STEPTOE & JOHNSON LLP
ATTORNEYS AT LAW

Pantelis Michalopoulos
202.429.6494
pmichalo@steptoe.com

1330 Connecticut Avenue, NW
Washington, DC 20036-1795
Tel 202.429.3000
Fax 202.429.3902
steptoe.com

July 1, 2005

VIA HAND DELIVERY
Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

-- REQUEST FOR CONFIDENTIAL TREATMENT --

Re: *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*, File No. SAT-STA-20050321-00068; *Application for Modification of Direct Broadcast Satellite Authorization To Permit Long-Term Cessation of Operations On Three DBS Channels at the 157° W.L. Orbital Location*, File No. SAT-MOD-20050513-00103 (Call Sign: S2621); and *Application for Modification of Earth Station Authorization to add the EchoStar 4 Satellite at 77° W.L. as a Point of Communication*, File No. SES-MFS-20050527-00662 (Call Sign: E020306)

Dear Ms. Dortch,

EchoStar Satellite L.L.C. ("EchoStar") hereby requests that Attachment B to the enclosed Supplement No. 2 To Petition For Reconsideration, filed in the above-referenced matters, be treated as confidential and not routinely available for public inspection under 47 C.F.R. §§ 0.457 and 0.459. A full copy of Attachment B is being submitted with this request and has been omitted from the enclosed Supplement No. 2 to Petition for Reconsideration.

Supplement No. 2 to EchoStar's Petition for Reconsideration and its attachments are being submitted in response to a request for additional information by the staff of the International Bureau in connection with the above-referenced applications. Attachment B of Supplement No. 2 contains amendments to an agreement between EchoStar and SES Americom ("SES") requested by the Bureau.

Attachment B of Supplement No. 2 contains information that qualifies as "commercial or financial information" that "would customarily be guarded from competitors" regardless of whether or not such materials are protected from disclosure by a privilege. *See* 47 C.F.R. § 0.457(d); *see also Critical Mass Energy Project v. NRC*, 975 F.2d 871, 879 (D.C. Cir. 1992) ("[W]e conclude that

financial or commercial information provided to the Government on a voluntary basis is 'confidential' for the purpose of Exemption 4 if it is of a kind that would customarily not be released to the public by the person from whom it was obtained."). The confidential information contained in Attachment B relates to the commercial terms on which EchoStar and SES have reached agreement on the relocation and operation of EchoStar 4 at the 77° W.L. orbital location.

In addition, Attachment B contains sensitive information that if disclosed could place EchoStar and SES at a competitive disadvantage, including specific information regarding non-price terms that warrant protection under 47 C.F.R. § 0.459. Both EchoStar and SES would be placed at a significant disadvantage if these terms of their agreement were revealed to competing service providers, who stand to benefit competitively from any knowledge of the redacted commercial terms included in these materials. Both EchoStar's and SES's ability to negotiate similar arrangements with other parties would be prejudiced by the disclosure of the critical non-price terms of their arrangement with each other. Moreover, if the redacted commercial terms were disclosed to competitors of EchoStar or SES, they could use such information to negotiate similar arrangements or take other actions that would place EchoStar or SES, respectively, at a substantial competitive disadvantage. The redacted material is not and has not previously been made available to the public and both EchoStar and SES take significant measures to ensure that such information is not disclosed to the public (including a mutual confidentiality and nondisclosure undertaking in the agreement).

Please contact the undersigned if you have questions regarding this request for confidentiality or the enclosed Supplement No. 2 To Petition For Reconsideration.

Respectfully submitted,

Pantelis Michalopoulos/mw

Pantelis Michalopoulos
Counsel for EchoStar Satellite L.L.C.

Enclosures

cc: (by electronic mail)

Roderick K. Porter, Deputy Bureau Chief, International Bureau
Cassandra Thomas, International Bureau
Karl Kensinger, International Bureau
Jay Whaley, International Bureau

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	
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;	File No. SAT-STA-20050321-00068
Application for Modification of Direct Broadcast Satellite Authorization To Permit Long-Term Cessation of Operations On Three DBS Channels at the 157° W.L. Orbital Location; and	File No. SAT-MOD-20050513-00103 Call Sign: S2621
Application for Modification of Earth Station Authorization to add the EchoStar 4 Satellite at 77° W.L. as a Point of Communication.	File No. SES-MFS-20050527-00662 Call Sign: E020306

To: The International Bureau

SUPPLEMENT NO. 2 TO PETITION FOR RECONSIDERATION

EMERGENCY ACTION REQUESTED

Pursuant to Section 1.106(f) of the Rules, EchoStar hereby further supplements its petition for reconsideration filed in the above-captioned proceedings to provide certain additional information in response to questions posed by the International Bureau.

1. When will a blanket earth station application be filed for service from EchoStar 4 to the U.S. from 77° W.L?

Such an application is being filed today and a copy is attached hereto (Attachment A) to be placed in the record of the above-captioned proceedings.

