



File # SAT-LDA-20051221-00267
With attached conditions
 Call Sign S2694 Grant Date 3/27/2006
 (or other identifier)
 Term Dates
 From see conditions To: see conditions
 Approved: [Signature]

Robert C Nelson Chief Satellite Division

Approved by OMB
3060-0678

Date & Time Filed: Dec 21 2005 12:51:51:413PM
 File Number: SAT-MOD-20051221-00267

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:

Refiled Application for Minor Modification to DBS Authorizations and to Launch and Operate EchoStar 10 at 110 W.L.

1-8. Legal Name of Applicant

Name:	EchoStar Satellite Operating Corporation	Phone Number:	303-723-1000
DBA Name:		Fax Number:	303-723-1699
Street:	9601 South Meridian Boulevard	E-Mail:	
City:	Englewood	State:	CO
Country:	USA	Zipcode:	80112 -
Attention:	David K Moskowitz		

ATTACHMENT

Conditions of Authorization: IBFS File Nos. SAT-LOA-20051221-00267, SAT-AMD-20060120-00007

Call Sign: S2694

Grant Date: March 27, 2006

1. EchoStar Satellite Operating Corporation's (EchoStar) application, IBFS File No. SAT-LOA-20051221-00267,¹ as amended by SAT-AMD-20060120-00007,² to construct, launch, and operate a direct broadcast satellite (DBS), EchoStar 10 (Call Sign: S2694),³ at the 110° W.L.⁴ orbital location IS GRANTED IN PART and DEFERRED IN PART. Accordingly, EchoStar is authorized 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 is deferred. This partial grant is in accordance with the terms, conditions, and technical specifications set forth in its application, the Federal Communication Commission's (Commission) rules, and the requirements stated below.

2. Until further action by the Commission, EchoStar may not operate service link channels 27, 29, and 31 at the 110° W.L. nominal orbital location on the EchoStar 10 satellite. If, however, EchoStar and DirecTV enter 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, EchoStar may commence service on those channels after notifying the Commission in writing through a letter to Robert Nelson, Chief, Satellite Division, International Bureau, Federal Communications Commission.

3. 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 IN PART as conditioned and DEFERRED with respect to the channels not

¹ This application was accepted for filing on December 22, 2005. Comments were filed by DIRECTV Enterprises, LLC (DIRECTV) addressing EchoStar's request to operate service links on channels 27, 29, and 31 on the EchoStar 10 satellite at the 110.0° W.L. orbital location. DIRECTV, however, indicated that it did not oppose grant of feeder links in the 17.3–17.8 GHz (Earth-to-space) band on DBS channels 2-7, 9-27, 29, and 31, and service links in the 12.2–12.7 MHz (space-to Earth) band on DBS channels 4, 12, 18, 20, 23, 25, and 26. Response of DIRECTV Enterprises, LLC, filed February 3, 2006, at 8 (".... DIRECTV's concern relates to only three of the twenty-nine DBS channels used by EchoStar 10....").

² This amendment, filed January 20, 2006, is a minor amendment to modify the information required by No. 4.2.6 of Appendices 30 and 30A of the ITU Radio Regulations, and to replace the interference analysis contained in Appendix 1 of the original application. This minor amendment does not change any aspect of the design or capability of the EchoStar 10 satellite as described in the application.

³ EchoStar is currently authorized to provide DBS service on DBS channels 1-27, 29, and 31 at the 110° W.L. nominal orbital location using EchoStar 6, *See Application for Minor Modification of Four DBS Space Station Authorizations, Memorandum, Opinion and Order* 18 FCC Rcd. 15,211 (Sat. Div. 2003); and EchoStar 8, *See 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).

⁴ Requests for special temporary authority recently filed by EchoStar relating to EchoStar 10 appear to contemplate permanent operation at 110.2° W.L. EchoStar, however, requested the 110° W.L. orbital location in SAT-LOA-20051221-00267. Accordingly, if EchoStar seeks to operate at a different orbital location, it should file an appropriate modification request.

addressed in this action. 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.⁵ 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.⁶ 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.⁷

4. 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, IS GRANTED IN PART as conditioned and DEFERRED with respect to the channels not addressed in this action as conditioned. 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.⁸ 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.⁹ We find that, with respect to the granted channels, given the relatively small difference between the required cross-polarization isolation of Section 25.215 of the Commission's rules and that which the antennas of EchoStar 10 will achieve, it is unlikely that EchoStar's less than 30 dB cross-polarization isolation will cause material degradation in the service of other currently-authorized DBS systems serving the U.S. on these channels. 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.¹⁰ As a condition of this waiver, with respect to the channels granted by this grant stamp, 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.

