Approved by OMB
3060−0678

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APPLICATION FOR EARTH STATION AUTHORIZATIONS FCC 312 MAIN FORM FOR OFFICIAL USE ONLY	FCC Use Only

APPLICANT INFORMATION
Enter a description of this application to identify it on the main menu:
Fixed/Temp−Fixed Terminals with I5F2

1−8. Legal Name of Applicant

Name:	ISAT US Inc.	**Phone Number:**	202−248−5158
DBA Name:		**Fax Number:**	
Street:	1101 Connecticut Avenue NW Suite 1200	**E−Mail:**	chris.murphy@inmarsat.com
City:	Washington	**State:**	DC
Country:	USA	**Zipcode:**	20036 −
Attention:	Mr. Chris Murphy		

9−16. Name of Contact Representative

Name:	Elizabeth Park	**Phone Number:**	202−637−2200
Company:	Latham & Watkins LLP	**Fax Number:**	202−637−2201
Street:	555 Eleventh Street NW Suite 1000	**E−Mail:**	elizabeth.park@lw.com
City:	Washington	**State:**	DC
Country:	USA	**Zipcode:**	20004−
Attention:		**Relationship:**	Legal Counsel

CLASSIFICATION OF FILING

17. Choose the button next to the classification that applies to this filing for both questions a. and b. Choose only one for 17a and only one for 17b. a. ◉ a1. Earth Station (N/A) a2. Space Station	b. ◉ b1. Application for License of New Station ○ b2. Application for Registration of New Domestic Receive−Only Station (N/A) b3. Amendment to a Pending Application (N/A) b4. Modification of License or Registration (N/A) b5. Assignment of License or Registration (N/A) 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 ○ b10. Other (Please specify) ○ b11. Application for Earth Station to Access a Non−U.S.satellite Not Currently Authorized to Provide the Proposed Service in the Proposed Frequencies in the United States. ○ b12. Application for Database Entry (N/A) b13. Amendment to a Pending Database Entry Application (N/A) b14. Modifiction of Database Entry
17c. Is a fee submitted with this application? ◉ If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114). ○ Governmental Entity ○ Noncommercial educational licensee ○ Other(please explain):	
17d. Fee Classification BGV − Fixed Satellite VSAT System	

18. If this filing is in reference to an existing station, enter: (a) Call sign of station: Not Applicable	19. If this filing is an amendment to a pending application enter: (a) Date pending application was filed: Not Applicable (b) File number of pending application: Not Applicable

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:

- [x] 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 only one.

- ○ Common Carrier
- ◉ Non−Common Carrier

22. If earth station applicant, check all that apply.

- [ ] Using U.S. licensed satellites
- [x] Using Non−U.S. licensed satellites

23. If applicant is providng 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: 19700 Frequency Upper: 30000

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

(N/A) e. Geostationary Space Station

(N/A) f. Non−Geostationary Space Station

○ g. Other (please specify)

26. TYPE OF EARTH STATION FACILITY: Choose only one.

◉ Transmit/Receive ○ Transmit−Only ○ Receive−Only ○ N/A

PURPOSE OF MODIFICATION

27. The purpose of this proposed modification is to: (Place an 'X' in the box(es) next to all that apply.)

Not Applicable

ENVIRONMENTAL POLICY

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. §§ 1.1308 and 1.1311, as an exhibit to this application. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments.	○ Yes ◉ No Exhibit C

ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeronautical en route or aeronautical fixed radio station services are not required to respond to Items 30−34.

29. Is the applicant a foreign government or the representative of any foreign government?	○ Yes ◉ No
30. Is the applicant an alien or the representative of an alien?	○ Yes ○ No ◉ N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	○ Yes ○ No ◉ N/A
32. Is the applicant a corporation of which more than one−fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	○ Yes ○ No ◉ N/A

33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than one−fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	○ Yes ○ No ◉ N/A
34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit an identification of the aliens or foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.	

BASIC QUALIFICATIONS

35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules? If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.	○ 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.	◉ Yes ○ No Exhibit D

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 attemptiing 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 ( ) 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 ( ) No

Exhibit F

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?United Kingdom

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.)

