

S2653 SAT-MOD-20130905-00113 IB2013001936
EchoStar Satellite Operating Corporation
EchoStar 12



File # SAT-MOD-20130905-00113

Call Sign S2653 Grant Date 02/27/14
(or other identifier)

Term Dates see
From 02/27/14 To: conditions

Approved by OMB
3060-0678

Approved: Stephen J. Duall

Stephen J. Duall
Chief, Satellite Policy Branch

Date & Time Filed: Sep 5 2013 12:28:46:116PM
File Number: SAT-MOD-20130905-00113

*with conditions

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:
Renewal of Authority to Operate EchoStar 12 (Call Sign S2653) at 61.35 W.L.

1-8. Legal Name of Applicant			
Name:	EchoStar Satellite Operating Corporation	Phone Number:	202-293-0981
DBA Name:		Fax Number:	
Street:	100 Inverness Terrace East	E-Mail:	
City:	Englewood	State:	CO
Country:	USA	Zipcode:	80112 -
Attention:			

Attachment to Grant
IBFS File No. SAT-MOD-20130905-00113
Call Sign S2653

The application of EchoStar Satellite Operating Corporation (EchoStar), IBFS File No. SAT-MOD-SAT-MOD-20130905-00113, IS GRANTED, for a modification of the authorization for the EchoStar 12 direct broadcast satellite service (DBS) space station (Call Sign S2653) at the 61.35° W.L. orbital location in the 12.2-12.7 GHz (space-to-Earth) and 17.3-17.8 GHz (Earth-to-space) frequency bands.¹

Accordingly, the license term for the EchoStar 12 space station is extended from December 12, 2013, until July 31, 2022. Operations under this authorization must be in accordance with the terms, conditions, and technical specifications set forth in EchoStar's application and the rules of the Federal Communications Commission, and are subject to the following conditions:

1. EchoStar will continue to operate the EchoStar 12 space station at the 61.35° W.L. orbital location subject to the conditions in the prior modifications and applicable special temporary authority.²
2. EchoStar shall maintain the EchoStar 12 space station at the 61.35° W.L. orbital location with an east/west longitudinal station-keeping tolerance of ± 0.05 degrees.
3. We grant the request of EchoStar for waivers of Sections 25.114(d)(14)(ii) and 25.283(c) of the Commission's rules, 47 C.F.R. §§ 25.114(d)(14)(ii) and 25.283(c). These rules require an applicant to demonstrate that all stored energy will be vented at the spacecraft's end of life. EchoStar 12 is a Lockheed Martin A2100 model spacecraft that is not designed to vent all of its pressurized systems. Following launch of the spacecraft on July 17, 2003, two oxidizer tanks were permanently sealed by firing pyrotechnic valves. As a result, EchoStar states that at the end of EchoStar 12's operational life there will be oxidizer and helium remaining in the tanks that cannot be vented. EchoStar states that residual oxidizer in EchoStar 12's oxidizer tanks has an estimated mass of 20 kilograms, and the oxidizer tanks have a combined volume of 39968 cubic inches (approximately 654.96 liters). EchoStar calculates that the oxidizer tanks will also contain an estimated 1.9 kilograms of helium pressurant.³ We grant the requested waiver because EchoStar 12 was launched before Section 25.283(c) became effective and compliance would require direct retrieval of the spacecraft, which is not currently possible. In making this determination, however, we note that the information submitted in the application is not sufficient to support a finding that the intent of the rule would be satisfied by the described procedure for removing stored energy sources.
4. Within 30 days of completion of the end-of-life maneuvers, EchoStar must send a letter to the Chief, Satellite Division, International Bureau, indicating the apogee and perigee of the EchoStar 12 disposal orbit.

¹ The application was placed on Public Notice as accepted for filing on November 8, 2013. See Policy Branch Information, Satellite Space Applications Accepted for Filing, *Public Notice*, Report No. SAT-00978, (IBFS File No. SAT-MOD-20130905-00113).


² See, e.g., *Policy Branch Information: Action Taken*, Report No. SAT-00698, File No. SAT-MOD-20100310-00042 (Jun. 11, 2010) (Public Notice) (modifying telemetry, tracking, and telecommand frequencies for EchoStar 12) *EchoStar Satellite Operating Corporation Applications to Modify Authority to Operate Direct Broadcast Satellite Service Space Stations, EchoStar 3, EchoStar 12, and EchoStar 15 on Channels 3 through 32 at the 61.5° W.L. Orbital Location*, DA 12-993, Order and Authorization, 27 FCC Rcd 7138 (Int'l. Bur. 2012) (modifying the authorized DBS channels for EchoStar 12); IBFS File No. SAT-STA-20140106-00002 (granted Feb. 26, 2014) (granting special temporary authority to continue operating EchoStar 12 over channels 1 and 2 at the 61.35° W.L. orbital location).

