

Approved by OMB
3060-0678

Date & Time Filed: Jul 21 2023 10:37:00:920AM
File Number: SES-LIC-INTR2023-03769
Callsign/Satellite ID:

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:

Ka-band Aero License for SES-17

1-8. Legal Name of Applicant

Name:	Viasat, Inc.	Phone Number:	760-476-2583
DBA Name:		Fax Number:	760-929-3941
Street:	6155 El Camino Real	E-Mail:	daryl.hunter@viasat.com
City:	Carlsbad	State:	CA
Country:	USA	Zipcode:	92009 -
Attention:	Mr Daryl T Hunter P.E.		

9-16. Name of Contact Representative

Name:	Daryl T. Hunter	Phone Number:	760-476-2583
Company:	Viasat, Inc.	Fax Number:	760-929-3941
Street:	6155 El Camino Real	E-Mail:	daryl.hunter@viasat.com
City:	Carlsbad	State:	CA
Country:	USA	Zipcode:	92009-
Attention:	Mr Daryl T Hunter	Relationship:	Engineer

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. 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

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:

- ☒ 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
☒ Using Non-U.S. licensed satellites

23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities:

☐ Connected to a Public Switched Network ☐ Not connected to a Public Switched Network ☒ N/A

24. FREQUENCY BAND(S): Place an "X" in the box(es) next to all applicable frequency band(s).

- ☐ a. C-Band (4/6 GHz) ☐ b. Ku-Band (12/14 GHz)
☒ c. Other (Please specify upper and lower frequencies in MHz.)

Frequency Lower: 18800 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) Ka-band ESIM Network

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

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 explanation 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 explanation of circumstances. ☐ Yes ☒ No

38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances ☐ Yes ☒ No

39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhibit, 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 ☐ No
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.

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? **Netherlands and Luxembourg**

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

Narrative

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
Daryl T. Hunter

46. Title of Person Signing
CTO, Regulatory 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: M40 E5: Call Sign:
 E2: Contact Name Daryl T. Hunter E6: Phone Number: 760-476-2583
 E3: Street: E7: City:
 E8: County:
 E4: State E9: Zip Code
 E10: Area of Operation: CONUS, PR
 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 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: SES-17(S3043) | LUX-G8-47 | 67.1 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	E41/42. Antenna Gain Transmint and/or Recieve(____dBi at ____GHz)
M40	M40	1000	Viasat, Inc.	M-40	0.397	33.4 dBi at 18.8
						34.0 dBi at 20.2
						37.35 dBi at 29.5
						37.5 dBi at 30.0

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)
M40	0.1575/0.7874	0.0	0.0	0.0	4.0	0.0	43.5

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)
M40	18800 19300	R	Left and Right Circular	52M1G7D	0.0	0.0
E50. Modulation and Services 52.1 MBd M-ary PSK Digital Data						
M40	19700 20200	R	Left and Right Circular	52M1G7D	0.0	0.0
E50. Modulation and Services 52.1 MBd M-ary PSK Digital Data						
M40	18800 19300	R	Left and Right Circular	417MG7D	0.0	0.0
E50. Modulation and Services 416.6 MBd M-ary PSK Digital Data						
M40	19700 20200	R	Left and Right Circular	417MG7D	0.0	0.0
E50. Modulation and Services 416.6 MBd M-ary PSK Digital Data						
M40	29500 30000	T	Left and Right Circular	2M50G7D	43.5	15.5
E50. Modulation and Services 2.5 MBd PSK, Digital Carrier						
M40	29500 30000	T	Left and Right Circular	5M00G7D	43.5	12.5
E50. Modulation and Services 5.0 MBd PSK, Digital Carrier						
M40	29500 30000	T	Left and Right Circular	625KG7D	43.5	21.5
E50. Modulation and Services 625 kBd PSK, Digital Carrier						
M40	29500 30000	T	Left and Right Circular	10M0G7D	43.5	9.5
E50. Modulation and Services 10.0 MBd PSK, Digital Carrier						
M40	29500 30000	T	Left and Right Circular	1M25G7D	43.5	18.5
E50. Modulation and Services 1.25 MBd PSK, Digital Carrier						
M40	29500 30000	T	Left and Right Circular	20M0G7D	43.5	6.5
E50. Modulation and Services 20.0 MBd PSK, Digital Carrier						