ISAT US Inc. seeks blanket authority to operate fixed and temporary−fixed earth stations communicating with the Inmarsat−5 F2 satellite.

Exhibit A

43a. Geographic Service Rule Certification

By selecting A, the undersigned certifies that the applicant is not subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25.

(●) A

By selecting B, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will comply with such requirements.

( ) 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.

( ) 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 applicable response.)

- ○ Individual
- ○ Unincorporated Association
- ○ Partnership
- ◉ Corporation
- ○ Governmental Entity
- ○ Other (please specify)

45. Name of Person Signing	46. Title of Person Signing
Chris Murphy	Vice President, Government Affairs

47. Please supply any need attachments.

Attachment 1:	Attachment 2:	Attachment 3:

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

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

Location of Earth Station Site

E1: Site Identifier:	1	E5. Call Sign:	
E2: Contact Name	Kevin Baker	E6. Phone Number:	808−469−7104
E3. Street:	6211 Glen Circle	E7. City:	Lino Lakes
		E8. County:	Anoka
E4. State	MN	E9. Zip Code	55014

E10. Area of Operation: CONUS, Puerto Rico, USVI

E11. Latitude: 0 °0 ’0.0 "

E12. Longitude: 0 °0 ’0.0 "

E13. Lat/Lon Coordinates are: ◉ NAD−27 ○ NAD−83 ○ N/A

E14. Site Elevation (AMSL): 0.0 meters

E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide as a technical analysis showing compliance with two−degree spacing policy.	○ Yes ○ No ◉ N/A
E16. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with non−geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements?	○ Yes ○ No ◉ N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	◉ Yes ○ No

E18. Is frequency coordination required? If YES, attach a frequency coordination report as	○ Yes ◉ No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	○ Yes ◉ No
E20. FAA Notification − (See 47 CFR Part 17 and 47 CFR part 25.113(c)) Where FAA notification is required, have you attached a copy of a completed FCC Form 854 and or the FAA's study regarding the potential hazard of the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.	○ Yes ◉ No

POINTS OF COMMUNICATION

Satellite Name:INMARSAT 5F2 | INMARSAT 5F2 | 55.0 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: 1	
E26. Common Name:	E27. Country:USA

ANTENNA

Site ID	**E28. Antenna Id**	**E29. Quantity**	**E30. Manufacturer**	**E31. Model**	**E32. Antenna Size<meters>**	**E41/42. Antenna GainTransmint and/or Recieve (____dBi at _____GHz)**
1	Fixed 1	1	Cobham SATCOM	3075	0.75	44.4 dBi at 30
						41.3 dBi at 19.7
						41.6 dBi at 20.2
						44.3 dBi at 29.5
						41.6 dBi at 19.95
						44.2 dBi at 29.75
	TF 1			5075		44.4 dBi at 30
						41.3 dBi at 19.7
						41.6 dBi at 20.2

						44.3 dBi at 29.5
						41.6 dBi at 19.95
						44.2 dBi at 29.75

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)
Fixed 1	0.75/0.75	0.0	0.0	0.0	5.0	0.0	51.2
TF 1	0.75/0.75	0.0	0.0	0.0	5.0	0.0	51.2

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)
Fixed 1	19700 20200	R	Left Hand Circular	32M0G7W	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.)

Various modulation up to 32 APSK Digital Data Link

Fixed 1	29500 30000	T	Right Hand Circular	3M32G7W	51.2	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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

Fixed 1	29500 30000	T	Right Hand Circular	460KG7W	42.6	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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

Fixed 1	29500 30000	T	Right Hand Circular	5M00G1W	51.2	20.2

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

TF 1	19700 20200	R	Left Hand Circular	32M0G7W	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.)

