Approved by OMB
3060−0678

Date & Time Filed: Aug 8 2014 3:52:54:640PM
File Number: SES−MFS−20140808−00644

FCC APPLICATION FOR SPACE AND EARTH STATION:MOD OR AMD − MAIN FORM 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:
KA304 Add Ku−Band Hub Antennas

1−8. Legal Name of Applicant

Name:	Astrium Services Government, Inc.	**Phone Number:**	301−838−7807
DBA Name:		**Fax Number:**	301−838−7752
Street:	2600 Tower Oaks Boulevard	**E−Mail:**	rob.swanson@astrium.eads−na.com
City:	Rockville	**State:**	MD
Country:	USA	**Zipcode:**	20852 −
Attention:	Mr Robert W Swanson		

9−16. Name of Contact Representative

Name:	Astrium Services Government, Inc.	**Phone Number:**	301−838−7807
Company:		**Fax Number:**	301−838−7839
Street:	2600 Tower Oaks Boulevard	**E−Mail:**	james.lovelace@astrium.eads−na.com
City:	Rockville	**State:**	MD
Country:	USA	**Zipcode:**	20852−
Attention:		**Relationship:**	

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 ○ b13. Amendment to a Pending Database Entry Application ○ b14. Modification 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 CGX − Fixed Satellite Transmit/Receive Earth Station	

18. If this filing is in reference to an existing station, enter:	19. If this filing is an amendment to a pending application enter both fields, if this filing is a modification please enter only the file number:
(a) Call sign of station: KA304	(a) Date pending application was filed: (b) File number: SESRWL2011072700888

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.	22. If earth station applicant, check all that apply.
(●) Common Carrier ( ) Non−Common Carrier	[x] 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: 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.)

- [x] 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
- [x] e −− authorization to add antenna
- [ ] f −− authorization to relocate fixed station
- [ ] g −− authorization to change frequency(ies)
- [x] h −− authorization to add frequency
- [x] i −− authorization to add Points of Communication (satellites & countries)
- [ ] j −− authorization to change Points of Communication (satellites & countries)
- [ ] k −− authorization for facilities for which environmental assessment and radiation hazard reporting is required
- [ ] l −− authorization to change orbit location
- [ ] m −− authorization to perform fleet management
- [ ] n −− authorization to extend milestones
- [ ] o −− Other (Please specify)

ENVIRONMENTAL POLICY

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of 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 RadHaz Statement

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.	Ownership Statement

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 25.130(g) Compliance
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

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
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?Satellites to be use on ALSAT Permitted list.	

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.)

Astrium Services Government, Inc. (ASGI) respectfully requests that authorizations for seven Ku−Band Hub Antennas which are currently authorized per ASGI’s Southbury, CT Call Sign WB36 and KA313 Teleport licenses be added to its KA304 license. The reason for this request is explained in the attached Question 43 Exhibit Narrative. No change is being

Narrative Exhibit

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
James G. Lovelace	Contractor

–––>

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:	SBY301KU	E5. Call Sign:	KA304
E2: Contact Name	Guy White	E6. Phone Number:	203−262−5010
E3. Street:	2120 River Road	E7. City:	Southbury
		E8. County:	New Haven
E4. State	CT	E9. Zip Code	06488
E10. Area of Operation:		Continental U.S.	
E11. Latitude:	41 °27 ’7.0 "N		
E12. Longitude:	73 °17 ’19.75 "W		
E13. Lat/Lon Coordinates are:		○ NAD−27	◉ NAD−83 ○ N/A
E14. Site Elevation (AMSL):		35.7 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 Frequency Coordinat	◉ 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?FAA Exhibit 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: ESTRELA DO SUL 2 | ESTRELA DO SUL 2 | 63 W.L. If you selected OTHER, please enter the following:	
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:

Satellite Name: AMAZONAS 2 (S2793) | AMAZONAS 2 (S2793) | 61 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 (S2357) | USASAT26A | 37.5 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>**	**E41/42. Antenna Gain Transmint and/or Recieve (____dBi at _____GHz)**	
SBY301KU	SBY301KU	1	Vertex	9KPK	9.0	58.6 dBi at 11.95	
SBY301KU	SBY301KU	1	Vertex	9KPK	9.0	60.1 dBi at 14.25	

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)
SBY301KU	9.0/9.0	9.5	45.2	0.0	700.0	0.0	88.55

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)
SBY301KU	11450 11700	R	Horizontal and Vertical	36M0F8W	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.)

ANALOG VIDEO

SBY301KU	14000 14500	T	Horizontal and Vertical	36M0F8W	80.14	46.1

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.)

ANALOG VIDEO

SBY301KU	14000 14500	T	Horizontal and Vertical	6M0G7W	77.23	46.1

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.)

QPSK DIGITAL DATA

SBY301KU	11450 11700	R	Horizontal and Vertical	100KG7W	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.)

QPSK DIGITAL DATA

SBY301KU	11450 11700	R	Horizontal and Vertical	20M0G7W	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.)