2. Provide details about the services that will be provided by EchoStar 4 at 77° W.L. orbital location?

The additional capacity into the United States from 77° W.L. will be used to provide augmented coverage to markets with significant Spanish-speaking populations in portions of CONUS where practicable. EchoStar is a pioneer and has a proven record in providing ethnic programming packages to underserved communities in the United States and with EchoStar 4 at the 77° W.L. orbital location it will be able to provide additional Spanish language programming services that are popular to both Mexican consumers and the burgeoning Hispanic populations in the southern United States. These benefits can be achieved without affecting EchoStar's current subscribers because the programming provided by EchoStar 4 at the 157° W.L. location is duplicative of the programming provided from another EchoStar satellite at 148° W.L. EchoStar 4 at 77° W.L. will also be used to expand local-into-local services in one of two ways: either by offering local stations in southern Designated Market Areas; or by freeing up capacity elsewhere on EchoStar's fleet of satellites that will be used for additional local-into-local service.[1]

With respect to plans for service to Mexico, EchoStar has been informed by Quetzsat Directo S.de R.L. de C.V. ("Directo"), an SES affiliate, that during the remainder of 2005 and 2006 Directo will commence marketing of its services, test various service models and will pursue limited roll-out in certain Mexican markets. EchoStar has been further informed by Directo that it is important to commence operations on the satellite very promptly in order, among other things, to fulfill the needs of Directo's business plan.

---

[1] As the Commission has previously recognized, it is in the public interest to afford DBS providers significant flexibility in how they deploy their satellites. *See In the Matter of Revision of Rules and Policies for the Direct Broadcast Satellite Service, Report and Order*, 11 FCC Rcd 9712, ¶ 17 (1995); *In the Matter of Policies and Rules for the Direct Broadcast Satellite Service*,

Today EchoStar has also filed a request for Special Temporary Authorization to stop the satellite at 77° W.L. and operate it for 30 days while this Petition for Reconsideration is pending. This request is indistinguishable in material respects from the STA request of Intelsat North America, LLC to stop drift and operate its INTELSAT 602 satellite at 150.5 E.L., a request that was granted yesterday by the Bureau. *Intelsat North America, LLC*, DA 05-1904 (rel. June 30, 2005). As in the *Intelsat* case, EchoStar is requesting the STA "to satisfy customer requirements." *See id.* at ¶ 1.

3. Provide the additional concession that will allow Directo to provide DTH services.

EchoStar has been informed that the Directo DTH concession will in all likelihood be granted by July 10, 2005. EchoStar will make a copy of the concession along with a translation available to the Bureau at that time.

4. Provide amendments to the EchoStar 4 agreement with SES Americom that will bring back EchoStar 4 to the U.S. at the end of its term of service in Mexico.

Attachment B fully responds to this request. Both EchoStar and SES have agreed to language contained therein regarding U.S. jurisdiction and will promptly execute and submit new signature pages for this amendment. This amendment to the agreement is being filed under a request for confidential treatment.

5. Account for the change in contours between the original EchoStar 4 Reconsideration Petition and the amended filing, e.g., 56.8 dBW to 54.9 dBW.

EchoStar mistakenly included the contours for the EchoStar 4 satellite in "boost" mode with its Petition for Reconsideration. The June 14, 2005 Supplement corrected this error and

---

Report and Order, 17 FCC Rcd 11331, ¶ 155 (2002). The flexibility is all the greater with a multiple satellite fleet as in the case of EchoStar.

reflects the satellite's operations in "normal" mode. The satellite will in fact be operating in "normal" mode with a peak EIRP of 54.9 dBW.

Upon confirming this information, EchoStar has learned that certain physical limitations associated with the spacecraft's pointing capabilities will prevent it from projecting the corrected contours filed with the Petition for Reconsideration. Attachment C to this Supplement No. 2 contains slightly revised downlink contours reflecting a smaller western bias but with the same peak EIRP of 54.9 dBW.

6. Does EchoStar 4 plan to uplink service from the U.S. or Mexico? If so, if from the U.S., which earth station will it use and when will you file the application; if from Mexico, is the earth station already authorized or will a new application be filed?

EchoStar initially plans to uplink to the EchoStar 4 satellite from its Gilbert, Arizona earth station facility. The above-captioned earth station application was previously submitted but was dismissed by the Bureau in its *June 3 Order* in this proceeding.[2] That dismissal is also the subject of this pending Petition for Reconsideration as supplemented. In addition, EchoStar has filed today a request for Special Temporary Authority to uplink to the EchoStar 4 satellite at 77° W.L. from its Gilbert facility in conjunction with EchoStar's aforementioned STA request to stop and operate the satellite at 77° W.L. pending action on EchoStar's Petition for Reconsideration in this proceeding.

---

[2] *See In the Matter of 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 on Three DBS Channels 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*, DA 05-1581 (rel. June 3, 2005) ("*June 3 Order*").

For the reasons stated in the Petition for Reconsideration, as supplemented, EchoStar respectfully requests that the Bureau immediately reconsider the *June 3 Order* and grant EchoStar's request to move EchoStar 4 to the 77° W.L. orbital location.[3]

Respectfully submitted,

Philip L. Malet /MAP

David K. Moskowitz
Executive Vice President and General Counsel
EchoStar Satellite L.L.C.
9601 South Meridian Boulevard
Englewood, CO 80112
(303) 723-1000

Pantelis Michalopoulos
Philip L. Malet
Brendan Kasper
Steptoe & Johnson LLP
1330 Connecticut Avenue, NW
Washington, D.C. 20036
(202) 429-3000

Counsel for EchoStar Satellite L.L.C.

July 1, 2005

[3] The Bureau should also reconsider its associated dismissals of the related above-captioned applications and grant them as well.

