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File Number: SES-MFS-20130424-00334

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 E050196 to add QuetzSat-1 at 77.0 W.L. as a Point of Communication

Name:	EchoStar 77 Corp.	<b>Phone Number:</b>	202-293-0981
DBA Name:		Fax Number:	
Street:	100 Inverness Terrace East	E–Mail:	
City:	Englewood	State:	СО
Country:	USA	Zipcode:	80112 –

#### 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: 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

**b**4. Modification of License or Registration

b5. Assignment of License or Registration

b6. Transfer of Control of License or Registration

**b**7. 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 applicat  The image of the submitted with this applicat in the submitted with this application. If Yes, complete and attach FCC Form	ion? 159. If No, indicate reason for fee exemption	n (see 47 C.F.R.Section 1.1114).						
Governmental Entity Noncommercial educational licensee								
Other(please explain):								
17d.	17d.							
Fee Classification CGV – Fixed Satellite	VSAT System							
18. If this filing is in reference to an existing station, enter:  19. If this filing is an amendment to a pending application enter both fields, if this filing is a modification please enter only the file number:								
(a) Call sign of station: E050196	(a) Date pending application was filed:	(b) File number:						
E030190		SESMFS2012120301053						

# TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provide o	r 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	
21. STATUS: Choose the button next to the applicable status. Choose 22.	2. 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 service facilities:	vice, see instructions regarding Sec. 214 filings. Choose one. Are these
Connected to a Public Switched Network Not connected to a Pu	blic Switched Network    N/A
24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all app	licable 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) Blanket DBS
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**

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?	٥	Yes	0	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.		<b>⊚</b> `	Yes	C	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	•	No	)
	Que	estion	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.	O Yes	<b>⊚</b> 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	O Yes	<b>⊚</b> 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.	O Yes	<b>⊘</b> 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 Question 42	O No
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued coordinated or is in the process of coordinating the space station? Mexico	, what administr	ration 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.)

EchoStar 77 Corporation seeks a modification of its blanket earth station license, E050196, to add QuetzSat−1, a Mexican-licensed satellite, at 77.0 W.L. as a point of communication. 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.	O 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 <sub>B</sub>
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.	<b>⊚</b> <sup>C</sup>
	Question 43a

#### **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.

Individual		
O Unincorporated Association		
Partnership		
Corporation		
Governmental Entity		
Other (please specify)		
45. Name of Person Signing	46. Title of Person Signing	
Pantelis Michalopoulos	Counsel for EchoStar 77 Corporation	
>		
WILLEUL FALSE STATEMENTS MAD	DE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONME	ENT
	DE OIL TIME I ORGITALE I CILIDIA MELE DI TALLETA DI ORGANI MISOTAMI	J1 1 I
	1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION	

#### 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:	1	E5. Call Sign:	E050196		
E2: Contact Name	Silas Cole	E6. Phone Number:	307-633-5225		
E3. Street:		E7. City:			
		E8. County:			
E4. State		E9. Zip Code			
E10. Area of Operat	tion:	CONUS			
E11. Latitude:	0 °0 '0.0 "				
E12. Longitude:	0 °0 '0.0 "				
E13. Lat/Lon Coord	linates are:	O NAD-27	<b>○</b> 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.

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 by measurements?	posed antenna(s) comply with the antenna	O Yes	O No	<b>⊚</b> 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 a coordination contours as	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.	O Yes	•	No	
POINTS OF COMMUNICATION				-
Satellite Name: OTHER   OTHER   If you selected OTHER, please e	enter the following:			
E21. Common Name: QuetzSat-1				
E23. Orbit Location: 77.00 W.L.				
POINTS OF COMMUNICATION (Destination Points)	•			·
E25. Site Identifier:				

E26. Common Name:					E27. Country:					
ANTENNA										
Site ID	E28. Antenna Id	E29. Quantity		facturer	E31. Model		E32. Antenna Size <meters></meters>		E41/42. Antenna Gain Transmint and/or Recieve (dBi atGHz)	
									dBi at	
E28. Antenna Id	E33/34. Diameter Minor/Major (meters)	E35. Above Ground Level (meters)		Above Sea (meters)	E37. Bui Height A Ground (meters)	bove Level	E38. Total Input Powe antenna fla (Watts)		E39. Maximur Antenna Heig Above Rooftoj (meters)	ht EIRP for al
FREQUENCY	/	<u> </u>								
E28. Antenna Id	E43/44. Frequency Ba (MHz)	E45. T/R	Mode	E46. Ante Polarizati L,R)		E47. E Design	mission actor		. Maximum P per Carrier W)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
E50. Modulati	ion and Services	(If the complete	e descript	ion does no	ot appear in	n this bo	x, please go	to the	end of the form	to view it in its

FREQUENCY COORDINATION

E28.	E51. Satellite	E52/53.	E54/55.	E56. Earth	E57.	E58. Earth	E59.	E60.
Antenna Id	Orbit Type	Frequency	Range of	Station	Antenna	Station	Antenna	Maximum
		Limits(MHz)	Satellite Arc	Azimuth	Elevation	Azimuth	Elevation	<b>EIRP Density</b>
			Eastern/West	Angle	Angle	Angle	Angle	toward the
			ern Limit	<b>Eastern Limit</b>	<b>Eastern Limit</b>	Western	Western	Horizon
						Limit	Limit	(dBW/4kHz)

/

## 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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