

Approved by OMB  
3060-0678

Date & Time Filed: Mar 29 2006 1:10:01:150PM  
File Number: SAT-MOD-20060329-00031

32694

EchoStar 10 @ 110.2° W, L0

|   |              |
|---|--------------|
| FCC APPLICATION FOR SPACE AND EARTH STATION:MOD OR AMD - MAIN FORM<br>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:  
Application for Minor Modification to Permit Operation of EchoStar 10 at 110.2W

|                              |  |                      |              |
|------------------------------|--|----------------------|--------------|
| 1-8. Legal Name of Applicant |  |                      |              |
| <b>Name:</b>                 | EchoStar Satellite Operating Corporation | <b>Phone Number:</b> | 303-723-1000 |
| <b>DBA Name:</b>             |  | <b>Fax Number:</b>   | 303-723-1699 |
| <b>Street:</b>               | 9601 South Meridian Boulevard            | <b>E-Mail:</b>       |              |
| <b>City:</b>                 | Englewood                                | <b>State:</b>        | CO           |
| <b>Country:</b>              | USA                                      | <b>Zipcode:</b>      | 80112 -      |
| <b>Attention:</b>            | David K Moskowitz                        |                      |              |

see also: SAT-LOA-20051221-00267,  
SAT-AMD-20060120-00007

1



w/conditions

File # SAT-MOD-20060329-00031

Call Sign 32694 Grant Date May 11, 2006  
(or other identifier)

Term Dates  
From 4/10/06 To: + 10 yrs

Approved: *[Signature]*  
Policy Branch Chief

**ATTACHMENT**  
**IBFS File Nos. SAT-LOA-20051221-00267, SAT-AMD-20060120-00007,**  
**and SAT-MOD-20060329-00031**  
**Call Sign: S2694**  
**Grant Date: May 11, 2006**

EchoStar Satellite Operating Corporation's (EchoStar) application<sup>1</sup> to construct, launch, and operate a direct broadcast satellite (DBS), EchoStar 10 (Call Sign: S2694),<sup>2</sup> IBFS File No. SAT-LOA-20051221-00267, as amended by IBFS File No. SAT-AMD-20060120-00007, and EchoStar's subsequent modification request, IBFS File No. SAT-MOD-20060329-00031, to locate the satellite at the 110.2° W.L. orbital location ARE GRANTED. Accordingly, EchoStar is authorized to operate the EchoStar 10 DBS space station at the 110.2° W.L. orbital location with feeder links (Earth to space) in the 17.3–17.8 GHz band on DBS channels 2-7, 9-27, 29, and 31, and service links (space to Earth) in the 12.2–12.7 GHz band on DBS channels 4, 12, 18, 20, 23, 25, 26, 27, 29, and 31<sup>3</sup> in accordance with the terms, conditions, and technical specifications set forth in its application, the Federal Communication Commission's (Commission) rules, and the conditions below.<sup>4</sup>

1. EchoStar and DIRECTV have entered into an operator agreement with respect to service links on channels 27, 29, and 31 on the EchoStar 10 satellite at the 110° W.L. nominal orbital location.<sup>5</sup> Accordingly, this grant is conditioned upon EchoStar operating service link channels 27, 29, and 31 at the 110.2° W.L. orbital location on the EchoStar 10 satellite in conformance with the operator agreement. EchoStar will inform the Commission in writing via letter to the Chief, Satellite Division, International Bureau, if the operator agreement expires by its own terms or is cancelled by either party to the agreement.

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<sup>1</sup> The application as amended was previously granted, in part, and deferred, in part, with an effective date of March 27, 2006. See Public Notice, Report No. SAT-00351 (rel. March 31, 2006) (IBFS File Nos. SAT-LOA-20051221-00267, SAT-AMD-20060120-00007) (*EchoStar 10 Partial Grant*). Specifically, EchoStar was granted with conditions authority to operate the EchoStar 10 satellite at the 110.0° W.L. orbital location with feeder links (Earth to space) in the 17.3–17.8 GHz band on DBS channels 2-7, 9-27, 29, and 31, and service links (space to Earth) in the 12.2–12.7 GHz band on DBS channels 4, 12, 18, 20, 23, 25, and 26. Action on EchoStar's request to operate service links on DBS channels 27, 29, and 31 at the 110° W.L. nominal orbital location was deferred pending Commission review of objections filed by DIRECTV Enterprises, LLC (DIRECTV). Subsequent to the *EchoStar 10 Partial Grant*, EchoStar and DirecTV entered into an operator agreement concerning the operations of EchoStar 10 at the nominal 110° W.L. orbital location. See Letter from Pantelis Michalopoulos, Counsel for EchoStar Satellite Operating Corp., to Robert Nelson, Chief, Satellite Division, International Bureau, Federal Communications Commission, dated April 24, 2006 (April 24, 2006 Letter); Joint Letter from William M. Wiltshire, Counsel for DIRECTV Enterprises, LLC, and Pantelis Michalopoulos, Counsel for EchoStar Satellite Operating Corp., to Robert Nelson, Chief, Satellite Division, International Bureau, Federal Communications Commission, dated May 1, 2006 (May 1, 2006 Letter).