CERTIFICATE OF SERVICE

I hereby certify that on this 1st day of July 2005, a copy of the foregoing was served upon the following by electronic mail:

Donald Abelson
Chief, International Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Roderick K. Porter
Deputy Bureau Chief, International Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Cassandra Thomas
International Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Karl Kensinger
International Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Jay Whaley
International Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

William M. Wiltshire
Harris, Wiltshire & Grannis LLP
1200 18th Street, N.W.
Washington, D.C. 20036
wwiltshire@harriswiltshire.com

Marc A. Paul

Approved by OMB
3060-0678

Date & Time Filed: Jul 1 2005 5:43:28:276PM
File Number: SES-LFS-20050701-00852
Callsign/Satellite ID: E050196

APPLICATION FOR EARTH STATION AUTHORIZATIONS FCC 312 MAIN FORM FOR OFFICIAL USE ONLY	FCC Use Only

APPLICANT INFORMATION
Enter a description of this application to identify it on the main menu:
EchoStar Blanket Receive-Only Earth Station Application — 77 W.L.

1-8. Legal Name of Applicant

Name:	EchoStar Satellite L.L.C.	**Phone Number:**	303-723-1000
DBA Name:		**Fax Number:**	303-723-1699
Street:	9601 South Meridian Blvd.	**E-Mail:**	
City:	Englewood	**State:**	CO
Country:	USA	**Zipcode:**	80112 -
Attention:	David K Moskowitz		

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 Avenue, N.W.	**E–Mail:**	pmichalo@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. a. ● a1. Earth Station (N/A) a2. Space Station	b. ○ b1. Application for License of New Station ○ 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 (N/A) b9. Letter of Intent to Use Non–U.S. Licensed Satellite to Provide Service in the United States ○ b10. Other (Please specify) ● 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.

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):

17d.

Fee Classification BGV – Fixed Satellite VSAT System

18. If this filing is in reference to an existing station, enter:	19. If this filing is an amendment to a pending application enter:
(a) Call sign of station:	(a) Date pending application was filed: / (b) File number of pending application:
Not Applicable	Not Applicable / Not Applicable

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:

- [ ] a. Fixed Satellite
- [ ] b. Mobile Satellite
- [ ] c. Radiodetermination Satellite
- [ ] d. Earth Exploration Satellite
- [ ] e. Direct to Home Fixed Satellite
- [ ] f. Digital Audio Radio Service
- [x] g. Other (please specify) DBS Service

21. STATUS: Choose the button next to the applicable status. Choose only one.	22. If earth station applicant, check all that apply.
○ Common Carrier ◉ Non–Common Carrier	☐ Using U.S. licensed satellites ☒ Using Non–U.S. licensed satellites

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

○ Connected to a Public Switched Network ○ Not connected to a Public Switched Network ◉ N/A

24. FREQUENCY BAND(S): Place an "X" in the box(es) next to all applicable frequency band(s).

☐ a. C–Band (4/6 GHz) ☐ b. Ku–Band (12/14 GHz)

☒ c.Other (Please specify upper and lower frequencies in MHz.)

Frequency Lower: 12200 Frequency Upper: 12700

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

(N/A) e. Geostationary Space Station

(N/A) f. Non–Geostationary Space Station

◉ g. Other (please specify)DBS

26. TYPE OF EARTH STATION FACILITY: Choose only one.

○ Transmit/Receive ○ Transmit–Only ◉ Receive–Only ○ 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.)

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? ○ 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 Fee Waiver

36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explination of circumstances. Q. 36	● Yes ○ No
37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explination of circumstances.	○ Yes ● No
38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attemptiing 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 exhinit, 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 Technical Annex
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?Mexico

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.)

This application requests a blanket license for 1,000,000 receive-only earth stations to receive DBS service from the Mexican BSS Orbital Position at 77 W.L. See attached narrative for additional detail.

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

47. Please supply any need attachments.

Attachment 1:	Attachment 2:	Attachment 3:

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT
(U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION
(U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).

SATELLITE EARTH STATION AUTHORIZATIONS
FCC Form 312 – Schedule B:(Technical and Operational Description)
FOR OFFICIAL USE ONLY

Location of Earth Station Site

E1: Site Identifier:	N/A – multiple	E5. Call Sign:	
E2: Contact Name	David K. Moskowitz	E6. Phone Number:	(303) 723–1000
E3. Street:		E7. City:	
		E8. County:	
E4. State		E9. Zip Code	
E10. Area of Operation:		CONUS	
E11. Latitude:	0 °0 '0.0 "		
E12. Longitude:	0 °0 '0.0 "		
E13. Lat/Lon Coordinates are:		○ NAD–27	○ NAD–83 ◉ N/A
E14. Site Elevation (AMSL):		0.0 meters	

E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide as a technical analysis showing compliance with two-degree spacing policy.	○ Yes ○ No ◉ N/A
E16. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with non-geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements?	○ Yes ○ No ◉ N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	○ Yes ◉ No

E18. Is frequency coordination required? If YES, attach a frequency coordination report as	○ Yes ◉ No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	○ Yes ◉ No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25.113(c)) Where FAA notification is required, have you attached a copy of a completed FCC Form 854 and or the FAA's study regarding the potential hazard of the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.	○ Yes ◉ No

POINTS OF COMMUNICATION

Satellite Name:OTHER | OTHER | If you selected OTHER, please enter the following:

E21. Common Name: EchoStar 4	E22. ITU Name: USABSS-10
E23. Orbit Location: 77 deg W	E24. Country: Mexico

POINTS OF COMMUNICATION (Destination Points)