QPSK DIGITAL DATA

SBY301KU	11450 11700	R	Horizontal and Vertical	2M29G7W	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.)

QPSK DIGITAL DATA

SBY301KU	11450 11700	R	Horizontal and Vertical	32K0G7W	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.)

QPSK DIGITAL DATA

SBY301KU	11450 11700	R	Horizontal and Vertical	36M0G7W	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.)

QPSK DIGITAL DATA

SBY301KU	11450 11700	R	Horizontal and Vertical	42M0G7W	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.)

QPSK DIGITAL DATA

SBY301KU	11450 11700	R	Horizontal and Vertical	43K8G7W	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.)

QPSK DIGITAL DATA

SBY301KU	11450 11700	R	Horizontal and Vertical	45K0G7W	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.)

QPSK DIGITAL DATA

SBY301KU	11450 11700	R	Horizontal and Vertical	72M0G7W	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.)

QPSK DIGITAL DATA

SBY301KU	11450 11700	R	Horizontal and Vertical	76K8G7W	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.)

QPSK DIGITAL DATA

SBY301KU	11450 11700	R	Horizontal and Vertical	9K00G7W	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.)

QPSK DIGITAL DATA

SBY301KU	14000 14500	T	Horizontal and Vertical	100KG7W	66.07	46.1

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.)

QPSK DIGITAL DATA

SBY301KU	14000 14500	T	Horizontal and Vertical	20M0G7W	83.08	46.1

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.)

QPSK DIGITAL DATA

SBY301KU	14000 14500	T	Horizontal and Vertical	2M29G7W	73.67	46.1

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.)

QPSK DIGITAL DATA

SBY301KU	14000 14500	T	Horizontal and Vertical	32K0G7W	55.13	46.1

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.)

QPSK DIGITAL DATA

SBY301KU	14000 14500	T	Horizontal and Vertical	42M0G7W	86.31	46.1

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.)

QPSK DIGITAL DATA

SBY301KU	14000 14500	T	Horizontal and Vertical	43K8G7W	56.49	46.1

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.)

QPSK DIGITAL DATA

SBY301KU	14000 14500	T	Horizontal and Vertical	45K0G7W	56.61	46.1

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.)

QPSK DIGITAL DATA

SBY301KU	14000 14500	T	Horizontal and Vertical	72M0G7W	88.55	46.1

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.)

QPSK DIGITAL DATA

SBY301KU	14000 14500	T	Horizontal and Vertical	76K8G7W	58.93	46.1

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.)

QPSK DIGITAL DATA

SBY301KU	14000 14500	T	Horizontal and Vertical	9K00G7W	49.62	46.1

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.)

QPSK DIGITAL DATA

SBY301KU	1400 14500	T	Horizontal and Vertical	36M0G7W	72.0	46.1

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.)

QPSK, DIGITAL TELEPHONY

SBY301KU	10700 12750	R	Horizontal and Vertical	36M0G7W	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.)

QPSK, DIGITAL TELEPHONY

SBY301KU	11450 11700	R	Horizontal and Vertical	36M0G7W	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.)

QPSK, DIGITAL TELEPHONY

SBY301KU	13750 14000	T	Horizontal and Vertical	36M0G7W	74.5	35.0

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.)

QPSK, DIGITAL TELEPHONY

SBY301KU	10950 11200	R	Horizontal and Vertical	417KG7W	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, AUDIO, AND DATA

SBY301KU	10950 11200	R	Horizontal and Vertical	64K0G7W	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, AUDIO, AND DATA

SBY301KU	10950 11200	R	Horizontal and Vertical	7M50G7W	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, AUDIO, AND DATA

SBY301KU	11450 11700	R	Horizontal and Vertical	10M0G7W	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, AUDIO, AND DATA

SBY301KU	11450 11700	R	Horizontal and Vertical	417KG7W	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, AUDIO, AND DATA

SBY301KU	11450 11700	R	Horizontal and Vertical	64K0G7W	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, AUDIO, AND DATA

SBY301KU	11450 11700	R	Horizontal and Vertical	64K0G7W	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, AUDIO, AND DATA

SBY301KU	11450 11700	R	Horizontal and Vertical	7M50G7W	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, AUDIO, AND DATA

SBY301KU	11700 12200	R	Horizontal and Vertical	10M0G7W	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, AUDIO, AND DATA

SBY301KU	11700 12200	R	Horizontal and Vertical	64K0G7W	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, AUDIO, AND DATA