<sup>2</sup> EchoStar is authorized to provide DBS service on DBS channels 1-27, 29, and 31 at the 110° W.L. nominal orbital location. See Application for Minor Modification of Four DBS Space Station Authorizations, *Memorandum, Opinion and Order* 18 FCC Rcd. 15,211 (Sat. Div. 2003); EchoStar Satellite Corporation, Application for Minor Modification of Direct Broadcast Satellite Authorization, Launch and Operating Authority for EchoStar VIII, *Order and Authorization*, 17 FCC Rcd 11,326 (Sat. Div. 2002).

<sup>3</sup> This action supersedes EchoStar's special temporary authority to operate EchoStar 10 at the 110.2° W.L. orbital location, SAT-STA-20060330-00032, which was granted on April 5, 2006. See Public Notice, Report No. SAT-00352 (rel. April 7, 2006).

<sup>4</sup> For the sake of clarity, all relevant conditions included in the earlier grant are repeated in this grant.

<sup>5</sup> April 24, 2006 Letter; May 1, 2006 Letter.

2. EchoStar's request for waiver of Section 25.210(i), of the Commission's rules, 47 C.F.R. § 25.210(i), for the EchoStar 10 satellite located at the 110° W.L. nominal orbital location, IS GRANTED as conditioned. Section 25.210(i) requires Fixed-Satellite Service (FSS) space station antennas to be designed to meet a cross-polarization isolation of 30 dB within the primary coverage area of the antenna.<sup>6</sup> EchoStar indicates that the cross-polarization isolation of some of the antennas in EchoStar 10's primary coverage area will be less than the minimum 30 dB required by the rules, and is a minimum of 24.6 dB for the feeder-link receiving antennas, which operate in the FSS.<sup>7</sup> This shortfall will not produce a significant increase in interference, except to the applicant itself. As a condition of the waiver, EchoStar shall claim no more protection from interference from other licensed radiocommunication systems operating in accordance with the Commission's rules than if its feeder-link receiving antennas had met Section 25.210(i) of our rules. Grant of this waiver request is consistent with our precedent.<sup>8</sup>

3. EchoStar's request for waiver of Section 25.215 of the Commission's rules, 47 C.F.R. § 25.215, for the EchoStar 10 satellite located at 110.2° W.L. orbital location, IS GRANTED as conditioned.<sup>9</sup> Section 25.215 requires DBS space station service link antennas to be designed to meet a cross-polarization isolation of 30 dB within the primary coverage area of the antenna.<sup>10</sup> EchoStar states that the cross-polarization isolation of some of the service-link transmitting antennas of the EchoStar 10 satellite's primary coverage area is slightly less than the minimum 30 dB required by Section 25.215, and is a minimum of 28.8 dB for the service-link transmitting antennas within the primary service area of the antennas covering U.S. territory.<sup>11</sup> The Commission has stated that licensees may use cross-polarization isolation which is different from that specified for the Region 2 BSS Plan if they demonstrate that such a difference does not result in interference to other operational or planned systems, including U.S.-licensed systems.<sup>12</sup> As a condition of this waiver, EchoStar must coordinate the operations of EchoStar 10 with other potentially affected radiocommunication systems, and operate on a non-harmful interference basis with respect to any DBS space stations that are in compliance with the cross-polarization isolation requirement. Also, since the intra-system cross-polarization interference caused by EchoStar 10 not meeting the requirements of Section 25.215 must be factored into EchoStar's own link budgets, EchoStar shall not claim any more protection from interference from other radiocommunication systems operating in accordance with the Commission's rules than if it met the requirements of Section 25.215.

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<sup>6</sup> 47 C.F.R. § 25.210(i).

<sup>7</sup> IBFS File No. SAT-LOA-20051221-00267, EchoStar Satellite Operating Corporation, Application to Make Minor Modifications to Direct Broadcast Satellite Authorizations and For Launch and Operating Authority for the EchoStar 10 satellite (EchoStar 10 Application), Section A.11, page 13.

<sup>8</sup> Star One S.A.; Petition for Declaratory Ruling to Add The Star One C1 Satellite at 65° W.L. to the Permitted Space Station List, *Order*, 19 FCC Rcd 16334 (Sat. Div. 2004) (finding that the impact on neighboring satellite systems of a 3-5 dB difference from the required cross polarization isolation ratio would be negligible).

<sup>9</sup> In the *EchoStar 10 Partial Grant*, EchoStar's request for waiver of Section 25.215 of the Commission's rules, 47 C.F.R. § 25.215, for the EchoStar 10 satellite located at 110° W.L. nominal orbital location was granted in part as conditioned and deferred with respect to the channels not addressed in that action.