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)
M40	Geostationary	0 0	67.1/ 67.1	90.0	5.0	270.0	5.0	0.0
	Geostationary	18800 19300	67.1/ 67.1	90.0	5.0	270.0	5.0	0.0
	Geostationary	19700 20200	67.1/ 67.1	90.0	5.0	270.0	5.0	0.0

	Geostationary	29500 30000	67.1/ 67.1	90.0	5.0	270.0	5.0	-4.5
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REMOTE CONTROL POINT LOCATION
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.		E65. Phone Number 720-493-7300	
E62. Street Address 349 Inverness Drive South			
E63. City Englewood	E67. County Arapahoe	E64/68. State/Country CO/ USA	E66. Zip Code 80112

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:	GM40	E5. Call Sign:	
E2: Contact Name	Daryl T. Hunter	E6. Phone Number:	760-476-2583
E3. Street:		E7. City:	
E4. State		E8. County:	
E10. Area of Operation:		E9. Zip Code	CONUS, PR
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 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?		☐ Yes ☒ No	

FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.

POINTS OF COMMUNICATION

Satellite Name:SES-17(S3043) | LUX-G8-47 | 67.1 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	E41/42. Antenna GainTransmint and/or Recieve(____dBi at ____GHz)
GM40	GM40	3000	Viasat, Inc.	GM-40	0.397	0.0 dBi at 0
						0.0 dBi at 0
						36.6 dBi at 19.7
						36.8 dBi at 20.2
						40.35 dBi at 29.5
						40.5 dBi at 30.0

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)
GM40	0.1575/0.7874	0.0	0.0	0.0	31.6	0.0	55.5

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)
GM40	0 0	T	Left and Right Circular	0	0.0	0.0

E50. Modulation and Services Unused

GM40	18800 19300	R	Left and Right Circular	417MG7D	0.0	0.0
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E50. Modulation and Services 500 MBd M-ary PSK Digital Data

GM40	18800 19300	R	Left and Right Circular	52M1G7D	0.0	0.0
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E50. Modulation and Services 52.1 MBd M-ary PSK Digital Data

GM40	19700 20200	R	Left and Right Circular	52M1G7D	0.0	0.0
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E50. Modulation and Services 52.1 MBd M-ary PSK Digital Data

GM40	19700 20200	R	Left and Right Circular	417MG7D	0.0	0.0
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E50. Modulation and Services 416.6 MBd M-ary PSK Digital Data

GM40	29500 30000	T	Left and Right Circular	5M00G7D	55.5	24.5
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E50. Modulation and Services 5 MBd PSK, Digital Carrier

GM40	29500 30000	T	Left and Right Circular	10M0G7D	55.5	21.5
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E50. Modulation and Services 10 MBd PSK, Digital Carrier

GM40	29500 30000	T	Left and Right Circular	20M0G7D	55.5	18.5
E50. Modulation and Services 20 MBd PSK, Digital Carrier						
GM40	29500 30000	T	Left and Right Circular	40M0G7D	55.5	15.5
E50. Modulation and Services 40 MBd PSK, Digital Carrier						
GM40	29500 30000	T	Left and Right Circular	80M0G7D	55.5	12.5
E50. Modulation and Services 80 MBd PSK, Digital Carrier						
GM40	29500 30000	T	Left and Right Circular	160MG7D	55.5	9.5
E50. Modulation and Services 160 MBd PSK, Digital Carrier						