SBY301KU	13750 13770	T	Horizontal and Vertical	10M0G7W	80.1	46.1

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, AUDIO, AND DATA

SBY301KU	13750 13770	T	Horizontal and Vertical	64K0G7W	58.1	46.1

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, AUDIO, AND DATA

SBY301KU	13750 13772	T	Horizontal and Vertical	1M86G7W	68.8	46.1

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, AUDIO, AND DATA

SBY301KU	13750 13772	T	Horizontal and Vertical	21M0G7W	83.3	46.1

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, AUDIO, AND DATA

SBY301KU	13750 13772	T	Horizontal and Vertical	600KG7W	67.9	46.1

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, AUDIO, AND DATA

SBY301KU	13778 14000	T	Horizontal and Vertical	1M86G7W	68.8	42.1

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, AUDIO, AND DATA

SBY301KU	13778 14000	T	Horizontal and Vertical	45M0G7W	86.6	46.1

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, AUDIO, AND DATA

SBY301KU	13778 14000	T	Horizontal and Vertical	600KG7W	67.9	46.1

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, AUDIO, AND DATA

SBY301KU	13780 14500	T	Horizontal and Vertical	10M0G7W	80.1	46.1

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, AUDIO, AND DATA

SBY301KU	13780 14500	T	Horizontal and Vertical	64K0G7W	58.1	46.1

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, AUDIO, AND DATA

SBY301KU	14000 14500	T	Horizontal and Vertical	1M86G7W	68.8	46.1

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, AUDIO, AND DATA

SBY301KU	14000 14500	T	Horizontal and Vertical	45M0G7W	86.6	46.1

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, AUDIO, AND DATA

SBY301KU	14000 14500	T	Horizontal and Vertical	600KG7W	67.9	46.1

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, AUDIO, AND DATA

SBY301KU	14000 14500	T	Horizontal and Vertical	64K0G7W	58.1	46.1

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, AUDIO, AND DATA

SBY301KU	11450 11700	R	Horizontal and Vertical	1M60G1F	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.)

PSK DIGITAL VIDEO W/ASSOC DIG AUDIO

SBY301KU	11450 11700	R	Horizontal and Vertical	200KG1F	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.)

PSK DIGITAL VIDEO W/ASSOC DIG AUDIO

SBY301KU	11450 11700	R	Horizontal and Vertical	400KG1F	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.)

PSK DIGITAL VIDEO W/ASSOC DIG AUDIO

SBY301KU	11450 11700	R	Horizontal and Vertical	800KG1F	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.)

PSK DIGITAL VIDEO W/ASSOC DIG AUDIO

SBY301KU	14000 14500	T	Horizontal and Vertical	1M60G1F	72.12	46.1

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.)

PSK DIGITAL VIDEO W/ASSOC DIG AUDIO

SBY301KU	14000 14500	T	Horizontal and Vertical	200KG1F	63.08	46.1

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.)

PSK DIGITAL VIDEO W/ASSOC DIG AUDIO

SBY301KU	14000 14500	T	Horizontal and Vertical	400KG1F	66.1	46.1

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.)

PSK DIGITAL VIDEO W/ASSOC DIG AUDIO

SBY301KU	14000 14500	T	Horizontal and Vertical	800KG1F	69.11	46.1

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.)

PSK DIGITAL VIDEO W/ASSOC DIG AUDIO

FREQUENCY COORDINATION

E28. Antenna Id	**E51. Satellite Orbit Type**	**E52/53. Frequency Limits(MHz)**	**E54/55. Range of Satellite Arc Eastern/Western 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)**
SBY301KU	Geostationary	11450 11700	3.0/102.0	103.3	6.0	219.6	33.9	0.0
	Geostationary	1400 14500	3.0/102.0	103.3	6.0	219.6	33.9	9.03
	Geostationary	10700 12750	3.0/102.0	103.3	6.0	219.6	33.9	0.0
	Geostationary	10950 11200	3.0/102.0	103.3	6.0	219.6	33.9	0.0
	Geostationary	11450 11700	63.0/63.0	164.7	41.0	164.7	41.0	0.0
	Geostationary	11700 12200	63.0/63.0	164.7	41.0	164.7	41.0	0.0

	Geostationary	13750 13770	63.0/63.0	164.7	41.0	164.7	41.0	−19.7
	Geostationary	13750 13772	37.0/38.0	132.0	29.6	133.1	30.2	−13.0
	Geostationary	13750 14000	3.0/102.0	103.3	6.0	219.6	33.9	9.03
	Geostationary	13778 14000	37.0/38.0	132.0	29.6	133.1	30.2	−13.0
	Geostationary	13780 14500	63.0/63.0	164.7	41.0	164.7	41.0	−19.7
	Geostationary	14000 14500	3.0/102.0	103.3	6.0	219.6	33.9	3.62

REMOTE CONTROL POINT LOCATION

E61. Call Sign NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.	E66. Phone Number
E62. Street Address	

E63. City	E68. County	E67/68. State/Country /	E64. Zip Code

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

Location of Earth Station Site

E1: Site Identifier:	HUB(8.1M)KU	E5. Call Sign:	KA304
E2: Contact Name	Guy White	E6. Phone Number:	203−262−5010
E3. Street:	2120 River Road	E7. City:	Southbury
		E8. County:	New Haven
E4. State	CT	E9. Zip Code	06488
E10. Area of Operation:		Continental U.S.	
E11. Latitude:	41 °27 ’6.2 "N		
E12. Longitude:	73 °17 ’18.05 "		
E13. Lat/Lon Coordinates are:	○ NAD−27	◉ NAD−83	○ N/A
E14. Site Elevation (AMSL):	36.6 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: 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>	E41/42. Antenna Gain Transmint and/or Recieve (____dBi at _____GHz)	
HUB(8.1M)KU	HUB(8.1M)K	1	Vertex	KPK	8.1	59.8 dBi at 14.25	

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)
HUB(8.1M)K	8.1/8.1	8.23	44.83	0.0	700.0	0.0	88.2

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)
HUB(8.1M)K	11700 12200	R	Horizontal and Vertical	36M0F8W	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.)

