



File # SAT-LOA-20150512-00034

Call Sign S2739 Grant Date 07/21/16

(or other identifier)

Term Dates

From 07/21/16 To: 10/01/21

Approved by OMB
3060-0678

Approved: *Stephen J. Duall*

Stephen J. Duall
Chief, Satellite Policy Branch

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APPLICATION FOR SATELLITE SPACE STATION AUTHORIZATIONS FCC 312 MAIN FORM FOR OFFICIAL USE ONLY	FCC Use Only
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APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:
Echo 1 TTC Application

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:	Jennifer Manner		

ATTACHMENT TO GRANT
 EchoStar Satellite Operating Corporation
 IBFS File No. SAT-LOA-20150512-00034

IBFS File No(s):	SAT-LOA-20150512-00034	<p>GRANTED – With Conditions</p>  <p>International Bureau Satellite Division</p>
Licensee/Grantee:	EchoStar Satellite Operating Corporation	
Call Sign:	S2739	
Satellite Name:	EchoStar-1	
Orbital Location: (required station-keeping tolerance)	77.25° W.L. (+/- 0.05 degrees)	
Administration:	United States of America	
Nature of Service:	Direct Broadcast Satellite	
Scope of Grant:	EchoStar is authorized to operate EchoStar-1 as an in-orbit spare using only telemetry, tracking, and command (TT&C) frequencies.	
Service Area(s):	N/A	
Frequencies:	4198.5 MHz and 4199.5 MHz (space-to-Earth) 5926.5 MHz and 6423.5 MHz (Earth-to-space)	

Operations under this grant must comport with the legal and technical specifications set forth by the applicant or petitioner and with Federal Communication Commission’s rules not waived herein. This grant is also subject to the following conditions:

1. EchoStar must prepare the necessary information, as may be required, for submission to the International Telecommunication Union (ITU) to initiate and complete the advance publication, coordination, due diligence, and notification procedures of this space station, or other appropriate procedures under the ITU Radio Regulations. EchoStar will be held responsible for all cost recovery fees associated with ITU filings. No protection from interference caused by radio stations authorized by other administrations is guaranteed unless coordination, notification, or other appropriate procedures are timely completed or, with respect to individual administrations, coordination agreements are successfully completed. Any radio station authorization for which coordination or other appropriate procedures have not been completed may be subject to additional terms and conditions as required to effect coordination of the frequency assignments of other administrations, 47 CFR § 25.111(b).
2. EchoStar must maintain the EchoStar-1 space station at the 77.25° W.L. orbital location with an east / west longitudinal station-keeping tolerance of ± 0.05 degrees.
3. EchoStar’s request for waiver of Section 25.202(g) of the Commission’s rules, 47 CFR § 25.202(g), is granted. Section 25.202(g) requires, among other things, that telemetry, tracking and command (TT&C) functions for U.S. domestic satellites be conducted at either or both edges of the allocated band(s). EchoStar-1’s use of C-band frequencies for TT&C was initially authorized because it allowed EchoStar to “operate with greater reliability and lower cost, with no adverse impact on other operators.” See *EchoStar Satellite Corporation Application for Modification of Construction Permit for a Direct Broadcast Satellite System*, 11 FCC Rcd 3016 (1996). Similarly, there is no adverse impact on other U.S.-authorized operators in the present case, but this waiver is conditioned on EchoStar coordinating the operations of EchoStar-1 with the operation of in-orbit satellites of U.S. and other affected administrations, and EchoStar coordinating its TT&C earth station operations with co-primary terrestrial services operating in the band.
4. EchoStar’s request for a waiver of Sections 25.114(d)(14)(ii) and 25.283(c), is granted. Section 25.283(c) specifies that space stations must discharge all stored energy sources at end-of-life of the space station. EchoStar-1 is a Lockheed-Martin AS-7000 spacecraft that was launched on December 28, 1995, before the rule was adopted. Applicant states that shortly following orbital insertion, the oxidizer tank was

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permanently isolated from the thrusters by firing pyrotechnic valves. Any oxidizer remaining in the oxidizer tank cannot be used or vented at end of life, and the applicant states that the satellite's design means that its fuel tanks cannot be completely depleted and will retain a residual amount of oxidizer and pressurant at the end of the life of the satellite. Applicant states that the volume of the oxidizer tank is 642.86 litres (39230 cubic inches), and at end of life there will be 2.0 kilograms of helium and 4.1 kilograms of oxygen remaining in the oxidizer tank. Compliance with Section 25.283(c) is not achievable except through direct retrieval of spacecraft. The information submitted is not sufficient to support a finding that the underlying purpose of Section 25.283(c) would be served.


