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Callsign/Satellite ID:

# APPLICATION FOR EARTH STATION AUTHORIZATIONS 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: Application for Gilbert, AZ DBS Earth Station (GD3/GD4)

Name: EchoStar Satellite Operating Phone Number: 303–723–1000

Corporation

**DBA Fax Number:** 303–723–1699

Name:

**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

Steptoe & Johnson LLP **Fax Number:** Company: 202-429-3902

1330 Connecticut Ave., N.W. E-Mail: pmichalo@steptoe.com **Street:** 

City: Washington DC State:

**Country:** Zipcode: USA 20036 - 1795

**Relationship: Attention:** 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

(N/A) a2. Space Station

b.

**b**1. Application for License of New Station

**6** 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

**b**10. 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.

<ul> <li>17c. Is a fee submitted with this applicate.</li> <li>If Yes, complete and attach FCC Form.</li> <li>Governmental Entity.</li> <li>Other(please explain):</li> <li>17d.</li> <li>Fee Classification BAX – Fixed Satellite 7.</li> </ul>	159. If No, indicate reason for fee exemption (sercial educational licensee	see 47 C.F.R.Section 1.1114).
Station State of Stat	Transmit Receive Latur	
<ul><li>18. If this filing is in reference to an existing station, enter:</li><li>(a) Call sign of station:</li><li>Not Applicable</li></ul>	<ul><li>19. If this filing is an amendment to a pending a</li><li>(a) Date pending application was filed:</li><li>Not Applicable</li></ul>	application enter:  (b) File number of pending application:  Not Applicable
TYPE OF SERVICE  20. NATURE OF SERVICE: This filing is f	For an authorization to provide or use the followin	g 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) DBS		

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 facilities:	service, see instructions regarding Sec. 214 filings. Choose one. Are these
Connected to a Public Switched Network Not connected	I to a Public Switched Network    N/A
24. FREQUENCY BAND(S): Place an "X" in the box(es) next to all a	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: 12200 Frequency Upper: 17800	
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)	
26. TYPE OF EARTH STATION FACILITY: Choose only one.  Transmit/Receive Transmit-Only Receive-Only N/A	Α
Transmitteeere of Transmit Only of Receive Only of 197	, <b>4</b>

## 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 No Rad. Hazard Report
ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aerona aeronautical fixed radio station services are not required to respond to Items 30–34.	utical en route or
29. Is the applicant a foreign government or the representative of any foreign government?	O Yes O No
30. Is the applicant an alien or the representative of an alien?	O Yes O No O N/A

				~	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	0	No ,	<sup>1</sup> •	√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	0	No i	1 <b>©</b>	√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	•	N	0

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  Response to 0	<b>O</b> 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.	O 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	O 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.	O 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 o 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  Response to Q	• No .42a
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issue coordinated or is in the process of coordinating the space station? Canada	d, 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.)

This is an application for authority to operate a new DBS earth station located in Gilbert, Arizona.

#### **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.

11	Applicant	ica	(an).	Choose the	hutton next	to applicable	racnonca )
44.	Аррисані	18 a 1	(an). (	(Choose me	button next	to applicable	response.)

- Individual
- Unincorporated Association
- Partnership
- Corporation
- Governmental Entity
- Other (please specify)

45. Name of Person Signing David K. Moskowitz		46. Title of Person Signing Executive Vice President and General Counsel				
47. Please supply any need attach	ments.					
Attachment 1:	Attachment 2:	Attachment 3:				
(U.S. Code	e, Title 18, Section 1001), AND/O	RM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT REVOCATION OF ANY STATION AUTHORIZATION 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: GD3/GD4 E5. Call Sign:

E2: Contact Name Silas Cole E6. Phone 307–633–5225

Number:

E3. Street: 800 North America E7. City: Gilbert

Sky Blvd.