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)
GM40	Geostationary	0 0	67.1/67.1	90.0	5.0	270.0	5.0	0.0
	Geostationary	18800 19300	67.1/67.1	90.0	5.0	270.0	5.0	0.0
	Geostationary	19700 20200	67.1/67.1	90.0	5.0	270.0	5.0	0.0
	Geostationary	29500 30000	67.1/67.1	90.0	5.0	270.0	5.0	-4.5

REMOTE CONTROL POINT LOCATION

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.		E65. Phone Number 720-493-7300	
E62. Street Address 349 Inverness Drive South			
E63. City Englewood	E67. County Arapahoe	E64/68. State/Country CO/ USA	E66. Zip Code 80112

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:	Ref Ant		E5. Call Sign:	
E2: Contact Name	Daryl T Hunter, P.E.		E6. Phone Number:	760-476-2583
E3. Street:			E7. City:	
			E8. County:	

E4. State	E9. Zip Code
E10. Area of Operation:	CONUS
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 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:SES-17(S3043) LUX-G8-47 67.1 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	E41/42. Antenna GainTransmint and/or Recieve(____dBi at ____GHz)
Ref Ant	Ref Ant	10	Viasat	RA-40750	0.75	44.5 dBi at 30
						40.2 dBi at 18.8
						40.4 dBi at 20.2
						44.35 dBi at 29.5

E28. Antenna Id	E33/34. Diameter Minor/Major(meters)	E35. Above Ground Level (meters)	E36. Above Sea Level (meters)	E37. Building Height Above Ground	E38. Total Input Power at antenna flange (Watts)	E39. Maximum Antenna Height Above Rooftop (meters)	E40. Total EIRP for al carriers (dBW)
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				Level (meters)			
Ref Ant	0.72/0.77	1.2	0.0	0.0	2.8	0.0	49.0

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 EIRP Density per Carrier(dBW/4kHz)
Ref Ant	18800 19300	R	Left and Right Circular	52M1G7d	0.0	0.0
E50. Modulation and Services 52.1 MBd M-ary PSK Digital Data						
Ref Ant	19700 20200	R	Left and Right Circular	52M1G7D	0.0	0.0
E50. Modulation and Services 52.1 MBd M-ary PSK Digital Data						
Ref Ant	18800 19300	R	Left and Right Circular	417MG7d	0.0	0.0
E50. Modulation and Services 416.6 MBd M-ary PSK Digital Data						
Ref Ant	19700 20200	R	Left and Right Circular	417MG7D	0.0	0.0
E50. Modulation and Services 416.1 MBd M-ary PSK Digital Data						
Ref Ant	29500 30000	T	Left and Right Circular	20M0G7D	49.0	12.0
E50. Modulation and Services 20 MBd M-ary PSK Digital Data						
Ref Ant	29500 30000	T	Left and Right Circular	625KG7D	49.0	12.0
E50. Modulation and Services 625 kBd M-ary PSK Digital Data						

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)
Ref Ant	Geostationary	18800 19300	67.1/ 67.1	90.0	5.0	270.0	5.0	0.0
	Geostationary	19700 20200	67.1/ 67.1	90.0	5.0	270.0	5.0	0.0
	Geostationary	29500 30000	67.1/ 67.1	90.0	5.0	270.0	5.0	-5.0

REMOTE CONTROL POINT LOCATION

REMOTE CONTROL POINT LOCATION

E61. Call Sign		E65. Phone Number 720-493-7300	
NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.			
E62. Street Address 349 Inverness Drive South			
E63. City Englewood	E67. County Arapahoe	E64/68. State/Country CO/ USA	E66. Zip Code 80112

FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

The public reporting for this collection of information is estimated to average 0.25 - 24 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.