Licensee/grantee is afforded thirty (30) days from the date of release of this action to decline the grant as conditioned. Failure to respond within this period will constitute formal acceptance of the grant as conditioned.

This action is taken pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 CFR § 0.261, and is effective upon release.

Station licenses are subject to the conditions specified in Section 309(h) of the Communications Act of 1934, as amended, 47 U.S.C. § 309(h).

Action Date:	July 21, 2016	
Term Dates	From: July 21, 2016	To: October 1, 2021 ¹

Approved:


Stephen J. Duall
Chief, Satellite Policy Branch

¹ EchoStar filed a supplement to this application and requested a license term of approximately 5 years, rather than the 12-year license term indicated in the Schedule S, in order to match the expected end of life of EchoStar-1. In the supplement, EchoStar states that on June 17, 2016, EchoStar-1 "commenced inclined orbit operations to extend its mission life," and that the projected end of life for EchoStar-1 is also based on the amount of useable propellant remaining as of June 30, 2016, the 300 km end-of-life disposal requirement, and the "fuel consumption rate for east-west station-keeping maintenance over the last several years of operations." Letter from Jennifer A. Manner, Senior Vice President, Regulatory Affairs, to Marlene H. Dortch, Secretary, Federal Communications Commission at 1 (Jul. 19, 2016) (on file in SAT-LOA-20150512-00034).

9-16. Name of Contact Representative

Name:	Phuong N. Pham	Phone Number:	202-383-3395
Company:	Wilkinson Barker Knauer, LLP	Fax Number:	202-783-5851
Street:	2300 N Street, NW Suite 700	E-Mail:	ppham@wbklaw.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20037 -
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.

a.

- (N/A) a1. Earth Station
 a2. Space Station

b.

- b1. Application for License of New Station
(N/A) 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
- b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States
 b10. Replacement Satellite Application - no new frequency bands
 b11. Replacement Satellite Application - new frequency bands (Not eligible for streamlined processing)
 b12. Petition for Declaratory Ruling to be Added to the Permitted List
(N/A) b13. Other (Please specify)

17c. Is a fee submitted with this application?

If Yes, complete and attach FCC Form 159.

If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).

Governmental Entity Noncommercial educational licensee

Other (please explain):

17c. Fee Classification BNY – Space Station (Geostationary)

18. If this filing is in reference to an existing station, enter:

(a) Call sign of station:

Not Applicable

19. If this filing is an amendment to a pending application enter:

(a) Date pending application was filed:

Not Applicable

(b) File number of pending application:

Not Applicable

TYPE OF SERVICE

<p>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:</p> <ul style="list-style-type: none"><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) Broadcasting – Satellite	
<p>21. STATUS: Choose the button next to the applicable status. Choose only one.</p> <p><input type="radio"/> Common Carrier <input checked="" type="radio"/> Non-Common Carrier</p>	<p>22. If earth station applicant, check all that apply.</p> <p>Not Applicable</p>
<p>23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities:</p> <p><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</p>	
<p>24. FREQUENCY BAND(S): Place an "X" in the box(es) next to all applicable frequency band(s).</p> <p><input checked="" type="checkbox"/> a. C-Band (4/6 GHz) <input type="checkbox"/> b. Ku-Band (12/14 GHz)</p> <p><input checked="" type="checkbox"/> c. Other (Please specify upper and lower frequencies in MHz.)</p> <p>Frequency Lower: Frequency Upper: (Please specify additional frequencies in an attachment)</p>	

TYPE OF STATION

25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.

(N/A) a. Fixed Earth Station
(N/A) b. Temporary-Fixed Earth Station
(N/A) c. 12/14 GHz VSAT Network
(N/A) d. Mobile Earth Station
 e. Geostationary Space Station.
 f. Non-Geostationary Space Station
 g. Other (please specify)

26. TYPE OF EARTH STATION FACILITY: Not Applicable

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

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 type="radio"/> No <input checked="" type="radio"/> N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" 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 type="radio"/> No <input checked="" 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?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> 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

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.

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 exhibit, 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 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 requests authority to operate EchoStar-1 (Call Sign S2739) as an in-orbit spare at 77.25 W.L.

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

Technical Annex

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.)		
<input type="radio"/> Individual <input type="radio"/> Unincorporated Association <input type="radio"/> Partnership <input checked="" type="radio"/> Corporation <input type="radio"/> Governmental Entity <input type="radio"/> Other (please specify)		
45. Name of Person Signing Jennifer A. Manner	46. Title of Person Signing Vice President Regulatory Affairs	
47. Please supply any need attachments.		
1:	2:	3:
<p>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).</p>		

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