Date & Time Filed: Aug 27 2019 1:29:36:900PM File Number: SES-MOD-INTR2019-03106

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

APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:

E170090-Modification

Legal Name of A	pplicant		
Name:	SES Americom, Inc.	Phone Number:	202-478-7143
DBA Name:		Fax Number:	202–478–7111
Street:	1129 20th Street NW	E-Mail:	petra.vorwig@ses.com
	Suite 1000		
City:	Washington	State:	DC
Country:	USA	Zipcode:	20036 –
Attention	: Ms Petra A Vorwig		

9–16. Name of Contact Representative

Name: George Varkey Phone Number: 6099874327

Company: SES **Fax Number:**

Street: 4 Research Way E–Mail: george.varkey@ses.com

City: Princeton State: NJ

Country: USA Zipcode: 08540-

Attention: 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

b 13. 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 Governmental Entity Other(please explain): 	159. If No, indicate reason for fee exemption (see	ee 47 C.F.R.Section 1.1114).
17d. Fee Classification CGX – Fixed Satellite Testation	Transmit/Receive Earth	
18. If this filing is in reference to an existing station, enter:(a) Call sign of station: E170090	19. If this filing is an amendment to a pending a modification please enter only the file number: (a) Date pending application was filed:	opplication enter both fields, if this filing is a (b) File number: SESLIC2017040700375

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) BSS	
21. STATUS: Choose the button next to the applicable status. Choose 22.	If earth station applicant, check all that apply.
only one.	Using U.S. licensed satellites
Common Carrier Non–Common Carrier	Using Non-U.S. licensed satellites
23. If applicant is providing INTERNATIONAL COMMON CARRIER servi facilities:	ce, see instructions regarding Sec. 214 filings. Choose one. Are these
Connected to a Public Switched Network Not connected to a Public Switched Network	ic Switched Network N/A
24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all applied	eable 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 f	requencies 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 & Double
j — authorization to change Points of Communication (satellites & tountries)
k — authorization for facilities for which environmental assessment and
radiation hazard reporting is required
1 — authorization to change orbit location
m — authorization to perform fleet management
n — authorization to extend milestones
o — Other (Please specify)

ENVIRONMENTAL POLICY

impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. 1.1308 and 1.1311, as an exhibit to this application. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments.	_		~			
ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeron aeronautical fixed radio station services are not required to respond to Items 30–34.	autic	al en	ı rou	ite or		
29. Is the applicant a foreign government or the representative of any foreign government?	0	Yes	•	No		
30. Is the applicant an alien or the representative of an alien?	0	Yes	0	No	•	N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	0	Yes	0	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?	0	Yes	0	No	•	N/A

 $lackbox{ Yes } lackbox{ No}$

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

33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than one–fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	O Yes O	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.	o Yes	No
36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explination of circumstances.	O Yes	No

37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explination of circumstances.	• Yes	⊚ No
38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances	• Yes	No
39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhinit, an explanation of the circumstances.	• Yes	⊘ No
40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, address, and citizenship of those stockholders owning a record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer.		

41. By checking Yes, the undersigned certifies, that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti–Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application" for these purposes.	Yes	O No
42a. Does the applicant intend to use a non–U.S. licensed satellite to provide service in the United States? If Yes, answer 42b and attach an exhibit providing the information specified in 47 C.F.R. 25.137, as appropriate. If No, proceed to question 43.	Yes	O No
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, we coordinated or is in the process of coordinating the space station? Permitted List and SES-10 (S2950) @66.9W	hat administr	ation has

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.)