ANALOG VIDEO

HUB(8.1M)K	14000 14500	T	Horizontal and Vertical	36M0F8W	80.14	46.1

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.)

ANALOG VIDEO

HUB(8.1M)K	14000 145	T	Horizontal and Vertical	100KG7W	60.07	46.1

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.)

QPSK DIGITAL DATA

HUB(8.1M)K	11700 12200	R	Horizontal and Vertical	100KG7W	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.)

QPSK DIGITAL DATA

HUB(8.1M)K	11700 12200	R	Horizontal and Vertical	20M0G7W	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.)

QPSK DIGITAL DATA

HUB(8.1M)K	11700 12200	R	Horizontal and Vertical	2M29G7W	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.)

QPSK DIGITAL DATA

HUB(8.1M)K	11700 12200	R	Horizontal and Vertical	32K0G7W	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.)

QPSK DIGITAL DATA

HUB(8.1M)K	11700 12200	R	Horizontal and Vertical	36M0G7W	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.)

QPSK DIGITAL DATA

HUB(8.1M)K	11700 12200	R	Horizontal and Vertical	42M0G7W	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.)

QPSK DIGITAL DATA

HUB(8.1M)K	11700 12200	R	Horizontal and Vertical	43K8G7W	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.)

QPSK DIGITAL DATA

HUB(8.1M)K	11700 12200	R	Horizontal and Vertical	45K0G7W	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.)

QPSK DIGITAL DATA

HUB(8.1M)K	11700 12200	R	Horizontal and Vertical	72M0G7W	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.)

QPSK DIGITAL DATA

HUB(8.1M)K	11700 12200	R	Horizontal and Vertical	76K8G7W	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.)

QPSK DIGITAL DATA

HUB(8.1M)K	11700 12200	R	Horizontal and Vertical	9K00G7W	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.)

QPSK DIGITAL DATA

HUB(8.1M)K	14000 14500	T	Horizontal and Vertical	20M0G7W	83.08	46.1

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.)

QPSK DIGITAL DATA

HUB(8.1M)K	14000 14500	T	Horizontal and Vertical	2M29G7W	73.67	46.1

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.)

QPSK DIGITAL DATA

HUB(8.1M)K	14000 14500	T	Horizontal and Vertical	32K0G7W	55.13	46.1

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.)

QPSK DIGITAL DATA

HUB(8.1M)K	14000 14500	T	Horizontal and Vertical	36M0G7W	77.23	46.1

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.)

QPSK DIGITAL DATA

HUB(8.1M)K	14000 14500	T	Horizontal and Vertical	42M0G7W	86.31	46.1

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.)

QPSK DIGITAL DATA

HUB(8.1M)K	14000 14500	T	Horizontal and Vertical	43K8G7W	56.49	46.1

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.)

QPSK DIGITAL DATA

HUB(8.1M)K	14000 14500	T	Horizontal and Vertical	45K0G7W	56.61	46.1

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.)

QPSK DIGITAL DATA

HUB(8.1M)K	14000 14500	T	Horizontal and Vertical	72M0G7W	88.55	46.1

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.)

QPSK DIGITAL DATA

HUB(8.1M)K	14000 14500	T	Horizontal and Vertical	76K8G7W	58.93	46.1

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.)

QPSK DIGITAL DATA

HUB(8.1M)K	14000 14500	T	Horizontal and Vertical	9K00G7W	49.62	46.1

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.)

QPSK DIGITAL DATA

HUB(8.1M)K	11700 12200	R	Horizontal and Vertical	36M0G7W	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.)

QPSK, DIGITAL TELEPHONY

HUB(8.1M)K	14000 14500	T	Horizontal and Vertical	36M0G7W	72.0	46.1

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.)

QPSK, DIGITAL TELEPHONY

HUB(8.1M)K	11700 12200	R	Horizontal and Vertical	1M60G1F	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.)

PSK DIGITAL VIDEO W/ASSOC DIG AUDIO

HUB(8.1M)K	11700 12200	R	Horizontal and Vertical	200KG1F	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.)

PSK DIGITAL VIDEO W/ASSOC DIG AUDIO

HUB(8.1M)K	11700 12200	R	Horizontal and Vertical	400KG1F	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.)

PSK DIGITAL VIDEO W/ASSOC DIG AUDIO

HUB(8.1M)K	11700 12200	R	Horizontal and Vertical	800KG1F	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.)

PSK DIGITAL VIDEO W/ASSOC DIG AUDIO

HUB(8.1M)K	14000 14500	T	Horizontal and Vertical	1M60G1F	72.12	46.1

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.)