Various modulation up to 32 APSK Digital Data Link

TF 1	29500 30000	T	Right Hand Circular	3M32G7W	51.2	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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

TF 1	29500 30000	T	Right Hand Circular	460KG7W	42.6	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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

TF 1	29500 30000	T	Right Hand Circular	5M00G1W	51.2	20.2

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

FREQUENCY COORDINATION

E28. Antenna Id	**E51. Satellite Orbit Type**	**E52/53. Frequency Limits(MHz)**	**E54/55. Range of Satellite Arc E/W 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)**
Fixed 1	Geostationary	19700 20200	0.0/ 360.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	29500 30000	0.0/ 360.0	0.0	5.0	0.0	5.0	−14.2
TF 1	Geostationary	19700 20200	0.0/ 360.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	29500 30000	0.0/ 360.0	0.0	5.0	0.0	5.0	−14.2

REMOTE CONTROL POINT LOCATION

E61. Call Sign E120072 NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.		E65. Phone Number 808−469−7104	
E62. Street Address 6211 Glen Circle			
E63. City Lino Lakes	E67. County Anoka	E64/68. State/Country MN/ USA	E66. Zip Code 55014

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:	2	E5. Call Sign:	
E2: Contact Name	Kevin Baker	E6. Phone Number:	808−469−7104
E3. Street:	6211 Glen Circle	E7. City:	Lino Lakes
		E8. County:	Anoka
E4. State	MN	E9. Zip Code	55014

E10. Area of Operation: CONUS, Puerto Rico, USVI

E11. Latitude: 0 °0 ’0.0 "

E12. Longitude: 0 °0 ’0.0 "

E13. Lat/Lon Coordinates are: ◉ NAD−27 ○ NAD−83 ○ N/A

E14. Site Elevation (AMSL): 0.0 meters

E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide as a technical analysis showing compliance with two−degree spacing policy.	○ Yes ○ No ◉ N/A
E16. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with non−geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements?	○ Yes ○ No ◉ N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	◉ Yes ○ No

E18. Is frequency coordination required? If YES, attach a frequency coordination report as	○ Yes ◉ No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	○ Yes ◉ No
E20. FAA Notification − (See 47 CFR Part 17 and 47 CFR part 25.113(c)) Where FAA notification is required, have you attached a copy of a completed FCC Form 854 and or the FAA's study regarding the potential hazard of the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.	○ Yes ◉ No

POINTS OF COMMUNICATION

Satellite Name:INMARSAT 5F2 | INMARSAT 5F2 | 55.0 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>**	**E41/42. Antenna GainTransmint and/or Recieve (____dBi at _____GHz)**
2	TF 2	1	Cobham SATCOM	7100	1.0	47.0 dBi at 30
						44.6 dBi at 19.7
						44.7 dBi at 20.2
						47.8 dBi at 29.5
						44.6 dBi at 19.95
						47.9 dBi at 29.75

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)
TF 2	1.0/1.0	0.0	0.0	0.0	5.0	0.0	54.9

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 2	19700 20200	R	Left Hand Circular	32M0G7W	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.)

Various modulation up to 32 APSK Digital Data Link

TF 2	29500 30000	T	Right Hand Circular	460KG7W	45.3	24.7

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

TF 2	29500 30000	T	Right Hand Circular	4M18G7W	54.9	24.7

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

TF 2	29500 30000	T	Right Hand Circular	5M00G1W	54.9	23.9

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

Various modulation up to 32 APSK Digital Data Link/Data Signalling

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc E/W 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)
TF 2	Geostationary	19700 20200	0.0/ 360.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	29500 30000	0.0/ 360.0	0.0	5.0	0.0	5.0	−15.2

REMOTE CONTROL POINT LOCATION

E61. Call Sign E120072 NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.		E65. Phone Number 808−469−7104	
E62. Street Address 6211 Glen Circle			
E63. City Lino Lakes	E67. County Anoka	E64/68. State/Country MN/ USA	E66. Zip Code 55014

SATELLITE EARTH STATION AUTHORIZATIONS
FCC Form 312 − Schedule B:(Technical and Operational Description)
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Location of Earth Station Site

E1: Site Identifier:	3	E5. Call Sign:	
E2: Contact Name	Kevin Baker	E6. Phone Number:	808−469−7104
E3. Street:	6211 Glen Circle	E7. City:	Lino Lakes
		E8. County:	Anoka
E4. State	MN	E9. Zip Code	55014

E10. Area of Operation: CONUS, Puerto Rico, USVI

E11. Latitude: 0 °0 ’0.0 "

E12. Longitude: 0 °0 ’0.0 "