⁵ 47 C.F.R. § 25.210(i).

⁶ 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.

⁷ 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).

⁸ 47 C.F.R. § 25.215.

⁹ EchoStar 10 Application, Section A.11, page 13.

¹⁰ See *In re 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).

5. EchoStar must maintain the EchoStar 10 satellite at 110.0 deg. W.L. with +/- 0.05 degree longitudinal stationkeeping. *See* 47 C.F.R. § 25.210(j).

6. The license term for the EchoStar 10 satellite is 10 years and will begin to run on the date the licensee certifies to the Commission that the satellite has been successfully placed into orbit and its operation fully conforms to the terms and conditions of this authorization.

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.

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:	pmichalo@steptoe.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20036-1795
Attention:		Relationship:	Legal Counsel

CLASSIFICATION OF FILING

<p>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.</p> <p><input type="radio"/> a1. Earth Station</p> <p><input checked="" type="radio"/> a2. Space Station</p>	<p>(N/A) b1. Application for License of New Station</p> <p>(N/A) b2. Application for Registration of New Domestic Receive-Only Station</p> <p><input type="radio"/> (N/A) b3. Amendment to a Pending Application</p> <p><input checked="" type="radio"/> (N/A) b4. Modification of License or Registration</p> <p>b5. Assignment of License or Registration</p> <p>b6. Transfer of Control of License or Registration</p> <p><input type="radio"/> (N/A) b7. Notification of Minor Modification</p> <p>(N/A) b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite</p> <p>(N/A) b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States</p> <p><input type="radio"/> (N/A) b10. Other (Please specify)</p>
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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) DBS	
21. STATUS: Choose the button next to the applicable status. Choose only one. <input type="radio"/> Common Carrier <input checked="" type="radio"/> Non-Common Carrier	22. If earth station applicant, check all that apply. <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.

Yes No
Attachment A

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

<p>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?</p>	<p><input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A</p>
<p>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.</p> <p style="text-align: right;">Att. A – Appendix 1</p>	

BASIC QUALIFICATIONS

<p>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.</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p style="text-align: right;">Att. A – Appendix 2</p>
<p>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.</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p style="text-align: right;">Response to Q.36</p>

<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. Response to Q.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.)

See Narrative.

Narrative App.

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

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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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THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104-13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.

Response to Question 36

In a Memorandum Opinion and Order released May 16, 2002, the Satellite Division of the International Bureau cancelled two conditional construction permits held by EchoStar affiliates for 22 channels at the 175° W.L. orbital location. *See In the Matter of EchoStar Satellite Corporation, Directsat Corporation, Direct Broadcasting Satellite Corporation, Consolidated Request for Additional Time to Commence Operation*, Memorandum Opinion and Order, DA 02-1164 (rel. May 16, 2002).

By Order released July 1, 2002, the International Bureau cancelled EchoStar's license for a Ka-band satellite system and dismissed a related modification application filed by EchoStar. *See In the Matter of EchoStar Satellite Corporation; Application for Authority to Construct, Launch, and Operate a Ka-band Satellite System in the Fixed-Satellite Service*, Memorandum Opinion and Order, DA 02-1534 (rel. July 1, 2002). On November 8, 2002, the International Bureau reinstated EchoStar's license for a Ka-band system as well as the related modification application. *See In the Matter of EchoStar Satellite Corporation; Application for Authority to Construct, Launch, and Operate a Ka-band Satellite System in the Fixed-Satellite Service*, Memorandum Opinion and Order, DA 02-3085 (rel. Nov. 8, 2002).

In a Memorandum Opinion and Order released April 29, 2004, the International Bureau denied, in part, four applications filed by EchoStar to operate GSO FSS satellites using the Ka and/or Extended Ku-bands at the 83° W.L., 105° W.L., 113° W.L., and 121° W.L orbital locations. *See In the Matter of EchoStar Satellite LLC, Applications for Authority to Construct, Launch, and Operate Geostationary Satellites in the Fixed-Satellite Service Using the Ka and/or Extended Ku Bands at the 83° W.L., 105° W.L., 113° W.L., and 121° W.L Orbital Locations*, Memorandum Opinion and Order, DA 04-1167 (rel. Apr. 29, 2004). EchoStar has petitioned for reconsideration of this decision.

