Satellite Name: SATMEX-5 SATMEX-5 116.8 W.L. If you selected	ed OTHER, please enter the following:			
E21. Common Name:	E22. ITU Name:			
E23. Orbit Location:	E24. Country:			
Satellite Name: TELSTAR 11N USASAT26A 37.55 W.L. If you se	lected OTHER, please enter the following:			

E21. Commo	n Name:			E22. ITU Name:			
E23. Orbit Lo	ocation:			E24. Country:			
				•			
Satellite Nam	e: NSS-7 NSS-7 2	2 W.L. If you se	elected OTHER, pl	ease enter the fol	llowing:		
E21. Commo	n Name:			E22. ITU Nam	e:		
E23. Orbit Lo	ocation:			E24. Country:			
				•			
Satellite Nam	e: GE-23 GE-23 1	72 E. L. If you	selected OTHER, _I	please enter the f	ollowing:		
E21. Commo	n Name:			E22. ITU Nam	e:		
E23. Orbit Lo	ocation:			E24. Country:			
POINTS O	F COMMUNICAT	ION (Destination	Points)	•			
E25. Site Idea	ntifier:						
E26. Commo	n 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)	
Remote5	R20	150	SeaTel	2406	0.6	34.0 dBi at 11.9500	
Remote5	R20	150	SeaTel	2406	0.6	36.0 dBi at	

14.2500

Id	Diameter		` ′	Height Above	Input Power at	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
R20	0.0/0.0	5.5	20.0	0.0	8.0	0.0	52.0

	E43/44. Frequency Bands (MHz)	E45. T/R Mode			E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
R20	11700 12200.0	R	Linear and Circular	4M50G7W	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 Video, Voice, and Data

R20	11700.0	R	Linear and Circular	2M20G7W	0.0	0.0
	12200.0					

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 Video, Voice, and Data

R20	14000.0 14500.0	Т	Linear and Circular	2M20G7W	46.7	19.3
E50. Modulation entirety.)	and Services	(If the complete d	lescription does not appear in	this box, please	go to the end of the	he form to view it in its
Digital V	ideo, Voice,	and Data	Linear and Circular	4M50G7W	46.7	16.2
	14500.0		Zincur und Oneurur	11/13/00/11	10.7	10.2
E50. Modulation entirety.)	and Services	(If the complete of	lescription does not appear in	this box, please	go to the end of the	he form to view it in its
Digital V	ideo, Voice,	and Data				

FREQUENCY COORDINATION

E28. Antenna Id		Frequency Limits(MHz)	Range of Satellite Arc Eastern/West	Station Azimuth	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)
R20	Geostationary	11700.0 12200.0	22.0/143.0	0.0	5.0	0.0	5.0	0.0

	Geostationary	14000.0 14500.0	22.0/143.0	0.0		5.0	0.0	5.0	-9.0
REMOTE CO	NTROL POIN	T LOCATION	1	<u> </u>			<u>'</u>	·	
E61. Call Sig	gn				E66	. Phone Nu	ımber		
	se enter the calls	•	•	ot the					
E62. Street A	Address				!				
E63. City	E63. City E68. County					E67/68. State/Countr	y	E64. Zip Code	
					chnical a	and Operati	ATIONS ional Description)		

Location of Earth St	ation Site					
E1: Site Identifier:	Remote6	E5. Call Sign:				
E2: Contact Name	Geoff Darbyshire	E6. Phone Number:	949-273-6800			
E3. Street:		E7. City:				
		E8. County:				
E4. State		E9. Zip Code				
E10. Area of Operat	ion:	Maritime – Atlantic and Pacific Ocean				
E11. Latitude:	0 °0 '0.0 "					
E12. Longitude:	0 °0 '0.0 "					
E13. Lat/Lon Coordinates 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.	● 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 lopoint.	cation and telephone number of the control	O Yes	No
E18. Is frequency coordination required? If YES, attach a frequency c	oordination report as	O Yes	No
E19. Is coordination with another country required? If YES, attach the coordination contours as	e name of the country(ies) and plot of	O Yes	● No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25 have you attached a copy of a completed FCC Form 854 and/or the Extracture to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL APPLICATION.	AA's study regarding the potential hazard of	O Yes	No
POINTS OF COMMUNICATION			
Satellite Name: NSS-7 NSS-7 22 W.L. If you selected OTHER,	please enter the following:		
E21. Common Name:	E22. ITU Name:		
E23. Orbit Location:	E24. Country:		
Satellite Name: TELSTAR 11N USASAT26A 37.55 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 sele	cted OTHER, please enter the following:		

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

Satellite Name: GE-23 GE-23 172 E. L.	If you selected OTHER, pl	ease 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)	
Remote6	R21	150	SeaTel	6009	1.5	45.0 dBi at 11.9500	
Remote6	R21	150	SeaTel	6009	1.5	45.1 dBi at 14.2500	

E28. Antenna Id	1		` ′	Height Above	Input Power at	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
R21	0.0/0.0	5.5	20.0	0.0	8.0	0.0	52.0

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)
R21	11700.0 12200.0	R	Linear and Circular	2M20G7W	0.0	0.0
E50. Modulation entirety.) Digital Vi	and Services (If the land services)		otion does not appear in	this box, please go	to the end of the form	to view it in its
R21	11700.0 12200.0	R	Linear and Circular	4M50G7W	0.0	0.0
E50. Modulation entirety.)	and Services (If the	ne complete descrip	otion does not appear in	this box, please go	to the end of the form	to view it in its
Digital Vi	ldeo, Voice, ar	d Data				
R21	14000.0 14500.0	Т	Linear and Circular	2M20G7W	46.7	19.3

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 Video, Voice, and Data

R21	14000.0	Т	Linear and Circular	4M50G7W	46.7	16.2
	14500.0					

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 Video, Voice, and Data

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	Station Azimuth Angle	E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
R21	Geostationary	11700.0 12200.0	22.0/143.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	14000.0 14500.0	22.0/143.0	0.0	5.0	0.0	5.0	-9.0

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

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