E13. Lat/Lon Coordinates are: ◉ NAD−27 ○ NAD−83 ○ N/A

E14. Site Elevation (AMSL): 0.0 meters

E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide as a technical analysis showing compliance with two−degree spacing policy.	○ Yes ○ No ◉ N/A
E16. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with non−geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements?	○ Yes ○ No ◉ N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	◉ Yes ○ No

E18. Is frequency coordination required? If YES, attach a frequency coordination report as	○ Yes ◉ No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	○ Yes ◉ No
E20. FAA Notification − (See 47 CFR Part 17 and 47 CFR part 25.113(c)) Where FAA notification is required, have you attached a copy of a completed FCC Form 854 and or the FAA's study regarding the potential hazard of the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.	○ Yes ◉ No

POINTS OF COMMUNICATION

Satellite Name:INMARSAT 5F2 | INMARSAT 5F2 | 55.0 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>**	**E41/42. Antenna GainTransmint and/or Recieve (____dBi at _____GHz)**
3	Fixed 3	1	L3	Cheetah II	0.85	42.5 dBi at 19.7
						42.9 dBi at 20.2
						42.9 dBi at 29.5
						46.6 dBi at 30.0
						46.8 dBi at 19.95
						46.9 dBi at 29.75

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)
Fixed 3	0.85/0.85	0.0	0.0	0.0	5.0	0.0	53.8

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)
Fixed 3	19700 20200	R	Left Hand Circular	32M0G7W	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.)

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Various modulation up to 32 APSK Digital Data Link
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Fixed 3	29500 30000	T	Right Hand Circular	3M99G7W	53.8	23.8

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

Fixed 3	29500 30000	T	Right Hand Circular	460KG7W	44.4	23.8

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

Fixed 3	29500 30000	T	Right Hand Circular	5M00G1W	53.8	22.8

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

FREQUENCY COORDINATION

E28. Antenna Id	**E51. Satellite Orbit Type**	**E52/53. Frequency Limits(MHz)**	**E54/55. Range of Satellite Arc E/W 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)**
Fixed 3	Geostationary	19700 20200	0.0/ 360.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	29500 30000	0.0/ 360.0	0.0	5.0	0.0	5.0	−15.0

REMOTE CONTROL POINT LOCATION

E61. Call Sign E120072 NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.		E65. Phone Number 808−469−7104	
E62. Street Address 6211 Glen Circle			
E63. City Lino Lakes	E67. County Anoka	E64/68. State/Country MN/ USA	E66. Zip Code 55014

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:	4	E5. Call Sign:	
E2: Contact Name	Kevin Baker	E6. Phone Number:	808−469−7104
E3. Street:	6211 Glen Circle	E7. City:	Lino Lakes
		E8. County:	Anoka
E4. State	MN	E9. Zip Code	55014

E10. Area of Operation: CONUS, Puerto Rico, USVI

E11. Latitude: 0 °0 ’0.0 "

E12. Longitude: 0 °0 ’0.0 "

E13. Lat/Lon Coordinates are: ◉ NAD−27 ○ NAD−83 ○ N/A

E14. Site Elevation (AMSL): 0.0 meters

E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide as a technical analysis showing compliance with two−degree spacing policy.	○ Yes ○ No ◉ N/A
E16. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with non−geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements?	○ Yes ○ No ◉ N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	◉ Yes ○ No

E18. Is frequency coordination required? If YES, attach a frequency coordination report as	○ Yes ◉ No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	○ Yes ◉ No
E20. FAA Notification − (See 47 CFR Part 17 and 47 CFR part 25.113(c)) Where FAA notification is required, have you attached a copy of a completed FCC Form 854 and or the FAA's study regarding the potential hazard of the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.	○ Yes ◉ No

POINTS OF COMMUNICATION

Satellite Name:INMARSAT 5F2 | INMARSAT 5F2 | 55.0 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>**	**E41/42. Antenna GainTransmint and/or Recieve (____dBi at _____GHz)**
4	Fixed 4	1	L3	Hawkeye III Lite	1.2	49.4 dBi at 30
						45.7 dBi at 19.7
						46.0 dBi at 20.2
						49.2 dBi at 29.5
						45.9 dBi at 19.95
						49.4 dBi at 29.75

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)
Fixed 4	1.2/1.2	0.0	0.0	0.0	5.0	0.0	56.4

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)
Fixed 4	19700 20200	R	Left Hand Circular	32M0G7W	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.)