PSK DIGITAL VIDEO W/ASSOC DIG AUDIO

HUB(8.1M)K	14000 14500	T	Horizontal and Vertical	200KG1F	63.08	46.1

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.)

PSK DIGITAL VIDEO W/ASSOC DIG AUDIO

HUB(8.1M)K	14000 14500	T	Horizontal and Vertical	400KG1F	66.1	46.1

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.)

PSK DIGITAL VIDEO W/ASSOC DIG AUDIO

HUB(8.1M)K	14000 14500	T	Horizontal and Vertical	800KG1F	69.11	46.1

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.)

PSK DIGITAL VIDEO W/ASSOC DIG AUDIO

FREQUENCY COORDINATION

E28. Antenna Id	**E51. Satellite Orbit Type**	**E52/53. Frequency Limits(MHz)**	**E54/55. Range of Satellite Arc Eastern/Western Limit**	**E56. Earth Station Azimuth Angle Eastern Limit**	**E57. Antenna Elevation Angle Eastern Limit**	**E58. Earth Station Azimuth Angle Western Limit**	**E59. Antenna Elevation Angle Western Limit**	**E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)**
HUB(8.1M)K	Geostationary	11700 12200	3.0/112.0	103.3	6.0	230.0	27.0	0.0
	Geostationary	14000 14500	3.0/112.0	103.3	6.0	230.0	27.0	9.03

REMOTE CONTROL POINT LOCATION

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

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

Location of Earth Station Site

E1: Site Identifier:	HUB(6.1M)KU	E5. Call Sign:	KA304	
E2: Contact Name	Guy White	E6. Phone Number:	203−262−5010	
E3. Street:	2120 River Road	E7. City:	Southbury	
		E8. County:	New Haven	
E4. State	CT	E9. Zip Code	06488	
E10. Area of Operation:		Continental U.S.		
E11. Latitude:	41 °27 ’5.25 "			
E12. Longitude:	73 °17 ’17.15 "			
E13. Lat/Lon Coordinates are:		○ NAD−27	◉ NAD−83	○ N/A
E14. Site Elevation (AMSL):		36.6 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: 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>	E41/42. Antenna Gain Transmint and/or Recieve (____dBi at _____GHz)	
HUB(6.1M)KU	HUB(6.1M)K	1	Vertex	KPK	6.1	55.7 dBi at 11.95	
HUB(6.1M)KU	HUB(6.1M)K	1	Vertex	KPK	6.1	57.1 dBi at 14.25	

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)
HUB(6.1M)K	6.1/6.1	6.23	46.83	0.0	400.0	0.0	83.1

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)
HUB(6.1M)K	11700 12200	R	Horizontal and Vertical	36M0F8W	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.)

ANALOG VIDEO

HUB(6.1M)K	14000 14500	T	Horizontal and Vertical	36M0F8W	80.14	40.6

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.)

ANALOG VIDEO

HUB(6.1M)K	11700 12200	R	Horizontal and Vertical	100KG7W	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.)

QPSK DIGITAL DATA

HUB(6.1M)K	11700 12200	R	Horizontal and Vertical	20M0G7W	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.)

QPSK DIGITAL DATA

HUB(6.1M)K	11700 12200	R	Horizontal and Vertical	2M29G7W	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.)

QPSK DIGITAL DATA

HUB(6.1M)K	11700 12200	R	Horizontal and Vertical	32K0G7W	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.)

QPSK DIGITAL DATA

HUB(6.1M)K	11700 12200	R	Horizontal and Vertical	36M0G7W	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.)

QPSK DIGITAL DATA

HUB(6.1M)K	11700 12200	R	Horizontal and Vertical	43K8G7W	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.)

QPSK DIGITAL DATA

HUB(6.1M)K	11700 12200	R	Horizontal and Vertical	45K0G7W	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.)

QPSK DIGITAL DATA

HUB(6.1M)K	11700 12200	R	Horizontal and Vertical	76K8G7W	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.)

QPSK DIGITAL DATA

HUB(6.1M)K	11700 12200	R	Horizontal and Vertical	9K00G7W	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.)

QPSK DIGITAL DATA

HUB(6.1M)K	14000 14500	T	Horizontal and Vertical	100KG7W	57.07	43.09

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

QPSK DIGITAL DATA

HUB(6.1M)K	14000 14500	T	Horizontal and Vertical	20M0G7W	80.08	43.09

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

QPSK DIGITAL DATA

HUB(6.1M)K	14000 14500	T	Horizontal and Vertical	2M29G7W	70.67	43.09

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

QPSK DIGITAL DATA

HUB(6.1M)K	14000 14500	T	Horizontal and Vertical	32K0G7W	52.13	43.1

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.)

QPSK DIGITAL DATA

HUB(6.1M)K	14000 14500	T	Horizontal and Vertical	36M0G7W	79.63	37.39

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

QPSK DIGITAL DATA

HUB(6.1M)K	14000 14500	T	Horizontal and Vertical	43K8G7W	53.49	43.1

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.)

QPSK DIGITAL DATA

HUB(6.1M)K	14000 14500	T	Horizontal and Vertical	45K0G7W	53.61	43.1

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.)

