Date & Time Filed: Apr 10 2018 6:15:39:796PM File Number: SES-MOD-INTR2018-00884

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:

Minor Modification for E080015

egal Name of Ap	pplicant		
Name:	EchoStar Broadcasting Holding Corporation	Phone Number:	202-463-3709
DBA Name:		Fax Number:	
Street:	1110 Vermont Ave NW	E-Mail:	Alison.Minea@dish.com
	Suite 750		
City:	Washington	State:	DC
Country:	USA	Zipcode:	20005 –
Attention:	Ms Alison Minea		

9–16. Name of Contact Representative

Name: EchoStar Broadcasting Holding Phone Number: 202–463–3709

Corporation

Company: Fax Number:

Street: 1110 Vermont Ave NW E-Mail: Alison.Minea@dish.com

Suite 750

City: Washington State: DC

Country: USA Zipcode: 20005–

Attention: Ms. Alison Minea 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 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 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 application of the submitted with this application of the submitted with th	159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114).
17d. Fee Classification CGX – Fixed Satellite 7 Station	Fransmit/Receive Earth

18. If this filing is in reference to an existing station, enter:	19. If this filing is an amendment to a pendimodification please enter only the file number	ing application enter both fields, if this filing is a ber:
(a) Call sign of station:	(a) Date pending application was filed:	(b) File number:
E080015		SESMFS2013010700009
TYPE OF SERVICE 20. NATURE OF SERVICE: This filing i	s for an authorization to provide or use the follo	owing type(s) of service(s): Select all that apply:
	s for an authorization to provide or use the follo	owing type(s) of service(s): Select all that apply:
20. NATURE OF SERVICE: This filing i	s for an authorization to provide or use the follo	owing type(s) of service(s): Select all that apply:
20. NATURE OF SERVICE: This filing i	s for an authorization to provide or use the follo	owing type(s) of service(s): Select all that apply:
20. NATURE OF SERVICE: This filing i	s for an authorization to provide or use the follo	owing type(s) of service(s): Select all that apply:
20. NATURE OF SERVICE: This filing i a. Fixed Satellite b. Mobile Satellite	s for an authorization to provide or use the follo	owing type(s) of service(s): Select all that apply:
20. NATURE OF SERVICE: This filing i a. Fixed Satellite b. Mobile Satellite c. Radiodetermination Satellite	s for an authorization to provide or use the follo	owing type(s) of service(s): Select all that apply:
20. NATURE OF SERVICE: This filing i a. Fixed Satellite b. Mobile Satellite c. Radiodetermination Satellite d. Earth Exploration Satellite	s for an authorization to provide or use the follo	owing type(s) of service(s): Select all that apply:

21. STATUS: Choose the button next to the applicable status. Choose only one.

Common Carrier Non–Common Carrier

22. If earth station applicant, check all that apply.

Using U.S. licensed satellites

Using Non–U.S. licensed satellites

23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities:

Connected to a Public Switched Network

Not connected to a Public Switched Network



24	FREQUENCY BAND(S): Place an 'X	' in the box(es) next to all applicab	le frequency hand(s)
	C-Band (4/6 GHz) b. Ku-Band	• • •	to frequency build (b).
	Other (Please specify upper and lower		
	Frequency Lower: 12200.0000	Frequency Upper: 17800.0000	(Please specify additional frequencies in an attachment)
TYPE	OF STATION		
25. Cl	LASS OF STATION: Choose the butto	n next to the class of station that app	olies. Choose only one.
● a	. Fixed Earth Station		
O b	. Temporary–Fixed Earth Station		
_ c	. 12/14 GHz VSAT Network		
o d	. Mobile Earth Station		
e	. Geostationary Space Station		
o f	. Non-Geostationary Space Station		
O g	. Other (please specify)		
26. T	YPE OF EARTH STATION FACILITY	·	
● T	ransmit/Receive	Receive-Only N/A	
"For S	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?	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.	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 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	vhat administi	ration has
43. Description. (Summarize the nature of the application and the services to be provided). (If the complete descriptions, please go to the end of the form to view it in its entirety.) Update coordinates to reflect NAD83.	on does not a	ppear in this

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
Alison Minea	Director & Senior Counsel, Regulatory Affairs
>	
	DE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT

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:	Spokane	E5. Call Sign:	E080015		
E2: Contact Name	Scott Thums	E6. Phone Number:	307-633-5750		
E3. Street:	9815 West Hallet Road	E7. City:	Spokane		
		E8. County:	Spokane		
E4. State	WA	E9. Zip Code	99224		
E10. Area of Operat	tion:	United States			
E11. Latitude:	47 °35 '31.7 "N				
E12. Longitude:	117 °33 '1.6 "W				
E13. Lat/Lon Coord	linates are:	O NAD-27	● NAD-83	O N/A	
E14. Site Elevation	(AMSL):	741.9 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	○ Yes	O No	N/A
E17. Is the facility operated by remote control? If YES, provide the loca point.	ation and telephone number of the control	• 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	• 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: CIEL 2 CIEL 2 128.85 W.L If you selected OTHE	R, please enter the following:			
E21. Common Name:	E22. ITU Name:			
E23. Orbit Location:	E24. Country:			
Satellite Name: ECHOSTAR/DISH EchostarDish DBS(US) If yo	u selected OTHER, please enter the following	σ:		