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Various modulation up to 32 APSK Digital Data Link
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Fixed 4	29500 30000	T	Right Hand Circular	460KG7W	46.8	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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

Fixed 4	29500 30000	T	Right Hand Circular	4M18G7W	56.4	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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

Fixed 4	29500 30000	T	Right Hand Circular	5M00G1W	56.4	25.4

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc E/W 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)
Fixed 4	Geostationary	19700 20200	0.0/ 360.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	29500 30000	0.0/ 360.0	0.0	5.0	0.0	5.0	−15.2

REMOTE CONTROL POINT LOCATION

E61. Call Sign E120072 NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.		E65. Phone Number 808−469−7104	
E62. Street Address 6211 Glen Circle			
E63. City Lino Lakes	E67. County Anoka	E64/68. State/Country MN/ USA	E66. Zip Code 55014

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:	5	E5. Call Sign:	
E2: Contact Name	Kevin Baker	E6. Phone Number:	808−469−7104
E3. Street:	6211 Glen Circle	E7. City:	Lino Lakes
		E8. County:	Anoka
E4. State	MN	E9. Zip Code	55014

E10. Area of Operation: CONUS, Puerto Rico, USVI

E11. Latitude: 0 °0 ’0.0 "

E12. Longitude: 0 °0 ’0.0 "

E13. Lat/Lon Coordinates are: ◉ NAD−27 ○ NAD−83 ○ N/A

E14. Site Elevation (AMSL): 0.0 meters

E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide as a technical analysis showing compliance with two−degree spacing policy.	○ Yes ○ No ◉ N/A
E16. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with non−geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements?	○ Yes ○ No ◉ N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	◉ Yes ○ No

E18. Is frequency coordination required? If YES, attach a frequency coordination report as	○ Yes ◉ No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	○ Yes ◉ No
E20. FAA Notification − (See 47 CFR Part 17 and 47 CFR part 25.113(c)) Where FAA notification is required, have you attached a copy of a completed FCC Form 854 and or the FAA's study regarding the potential hazard of the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.	○ Yes ◉ No

POINTS OF COMMUNICATION

Satellite Name:INMARSAT 5F2 | INMARSAT 5F2 | 55.0 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>**	**E41/42. Antenna GainTransmint and/or Recieve (____dBi at _____GHz)**
5	Fixed 5	1	Paradigm/SWT	Connect 70	0.69	41.1 dBi at 19.7
						41.2 dBi at 20.2
						44.7 dBi at 29.5
						44.9 dBi at 30.0
						41.2 dBi at 19.95
						44.8 dBi at 29.75

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)
Fixed 5	0.62/0.7797	0.0	0.0	0.0	5.0	0.0	51.8

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)
Fixed 5	19700 20200	R	Left Hand Circular	32M0G7W	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.)

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Various modulation up to 32 APSK Digital Data Link
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Fixed 5	29500 30000	T	Right Hand Circular	3M24G7W	51.8	22.7

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

Fixed 5	29500 30000	T	Right Hand Circular	460KG7W	43.3	22.7

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

Fixed 5	29500 30000	T	Right Hand Circular	5M00G1W	51.8	20.8

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc E/W 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)
Fixed 5	Geostationary	19700 20200	0.0/ 360.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	29500 30000	0.0/ 360.0	0.0	5.0	0.0	5.0	−14.1

REMOTE CONTROL POINT LOCATION

E61. Call Sign E120072 NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.		E65. Phone Number 808−469−7104	
E62. Street Address 6211 Glen Circle			
E63. City Lino Lakes	E67. County Anoka	E64/68. State/Country MN/ USA	E66. Zip Code 55014

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:	6	E5. Call Sign:	
E2: Contact Name	Kevin Baker	E6. Phone Number:	808−469−7104
E3. Street:	6211 Glen Circle	E7. City:	Lino Lakes
		E8. County:	Anoka
E4. State	MN	E9. Zip Code	55014

E10. Area of Operation: CONUS, Puerto Rico, USVI

E11. Latitude: 0 °0 ’0.0 "

