Date & Time Filed: May 18 2009 7:11:33:453PM File Number: SES-MOD-INTR2009-01331

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 of E080214 to Add Two New Antenna Facilities

1-8. Legal Name of Applicant

Name: EchoStar Corporation Phone Number: 303–723–1000

DBA Fax Number:

Name:

Street: 90 Inverness Circle E. **E–Mail:**

City: Englewood State: CO

Country: USA Zipcode: 80112 -

Attention: Linda Kinney – (202)293–0981

9–16. Name of Contact Representative

Name: Pantelis Michalopoulos Phone Number: 202–429–1304

Company: Steptoe & Johnson LLP Fax Number:

Street: 1330 Connecticut Ave NW E–Mail: pmichalopoulos@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

b 3. Amendment to a Pending Application

b4. Modification of License or Registration

b5. Assignment of License or Registration

b6. Transfer of Control of License or Registration

b7. Notification of Minor Modification

(N/A) b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite

(N/A) b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States

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

(N/A) b11. Application for Earth Station to Access a Non–U.S.satellite Not Currently Authorized to Provide the Proposed Service in the Proposed Frequencies in the United States

(N/A) b12. Application for Database Entry

b13. Amendment to a Pending Database Entry Application

b14. Modification of Database Entry

17c. Is a fee submitted with this application of the submitted with the submitted with this application of the submitted with this application.	ion? 159. If No, indicate reason for fee exemption (see	ee 47 C.F.R.Section 1.1114).
O Governmental Entity Noncomme	ercial educational licensee	
Other(please explain):		
17d.		
Fee Classification CGX – Fixed Satellite Station	Transmit/Receive Earth	
18. If this filing is in reference to an existing station, enter:	19. If this filing is an amendment to a pending a modification please enter only the file number:	pplication enter both fields, if this filing is a
(a) Call sign of station:	(a) Date pending application was filed:	(b) File number:
E080214		SESLIC2008092601249
	1	

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) Direct Broadcast Satellite Se	rvice
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
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 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: 12200 Frequency Upper: 17800	(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 & Double
j — authorization to change Points of Communication (satellites & Double of Communication)
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, v coordinated or is in the process of coordinating the space station? Canada	what administr	ration has
43. Description. (Summarize the nature of the application and the services to be provided). (If the complete descript	ion does not a	nnear in this
box, please go to the end of the form to view it in its entirety.)	ion does not a	ppear in uns

EchoStar Corporation seeks to modify its transmit/receive earth station for the purpose of

adding two antennas.

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 ap	oplicable response.)
O Individual	
Unincorporated Association	
Partnership	
Corporation	
Governmental Entity	
Other (please specify)	
_	
45. Name of Person Signing	46. Title of Person Signing
Linda Kinney	Vice President, Law and Regulation
>	
WILLFUL FALSE STATEMENTS MAI	DE 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 S	tation Site				
E1: Site Identifier:	Mt. Jackson	E5. Call Sign:	E080214		
E2: Contact Name	Silas Cole	E6. Phone Number:	307-633-5200		
E3. Street:	335 Dish Drive	E7. City:	Quicksburg		
		E8. County:	Shenandoah		
E4. State	VA	E9. Zip Code	22847		
E10. Area of Opera	tion:	United States			
E11. Latitude:	38 °43 '22.3 "N				
E12. Longitude:	78 °39 '59.9 "W				
E13. Lat/Lon Coord	dinates are:	O NAD-27	● NAD-83	O N/A	
E14. Site Elevation	(AMSL):	283.8 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 Set Satellite Service (FSS) with non–geostationary satellites, do(es) the progain patterns specified in Section 25.209(a2) and (b) as demonstrated b measurements?	posed antenna(s) comply with the antenna	⊚ Yes	O No	O N/A
E17. Is the facility operated by remote control? If YES, provide the loca point.	ation and telephone number of the control	O Yes	•	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 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 FAZ the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL APPLICATION.	A's study regarding the potential hazard of	O Yes	•	No
POINTS OF COMMUNICATION		!		-
Satellite Name: ECHOSTAR 3 USABSS 8 61.5 W.L. If you selected	ed OTHER, please enter the following:			
E21. Common Name:	E22. ITU Name:			
E23. Orbit Location:	E24. Country:			
Satellite Name: ECHOSTAR 6 ECHOSTAR 6 72.7 W.L. If you sel	lected OTHER, please enter the following:			

E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
Satellite Name: ECHOSTAR 7 USABSS 7 119 W.L. If you selecte	ed OTHER, please enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
Satellite Name: OTHER OTHER If you selected OTHER, please 6	enter the following:
E21. Common Name: CIEL 2	E22. ITU Name:
E23. Orbit Location: 128.85 W.L	E24. Country: Canada
Satellite Name: ECHOSTAR 4 USABSS-10 77 W.L. If you select	ed OTHER, please enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
G . 11. N. POHOGEAD OLYGADGG OLITOWILL IS	1.0000000000000000000000000000000000000
	ed OTHER, please enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
Satellite Name: ECHOSTAR 5 USABSS 5 129 W.L. If you selecte	ed OTHER, please enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
	<u>'</u>
Satellite Name: ECHOSTAR 11 ECHOSTAR 11 110 W.L. If you s	selected OTHER, please enter the following:

E21. Common N	Vame:			E22. ITU Name:					
E23. Orbit Location: E24. Country:									
Satellite Name: F	RAINBOW1 BSS	−17 61.5 W.L.	If you selected OT	THER, please ente	r the following:				
E21. Common N	Vame:			E22. ITU Name	:				
E23. Orbit Locat	tion:			E24. Country:					
Satellite Name: I	ECHOSTAR 10 U	SABSS 26 110 V	V.L. If you selec	ted OTHER, pleas	se enter the followi	ing:			
E21. Common N	lame:			E22. ITU Name	:				
E23. Orbit Locat	tion:			E24. Country:					
Satellite Name: I	ECHOSTAR I US	ABSS 3 148.0 W	L. If you selecte	ed OTHER, please	e enter the following	ng:			
E21. Common N	lame:			E22. ITU Name	:				
E23. Orbit Locat	tion:			E24. Country:					
POINTS OF C	COMMUNICATI	ON (Destination	Points)						
E25. Site Identif	ier:								
E26. Common N	lame:			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)			
Mt. Jackson	VAT5	1	Vertex	13.2	13.2	62.0 dBi at 12.2			

Mt. Jackson	VAT5	1	Vertex	13.2	13.2	65.0 dBi at 17.8
Mt. Jackson	VAT8	1	Vertex	13.2	13.2	62.0 dBi at 12.2
Mt. Jackson	VAT8	1	Vertex	13.2	13.2	65.0 dBi at 17.8

E28. Antenna Id	E33/34. Diameter Minor/Major (meters)	E35. Above Ground Level (meters)	` ′	Height Above	Input Power at	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
VAT5	0.0/0.0	15.5	299.27	0.0	1600.0	0.0	97.0
VAT8	0.0/0.0	15.5	299.27	0.0	1600.0	0.0	97.0

FREQUENCY

	E43/44. Frequency Bands (MHz)				EIRP per Carrier	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
VAT5	12200 12210	R	Left and Right Circular	800KG2D	0.0	0.0

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

Telemetry			

VAT5	12690 12700	R	Left and Right Circular	800KG2D	0.0	0.0
E50. Modulation entirety.)	and Services (I	f the complete de	escription does not appear	in this box, please	go to the end of t	he form to view it in its
Telemetry						
VAT5	17300 17310	Т	Left and Right Circular	800KG2D	82.3	59.3
entirety.) Telecommar	nd					
VAT5	17790 17800	Т	Left and Right Circular	800KG2D	82.3	59.3
E50. Modulation entirety.)	and Services (I	f the complete de	escription does not appear	in this box, please	go to the end of t	he form to view it in its
Telecommar	nd					

VAT5	12200 12210	R	Left and Right Circular	1M5F3D	0.0	0.0
E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	n this box, please go	to the end of the form	to view it in its
Ranging To	nes					
VAT5	12690 12700	R	Left and Right Circular	1M5F3D	0.0	0.0
Ranging To	nes					
VAT5	17300 17310	Т	Left and Right Circular	1M5F3D	85.06	59.3
E50. Modulation entirety.)	,	ne complete description	on does not appear i	n this box, please go	to the end of the form	to view it in its

VAT5	17790 17800	Т	Left and Right Circular	1M5F3D	85.06	59.3
E50. Modulation entirety.)	and Services (If the	ne complete descripti	ion does not appear	in this box, please	go to the end of th	ne form to view it in its
Ranging To	nes					
VAT5	12210 12690	R	Left and Right Circular	24M0G7W	0.0	0.0
Compressed	Digital Video	and Data				
VAT5	17310 17790	Т	Left and Right Circular	24M0G7W	86.9	49.1
E50. Modulation entirety.)	and Services (If the Digital Video		ion does not appear	in this box, please	go to the end of th	ne form to view it in its

VAT8	12200 12210	R	Left and Right Circular	800KG2D	0.0	0.0
E50. Modulati entirety.)	on and Services (If the complete d	lescription does not appear	in this box, please	go to the end of t	the form to view it in its
Telemetr	У					
VAT8	12690 12700	R	Left and Right Circular	800KG2D	0.0	0.0
entirety.) Telemetr	У					
VAT8	17300 17310	Т	Left and Right Circular	800KG2D	82.3	59.3
E50. Modulati entirety.)	on and Services (If the complete d	lescription does not appear	in this box, please	go to the end of t	the form to view it in its
Telecomm	and					

VAT8	17790 17800	Т	Left and Right Circular	800KG2D	82.3	59.3
E50. Modulation entirety.)	n and Services (If	f the complete de	escription does not appear	in this box, please	go to the end of t	he form to view it in its
Telecomman	nd					
VAT8	12200 12210	R	Left and Right Circular	1M5F3D	0.0	0.0
entirety.) Ranging To	ones					
VAT8	12690 12700	R	Left and Right Circular	1M5F3D	0.0	0.0
E50. Modulation entirety.)		the complete de	escription does not appear	in this box, please	go to the end of t	he form to view it in its
Ranging To	ones					

VAT8	17300 17310	Т	Left and Right Circular	1M5F3D	85.06	59.3
E50. Modulation entirety.)	and Services (If	the complete de	escription does not appear	in this box, please	go to the end of th	e form to view it in its
Ranging To	nes					
VAT8	17790 17800	Т	Left and Right Circular	1M5F3D	85.06	59.3
Ranging To	nes					
VAT8	12210 12690	R	Left and Right Circular	24M0G7W	0.0	0.0
E50. Modulation entirety.)	and Services (If		escription does not appear	in this box, please	go to the end of th	e form to view it in its

VA	Т8	17310 17790	T	Left and Right Circular	24M0G7W	86.9	49.1	
	E50. Modulation irety.)	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	
	Compressed	Digital Video	and Data					

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern 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)
VAT5	Geostationary	12200 12700	61.0/148.0	153.0	41.5	256.7	7.4	0.0
	Geostationary	17300 17800	61.0/148.0	153.0	41.5	256.7	7.4	6.02
VAT8	Geostationary	12200 12700	61.0/148.0	153.0	41.5	256.7	7.4	0.0
	Geostationary	17300 17800	61.0/148.0	153.0	41.5	256.7	7.4	6.02

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		

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