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

APPLICANT INFORMATION

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

Modification to E050181 to Add Emissions Designators

Legal Name of A	Applicant			
Name:	EchoStar Satellite Operating Corporation	Phone Number:	303-723-1000	
DBA Name:		Fax Number:	303–723–1699	
Street:	9601 South Meridian Boulevard	E–Mail:		
City:	Englewood	State:	CO	
Country:	USA	Zipcode:	80112 –	
Attention	: David K Moskowitz			

9–16. Name of Contact Representative

Name: Pantelis Michalopoulos Phone Number: 202–429–6494

Company: Steptoe & Johnson LLP Fax Number: 202–429–3902

Street: 1330 Connecticut Ave., NW E-Mail: pmichalo@steptoe.com

City: Washington State: DC

Country: USA **Zipcode:** 20036–1795

Attention: Relationship: Legal Counsel

CLASSIFICATION OF FILING

17. Choose the button next to the classification that applies to this filing for both questions a. and b. Choose only one for 17a and only one for 17b.

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

 $\ \ \, \bigcirc \ \, (N/A)$ b3. Amendment to a Pending Application

(N/A) b4. Modification of License or Registration

b5. Assignment of License or Registration

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

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

 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 1 Station	Transmit/Receive Earth	
18. If this filing is in reference to an existing station, enter:(a) Call sign of station: E050181	19. If this filing is an amendment to a pending an 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: SESLIC2005062100799

TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provide	e or use the following type(s) of service(s): Select all that apply:
a. Fixed Satellite	
b. Mobile Satellite	
c. Radiodetermination Satellite	
d. Earth Exploration Satellite	
e. Direct to Home Fixed Satellite	
f. Digital Audio Radio Service	
g. Other (please specify)	
21. STATUS: Choose the button next to the applicable status. Choose	22. If earth station applicant, check all that apply.
only one.	Using U.S. licensed satellites
Common Carrier Non–Common Carrier	Using Non–U.S. licensed satellites
23. If applicant is providing INTERNATIONAL COMMON CARRIER s facilities:	service, see instructions regarding Sec. 214 filings. Choose one. Are these
O Connected to a Public Switched Network O Not connected to a	Public Switched Network N/A
24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all a	pplicable 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 addition	nal 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 & Double
j — authorization to change Points of Communication (satellites & Double of Communication (satellites & Doub
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

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental	Ye
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	Rac
must accompany all applications for new transmitting facilities, major modifications, or major amendments.	Ka

es 👝 No

d. Hazard Report

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 fore	ian acriamanant?
29. Is the applicant a foreign government of the representative of any fore	ign government?

Yes No

30. Is the applicant an alien or the representative of an alien?

O Yes O No O N/A

31. Is the applicant a corporation organized under the laws of any foreign government?

O Yes O No O N/A

32. Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?

Yes No 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?	٥	Yes	0	No	⊚ ¹	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.		0	Yes	€	No)
36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explination of circumstances.		● `	Yes	C	No)
	Res	ponse	to Ç) 36		

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? Canada	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.)

This application requests authorization to operate E050181 using additional emissions designators (24M0G7F, 36M0G7F, 36M0F8F). No other modifications are requested in this application.

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.

46. Title of Person Signing Executive Vice President and General 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 Station Site E1: Site Identifier: K4 & K5 E050181 E5. Call Sign: E2: Contact Name Silas Cole E6. Phone (307) 633 - 5225Number: E3. Street: 530 EchoStar Drive E7. City: Cheyenne E8. County: Laramie E9. Zip Code 82007 E4. State WY E10. Area of Operation: **CONUS** 41 °7 '57.0 "N E11. Latitude: E12. Longitude: 104 °44 '17.3 "W E13. Lat/Lon Coordinates are: NAD-27 **⋒** NAD-83 N/A E14. Site Elevation (AMSL): 1808.4 meters

E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide as a technical analysis showing compliance with two–degree spacing policy.