E25. Site Identifier: N/A – multiple	
E26. Common Name:	E27. Country:USA

ANTENNA

Site ID	**E28. Antenna Id**	**E29. Quantity**	**E30. Manufacturer**	**E31. Model**	**E32. Antenna Size<meters>**	**E41/42. Antenna GainTransmint and/or Recieve (____dBi at ____GHz)**
N/A – multiple	N/A	1000000	Various – all using the following specs.	Various	0.66	0.0 dBi at 12.2

E28. Antenna Id	**E33/34. Diameter Minor/Major (meters)**	**E35. Above Ground Level (meters)**	**E36. Above Sea Level (meters)**	**E37. Building Height Above Ground Level (meters)**	**E38. Total Input Power at antenna flange (Watts)**	**E39. Maximum Antenna Height Above Rooftop (meters)**	**E40. Total EIRP for al carriers (dBW)**
N/A	0.901/0.546	0.0	0.0	0.0	0.0	0.0	0.0

FREQUENCY

E28. Antenna Id	**E43/44. Frequency Bands (MHz)**	**E45. T/R Mode**	**E46. Antenna Polarization(H,V, L,R)**	**E47. Emission Designator**	**E48. Maximum EIRP per Carrier (dBW)**	**E49. Maximum ERIP Density per Carrier (dBW/4kHz)**
N/A	12200 12700	R	Left and Right Circular	24M0G7W	0.0	0.0

E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

DBS Service

FREQUENCY COORDINATION

E28. Antenna Id	**E51. Satellite Orbit Type**	**E52/53. Frequency Limits(MHz)**	**E54/55. Range of Satellite Arc E/W Limit**	**E56. Earth Station Azimuth Angle Eastern Limit**	**E57. Antenna Elevation Angle Eastern Limit**	**E58. Earth Station Azimuth Angle Western Limit**	**E59. Antenna Elevation Angle Western Limit**	**E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)**
			/					

REMOTE CONTROL POINT LOCATION

E61. Call Sign NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.		E65. Phone Number	
E62. Street Address			
E63. City	E67. County	E64/68. State/Country /	E66. Zip Code

FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

The public reporting for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the required data, and completing and reviewing the collection of information. If you have any comments on this burden estimate, or how we can improve the collection and reduce the burden it causes you, please write to the Federal Communications Commission, AMD–PERM, Paperwork Reduction Project (3060–0678), Washington, DC 20554. We will also accept your comments regarding the Paperwork Reduction Act aspects of this collection via the Internet if you send them to jboley@fcc.gov. PLEASE DO NOT SEND COMPLETED FORMS TO THIS ADDRESS.

Remember – You are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number or if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060–0678.

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). EchoStar has petitioned for reconsideration of this decision.

NARRATIVE

By this Application, EchoStar Satellite L.L.C. ("EchoStar") seeks authority to operate 1,000,000 receive-only earth stations in the United States to receive Direct Broadcast Satellite ("DBS") service from EchoStar 4 (or a comparable satellite) operated from the 77° W.L. orbital location allotted by the International Telecommunication Union to Mexico. For the reasons set forth herein, grant of this Application would strongly serve the public interest and would not cause harmful interference. The Commission has recently approved a similar request by DIRECTV, a DBS provider larger than EchoStar, to serve the U.S. from a Canadian-licensed DIRECTV satellite and the public interest benefits of this application are at least as compelling as those in the DIRECTV case.

I. GRANT OF THIS APPLICATION IS IN THE PUBLIC INTEREST

Granting EchoStar's Application is in the public interest because it would enable EchoStar to provide much needed additional spectrum at a full CONUS orbital location, which will serve consumers located in certain southern U.S. states from the 77° W.L. orbital location. Specifically, because of the Mexican coverage requirements set forth in the QuetzSat concession, the EchoStar 4 satellite will not have full coverage of the continental United States. Importantly, however, as shown by the contours submitted by EchoStar, EchoStar 4 will cover large areas in several southern states.[1]

The additional capacity into the United States from 77° W.L. will be used to provide augmented coverage to markets with significant Spanish-speaking populations in portions of

---

[1] *See* Technical Annex attached hereto.

CONUS where practicable. EchoStar is a pioneer and has a proven record in providing ethnic programming packages to underserved communities in the United States and with EchoStar 4 at the 77° W.L. orbital location it will be able to provide additional Spanish language programming services that are popular to both Mexican consumers and the burgeoning Hispanic populations in the southern United States. EchoStar 4 at 77° W.L. will also be used to expand local-into-local services in one of two ways: either by offering local stations in southern Designated Market Areas; or by freeing up capacity elsewhere on EchoStar's fleet of satellites that will be used for additional local-into-local service.[2] These benefits can be achieved without affecting EchoStar's current subscribers because the programming provided by EchoStar 4 at the 157° W.L. location is duplicative of the programming provided from another EchoStar satellite at 148° W.L.

The grant of this Application would also be consistent with the Commission's recent grant of a similar STA request (and related applications) by DIRECTV Enterprises, LLC ("DIRECTV").[3] In that proceeding, DIRECTV had entered into a similar arrangement with Telesat Canada ("Telesat") whereby DIRECTV relocated the DIRECTV 5 satellite to Telesat's Canadian-licensed BSS slot at 72.5° W.L., from which DIRECTV would provide DBS service on an interim basis to the United States. The Commission approved that arrangement, despite

---

[2] As the Commission has previously recognized, it is in the public interest to afford DBS providers significant flexibility in how they deploy their satellites. *See In the Matter of Revision of Rules and Policies for the Direct Broadcast Satellite Service, Report and Order*, 11 FCC Rcd 9712, ¶ 17 (1995); *In the Matter of Policies and Rules for the Direct Broadcast Satellite Service*, Report and Order, 17 FCC Rcd 11331, ¶ 155 (2002). The flexibility is all the greater with a multiple satellite fleet as in the case of EchoStar.