<sup>10</sup> 47 C.F.R. § 25.215.

<sup>11</sup> EchoStar 10 Application, Section A.11, page 13.

<sup>12</sup> See EchoStar Satellite Corp., Directsat Corp., EchoStar DBS Corp. Application for Authority to Make Minor Modifications to Direct Broadcast Satellite Authorizations, Launch, and Operational Authority, *Memorandum Opinion and Order*, 13 FCC Rcd 8595, 8604 at para. 17 (1998).

4. EchoStar must maintain the EchoStar 10 satellite at 110.2 deg. W.L. with +/- 0.05 degree longitudinal stationkeeping. See 47 C.F.R. § 25.210(j).

5. Pursuant to Section 25.111(c) of the Commission's rules, 47 C.F.R. § 25.111(c), EchoStar shall provide the Commission with all information it requires in order to modify the Appendix 30 Broadcasting-Satellite Service Plans and associated Appendix 30A feeder-link Plans to incorporate the characteristics of the Broadcasting-Satellite Service space station of the EchoStar 10 satellite, USABSS-26, in accordance with the ITU Radio Regulations. EchoStar shall be held responsible for all cost recovery fees associated with these ITU filings. We also note that no protection from interference caused by radio stations authorized by other administrations is guaranteed unless coordination and notification procedures are timely completed or, with respect to individual administrations, by successfully completing coordination agreements. Any radio station authorization for which coordination has not been completed and/or for which the necessary agreements under Appendices 30 and 30A have not been obtained may be subject to additional terms and conditions as required to effect coordination or obtain the agreement of other Administrations.

6. The 10-year license term for the EchoStar 10 satellite began to run on April 10, 2006 and will expire on April 9, 2016.

7. EchoStar is afforded thirty 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.

8. This Grant is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective upon release. Petitions for reconsideration under Section 1.106 or applications for review 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 date of the public notice indicating that this action was taken.

See also:

SAT-LOA-20051221-00267  
SAT-AMD-20060120-00007



w/conditions

File # SAT-MOD-20060329-00031

Call Sign 52694 Grant Date May 11, 2006  
(or other identifier)

Term Dates  
From 4/10/06 To: + 10 yrs.

Approved: *Anita L. Kelly*

Policy Branch Chief

9-16. Name of Contact Representative

|                   |                            |                      |                      |
|-------------------|----------------------------|----------------------|----------------------|
| <b>Name:</b>      | Pantelis Michalopoulos     | <b>Phone Number:</b> | 202-429-3000         |
| <b>Company:</b>   | Steptoe & Johnson LLP      | <b>Fax Number:</b>   | 202-429-3902         |
| <b>Street:</b>    | 1330 Connecticut Avenue NW | <b>E-Mail:</b>       | pmichalo@steptoe.com |
| <b>City:</b>      | Washington                 | <b>State:</b>        | DC                   |
| <b>Country:</b>   | USA                        | <b>Zipcode:</b>      | 20036-1795           |
| <b>Attention:</b> |                            | <b>Relationship:</b> | 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
- (N/A) b3. Amendment to a Pending Application
- (N/A) b4. Modification of License or Registration
- b5. Assignment of License or Registration
- 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
- (N/A) b10. 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): There is no fee for an application for a minor modification to a DBS authorization

17d.

Fee Classification BFY – Space Station Modification (Geostationary)

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

(a) Call sign of station:  
S2694

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) Date pending application was filed:

(b) File number:

SATLOA2005122100267

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> <p><input type="checkbox"/> a. Fixed Satellite</p> <p><input type="checkbox"/> b. Mobile Satellite</p> <p><input type="checkbox"/> c. Radiodetermination Satellite</p> <p><input type="checkbox"/> d. Earth Exploration Satellite</p> <p><input type="checkbox"/> e. Direct to Home Fixed Satellite</p> <p><input type="checkbox"/> f. Digital Audio Radio Service</p> <p><input checked="" type="checkbox"/> g. Other (please specify)                      Direct Broadcast Satellite</p> |  |
| <p>21. STATUS: Choose the button next to the applicable status. Choose only one.</p> <p><input checked="" type="radio"/> Common Carrier    <input checked="" type="radio"/> Non-Common Carrier</p>  | <p>22. If earth station applicant, check all that apply.</p> <p><input type="checkbox"/> Using U.S. licensed satellites</p> <p><input type="checkbox"/> Using Non-U.S. licensed satellites</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 checked="" 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 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: 12200                      Frequency Upper: 17800                      (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.

- 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.

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?

Yes  No

30. Is the applicant an alien or the representative of an alien?

Yes  No  N/A

31. Is the applicant a corporation organized under the laws of any foreign government?

Yes  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?

Yes  No  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

Q36

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. Q40

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?N/A

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.)

Please see attached narrative.

Narrative

## 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  
David K. Moskowitz

-->

46. Title of Person Signing  
Executive Vice President and General Counsel

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  
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