E16. If the proposed antenna(s) do not operate in the Fixed Satellite Serv Satellite Service (FSS) with non–geostationary satellites, do(es) the prop gain patterns specified in Section 25.209(a2) and (b) as demonstrated by measurements?	O Yes	O No	⊚ N/A	
E17. Is the facility operated by remote control? If YES, provide the locat point.	ion and telephone number of the control	O Yes	•	No
E18. Is frequency coordination required? If YES, attach a frequency coordination	rdination report as	O Yes	•	No
E19. Is coordination with another country required? If YES, attach the na coordination contours as	nme of the country(ies) and plot of	O Yes	•	No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25.11 have you attached a copy of a completed FCC Form 854 and/or the FAA' the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RAPPLICATION.	O Yes	•	No	
POINTS OF COMMUNICATION				-
Satellite Name: OTHER OTHER If you selected OTHER, please en	ter the following:			
E21. Common Name: AMC-16	E22. ITU Name: USASAT-31U			
E23. Orbit Location: 118.7 E24. Country: USA				

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: ANIK F3 CANSAT-18 118.7 W.L. If you selected OTHER, please enter the following:			
E21. Common Name:		E22. ITU Name:	
E23. Orbit Location:		E24. Country:	

POINTS OF COMMUNICATION (Destination Points)

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

ANTENNA

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size <meters></meters>	E41/42. Antenna Gain Transmint and/or Recieve (dBi atGHz)	
K4 & K5	K4 & K5	2	Vertex	9 KPK	9.0	59.2 dBi at 12.0	
K4 & K5	K4 & K5	2	Vertex	9 KPK	9.0	60.4 dBi at 14.0	

Id	Diameter		, ,	Height Above Ground Level	Input Power at	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
K4 & K5	0.0/0.0	9.0	0.0	1817.38	393.0	0.0	86.34

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)
K4 & K5	11700 12200	R	Horizontal and Vertical	1M00F2D	0.0	0.0
E50. Modulation entirety.) Digital Da		le complete descrip	uon does not appear ir	i uns box, piease go	to the end of the form	to view it in its
K4 & K5	11700 12200	R	Horizontal and Vertical	36M0F8F	0.0	0.0
E50. Modulation entirety.) Analog Vio	`	ne complete descrip	non does not appear in	i this box, please go	to the end of the form	to view it in its
Analog VIC	<u>1</u> e0					
K4 & K5	11700 12200	R	Horizontal and Vertical	24M0G7F	0.0	0.0

E50. Modulati entirety.)	on and Services ((If the complete d	lescription does not appear i	n this box, please	go to the end of t	he form to view it in	its
	Compressed Vi	deo					
K4 & K5	11700 12200	R	Horizontal and Vertical	36M0G7F	0.0	0.0	
Digital	Compressed Vi	deo					
K4 & K5	14000 14500	Т	Horizontal and Vertical	1M00F2D	70.4	46.4	
E50. Modulati entirety.)		I(If the complete d	lescription does not appear i	n this box, please	go to the end of t	he form to view it in	its
K4 & K5	14000 14500	Т	Horizontal and Vertical	36M0F8F	70.4	43.4	

E50. Modulat entirety.)	ion and Services	(If the complete d	escription does not appear	in this box, please	go to the end of t	he form to view it in its
Analog V	7ideo					
K4 & K5	14000 14500	Т	Horizontal and Vertical	24M0G7F	70.4	32.6
entirety.) Digital	Compressed V	ideo				
K4 & K5	14000 14500	Т	Horizontal and Vertical	36M0G7F	70.4	30.9
entirety.)	ion and Services Compressed V		escription does not appear	in this box, please	go to the end of t	he form to view it in its

FREQUENCY COORDINATION

E28. Antenna Id		E52/53. Frequency Limits(MHz)	Range of Satellite Arc Eastern/West	Station Azimuth Angle	E57. Antenna Elevation Angle Eastern Limit	Station Azimuth Angle		E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
K4 & K5	Geostationary	11700 14500	70.0/170.0	133.5	30.8	253.2	9.8	-16.0

REMOTE CONTROL POINT LOCATION

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

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