[3] *In the Matter of DIRECTV Enterprises, LLC, Request for Special Temporary Authority for the DIRECTV 5 Satellite*, DA 04-2526, Order and Authorization, SAT-STA-20040107-00002, Call Sign S2417 (released Aug. 13, 2004).

finding that Canada did not meet the "effective competitive opportunities" test for comparable DBS services, because of the public interest benefits associated with increasing the number of markets able to receive local-into-local programming from DIRECTV.[4]

This Application offers a more compelling case for authorization than the arrangement between DIRECTV and Telesat because it delivers similar public interest benefits without raising the countervailing concerns about the competitive opportunities for U.S. satellites in a foreign market. Unlike Canada, Mexico and the U.S. have a bilateral agreement to facilitate the provision of commercial satellite service, and in particular the two countries have adopted protocols related to the provision of DTH services.[5] Under the DISCO II framework, the Commission presumes that the entry of a foreign satellite licensed by government with whom the U.S. has a bilateral agreement for the relevant service will promote competition and thus an analysis of the effective competitive opportunities is not required.[6]

---

[4] *Id.* at ¶ 23.

[5] Agreement between the Government of the United States of America and the Government of the United Mexican States Concerning the Transmission and Reception from Satellites for the Provision of Satellite Services to Users in the United States of America and the United Mexican States, April 28, 1996, Article I and Protocol Concerning the Transmission and Reception of Signals from Satellites for the Provision of Direct-to-Home Satellite Services in the United States of America and the United Mexican States, November 8, 1996.

[6] *See In the Matter of Amendment of the Commission's Regulatory Policies to Allow Non-U.S. Licensed Space Stations to Provide Domestic and International Satellite Service in the United States; Amendment of Section 25.131 of the Commission's Rules and Regulations to Eliminate the Licensing Requirement for Certain International Receive-Only Earth Stations*, 12 FCC Rcd 24094, at ¶ 143 (1997) ("DISCO II"). Indeed, the Commission highlighted the agreement with Mexico as the type of agreement that would benefit U.S. satellite operators. *See Id.* at ¶ 139. *See also In the Matter of Televisa International, LLC., Application For Blanket License For Receive-Only Earth Stations In The Fixed Satellite Service For Direct-To-Home Subscription Television Service*, 13 FCC Rcd 10074 (1997) (approving the application, under the

(Continued ...)

While EchoStar is not required to show that using EchoStar 4 to provide DBS service to the U.S. from a Mexican orbital location offers public interest benefits substantial enough to overcome any competitive concerns, the move of EchoStar to 77° W.L. offers compelling public interest benefits. The additional full CONUS spectrum that will become available at 77° W.L. would allow EchoStar to compete more effectively with established cable operators in the MVPD market. As the Commission is aware, EchoStar operates with significantly less bandwidth and programming capacity than is available to most digital cable providers. All 32 DBS channels at the 77° W.L. orbital location are controlled by Mexico. By moving EchoStar 4 to 77° W.L., EchoStar will thus be able to bring a portion of this new full CONUS satellite capacity to use in providing DBS service to U.S. consumers.

II. GRANT OF THIS APPLICATION WILL NOT CAUSE HARMFUL INTERFERENCE TO OTHER SATELLITES

In addition, EchoStar can provide service from EchoStar 4 at 77° W.L. without causing harmful interference to any other authorized satellite. There is no BSS orbital location in the vicinity of 77° W.L. that is assigned to the United States (the closest U.S. location is 61.5° W.L.). EchoStar 4 will also be operated in accordance with the existing coordination agreements between the Administrations of Mexico and Canada with respect to the adjacent BSS assignments assigned to Canada (72.5° W.L. and 82° W.L. orbital locations).[7]

---

bilateral agreement, to operate 1,000,000 receive only earth stations to receive DTH service from a Mexican satellite).

[7] As shown in the attached Technical Annex, the operation of EchoStar 4 at 77° W.L. orbital location would fall within the parameters of the 1996 Mexican ITU modification filings for this slot over all points in Canada and the United States, although it would exceed some of the parameters towards certain Caribbean and Central American countries. However, this satellite will be able to operate without causing unacceptable interference to the assignments of

(Continued ...)

other Administrations, as shown by the attached MSPACE analysis results. Outside the United States and Canada and within the Canadian 72.5° W.L. service area, EchoStar 4 may operate above a few EIRP levels over a limited number of points, and in these areas EchoStar 4 will operate on a non-interference basis.

TECHNICAL ANNEX

Technical Description of ECHOSTAR-4 at 77°W.L.

1. GENERAL DESCRIPTION

The ECHOSTAR-4 satellite will provide DBS services to Mexico and the southern states of CONUS from the 77°W.L. geostationary orbital position or at one of the positions within the 77°W.L. cluster (i.e., between 76.8°W.L. and 77.2°W.L.). The satellite is designed to provide 32 channels in normal mode or 16 channels in high power mode. However, the satellite will not operate in high power mode at 77°W.L. Full frequency re-use is achieved through the use of dual circular polarization.

The required beam coverage is achieved at 77°W.L. through re-pointing of the spacecraft 4.7° to the west and 1.5° to the south, relative to the nominal nadir pointing direction. EchoStar has confirmed that such re-pointing is feasible.