E12. Longitude: 0 °0 ’0.0 "

E13. Lat/Lon Coordinates are: ◉ NAD−27 ○ NAD−83 ○ N/A

E14. Site Elevation (AMSL): 0.0 meters

E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide as a technical analysis showing compliance with two−degree spacing policy.	○ Yes ○ No ◉ N/A
E16. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with non−geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements?	○ Yes ○ No ◉ N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	◉ Yes ○ No

E18. Is frequency coordination required? If YES, attach a frequency coordination report as	○ Yes ◉ No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	○ Yes ◉ No
E20. FAA Notification − (See 47 CFR Part 17 and 47 CFR part 25.113(c)) Where FAA notification is required, have you attached a copy of a completed FCC Form 854 and or the FAA's study regarding the potential hazard of the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.	○ Yes ◉ No

POINTS OF COMMUNICATION

Satellite Name:INMARSAT 5F2 | INMARSAT 5F2 | 55.0 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>**	**E41/42. Antenna GainTransmint and/or Recieve (____dBi at _____GHz)**
6	Fixed 6	1	SWT	Atom 65GX/01	0.65	44.4 dBi at 30
						40.6 dBi at 19.7
						41.0 dBi at 20.2
						43.4 dBi at 29.5
						40.6 dBi at 19.95
						42.8 dBi at 29.75
	TF 6			Atom 65AAGX/01		44.4 dBi at 30
						40.6 dBi at 19.7
						41.0 dBi at 20.2

						43.4 dBi at 29.5
						40.6 dBi at 19.95
						42.8 dBi at 29.75

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)
Fixed 6	0.65/0.65	0.0	0.0	0.0	5.0	0.0	49.8
TF 6	0.65/0.65	0.0	0.0	0.0	5.0	0.0	49.8

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)
Fixed 6	19700 20200	R	Left Hand Circular	32M0G7W	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.)

Various modulation up to 32 APSK Digital Data Link

Fixed 6	29500 30000	T	Right Hand Circular	2M40G7W	49.8	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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

Fixed 6	29500 30000	T	Right Hand Circular	460KG7W	42.6	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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

Fixed 6	29500 30000	T	Right Hand Circular	5M00G1W	49.8	18.8

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

TF 6	19700 20200	R	Left Hand Circular	32M0G7W	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.)

Various modulation up to 32 APSK Digital Data Link

TF 6	29500 30000	T	Right Hand Circular	2M40G7W	49.8	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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

TF 6	29500 30000	T	Right Hand Circular	460KG7W	42.6	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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

TF 6	29500 30000	T	Right Hand Circular	5M00G1W	49.8	18.8

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

FREQUENCY COORDINATION

E28. Antenna Id	**E51. Satellite Orbit Type**	**E52/53. Frequency Limits(MHz)**	**E54/55. Range of Satellite Arc E/W 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)**
Fixed 6	Geostationary	19700 20200	0.0/ 360.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	29500 30000	0.0/ 360.0	0.0	5.0	0.0	5.0	−12.8
TF 6	Geostationary	19700 20200	0.0/ 360.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	29500 30000	0.0/ 360.0	0.0	5.0	0.0	5.0	−12.8

REMOTE CONTROL POINT LOCATION

E61. Call Sign E120072 NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.		E65. Phone Number 808−469−7104	
E62. Street Address 6211 Glen Circle			
E63. City Lino Lakes	E67. County Anoka	E64/68. State/Country MN/ USA	E66. Zip Code 55014

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:	7	E5. Call Sign:	
E2: Contact Name	Kevin Baker	E6. Phone Number:	808−469−7104
E3. Street:	6211 Glen Circle	E7. City:	Lino Lakes
		E8. County:	Anoka
E4. State	MN	E9. Zip Code	55014

E10. Area of Operation: CONUS, Puerto Rico, USVI

E11. Latitude: 0 °0 ’0.0 "

E12. Longitude: 0 °0 ’0.0 "

E13. Lat/Lon Coordinates are: ◉ NAD−27 ○ NAD−83 ○ N/A

E14. Site Elevation (AMSL): 0.0 meters

E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide asExhibit B a technical analysis showing compliance with two−degree spacing policy.	○ Yes ○ No ◉ N/A
E16. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with non−geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements?	○ Yes ○ No ◉ N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	◉ Yes ○ No