In a Memorandum Opinion and Order released August 3, 2004, the International Bureau declared null and void the space station authorization held by VisionStar, an EchoStar affiliate, for use of the Ka-band at the 113° W.L. orbital location. *See VisionStar, Inc., Application for Modification of Authority to Construct, Launch and Operate a Ka-Band Satellite System in the Fixed Satellite Service*, Memorandum Opinion and Order, DA 04-2449 (rel. Aug. 3, 2004).

By letter dated May 19, 2005, the International Bureau denied EchoStar's applications for a Fleet Management Modification and for a Special Temporary Authority to move the EchoStar 4 satellite to 61.5° W.L., pending the Commission's consideration of another EchoStar request to move the satellite to 77° W.L., on the grounds that the purpose of the proposed fleet management modification was not consistent with the purposes of the Commission's rules and that there were no extraordinary circumstances for the grant of temporary authority. *See Letter from Thomas S. Tycz, Chief, Satellite Division, International Bureau, FCC to Pantelis Michalopoulos, Counsel to EchoStar Satellite L.L.C., DA 05-1405 (May 19, 2005).*

In a Memorandum Opinion and Order released June 3, 2005, the International Bureau denied EchoStar's application for a Special Temporary Authority to move the EchoStar 4 satellite to 77° W.L. on the grounds that EchoStar had failed to establish extraordinary circumstances for the grant of such authority. *See EchoStar Satellite L.L.C., Application for Special Temporary Authority to Conduct Telemetry, Tracking and Command Operations During the Relocation of EchoStar 4 to the 77° W.L. Orbital Location*, Memorandum Opinion and Order, DA 05-1581 (rel. Jun. 3, 2005). However, the International Bureau later granted partial reconsideration of this order and the applications related to moving the EchoStar 4 satellite to

77° W.L. are currently pending before the Commission. *See EchoStar Satellite L.L.C., Application for Special Temporary Authority to Conduct Telemetry, Tracking and Command Operations During the Relocation of EchoStar 4 to the 77° W.L. Orbital Location, Application for Modification of Direct Broadcast Satellite Authorization To Permit Long-Term Cessation of Operations at the 157° W.L. Orbital Location, Application for Modification of Earth Station Authorization to add the EchoStar 4 Satellite at 77° W.L. as a Point of Communication, Order on Reconsideration, DA 05-2067 (rel. Jul. 25, 2005).*

STEPTOE & JOHNSON^{LLP}
ATTORNEYS AT LAW

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December 21, 2005

Via ELECTRONIC FILING AND E-MAIL

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street NW
Washington, DC 20554

Re: **EchoStar Satellite Operating Corporation, Application for Minor Modification of DBS Authority and to Launch and Operate EchoStar 10 at 110° W.L. DA 05-3225; File Nos. SAT-MOD-20051125-00254. File No. SAT-MOD-20051221-_____.**

Dear Ms. Dortch:

EchoStar Satellite Operating Corporation (“EchoStar”) is hereby re-submitting its application for minor modification of DBS authority and to launch and operate EchoStar 10 at 110° W.L. This resubmitted application corrects errors identified by the International Bureau (“Bureau”) in its December 20, 2005 letter dismissing without prejudice EchoStar’s previous application for the same authority. *See* Letter from Fern Jarmulnek, Deputy Chief, Satellite Division to Pantelis Michalopoulos, Counsel for EchoStar (Dec. 20, 2005). Because this is a re-filing following a dismissal without prejudice, an application processing fee is not payable. *Id.* at 2 n.6.

EchoStar notes, however, that the specific inconsistency identified by the Bureau as the basis for dismissing EchoStar’s original application was apparently the result of instabilities in the Commission’s Schedule S software. As explained in the attached statement from EchoStar’s engineering consultant, Richard Barnett, the file with the correct data for the TT&C beam was loaded into the Schedule S software, but the software appears to have then caused the wrong GXT file data to be associated with that beam.

Marlene H. Dortch
December 21, 2005
Page 2

To overcome this problem on re-filing, EchoStar is providing together with this application a compressed .ZIP file containing all 61 GXT files. The names of compressed files match the names listed in Column S.8.f of the Schedule S for EchoStar 10. In addition, for beams T47, T48 and T49, the embedded file names within the GXT file have been changed to be the same as the beam file name, as requested by the Bureau. Finally, because the International Bureau Filing System will not accept .ZIP attachments or more than one .MDB file with each electronic Form 312, EchoStar is submitting the .ZIP file and additional .MDB files for EchoStar 10 via electronic mail to the Bureau staff listed below. Please associate these additional files with EchoStar's re-filing.