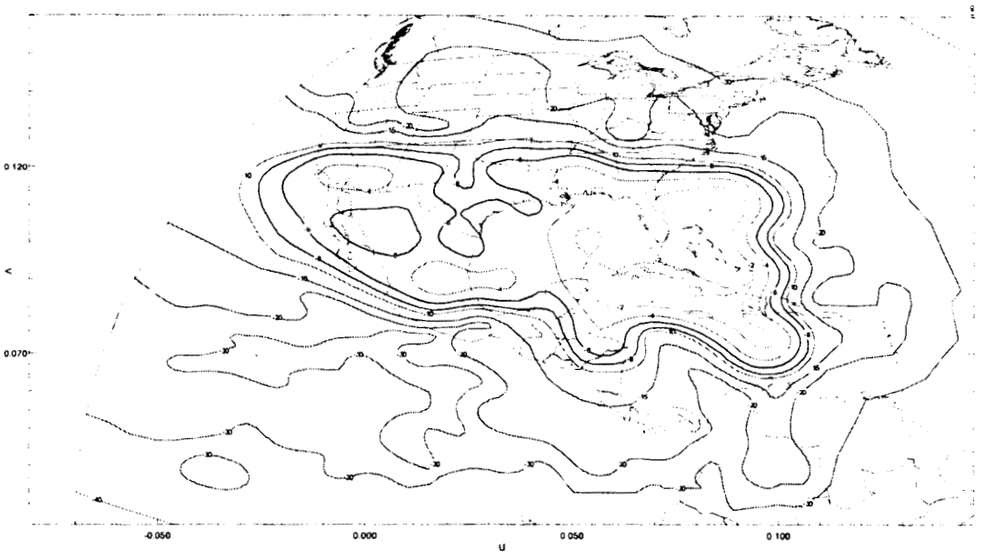
2. SATELLITE TRANSMIT PERFORMANCE

The downlink beam coverage of the ECHOSTAR-4 satellite from the 77°W.L. location is shown in Figure 2-1. The satellite employs two shaped reflectors, one operating in RHCP and the other in LHCP. The performance in both polarizations is nominally the same. The cross-polar isolation of the satellite transmit antennas exceed 30 dB at all transmit frequencies. The peak antenna gain is 36.4 dBi.

Each transponder will be operated in normal mode using a single 120 Watt TWTA. The losses between the TWTA output and the antenna input amount to 2.3 dB. The beam peak saturated EIRP level for the transponders in normal mode is 54.9 dBW.

Figure 2-1: ECHOSTAR-4 Downlink Beam Coverage from 77°W.L.

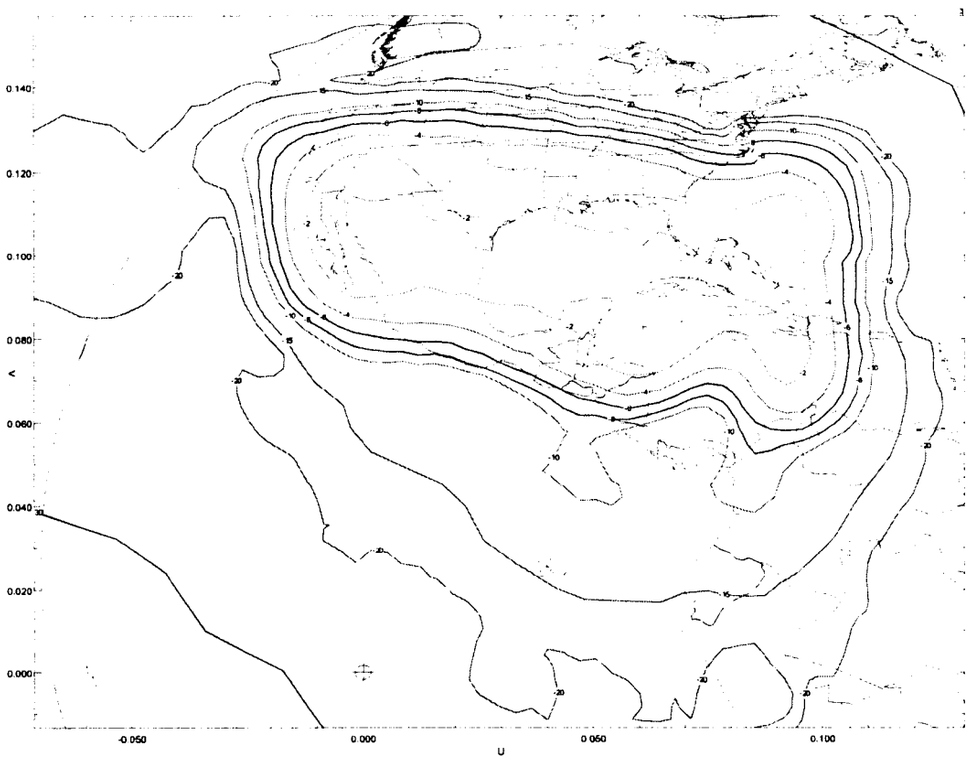
Peak EIRP = 54.9 dBW per transponder (normal mode)
Contours shown are -2, -4, -6, -8, -10, -15 and -20 dB relative to peak



3. SATELLITE RECEIVE PERFORMANCE

This uplink beam operates in both RHC and LHC polarizations. The antenna gain contours of the beam are shown in Figure 3-1. The performance in both polarizations is nominally the same. The cross-polar isolation of the satellite receive antennas exceeds 30 dB at all receive frequencies. The peak gain of the beam is 34.3 dBi, with a noise temperature of 716K, for a peak G/T of +5.7 dB/K.