E18. Is frequency coordination required? If YES, attach a frequency coordination report as	○ Yes ◉ No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	○ Yes ◉ No
E20. FAA Notification − (See 47 CFR Part 17 and 47 CFR part 25.113(c)) Where FAA notification is required, have you attached a copy of a completed FCC Form 854 and or the FAA's study regarding the potential hazard of the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.	○ Yes ◉ No

POINTS OF COMMUNICATION

Satellite Name:INMARSAT 5F2 | INMARSAT 5F2 | 55.0 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>**	**E41/42. Antenna GainTransmint and/or Recieve (____dBi at _____GHz)**
7	Fixed 7A	1	Paradigm/SWT	Connect 100	0.98	43.8 dBi at 19.7
						44.1 dBi at 20.2
						46.6 dBi at 29.5
						46.7 dBi at 30.0
						43.9 dBi at 19.95
						46.5 dBi at 29.75
	TF 7			Connect 100T		43.8 dBi at 19.7
						44.1 dBi at 20.2

						46.6 dBi at 29.5
						46.7 dBi at 30.0
						43.9 dBi at 19.95
						46.5 dBi at 29.75
	Fixed 7B			SKY98GX/01		43.8 dBi at 19.7
						44.1 dBi at 20.2
						46.6 dBi at 29.5
						46.7 dBi at 30.0
						43.9 dBi at 19.95
						46.5 dBi at 29.75

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)**
Fixed 7A	0.877/0.97041	0.0	0.0	0.0	5.0	0.0	53.5

TF 7	0.877/0.97041	0.0	0.0	0.0	5.0	0.0	53.5
Fixed 7B	0.877/0.97041	0.0	0.0	0.0	5.0	0.0	53.5

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)**
Fixed 7A	19700 20200	R	Left Hand Circular	32M0G7W	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.)

```
Various modulation up to 32 APSK Digital Data Link
```

Fixed 7A	29500 30000	T	Right Hand Circular	3M03G7W	53.5	24.7

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.)

```
Various modulation up to 32 APSK Digital Data Link/Data Signalling
```

Fixed 7A	29500 30000	T	Right Hand Circular	460KG7W	45.3	24.7

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

Fixed 7A	29500 30000	T	Right Hand Circular	5M00G1W	53.5	22.5

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

TF 7	19700 20200	R	Left Hand Circular	32M0G7W	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.)

Various modulation up to 32 APSK Digital Data Link

TF 7	29500 30000	T	Right Hand Circular	3M03G7W	53.5	24.7

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

TF 7	29500 30000	T	Right Hand Circular	460KG7W	45.3	24.7

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

TF 7	29500 30000	T	Right Hand Circular	5M00G1W	53.5	22.5

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

Fixed 7B	19700 20200	R	Left Hand Circular	32M0G7W	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.)

Various modulation up to 32 APSK Digital Data Link

Fixed 7B	29500 30000	T	Right Hand Circular	3M03G7W	53.5	24.7

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

Fixed 7B	29500 30000	T	Right Hand Circular	460KG7W	45.3	24.7

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

Fixed 7B	29500 30000	T	Right Hand Circular	5M00G1W	53.5	22.5

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

FREQUENCY COORDINATION

E28. Antenna Id	**E51. Satellite Orbit Type**	**E52/53. Frequency Limits(MHz)**	**E54/55. Range of Satellite Arc E/W 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)**
Fixed 7A	Geostationary	19700 20200	0.0/ 360.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	29500 30000	0.0/ 360.0	0.0	5.0	0.0	5.0	−13.8
TF 7	Geostationary	19700 20200	0.0/ 360.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	29500 30000	0.0/ 360.0	0.0	5.0	0.0	5.0	−13.8
Fixed 7B	Geostationary	19700 20200	0.0/ 360.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	29500 30000	0.0/ 360.0	0.0	5.0	0.0	5.0	−13.8

REMOTE CONTROL POINT LOCATION

E61. Call Sign E120072 NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.		E65. Phone Number 808−469−7104	
E62. Street Address 6211 Glen Circle			
E63. City Lino Lakes	E67. County Anoka	E64/68. State/Country MN/ USA	E66. Zip Code 55014