Please contact the undersigned if you have any questions.

Respectfully yours,

/s/

Pantelis Michalopoulos
*Counsel for EchoStar Satellite Operating
Corporation*

Attachments

cc:

Fern Jarmulnek, International Bureau
Andrea Kelly, International Bureau
Robert Nelson, International Bureau
Chip Fleming, International Bureau
Kathleen Campbell, International Bureau

Statement of Richard Barnett

This statement responds to the points raised in the letter dated December 20, 2005 from the FCC to EchoStar regarding the apparent problems with the GXT file data embedded in the Schedule S submission for ECHOSTAR-10.

The FCC points out that the GXT file data for one of the 61 beams of ECHOSTAR 10 contains incorrect data for that beam. Specifically, for beam "GBLR" the GXT file data stored within the Schedule S for that beam is actually for beam "T01" and not beam "GBLR". The FCC further points out that three other beams ("T47", "T48" and "T49") have inappropriately labeled beam names ("T3", "T5" and "T4", respectively) within the GXT file although the GXT file data itself and the GXT file names are correct.

The problem with the GXT file data for the "GBLR" beam has arisen due to instabilities (i.e., "bugs") in the Schedule S software, which appear to only become apparent when a large number of beams are used by the satellite, as is the case with ECHOSTAR-10. The GXT file data for the "GBLR" beam was correctly loaded into the Schedule S software, as is evidenced by the fact that the file name given in column S8.f of the Schedule S for ECHOSTAR-10 is the correct file name for this beam, and this file name was *automatically inserted by the Schedule S software* at the time the GXT files were loaded. The Schedule S software appears to have then caused the wrong GXT file data to be associated with this beam.¹

In order to overcome this Schedule S software problem EchoStar requests the FCC to ignore the apparently spurious GXT file data embedded in the Schedule S and instead use the GXT file data that is being provided simultaneously with this pleading in the form of a compressed ZIP file containing all 61 GXT files.² The names of each of these GXT files match the names in column S8.f of the Schedule S for ECHOSTAR-10. It should be noted that for beams T47, T48 and T49, the embedded files name within

¹ As further evidence of this I can confirm that the file entitled "GBLR.GXT" on the host computer used to create the Schedule S submission contains the correct GXT data for the beam and does not contain the spurious data that the Schedule S now shows for this beam.

the GXT file has been changed to be the same as the beam file name, as requested by the FCC.



Richard J. Barnett, PhD, BSc
Telecomm Strategies Inc.
6404 Highland Drive
Chevy Chase, MD 20815
(301) 656-8969

Dated: December 21, 2005

²

By replacing all of the 61 GXT files in this way we can be certain that there are no other errors caused by the Schedule S software that might have affected any of the other beams.

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
ECHOSTAR SATELLITE OPERATING CORPORATION)	
)	
Application to Make Minor Modification to Direct Broadcast Satellite Authorizations and For Launch and Operating Authority for the EchoStar 10 Satellite at 110° W.L.)	File No. SAT-MOD-2005 _____
)	

APPLICATION TO MAKE MINOR MODIFICATION TO DBS AUTHORIZATIONS AND FOR LAUNCH AND OPERATING AUTHORITY FOR ECHOSTAR 10

Pursuant to Section 308, 309 and 319 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 308, 309 and 319, Part 25 of the Commission's rules, 47 C.F.R. Part 25, EchoStar Satellite Operating Corporation ("EchoStar") hereby files an application to make a minor modification to its Direct Broadcast Satellite ("DBS") authorizations at 110° W.L.¹ and for authority to launch and operate the EchoStar 10 satellite at that orbital location.² EchoStar 10

¹ *Application of MCI Telecommunications Corp. and EchoStar 110 Corp., for Consent to Assignment of Authorization to Construct, Launch, and Operate a Direct Broadcast Satellite System Using 28 Frequency Channels at the 110° W.L. Orbital Location, Order and Authorization, 16 FCC Rcd 21608 (rel. May 19, 1999); EchoStar Satellite Corporation, Application for Modification to Direct Broadcast Satellite Authorization and for Operation Authority, Memorandum Opinion and Order, 15 FCC Rcd 6727 (rel. Sept. 1, 1999); EchoStar Satellite Corp., Application for Minor Modification of Direct Broadcast Satellite Authorization, Launch and Operating Authority for EchoStar VIII, Order and Authorization, 17 FCC Rcd 11326 (rel. June 20, 2002).*