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

Satellite Name: RAINBOW1 BSS-17 61.5 W.L.	If you selected OTI	HER, 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)	
Spokane	WAT1	1	Vertex	13.2	13.2	62.0 dBi at 12.2000	
Spokane	WAT1	1	Vertex	13.2	13.2	65.0 dBi at 17.8000	
Spokane	WAT2	1	Vertex	13.2	13.2	62.0 dBi at 12.2000	
Spokane	WAT2	1	Vertex	13.2	13.2	65.0 dBi at 17.8000	

E28. Antenna Id		E35. Above Ground Level (meters)	` ′	Height Above	Input Power at	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
WAT1	0.0/0.0	15.5	756.2	0.0	1600.0	0.0	97.0
WAT2	0.0/0.0	15.5	756.2	0.0	1600.0	0.0	97.0

FREQUENCY

	E43/44. Frequency Bands (MHz)	E45. T/R Mode			E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
WAT1	12200.0000 12210.0000	R	Left and Right Circular	1M50G2D	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			

WAT1	12690.0000	R	Left and Right	1M50G2D	0.0	0.0
	12700.0000		Circular			

E50. Modulation entirety.)	n and Services (If t	he complete descript	tion does not appear i	n this box, please g	go to the end of th	ne form to view it in its
Telemetry						
WAT1	12200.0000 12210.0000	R	Left and Right Circular	1M50F3D	0.0	0.0
E50. Modulation entirety.)	n and Services (If t	he complete descript	tion does not appear i	n this box, please g	go to the end of the	ne form to view it in its
Ranging To	ones					
WAT1	12690.0000 12700.0000	R	Left and Right Circular	1M50F3D	0.0	0.0
E50. Modulation entirety.)	n and Services (If t	he complete descript	tion does not appear i	in this box, please g	go to the end of the	ne form to view it in its
Ranging To	ones					
WAT1	17300.0000 17310.0000	Т	Left and Right Circular	1M50G2D	85.06	59.3

E50. Modulation entirety.)	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
Telemetry						
WAT1	17790.0000 17800.0000	Т	Left and Right Circular	1M50G2D	85.06	59.3
E50. Modulation entirety.)	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
Telemetry						
WAT1	17300.0000 17310.0000	Т	Left and Right Circular	1M50F3D	85.06	59.3
E50. Modulation entirety.)	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
Ranging To	nes					
WAT1	17790.0000 17800.0000	Т	Left and Right Circular	1M50F3D	85.06	59.3

E50. Modulation	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
entirety.)						
Ranging To	nes					
WAT1	12210.0000 12690.0000	R	Left and Right Circular	24M0G7W	0.0	0.0
E50. Modulation entirety.) Compressed	and Services (If the Digital Video		on does not appear in	this box, please go to	o the end of the form	to view it in its
WAT1	17310.0000 17790.0000	Т	Left and Right Circular	24M0G7W	86.9	49.1
E50. Modulation entirety.)	and Services (If the	e 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				
WAT2	12200.0000 12210.0000	R	Left and Right Circular	1M50G2D	0.0	0.0

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
Telemetry						
WAT2	12690.0000 12700.0000	R	Left and Right Circular	1M50G2D	0.0	0.0
E50. Modulation entirety.)	and Services (If th	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
Telemetry						
WAT2	17300.0000 17310.0000	Т	Left and Right Circular	1M50G2D	85.06	59.3
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
Telemetry						
WAT2	17790.0000 17800.0000	Т	Left and Right Circular	1M50G2D	85.06	59.3

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
Telemetry						
WAT2	12200.0000 12210.0000	R	Left and Right Circular	1M50F3D	0.0	0.0
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
Ranging To	nes					
WAT2	12690.0000 12700.0000	R	Left and Right Circular	1M50F3D	0.0	0.0
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
Ranging To	nes					
WAT2	17300.0000 17310.0000	Т	Left and Right Circular	1M50F3D	85.06	59.3

E50. Modulation	and Services (If th	e complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
entirety.)		o compress description	on does not appear in	uns com, prouse go u	, 4.0 0.10 0.1 4.10 10.11.1	10 710 77 12 111 100
Ranging To	nes					
WAT2	17790.0000 17800.0000	T	Left and Right Circular	1M50F3D	85.06	59.3
E50. Modulation entirety.)	· ·	e complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
WAT2	12210.0000 12690.0000	R	Left and Right Circular	24M0G7W	0.0	0.0
E50. Modulation entirety.)	and Services (If the Digital Video		on does not appear in	this box, please go to	o the end of the form	to view it in its
WAT2	17310.0000 17790.0000	Т	Left and Right Circular	24M0G7W	86.9	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.)

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	0	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)
WAT1	Geostationary	12200.0000 12700.0000	61.0/148.0	116.0	13.4	218.5	27.9	0.0
	Geostationary	17300.0000 17800.0000	61.0/148.0	116.0	13.4	218.5	27.9	-1.88
WAT2	Geostationary	12200.0000 12700.0000	61.0/148.0	116.0	13.4	218.5	27.9	0.0
	Geostationary	17300.0000 17800.0000	61.0/148.0	116.0	13.4	218.5	27.9	-1.88

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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