Approved by OMB
3060-0678

Date & Time Filed: Jun 24 2024 2:27:45:283PM
File Number: SES-AMD-INTR2024-04342

FCC APPLICATION FOR SPACE AND EARTH STATION:MOD OR AMD - MAIN FORM FCC 312 MAIN FORM FOR OFFICIAL USE ONLY	FCC Use Only
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APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:
Add Frequencies to E230145 June 2024

1-8. Legal Name of Applicant	
Name:	Phone Number:
DBA Name:	Fax Number:
Street:	E-Mail:
City:	State:
Country:	Zipcode: -
Attention:	
9-16. Name of Contact Representative	
Name:	Phone Number:
Company:	Fax Number:
Street:	E-Mail:
City:	State:
Country:	Zipcode: -
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
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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

18. If this filing is in reference to an existing station, enter:

(a) Call sign of station:

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) Date pending application was filed:

(b) File number:

TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provide or use the following type(s) of service(s): Select all that apply:

- ☐ a. Fixed Satellite
- ☐ b. Mobile Satellite
- ☐ c. Radiodetermination Satellite
- ☐ d. Earth Exploration Satellite
- ☐ e. Direct to Home Fixed Satellite
- ☐ f. Digital Audio Radio Service
- ☐ g. Other (please specify)

21. STATUS: Choose the button next to the applicable status.

Choose only one.

☐ Common Carrier ☐ Non-Common Carrier

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

☐ Using U.S. licensed satellites

☐ Using Non-U.S. licensed satellites

23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities:

☐ Connected to a Public Switched Network ☐ Not connected to a Public Switched Network ☐ N/A

24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all applicable frequency band(s).

- ☐ a. C-Band (4/6 GHz) ☐ b. Ku-Band (12/14 GHz)
- ☐ c. Other (Please specify upper and lower frequencies in MHz.)

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

TYPE OF STATION

25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.

- ☐ a. Fixed Earth Station
- ☐ b. Temporary-Fixed Earth Station
- ☐ c. 12/14 GHz VSAT Network
- ☐ d. Mobile Earth Station
- ☐ e. Geostationary Space Station
- ☐ f. Non-Geostationary Space Station
- ☐ g. Other (please specify)

26. TYPE OF EARTH STATION FACILITY:

☐ Transmit/Receive ☐ Transmit-Only ☐ Receive-Only ☐ N/A

"For Space Station applications, select N/A."

PURPOSE OF MODIFICATION

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

- ☐ a -- authorization to add new emission designator and related service
- ☐ b -- authorization to change emission designator and related service
- ☐ c -- authorization to increase EIRP and EIRP density
- ☐ d -- authorization to replace antenna
- ☐ e -- authorization to add antenna
- ☐ f -- authorization to relocate fixed station
- ☐ g -- authorization to change frequency(ies)
- ☐ h -- authorization to add frequency
- ☐ i -- authorization to add Points of Communication (satellites & 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

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? ☐ Yes ☐ No
If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.

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 explanation 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 explanation of circumstances. ☐ Yes ☐ No

38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances. ☐ Yes ☐ No

39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhibit, 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?

43. Description. (Summarize the nature of the application and the services to be provided). **Attachment 1**

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**

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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

**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).**

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-PERF, 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.

Date & Time Filed: Aug 6 2024 2:48:39:553PM
File Number: SES-AMD-INTR2024-05354

FCC APPLICATION FOR SPACE AND EARTH STATION:MOD OR AMD - MAIN FORM FCC 312 MAIN FORM FOR OFFICIAL USE ONLY	FCC Use Only
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APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:
E230145 2nd Amendment to Add Frequencies August 2024

1-8. Legal Name of Applicant	
Name: Viasat, Inc.	Phone Number: 760-476-2583
DBA Name:	Fax Number: 760-929-3941
Street: 6155 El Camino Real	E-Mail: daryl.hunter@viasat.com
City: Carlsbad	State: CA
Country: USA	Zipcode: 92009 -
Attention: Mr Daryl T Hunter P.E.	