QPSK DIGITAL DATA

HUB(6.1M)K	14000 14500	T	Horizontal and Vertical	76K8G7W	55.93	43.1

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.)

QPSK DIGITAL DATA

HUB(6.1M)K	14000 14500	T	Horizontal and Vertical	9K00G7W	46.62	43.1

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.)

QPSK DIGITAL DATA

HUB(6.1M)K	11700 12200	R	Horizontal and Vertical	36M0G7W	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.)

QPSK, DIGITAL TELEPHONY

HUB(6.1M)K	14000 14500	T	Horizontal and Vertical	36M0G7W	71.7	32.16

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

QPSK, DIGITAL TELEPHONY

HUB(6.1M)K	11700 12200	R	Horizontal and Vertical	1M60G1F	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.)

PSK DIGITAL VIDEO W/ASSOC DIG AUDIO

HUB(6.1M)K	11700 12200	R	Horizontal and Vertical	200KG1F	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.)

PSK DIGITAL VIDEO W/ASSOC DIG AUDIO

HUB(6.1M)K	11700 12200	R	Horizontal and Vertical	400KG1F	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.)

PSK DIGITAL VIDEO W/ASSOC DIG AUDIO

HUB(6.1M)K	11700 12200	R	Horizontal and Vertical	800KG1F	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.)

PSK DIGITAL VIDEO W/ASSOC DIG AUDIO

HUB(6.1M)K	14000 14500	T	Horizontal and Vertical	1M60G1F	69.12	43.1

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.)

PSK DIGITAL VIDEO W/ASSOC DIG AUDIO

HUB(6.1M)K	14000 14500	T	Horizontal and Vertical	200KG1F	60.08	43.09

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.)

PSK DIGITAL VIDEO W/ASSOC DIG AUDIO

HUB(6.1M)K	14000 14500	T	Horizontal and Vertical	400KG1F	63.1	43.1

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.)

PSK DIGITAL VIDEO W/ASSOC DIG AUDIO

HUB(6.1M)K	14000 14500	T	Horizontal and Vertical	800KG1F	66.11	43.1

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.)

PSK DIGITAL VIDEO W/ASSOC DIG AUDIO

FREQUENCY COORDINATION

E28. Antenna Id	**E51. Satellite Orbit Type**	**E52/53. Frequency Limits(MHz)**	**E54/55. Range of Satellite Arc Eastern/Western Limit**	**E56. Earth Station Azimuth Angle Eastern Limit**	**E57. Antenna Elevation Angle Eastern Limit**	**E58. Earth Station Azimuth Angle Western Limit**	**E59. Antenna Elevation Angle Western Limit**	**E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)**
HUB(6.1M)K	Geostationary	11700 12200	3.0/125.0	125.0	25.0	245.0	20.0	0.0
	Geostationary	14000 14500	3.0/125.0	125.0	25.0	245.0	20.0	9.03

REMOTE CONTROL POINT LOCATION

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

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

Location of Earth Station Site				
E1: Site Identifier:	HUB(1.2M)KU	E5. Call Sign:	KA304	
E2: Contact Name	Guy White	E6. Phone Number:	203−262−5010	
E3. Street:	2120 River Road	E7. City:	Southbury	
		E8. County:	New Haven	
E4. State	CT	E9. Zip Code	06488	
E10. Area of Operation:		Continental U.S.		
E11. Latitude:	41 °27 ’5.43 "N			
E12. Longitude:	73 °17 ’21.0 "W			
E13. Lat/Lon Coordinates are:		○ NAD−27	◉ NAD−83	○ N/A
E14. Site Elevation (AMSL):		36.6 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: 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>	E41/42. Antenna Gain Transmint and/or Recieve (____dBi at _____GHz)	
HUB(1.2M)KU	HUB(1.2M)K	2	PRODELIN	1123	1.2	41.7 dBi at 11.95	
HUB(1.2M)KU	HUB(1.2M)K	2	PRODELIN	1123	1.2	43.3 dBi at 14.25	

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)
HUB(1.2M)K	1.2/1.2	2.0	38.6	0.0	1000.0	0.0	63.3

FREQUENCY

E28. Antenna Id	E43/44. Frequency Bands (MHz)	E45. T/R Mode	E46. Antenna Polarization(H,V, L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
HUB(1.2M)K	11700 12200	R	Linear and Circular	36M0G7W	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 AUDIO, VIDEO, AND DATA

HUB(1.2M)K	11700 12200	R	Linear and Circular	3M00G7W	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 AUDIO, VIDEO, AND DATA

HUB(1.2M)K	11700 12200	R	Linear and Circular	54M0G7W	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 AUDIO, VIDEO, AND DATA

HUB(1.2M)K	11700 12200	R	Linear and Circular	64K0G7W	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 AUDIO, VIDEO, AND DATA

HUB(1.2M)K	14000 14500	T	Linear and Circular	169KG7W	55.3	29.1

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 AUDIO, VIDEO, AND DATA

HUB(1.2M)K	14000 14500	T	Linear and Circular	1M62G7W	55.3	29.3

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 AUDIO, VIDEO, AND DATA

HUB(1.2M)K	14000 14500	T	Linear and Circular	36M0G7W	63.3	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.)