Figure 3-1: ECHOSTAR-4 Uplink Beam Coverage from 77°W.L.



4. FREQUENCY AND POLARIZATION PLANS

The ECHOSTAR-4 satellite uses the standard channel center frequencies and channel bandwidths prescribed in the ITU's Region 2 BSS Plan.[1] The satellite's frequency plan is given in Table 4-1, indicating channel center, upper and lower frequencies, as well as channel polarizations. Circular polarization is used on both the uplink and downlink with the downlink polarization being orthogonal to the uplink for each channel. All of these channels will be utilized while ECHOSTAR-4 is at 77°W.L.

Table 4-1 – Channel Frequency Plan

	UPLINK				DOWNLINK			
Txpdr #	Pol'n	Center Freq	F_{low}	F_{high}	Pol'n	Center Freq	F_{low}	F_{high}
DBS - 1	RHCP	17,324.00	17,312.00	17,336.00	LHCP	12,224.00	12,212.00	12,236.00
DBS - 3	RHCP	17,353.16	17,341.16	17,365.16	LHCP	12,253.16	12,241.16	12,265.16
DBS - 5	RHCP	17,382.32	17,370.32	17,394.32	LHCP	12,282.32	12,270.32	12,294.32
DBS - 7	RHCP	17,411.48	17,399.48	17,423.48	LHCP	12,311.48	12,299.48	12,323.48
DBS - 9	RHCP	17,440.64	17,428.64	17,452.64	LHCP	12,340.64	12,328.64	12,352.64
DBS - 11	RHCP	17,469.80	17,457.80	17,481.80	LHCP	12,369.80	12,357.80	12,381.80
DBS - 13	RHCP	17,498.96	17,486.96	17,510.96	LHCP	12,398.96	12,386.96	12,410.96
DBS - 15	RHCP	17,528.12	17,516.12	17,540.12	LHCP	12,428.12	12,416.12	12,440.12
DBS - 17	RHCP	17,557.28	17,545.28	17,569.28	LHCP	12,457.28	12,445.28	12,469.28
DBS - 19	RHCP	17,586.44	17,574.44	17,598.44	LHCP	12,486.44	12,474.44	12,498.44
DBS - 21	RHCP	17,615.60	17,603.60	17,627.60	LHCP	12,515.60	12,503.60	12,527.60
DBS - 23	RHCP	17,644.76	17,632.76	17,656.76	LHCP	12,544.76	12,532.76	12,556.76
DBS - 25	RHCP	17,673.92	17,661.92	17,685.92	LHCP	12,573.92	12,561.92	12,585.92
DBS - 27	RHCP	17,703.08	17,691.08	17,715.08	LHCP	12,603.08	12,591.08	12,615.08
DBS - 29	RHCP	17,732.24	17,720.24	17,744.24	LHCP	12,632.24	12,620.24	12,644.24
DBS - 31	RHCP	17,761.40	17,749.40	17,773.40	LHCP	12,661.40	12,649.40	12,673.40
DBS - 2	LHCP	17,338.58	17,326.58	17,350.58	RHCP	12,238.58	12,226.58	12,250.58
DBS - 4	LHCP	17,367.74	17,355.74	17,379.74	RHCP	12,267.74	12,255.74	12,279.74
DBS - 6	LHCP	17,396.90	17,384.90	17,408.90	RHCP	12,296.90	12,284.90	12,308.90
DBS - 8	LHCP	17,426.06	17,414.06	17,438.06	RHCP	12,326.06	12,314.06	12,338.06
DBS - 10	LHCP	17,455.22	17,443.22	17,467.22	RHCP	12,355.22	12,343.22	12,367.22
DBS - 12	LHCP	17,484.38	17,472.38	17,496.38	RHCP	12,384.38	12,372.38	12,396.38
DBS - 14	LHCP	17,513.54	17,501.54	17,525.54	RHCP	12,413.54	12,401.54	12,425.54
DBS - 16	LHCP	17,542.70	17,530.70	17,554.70	RHCP	12,442.70	12,430.70	12,454.70
DBS - 18	LHCP	17,571.86	17,559.86	17,583.86	RHCP	12,471.86	12,459.86	12,483.86
DBS - 20	LHCP	17,601.02	17,589.02	17,613.02	RHCP	12,501.02	12,489.02	12,513.02
DBS - 22	LHCP	17,630.18	17,618.18	17,642.18	RHCP	12,530.18	12,518.18	12,542.18
DBS - 24	LHCP	17,659.34	17,647.34	17,671.34	RHCP	12,559.34	12,547.34	12,571.34
DBS - 26	LHCP	17,688.50	17,676.50	17,700.50	RHCP	12,588.50	12,576.50	12,600.50
DBS - 28	LHCP	17,717.66	17,705.66	17,729.66	RHCP	12,617.66	12,605.66	12,629.66
DBS - 30	LHCP	17,746.82	17,734.82	17,758.82	RHCP	12,646.82	12,634.82	12,658.82
DBS - 32	LHCP	17,775.98	17,763.98	17,787.98	RHCP	12,675.98	12,663.98	12,687.98

[1] Channel bandwidth is 24 MHz. Spacing between center frequencies of adjacent co-polar channels is 29.16 MHz. Cross-polar channels offset by 14.58 MHz.