SES, the operator of the earth station with call sign# E170090 would like to modify the license in order to comply the EIRP density of the carriers according to the spec 25.218 (e),(f),(g),&(h). This modification is due to the anomalies in the off-axis gain pattern of the antenna with reference to 25.209. All other parameters that are not mentioned in

43a. Geographic Service Rule Certification By selecting A, the undersigned certifies that the applicant is not subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25.	● A
By selecting B, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will comply with such requirements.	O B
By selecting C, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will not comply with such requirements because it is not feasible as a technical matter to do so, or that, while technically feasible, such services would require so many compromises in satellite design and operation as to make it economically unreasonable. A narrative description and technical analysis demonstrating this claim are attached.	o c

CERTIFICATION

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

44. Applicant is a (an): (Choose the button next to applicable response	nse.)	
o Individual		
Unincorporated Association		
Partnership		
Corporation		
Governmental Entity		
Other (please specify)		
-		
45. Name of Person Signing	46. Title of Person Signing	
Petra A. Vorwig	Senior Legal & Regulatory Counsel	
>	•	

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

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

Location of Earth St	ation Site					
E1: Site Identifier:	South Mountain	E5. Call Sign:	E170090			
E2: Contact Name	David Coyle	E6. Phone Number:	805 386 2712			
E3. Street:	5990 Solano Verde Dr	E7. City:	Somis			
		E8. County:	Ventura			
E4. State	CA	E9. Zip Code	93066			
E10. Area of Operat	ion:	ALSAT				
E11. Latitude:	34 °19 '31.2 "N					
E12. Longitude:	118 °59 '43.6 "W					
E13. Lat/Lon Coord	linates are:	O NAD-27	● NAD-83	O N/A		
E14. Site Elevation	(AMSL):	308.0 meters				

E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide as a technical analysis showing compliance with two–degree spacing policy.	O Yes	● No	O N/A	
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E16. If the proposed antenna(s) do not operate in the Fixed Satellite Se Satellite Service (FSS) with non–geostationary satellites, do(es) the progain patterns specified in Section 25.209(a2) and (b) as demonstrated by measurements?	posed antenna(s) comply with the antenna	O Yes	O No	⊚ N/A
E17. Is the facility operated by remote control? If YES, provide the location.	ntion and telephone number of the control	O Yes	0	No
E18. Is frequency coordination required? If YES, attach a frequency coordination	ordination report as	O Yes	•	No
E19. Is coordination with another country required? If YES, attach the r coordination contours as	name of the country(ies) and plot of	O Yes	•	No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25.1 have you attached a copy of a completed FCC Form 854 and/or the FAA the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL APPLICATION.	A's study regarding the potential hazard of	● Yes	0	No
POINTS OF COMMUNICATION		•		
Satellite Name: SES-10 (S2950) SES-10 66.9 W.L. If you selected	OTHER, please enter the following:			
E21. Common Name:	E22. ITU Name:			
E23. Orbit Location:	E24. Country:			
	•			
Satellite Name: PERMITTED LIST If you selected OTHER, ple	ase enter the following:			

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

POINTS OF COMMUNICATION (Destination Points)

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

ANTENNA

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size <meters></meters>	E41/42. Antenna Gain Transmint and/or Recieve (dBi atGHz)
South Mountain	SM K5	1	GD Satcom	904106–2421	9.0	59.9 dBi at 13.8
South Mountain	SM K5	1	GD Satcom	904106-2421	9.0	61.96 dBi at 17.6
South Mountain	SM K5	1	GD Satcom	904106–2421	9.0	58.5 dBi at 11.725
South Mountain	SM K5	1	GD Satcom	904106–2421	9.0	60.1 dBi at 14.125

Id	Diameter		, ,	Height Above Ground Level	Input Power at antenna flange	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
SM K5	0.0/0.0	9.7	317.7	0.0	650.0	0.0	88.23

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)
SM K5	10950 11200	R	Horizontal and Vertical	100KG7W	0.0	0.0
E50. Modulation entirety.) Digital Da		he complete descrip	otion does not appear in	this box, please go	to the end of the form	to view it in its
SM K5 E50. Modulation	10950 11200 and Services (If t	R he complete descrip	Horizontal and Vertical	54M0G7W this box, please go	0.0 to the end of the form	0.0 to view it in its
entirety.) Digital Da						