9-16. Name of Contact Representative	
Name: Viasat, Inc.	Phone Number: 760-476-2583
Company:	Fax Number: 760-929-3941
Street: 6155 El Camino Real	E-Mail: daryl.hunter@viasat.com
City: Carlsbad	State: CA
Country: USA	Zipcode: 92009-
Attention: Daryl T Hunter P.E.	Relationship: Engineer

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
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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

18. If this filing is in reference to an existing station, enter: (a) Call sign of station: E230145	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) Date pending application was filed: 07/21/2023 (b) File number: SESLIC2023072101903
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TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provide or use the following type(s) of service(s): Select all that apply: ☒ a. Fixed Satellite ☐ b. Mobile Satellite ☐ c. Radiodetermination Satellite ☐ d. Earth Exploration Satellite ☐ e. Direct to Home Fixed Satellite ☐ f. Digital Audio Radio Service ☐ g. Other (please specify)	
21. STATUS: Choose the button next to the applicable status. Choose only one. ☐ Common Carrier ☒ Non-Common Carrier	22. If earth station applicant, check all that apply. ☐ Using U.S. licensed satellites ☒ Using Non-U.S. licensed satellites
23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities: ☐ Connected to a Public Switched Network ☐ Not connected to a Public Switched Network ☒ N/A	
24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all applicable frequency band(s). ☐ a. C-Band (4/6 GHz) ☐ b. Ku-Band (12/14 GHz) ☒ c. Other (Please specify upper and lower frequencies in MHz.) Frequency Lower: 18200 Frequency Upper: 30000 (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) Ka-band ESIM
26. TYPE OF EARTH STATION FACILITY: ☒ Transmit/Receive ☐ Transmit-Only ☐ Receive-Only ☐ N/A "For Space Station applications, select N/A."

PURPOSE OF MODIFICATION

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

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? ☒ Yes ☐ No
If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.

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 explanation 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 explanation of circumstances. ☐ Yes ☒ No

38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances ☐ Yes ☒ No

39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhibit, 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? **Netherlands and Luxembourg**

43. Description. (Summarize the nature of the application and the services to be provided). **See narrative.Narrative**

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
Daryl T. Hunter, P.E.

46. Title of Person Signing
CTO, Regulatory Affairs

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

SATELLITE EARTH STATION AUTHORIZATIONS FCC Form 312 - Schedule B:(Technical and Operational Description)

FOR OFFICIAL USE ONLY

Location of Earth Station Site

E1: Site Identifier:	M40	E5. Call Sign:	
E2: Contact Name	Daryl Hunter	E6. Phone Number:	760-476-2483
E3. Street:		E7. City:	
		E8. County:	
E4. State		E9. Zip Code	
E10. Area of Operation:			US territories and other areas within the SES-17 footprint
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:SES-17(S3043) LUX-G8-47 67.1 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	E41/42. Antenna Gain Transmint and/or Recieve(____ dBi at ____ GHz)	
M40	M40	1000	Viasat	M40	0.397	35.0 dBi at 19.3	
M40	M40	1000	Viasat	M40	0.397	35.5 dBi at 19.7	
M40	M40	1000	Viasat	M40	0.397	37.3 dBi at 29.3	
M40	M40	1000	Viasat	M40	0.397	37.35 dBi at 29.5	

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)
M40	0.1575/0.7874	0.0	0.0	0.0	4.0	0.0	43.5

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)
M40	29300 29500	T	Left and Right Circular	5M00G7D	43.5	12.5

E50. Modulation and Services 5 MBd M-ary PSK Digital Data						
M40	29300 29500	T	Left and Right Circular	10M0G7D	43.5	9.5

E50. Modulation and Services 10 MBd M-ary PSK Digital Data						
M40	29300 29500	T	Left and Right Circular	20M0G7D	43.5	6.5

E50. Modulation and Services 20 MBd M-ary PSK Digital Data						
M40	29300 29500	T	Left and Right Circular	2M50G7D	43.5	15.5

E50. Modulation and Services 2.5 MBd M-ary PSK Digital Data						
M40	29300 29500	T	Left and Right Circular	625KG7D	43.5	21.5