³ Letter from Jennifer A. Manner, Vice President, Regulatory Affairs, EchoStar Satellite Operating Corporation, to Marlene H. Dortch, Secretary, Federal Communications Commission, IBFS File No. SAT-MOD-20130905-00113 (Jan. 29, 2014)

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Call Sign S2653

5. EchoStar is afforded 30 days from the date of release of this grant and authorization to decline this authorization as conditioned. Failure to respond within this period will constitute formal acceptance of the authorization as conditioned.

6. This action is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective immediately. Petitions for reconsideration under Section 1.106 of the Commission's rules or applications for reconsideration under Section 1.115 of the Commission's rules, 47 C.F.R. §§ 1.106, 1.115, may be filed within 30 days of the public notice indicating that this action was taken.

 GRANTED* International Bureau *with conditions	File # <u>SAT-MOD-20130905-00113</u>
	Call Sign <u>S2653</u> Grant Date <u>02/27/14</u> (or other identifier)
	Term Dates <u>see</u>
	From <u>02/27/14</u> To: <u>conditions</u>
	Approved: <u><i>Stephen J. Duall</i></u> Stephen J. Duall Chief, Satellite Policy Branch

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

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

<p>17c. Is a fee submitted with this application?</p> <p><input type="radio"/> If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).</p> <p><input type="radio"/> Governmental Entity <input type="radio"/> Noncommercial educational licensee</p> <p><input checked="" type="radio"/> Other (please explain): No fee required for minor modification.</p>	
<p>17d.</p> <p>Fee Classification BFY – Space Station Modification (Geostationary)</p>	
<p>18. If this filing is in reference to an existing station, enter:</p> <p>(a) Call sign of station: S2653</p>	<p>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:</p> <p>(a) Date pending application was filed:</p> <p>(b) File number: SATMOD2012030100034</p>

TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provide or use the following type(s) of service(s): Select all that apply:	
<input type="checkbox"/> a. Fixed Satellite	
<input type="checkbox"/> b. Mobile Satellite	
<input type="checkbox"/> c. Radiodetermination Satellite	
<input type="checkbox"/> d. Earth Exploration Satellite	
<input type="checkbox"/> e. Direct to Home Fixed Satellite	
<input type="checkbox"/> f. Digital Audio Radio Service	
<input checked="" type="checkbox"/> g. Other (please specify) Direct Broadcast Satellite	
21. STATUS: Choose the button next to the applicable status. Choose only one.	22. If earth station applicant, check all that apply.
<input type="radio"/> Common Carrier <input checked="" type="radio"/> Non-Common Carrier	<input type="checkbox"/> Using U.S. licensed satellites
	<input type="checkbox"/> 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:	
<input type="radio"/> Connected to a Public Switched Network <input type="radio"/> Not connected to a Public Switched Network <input checked="" type="radio"/> N/A	
24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all applicable frequency band(s).	
<input type="checkbox"/> a. C-Band (4/6 GHz) <input type="checkbox"/> b. Ku-Band (12/14 GHz)	
<input checked="" type="checkbox"/> 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 & countries)
- j -- authorization to change Points of Communication (satellites & countries)
- k -- authorization for facilities for which environmental assessment and radiation hazard reporting is required
- l -- 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 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.	<input type="radio"/> Yes <input checked="" type="radio"/> No
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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 foreign government?	<input type="radio"/> Yes <input checked="" type="radio"/> No
30. Is the applicant an alien or the representative of an alien?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> 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?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> 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?

Yes 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.

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 explanation of circumstances.

Yes No

Question 36

<p>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 explanation of circumstances.</p>	<p><input type="radio"/> Yes <input checked="" type="radio"/> No</p>
<p>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</p>	<p><input type="radio"/> Yes <input checked="" type="radio"/> No</p>
<p>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 exhibit, an explanation of the circumstances.</p>	<p><input type="radio"/> Yes <input checked="" type="radio"/> No</p>
<p>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. Question 40</p>	

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 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 No

42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, what administration has coordinated or is in the process of coordinating the space station?

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 Satellite Operating Corporation hereby seeks to renew its authority to operate its Direct Broadcast Satellite, EchoStar 12 (Call Sign S2653), at 61.35 W.L. through July 31, 2022. 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.

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.

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.

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 applicable response.)

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

45. Name of Person Signing
Dean A. Manson

→

46. Title of Person Signing
General Counsel, EchoStar Satellite Operating Corp

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).

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