² EchoStar previously advised the Commission that it had commenced construction of the EchoStar 10 satellite at its own risk. See Letter from Pantelis Michalopoulos, Counsel for EchoStar Satellite L.L.C., to Marlene H. Dortch, Secretary, FCC (June 30, 2005) (enclosing annual report).

is a state-of-the-art, spot beam DBS satellite that will operate in the 12.2-12.7 GHz downlink and 17.3-17.8 GHz uplink frequency bands. The satellite will supplement the services provided from EchoStar's existing fleet of satellites and may eventually replace EchoStar 8 or EchoStar 6 at that location. The satellite will operate on a select number of the 29 channels (channels 1-27, 29 and 31) licensed to EchoStar at 110° W.L. The information required by 47 C.F.R. §25.114 is provided in Schedule S and the supplementary Attachment A, both appended hereto and incorporated into this application

I. INTRODUCTION

EchoStar is a leading provider of DBS services in the multichannel video programming distribution ("MVPD") market with over 11 million subscribers. EchoStar and other EchoStar affiliates own and operate eight DBS satellites at the 61.5° W.L., 77° W.L., 110° W.L., 119° W.L., 129° W.L., and 148° W.L. orbital locations, as well as a hybrid Ka-/Ku-band Fixed-Satellite Service ("FSS") satellite at the 121° W.L. orbital location and FSS satellite capacity leased from SES AMERICOM at other orbital locations.

EchoStar 10 will provide improved spectrum efficiency and will enable EchoStar to provide its subscribers with additional and improved programming and services, including more local-into-local services, High Definition ("HD") programming and international services. Equally important, these services will complement the existing DBS services already being offered over EchoStar's current fleet of satellites and lead to more meaningful competition in the MVPD market. Together with the operation of EchoStar 5 at 129° W.L. and other measures, the operation of EchoStar 10 at 110° W.L. is a critical component of EchoStar's ability to comply with the "single dish" requirement introduced by Section 203 of the Satellite Home Viewer

Extension and Reauthorization Act (“SHVERA”).³ The satellite is set to be launched as early as early-February 2006 (on or about February 6, 2006), and accordingly EchoStar respectfully requests Commission action by that time.

II. TECHNICAL REQUIREMENTS OF PART 25

The technical information for the EchoStar 10 satellite required to be submitted pursuant to Part 25 of the Commission’s Rules is set forth in the accompanying Technical Narrative (Attachment A), FCC Form 312, and Schedule S, all of which are incorporated into this application by reference. EchoStar also incorporates by reference the attached SpaceCap database file, the contour data files, the gain diagrams, and a description of EchoStar 10’s various service areas, all of which relate to the ITU filing for EchoStar 10.

Waiver Requested. The EchoStar 10 satellite is consistent with the technical requirements of Part 25 of the Rules in all but one respect -- the cross-polarization isolation of some of the antennas in the satellite’s primary coverage area is slightly less than the minimum 30 dB required by Section 25.215 of the Commission’s Rules, 47 C.F.R. § 25.215. Over CONUS, the minimum cross-polarization isolation will be greater than 27.4 dB for the receive antennas and greater than 29 dB for the transmit antennas.⁴ Accordingly, EchoStar hereby requests a waiver of Section 25.215 of the Rules to the extent required.

Commission rules may be waived if there is good cause to do so.⁵ Here, there is good cause, and the International Bureau has already granted the same waiver to DIRECTV in

³ *Codified at 47 U.S.C. § 338(g).*

⁴ Outside of the satellite’s primary coverage area, the lowest cross-polarization isolation for the receive beam will be 24.6 dB for the beam serving Honolulu, and for the transmit beams will be 28.3 dB for the beam serving Puerto Rico. The negligible impact of these shortfalls in cross-polar isolation are addressed in Section A.11.1 of Attachment A.

⁵ *See 47 C.F.R. § 1.3; WAIT Radio v. FCC, 418 F.2d 1153 (D.C. Cir. 1969).*

indistinguishable circumstances and for the same orbital slot. First, the lower cross-polarization isolation of the EchoStar 10 satellite *receive* antennas will not affect any other satellite and the small additional uplink interference into the EchoStar 10 satellite has already been taken into account in the EchoStar 10 link design. Second, the lower cross-polarization isolation of the EchoStar 10 satellite *transmit* antennas, which corresponds to a shortfall of only 1 dB for CONUS and only 1.7 dB in the worst case outside of CONUS, will cause negligible additional interference to any foreign or U.S.-licensed satellites.⁶ Indeed, the International Bureau recently granted DIRECTV a similar waiver of the Rules with respect to its DIRECTV 5 satellite at 109.8° W.L. on the ground that: “Licensees may use cross-polarization isolation 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.”⁷ In fact, the risk presented by the lower cross-polarization isolation performance of the satellite’s antennas is that of additional self-interference, which the satellite is designed to tolerate.⁸ Accordingly, consistent with past precedent, a waiver of Section 25.215 of the Rules is warranted here.