E8. County: Maricopa

E4. State AZ E9. Zip Code 85233

E10. Area of Operation: United States

E11. Latitude: 33 °21 '53.6 "N

E12. Longitude: 111 °48 '53.6 "W

E13. Lat/Lon Coordinates are: NAD-27 NAD-83 N/A

E14. Site Elevation (AMSL): 371.8 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.	<b>●</b> Y	Čes	O No	)	O 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?	OY	'es	O No	)	<b>⊚</b> N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	0 '	Yes	•	•	No
E18. Is frequency coordination required? If YES, attach a frequency coordination report as	<b>●</b> '	Yes	(	>	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	0 '	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: ECHOSTAR 7   USABSS 7   119 W.L. If you selected 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 selec	ted OTHER, please enter the following:		
E21. Common Name:	E22. ITU Name:		
E23. Orbit Location:	E24. Country:		
Satellite Name: ECHOSTAR 2   ECHOSTAR 2   148 W.L. If you see	elected OTHER, please enter the following:		
E21. Common Name:	E22. ITU Name:		
E23. Orbit Location:	E24. Country:		
Satellite Name:RAINBOW1   BSS-17   61.5 W.L. If you selected 0	OTHER, please enter the following:		
E21. Common Name:	E22. ITU Name:		
E23. Orbit Location:	E24. Country:		
Satellite Name:ECHOSTAR 8   USABSS 8   110 W.L. If you selec	ted OTHER, please enter the following:		
E21. Common Name:	E22. ITU Name:		
E23. Orbit Location:	E24. Country:		
Satellite Name: ECHOSTAR 6   USABSS 6   110 W.L. If you selec	ted OTHER, please enter the following:		
E21. Common Name:	E22. ITU Name:		
E23. Orbit Location:	E24. Country:		
Satellite Name: ECHOSTAR 3   USABSS 8   61.5 W.L. If you select	eted OTHER, please enter the following:		

E21. Common	Name:			E22. ITU Name:			
E23. Orbit Loc	Orbit Location: E24. Co				ountry:		
				•			
Satellite Na	me:ECHOSTAR I   USA	BSS 3   148.0 W.L.	If you seld	ected OT	HER, please enter t	he following:	
E21. Common	Name:			E22. IT	U Name:		
E23. Orbit Loc	ation:			E24. Co	ountry:		
				•			
Satellite Na	me:OTHER   OTHER	If you selected O	ΓHER, pleas	e enter th	e following:		
E21. Common	Name: EchoStar 10			E22. IT	U Name: USABSS	26	
E23. Orbit Loc	3. Orbit Location: 110 W.L.			E24. Co	ountry: USA		
POINTS O	F COMMUNICATION	(Destination Poin	nts)				
E25. Site Identi	ifier:						
E26. Common	Name:			E27. Co	ountry:		
ANTENNA				!			
Site ID	E28. Antenna Id	E29. Quantity	E30. Manufac	cturer	E31. Model	E32. Antenna Size <meters></meters>	E41/42. Antenna GainTransmint and/or Recieve (dBi atGHz)
GD3/GD4	GD3/GD4	2	Vertex		9.1 Meter	9.1	58.6 dBi at 12.2
			1				62.9 dBi at 17.3

Id	Diameter	E35. Above Ground Level  (meters)	(meters)	Height Above Ground Level 	Input Power at antenna flange 	Maximum Antenna Height	E40. Total EIRP for al carriers  (dBW)
GD3/GD4	0.0/0.0	9.1	380.9	0.0	1600.0	0.0	94.9

# FREQUENCY

	E43/44. Frequency Bands (MHz)	E45. T/R Mode			E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
GD3/GD4	12200 12700	R	Linear and Circular	300KG2D	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 Beacon (TT&C)

GD3/GD4	12200	R	Linear and Circular	24M0M1F	0.0	0.0
	12700					

E50. Modulation entirety.)	and Services (I	f the complete d	escription does not appear in	this box, please	go to the end of the	he form to view it in its
Digital Co	mpressed Vid	eo				
GD3/GD4	17300 17800	Т	Linear and Circular	1M50G2D	87.4	61.7
E50. Modulation entirety.)  Command Ca	rrier (TT&C)	Tule complete u	escription does not appear in	uns oox, preuse	go to the child of the	
GD3/GD4	17300 17800	Т	Linear and Circular	24M0M1F	87.4	49.6
E50. Modulation entirety.)  Digital Co	and Services (I		escription does not appear in	this box, please	go to the end of the	he form to view it in its

FREQUENCY COORDINATION

	E51. Satellite Orbit Type	Frequency Limits(MHz)	Range of Satellite Arc E/W Limit	Station Azimuth Angle	E57. Antenna Elevation Angle Eastern Limit	Station Azimuth Angle	Elevation Angle Western	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
GD3/GD4	Geostationary	12200 17800	61.0/ 157.0	114.1	23.9	241.3	28.4	-3.2

# REMOTE CONTROL POINT LOCATION

E61. Call Sign	E65. Phone Number			
NOTE: Please enter the callsign of the controcallsign for which this application is being filed.				
E62. Street Address				
E63. City	E67. County		E64/68. State/Country	E66. Zip Code

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