E50. Modulation	and Campiage (If the	a aammlata dagamintid	on does not announin	this how places as to	the end of the form	to viory it in its
entirety.)	and Services (II th	ie complete descriptio	on does not appear in	tills box, please go to	o the end of the form	to view it in its
Digital Da	+0					
Digital Da	La					
SM K5	11450	R	Horizontal and	54M0G7W	0.0	0.0
	11700		Vertical			
E50. Modulation	and Services (If the	le complete description	on does not appear in	this box, please go to	the end of the form	to view it in its
entirety.)		•	• •			
Digital Da	ta					
SM K5	11700	R	Horizontal and	100KG7W	0.0	0.0
	12200		Vertical			
E50. Modulation	and Services (If th	e complete description	on does not appear in	this box, please go to	the end of the form	to view it in its
entirety.)						
Digital Da	ta					
SM K5	11700	R	Horizontal and	54M0G7W	0.0	0.0
	12200		Vertical			

E50. Modulation entirety.)	n and Services (If the	he complete descripti	on does not appear in	this box, please go to	o the end of the form	to view it in its			
Digital Da	ata								
SM K5	13750 14000	Т	Horizontal and Vertical	54M0G7W	77.6	36.3			
E50. Modulation entirety.) Digital Da	,	ne complete descripti	on does not appear in	Tuns box, picase go t	o the end of the form	to view it in its			
SM K5	13750 14000	Т	Horizontal and Vertical	5M93G7W	68.0	36.3			
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 Data									
SM K5	13770 13780	Т	Horizontal and Vertical	6M00G7W	68.06	36.3			

E50. Modulation entirety.)	n and Services (If the	ne complete descripti	on does not appear in	this box, please go to	o the end of the form	to view it in its
Digital Da	ata					
SM K5	14000 14500	Т	Horizontal and Vertical	100KG7W	57.1	43.1
E50. Modulation entirety.) Digital Da		ne complete descripti	on does not appear in	this box, please go to	o the end of the form	to view it in its
SM K5	14000 14500	Т	Horizontal and Vertical	54M0G7W	84.4	43.1
E50. Modulation entirety.)	and Services (If the	ne complete descripti	on does not appear in	this box, please go to	o the end of the form	to view it in its
Digital Da	ata					
SM K5	17300 17550	Т	Horizontal and Vertical	100KG7W	56.88	42.88

E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
Digital Da	ata					
SM K5	17300 17550	Т	Horizontal and Vertical	36M0G7W	82.42	42.88
E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
Digital Da	ata					
SM K5	14000 14500	Т	Horizontal and Vertical	NON	49.1	49.1
E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
Analog CW	carrier					
SM K5	14000 14500	Т	Horizontal and Vertical	800KF9W	72.1	49.1

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 command carrier

SM K5	17300	T	Horizontal and	N0N	42.88	42.88
	17550		Vertical			

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

Unmodulated analog carrier

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	Station Azimuth Angle	E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
SM K5	Geostationary	10950 11200	47.0/143.0	100.38	6.13	218.3	42.6	0.0
	Geostationary	11450 11700	47.0/143.0	100.38	6.13	218.3	42.6	0.0

Geostationary	11700 12200	47.0/143.0	100.38	6.13	218.3	42.6	0.0
Geostationary	13750 14000	47.0/143.0	100.38	6.13	218.3	42.6	4.63
Geostationary	14000 14500	47.0/143.0	100.38	6.13	218.3	42.6	11.43
Geostationary	17300 17550	47.0/143.0	100.38	6.13	218.3	42.6	9.33

REMOTE CONTROL POINT LOCATION

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

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).

SES, the operator of the earth station with call sign# E170090 would like to modify the license in order to comply the EIRP density of the carriers according to the spec 25.218 (e),(f),(g),&(h). This modification is due to the anomalies in the off-axis gain pattern of the antenna with reference to 25.209. All other parameters that are not mentioned in this modification application remains unchanged with reference to the license granted by the Commission.