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:	8	E5. Call Sign:	
E2: Contact Name	Kevin Baker	E6. Phone Number:	808−469−7104
E3. Street:	6211 Glen Circle	E7. City:	Lino Lakes
		E8. County:	Anoka
E4. State	MN	E9. Zip Code	55014

E10. Area of Operation: CONUS, Puerto Rico, USVI

E11. Latitude: 0 °0 ’0.0 "

E12. Longitude: 0 °0 ’0.0 "

E13. Lat/Lon Coordinates are: ◉ NAD−27 ○ NAD−83 ○ N/A

E14. Site Elevation (AMSL): 0.0 meters

E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide asExhibit E a technical analysis showing compliance with two−degree spacing policy.	○ Yes ○ No ◉ N/A
E16. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with non−geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements?	○ Yes ○ No ◉ N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	◉ Yes ○ No

E18. Is frequency coordination required? If YES, attach a frequency coordination report as	○ Yes ◉ No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	○ Yes ◉ No
E20. FAA Notification − (See 47 CFR Part 17 and 47 CFR part 25.113(c)) Where FAA notification is required, have you attached a copy of a completed FCC Form 854 and or the FAA's study regarding the potential hazard of the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.	○ Yes ◉ No

POINTS OF COMMUNICATION

Satellite Name:INMARSAT 5F2 | INMARSAT 5F2 | 55.0 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>**	**E41/42. Antenna GainTransmint and/or Recieve (____dBi at _____GHz)**
8	Fixed 8A	1	Paradigm/SWT	Connect 180	1.8	49.0 dBi at 19.7
						49.2 dBi at 20.2
						52.4 dBi at 30.0
						52.5 dBi at 29.5
						49.1 dBi at 19.95
						52.4 dBi at 29.75
	Fixed 8B			SKY180GX/01		49.0 dBi at 19.7
						49.2 dBi at 20.2

						52.4 dBi at 30.0
						52.5 dBi at 29.5
						49.1 dBi at 19.95
						52.4 dBi at 29.75

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)
Fixed 8A	1.8/1.8	0.0	0.0	0.0	5.0	0.0	59.4
Fixed 8B	1.8/1.8	0.0	0.0	0.0	5.0	0.0	59.4

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)
Fixed 8A	19700 20200	R	Left Hand Circular	32M0G7W	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.)

Various modulation up to 32 APSK Digital Data Link

Fixed 8A	29500 30000	T	Right Hand Circular	2M51G7W	59.4	31.4

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

Fixed 8A	29500 30000	T	Right Hand Circular	460KG7W	52.0	31.4

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

Fixed 8A	29500 30000	T	Right Hand Circular	5M00G1W	59.4	28.4

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

Fixed 8B	19700 20200	R	Left Hand Circular	32M0G7W	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.)

Various modulation up to 32 APSK Digital Data Link

Fixed 8B	29500 30000	T	Right Hand Circular	2M51G7W	59.4	31.4

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

Fixed 8B	29500 30000	T	Right Hand Circular	460KG7W	52.0	31.4

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

Fixed 8B	29500 30000	T	Right Hand Circular	5M00G1W	59.4	28.4

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.)

Various modulation up to 32 APSK Digital Data Link/Data Signalling

FREQUENCY COORDINATION

E28. Antenna Id	**E51. Satellite Orbit Type**	**E52/53. Frequency Limits(MHz)**	**E54/55. Range of Satellite Arc E/W 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)**
Fixed 8A	Geostationary	19700 20200	0.0/ 360.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	29500 30000	0.0/ 360.0	0.0	5.0	0.0	5.0	−44.4

Fixed 8B	Geostationary	19700 20200	0.0/ 360.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	29500 30000	0.0/ 360.0	0.0	5.0	0.0	5.0	−44.4

REMOTE CONTROL POINT LOCATION

E61. Call Sign E120072 NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.		E65. Phone Number 808−469−7104	
E62. Street Address 6211 Glen Circle			
E63. City Lino Lakes	E67. County Anoka	E64/68. State/Country MN/ USA	E66. Zip Code 55014

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