DIGITAL AUDIO, VIDEO, AND DATA

HUB(1.2M)K	14000 14500	T	Linear and Circular	64K0G7W	41.3	29.3

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 AUDIO, VIDEO, AND DATA

FREQUENCY COORDINATION

E28. Antenna Id	**E51. Satellite Orbit Type**	**E52/53. Frequency Limits(MHz)**	**E54/55. Range of Satellite Arc Eastern/Western Limit**	**E56. Earth Station Azimuth Angle Eastern Limit**	**E57. Antenna Elevation Angle Eastern Limit**	**E58. Earth Station Azimuth Angle Western Limit**	**E59. Antenna Elevation Angle Western Limit**	**E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)**
HUB(1.2M)K	Geostationary	11700 12200	3.0/112.0	103.3	6.0	230.4	28.1	0.0
	Geostationary	14000 14500	3.0/112.0	103.3	6.0	230.4	28.1	2.64

REMOTE CONTROL POINT LOCATION

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

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

Location of Earth Station Site

E1: Site Identifier:	SBY332KU	E5. Call Sign:	KA304
E2: Contact Name	Guy White	E6. Phone Number:	203−262−5010
E3. Street:	2120 River Road	E7. City:	Southbury
		E8. County:	New Haven
E4. State	CT	E9. Zip Code	06488
E10. Area of Operation:		Continental U.S.	
E11. Latitude:	41 °27 ’5.65 "N		
E12. Longitude:	73 °17 ’17.65 "W		
E13. Lat/Lon Coordinates are:		○ NAD−27	◉ NAD−83 ○ N/A
E14. Site Elevation (AMSL):		35.7 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: 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>	E41/42. Antenna Gain Transmint and/or Recieve (____dBi at _____GHz)	
SBY332KU	SBY332KU	1	Vertex	9KPK	9.0	58.6 dBi at 11.95	
SBY332KU	SBY332KU	1	Vertex	9KPK	9.0	60.1 dBi at 14.25	

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)
SBY332KU	9.0/9.0	9.5	45.2	0.0	750.0	0.0	88.9

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)
SBY332KU	11700 12200	R	Horizontal and Vertical	36M0F8W	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.)

ANALOG VIDEO

SBY332KU	14000 14500	T	Horizontal and Vertical	36M0F8W	80.1	53.1

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.)

ANALOG VIDEO

SBY332KU	11700 12200	R	Horizontal and Vertical	72M0G7W	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, AUDIO, AND DATA

SBY332KU	11700 12200	R	Horizontal and Vertical	9K00G7W	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, AUDIO, AND DATA

SBY332KU	14000 14500	T	Horizontal and Vertical	72M0G7W	88.7	46.1

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, AUDIO, AND DATA

SBY332KU	14000 14500	T	Horizontal and Vertical	9K00G7W	49.6	46.0

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, AUDIO, AND DATA

SBY332KU	11700 12200	R	Horizontal and Vertical	1M60G1F	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.)

PSK DIGITAL VIDEO AND ASSOCIATED DIGITAL AUDIO

SBY332KU	11700 12200	R	Horizontal and Vertical	200KG1F	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.)

PSK DIGITAL VIDEO AND ASSOCIATED DIGITAL AUDIO

SBY332KU	14000 14500	T	Horizontal and Vertical	1M60G1F	72.1	46.1

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.)

PSK DIGITAL VIDEO AND ASSOCIATED DIGITAL AUDIO

SBY332KU	14000 14500	T	Horizontal and Vertical	200KG1F	63.1	46.1

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.)

PSK DIGITAL VIDEO AND ASSOCIATED DIGITAL AUDIO

FREQUENCY COORDINATION

E28. Antenna Id	**E51. Satellite Orbit Type**	**E52/53. Frequency Limits(MHz)**	**E54/55. Range of Satellite Arc Eastern/Western 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)**
SBY332KU	Geostationary	11700 12200	3.0/143.0	103.3	6.0	256.2	6.4	0.0
	Geostationary	14000 14500	3.0/143.0	103.3	6.0	256.2	6.4	10.6

REMOTE CONTROL POINT LOCATION

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

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

Location of Earth Station Site

E1: Site Identifier:	SBY343KU	E5. Call Sign:	KA304
E2: Contact Name	Guy White	E6. Phone Number:	203−262−5010
E3. Street:	2120 River Road	E7. City:	Southbury
		E8. County:	New Haven
E4. State	CT	E9. Zip Code	06488
E10. Area of Operation:		Continental U.S.	
E11. Latitude:	41 °27 ’4.26 "N		
E12. Longitude:	73 °17 ’22.36 "W		

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

E14. Site Elevation (AMSL): 37.7 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: 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:

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>	E41/42. Antenna Gain Transmint and/or Recieve (____dBi at _____GHz)	
SBY343KU	SBY343KU	1	General Dynamics Satcom	4,8M 037974−01	4.8	55.0 dBi at 14.25	
SBY343KU	SBY343KU	1	General Dynamics Satcom	4,8M 037974−01	4.8	53.2 dBi at 11.725	

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)
SBY343KU	4.8/4.8	5.0	42.7	0.0	400.0	0.0	81.0

FREQUENCY

E28. Antenna Id	E43/44. Frequency Bands (MHz)	E45. T/R Mode	E46. Antenna Polarization(H,V, L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)

SBY343KU	11700 12200	R	Horizontal and Vertical	1M00G7W	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 TRAFFIC USING PHASE AND AMPLITUDE MODULATIONS

SBY343KU	11700 12200	R	Horizontal and Vertical	32K0G1W	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 TRAFFIC USING PHASE AND AMPLITUDE MODULATIONS

SBY343KU	11700 12200	R	Horizontal and Vertical	32K0G7W	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 TRAFFIC USING PHASE AND AMPLITUDE MODULATIONS

SBY343KU	11700 12200	R	Horizontal and Vertical	36M0G1W	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 TRAFFIC USING PHASE AND AMPLITUDE MODULATIONS

SBY343KU	11700 12200	R	Horizontal and Vertical	36M0G7W	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 TRAFFIC USING PHASE AND AMPLITUDE MODULATIONS

SBY343KU	11700 12200	R	Horizontal and Vertical	45M0G7W	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 TRAFFIC USING PHASE AND AMPLITUDE MODULATIONS

SBY343KU	11700 12200	R	Horizontal and Vertical	54M0D1W	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 TRAFFIC USING PHASE AND AMPLITUDE MODULATIONS

SBY343KU	11700 12200	R	Horizontal and Vertical	54M0D7W	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 TRAFFIC USING PHASE AND AMPLITUDE MODULATIONS

SBY343KU	11700 12200	R	Horizontal and Vertical	64K0G7W	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 TRAFFIC USING PHASE AND AMPLITUDE MODULATIONS

SBY343KU	14000 14500	T	Horizontal and Vertical	1M50G7W	53.0	27.3

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 TRAFFIC USING PHASE AND AMPLITUDE MODULATIONS

SBY343KU	14000 14500	T	Horizontal and Vertical	32K0G1W	50.1	41.0

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 TRAFFIC USING PHASE AND AMPLITUDE MODULATIONS

SBY343KU	14000 14500	T	Horizontal and Vertical	32K0G7W	50.1	41.0

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 TRAFFIC USING PHASE AND AMPLITUDE MODULATIONS

SBY343KU	14000 14500	T	Horizontal and Vertical	36M0G1W	80.6	41.0

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 TRAFFIC USING PHASE AND AMPLITUDE MODULATIONS

SBY343KU	14000 14500	T	Horizontal and Vertical	36M0G7W	80.6	41.0

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 TRAFFIC USING PHASE AND AMPLITUDE MODULATIONS

SBY343KU	14000 14500	T	Horizontal and Vertical	45M0G7W	81.0	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 TRAFFIC USING PHASE AND AMPLITUDE MODULATIONS

SBY343KU	14000 14500	T	Horizontal and Vertical	54M0D1W	81.0	39.7

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.)

DIGITAL TRAFFIC USING PHASE AND AMPLITUDE MODULATIONS

SBY343KU	14000 14500	T	Horizontal and Vertical	54M0D7W	81.0	39.7

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.)

DIGITAL TRAFFIC USING PHASE AND AMPLITUDE MODULATIONS

SBY343KU	14000 14500	T	Horizontal and Vertical	64K0G7W	40.0	27.9

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

DIGITAL TRAFFIC USING PHASE AND AMPLITUDE MODULATIONS

FREQUENCY COORDINATION

E28. Antenna Id	**E51. Satellite Orbit Type**	**E52/53. Frequency Limits(MHz)**	**E54/55. Range of Satellite Arc Eastern/Western 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)**
SBY343KU	Geostationary	11700 12200	3.0/143.0	103.3	6.0	256.2	6.4	0.0
	Geostationary	14000 14500	3.0/143.0	103.3	6.0	256.2	6.4	−4.4

REMOTE CONTROL POINT LOCATION

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

FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

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

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

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

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

Astrium Services Government, Inc. (ASGI) respectfully requests that authorizations for seven Ku-Band Hub Antennas which are currently authorized per ASGI's Southbury, CT Call Sign WB36 and KA313 Teleport licenses be added to its KA304 license. The reason for this request is explained in the attached Question 43 Exhibit Narrative. No change is being requested to the Authorizations which are set forth for these antennas in the WB36 and KA313 licenses. Except for refinement of the response to E11 of Schedule B specifying the latitude and longitude of the antennas, the information set forth in the Schedule B of this Modification Application adding them to the KA304 license is a replication of that which is set forth for the Authorizations for those antennas in the WB36 and KA313 licenses and ASGI respectfully hereby incorporates by reference the various exhibits previously submitted to the Commission in support of the prior WB36 and KA313 applications which were the basis for those authorizations.