III. PUBLIC INTEREST CONSIDERATIONS IN SUPPORT OF GRANT OF APPLICATION

Grant of this application would serve the public interest in many ways. First, the spot-beam configuration allows EchoStar to employ greater spectrum reuse techniques in order

⁶ The impact of these shortfalls in cross-polar isolation is quantified in Section A.11.1 of Attachment A.

⁷ *DIRECTV, Inc.*, DA 05-2654, Order and Authorization, 2005 LEXIS 5484 (rel. Oct. 5, 2005) (waiving Section 25.215 when the cross-polarization isolation of DIRECTV 5’s DBS antennas was typically 27 dB over the satellite’s primary coverage area).

⁸ See *New Skies* at ¶ 19 (“the only party that will suffer an increase in interference would be New Skies”).

to provide both more and improved advanced services to its subscribers. EchoStar 10 is a highly advanced, spot-beam satellite that will provide a higher level of frequency reuse and satellite power efficiency than EchoStar's existing DBS satellites located 110° W.L. The technical capabilities of EchoStar 10 represent an evolutionary improvement over the capabilities of the existing EchoStar 8 satellite. For instance, while EchoStar 8 employed sixteen separate downlink spot beams, EchoStar 10 will have 49 distinct spot beams (45 of which will be over CONUS),⁹ resulting in superior reuse (better than 12-to-1 on average) of scarce DBS spectrum resources. This satellite design maximizes spatial reuse of limited DBS spectrum in the continental United States.

Second, the launch and operation of EchoStar 10, together with the operation of EchoStar 5 at 129° W.L. and other measures, is a critical component of EchoStar's ability to comply with the "single dish" requirement in SHVERA. While EchoStar has been reducing the number of two-dish markets in recent months, the deployment of these additional satellite resources is essential to EchoStar meeting the June 2006 deadline imposed by SHVERA.¹⁰

Third, EchoStar 10's improved spectrum efficiency will enable EchoStar to provide its subscribers with other additional and improved programming and services, including HD programming, and international services. EchoStar is already a leader in the carriage of innovative new services such as VOOM HD and international programming packages tailored to the interests of ethnic populations. EchoStar 10 would expand EchoStar's capabilities in this regard.

⁹ One spot beam on the EchoStar 10 satellite is capable of providing service to and from Cuba. EchoStar is not currently requesting authority to operate that spot beam, and will not do so until and unless it has requested and received all required approvals from the U.S. Government, including the Commission.

¹⁰ See 47 C.F.R. § 338(g)(3).

Fourth, the launch of EchoStar 10 will better enable EchoStar to provide meaningful competition to still-dominant cable operators, thus increasing competition in the MVPD market overall and benefiting consumers.

IV. STATUS OF OPERATIONS

EchoStar intends to operate all of the transponders on this DBS satellite on a non-broadcast, non-common carrier basis.¹¹ As with EchoStar's current services, service from the proposed EchoStar 10 satellite will be offered to consumers on a subscription basis.

V. ITU COST RECOVERY

EchoStar is aware that as a result of the actions taken at the 1998 Plenipotentiary Conference, as modified by the ITU Council in June 2001, processing fees are now charged by the ITU for satellite network filings. As a consequence, Commission applicants are responsible for any and all fees charged by the ITU. EchoStar hereby states that it is aware of, and unconditionally accepts, this requirement and its responsibility to pay any ITU cost recovery fees for the ITU filings associated with this application. Invoices for such fees may be sent to the contact representative listed in the accompanying FCC Form 312.

VI. WAIVER PURSUANT TO SECTION 304 OF THE COMMUNICATIONS ACT

In accordance with Section 304 of the Communications Act of 1934, as amended, 47 U.S.C. § 304, EchoStar hereby 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.

¹¹ See 47 C.F.R. §§ 25.114(c)(11), 25.114(d)(11).

VII. CONCLUSION

For the foregoing reasons, EchoStar respectfully requests that the Commission promptly grant this application for minor modification, launch and operating authority as in the public interest, convenience and necessity.

Respectfully submitted,
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