E50. Modulation and Services 625 kBd M-ary PSK Digital Data						
M40	19400 19700	R	Left and Right Circular	52M1G7D	0.0	0.0

E50. Modulation and Services 52.1 MBd M-ary PSK Digital Data						
M40	29300 29500	T	Left and Right Circular	1M25G7D	43.5	18.5

E50. Modulation and Services 1.25 MBd M-ary PSK Digital Data						
M40	19400 19700	R	Left and Right Circular	417MG7D	0.0	0.0

E50. Modulation and Services 416.6 MBd M-ary PSK Digital Data						
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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	E57. Antenna Elevation Angle	E58. Earth Station Azimuth Angle	E59. Antenna Elevation Angle	E60. Maximum EIRP Density toward the Horizon(dBW/4kHz)
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				Eastern Limit	Eastern Limit	Western Limit	Western Limit	
M40	Geostationary	19400 19700	67.1/67.1	90.0	5.0	270.0	5.0	0.0
	Geostationary	29300 29500	67.1/67.1	90.0	5.0	270.0	5.0	-4.5

REMOTE CONTROL POINT LOCATION

E61. Call Sign			E66. Phone Number		
NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.					
E62. Street Address					
E63. City		E68. County		E67/68. 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:	GM40	E5. Call Sign:
E2: Contact Name	Daryl Hunter	E6. Phone Number: 760-476-2483
E3. Street:		E7. City:
		E8. County:
E4. State		E9. Zip Code
E10. Area of Operation:	US territories, and other areas within the SES-17 footprint	
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:SES-17(S3043) LUX-G8-47 67.1 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	E41/42. Antenna Gain Transmint and/or Recieve(____dBi at ____GHz)		
GM40	GM40	3000	Viasat	GM40	0.397	36.2 dBi at 19.2		
GM40	GM40	3000	Viasat	GM40	0.397	36.6 dBi at 19.7		
GM40	GM40	3000	Viasat	GM40	0.397	40.35 dBi at 29.5		
GM40	GM40	3000	Viasat	GM40	0.397	36.4 dBi at 19.45		
GM40	GM40	3000	Viasat	GM40	0.397	40.3 dBi at 29.25		
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)
GM40	0.1575/0.7874		0.0	0.0	0.0	31.6	0.0	55.5

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)
GM40	29300 29500	T	Left and Right Circular	5M00G7D	55.5	24.5
E50. Modulation and Services 5 MBd M-ary PSK Digital Data						
GM40	29300 29500	T	Left and Right Circular	10M0G7D	55.5	21.5
E50. Modulation and Services 10 MBd M-ary PSK Digital Data						
GM40	29300 29500	T	Left and Right Circular	20M0G7D	55.5	18.5
E50. Modulation and Services 20 MBd M-ary PSK Digital Data						
GM40	29300 29500	T	Left and Right Circular	40M0G7D	55.5	15.6
E50. Modulation and Services 40 MBd M-ary PSK Digital Data						
GM40	29300 29500	T	Left and Right Circular	80M0G7D	55.5	12.5
E50. Modulation and Services 80 MBd M-ary PSK Digital Data						
GM40	29300 29500	T	Left and Right Circular	160MG7D	55.5	9.5
E50. Modulation and Services 160 MBd M-ary PSK Digital Data						
GM40	19400 19700	R	Left and Right Circular	417MG7D	0.0	0.0
E50. Modulation and Services 416.6 MBd M-ary PSK Digial Data						
GM40	19400 19700	R	Left and Right Circular	52M1G7D	0.0	0.0
E50. Modulation and Services 52.1 MBd M-ary PSK Digital 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)
GM40	Geostationary	19400 19700	67.1/67.1	90.0	5.0	270.0	5.0	0.0
	Geostationary	29300 29500	67.1/67.1	90.0	5.0	270.0	5.0	-4.5

REMOTE CONTROL POINT LOCATION

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

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