5. COMMUNICATIONS PAYLOAD CONFIGURATION

The uplink signals are received in both polarizations by the satellite receive antenna. Two active receivers are used – one for each polarization. After appropriate down-conversion, channel filtering and amplification the signals are transmitted using a single 120 Watt Traveling Wave Tube Amplifier (TWTA) per channel in the case of normal power mode operation. In total, the communications payload is designed to support 32 channels in normal power mode. The outputs of all the TWTAs operating in the same polarization are then multiplexed into the appropriate downlink antenna port.

6. SATURATION FLUX DENSITY AND TRANSPONDER GAIN

The Saturation Flux Density ("SFD") of the uplink receive beam ranges between -79 dBW/m^2 (low gain) to -99 dBW/m^2 (high gain) at receive beam peak and is adjustable in 1 dB steps in manual mode.

The transponder gain is controlled by an Automatic Level Control ("ALC") system which automatically adjusts the transponder gain to give a constant satellite transmit power level for each transponder. The required output level can be set in 0.5 dB steps. In normal mode, the transponder gain for the two extreme ends of the ALC range, under TWTA saturation conditions, will range between 109.5 dB and 129.5 dB.

7. RECEIVER AND TRANSMITTER CHANNEL FILTER RESPONSE CHARACTERISTICS

The typical receiver and transmitter frequency responses of each RF channel, as measured between the receive antenna input and transmit antenna, fall within the limits shown in Table 7-1 below.

In addition, the frequency tolerances of §25.202(e) and the out-of-band emission limits of §25.202(f) (1), (2) and (3) will be met.

Table 7-1: Typical Receiver and Transmitter Filter Responses

Offset from Channel Center Frequency (MHz)	Receiver Filter Response (dB)	Transmitter Filter Response (dB)
± 5	> -0.5	> -0.4
± 7	> -0.7	> -0.5
±9	> -1.0	> -0.8
± 11	> -1.5	> -1.7
±12	> -2.0	> -3.6
±17.5	< -18	< -8
±20.2	< -38	< -18
±27.2	< -50	< -35

8. EMISSION DESIGNATORS AND ALLOCATED BANDWIDTH OF EMISSION

The emission designator for the uplink and downlink is 24M0G7W. This emission has an allocated bandwidth of 24 MHz.

For TT&C, the emission designators and allocated bandwidths are as follows:

Telecommand (including ranging): 1M50F2D (1.5 MHz)
Telemetry (including ranging): 1M00G2D (1.0 MHz)

9. SPACECRAFT DESCRIPTION

The ECHOSTAR-4 satellite's physical characteristics, electrical characteristics, etc., are contained in the associated Schedule S form.

10. EARTH STATIONS

The primary subscriber earth station antennas to be used with the ECHOSTAR-4 satellite will range between 45 cm and 90 cm.

The feeder link earth station(s) are located at EchoStar's existing facilities at Gilbert, AZ. EchoStar will file the necessary applications with the FCC for these feeder link earth station(s) to communicate with ECHOSTAR-4 at 77°W.L.

11. TT&C

A summary of the TT&C subsystem performance is given in Table 11-1. Table 11-2 provides the telecommand link budget during emergencies and for normal on-station operation. Table 11-3 provides the corresponding telemetry link budgets.

Table 11-1: Summary of the TT&C Subsystem Performance

Parameter	Performance
On-Station Command Frequency	17,308 MHz
Uplink Flux Density	Between -90 and -75 dBW/m^2
Uplink Polarization	Linear (Vertical)
On-Station Telemetry Frequencies	12,200.5 MHz 12,202.5 MHz 12,698.5 MHz

Maximum Downlink EIRP	7.0 dBW
Downlink Polarization	Linear (Vertical)

Table 11-2: Telecommand Link Budgets

(a) Transfer Orbit & Emergencies

Telecommand Link Budget (Transfer Orbit & Emergency)		
Link Parameters		
Frequency	(MHz)	17,308
Incident Flux Density	(dBW/m^2)	-80.0
Aperture Factor	($dB\text{-}m^2$)	-46.2
Incident Isotropic Power	(dBW)	-126.2
Antenna Gain (EOC)	(dBi)	-0.5
Total Receive Losses	(dB)	8.6
Receiver Input Power	(dBm)	-105.3
Receiver Threshold	(dBm)	-108.0
Spacecraft Margin	(dB)	2.7

(b) On-Station

Telecommand Link Budget (On Station)		
Link Parameters		
Frequency	(MHz)	17,308
Incident Flux Density	(dBW/m^2)	-90.0
Aperture Factor	($dB\text{-}m^2$)	-46.2
Incident Isotropic Power	(dBW)	-136.2
Antenna Gain	(dBi)	29.5
Total Receive Losses	(dB)	25.0
Receiver Input Power	(dBm)	-101.7
Receiver Threshold	(dBm)	-108.0
Spacecraft Margin	(dB)	6.3

Table 11-3: Telemetry Link Budgets

(a) Transfer Orbit & Emergencies

Telemetry Link Budget (Transfer Orbit and Emergency)		
Link Parameters		
Frequency	(MHz)	12,200.5
Transmit Power	(dBW)	8.0
Line Losses	(dB)	6.4
Antenna Gain (EOC)	(dBi)	-0.5
EIRP	(dBW)	1.1
Free Space Path Loss	(dB)	206.5
Rx E/S Antenna Gain	(dBi)	60.5
Receiver Input Power	(dBm)	-114.9
Receiver Threshold	(dBm)	-115.0
Margin	(dB)	0.1

(b) On-Station

Telemetry Link Budget (On Station)		
Link Parameters		
Frequency	(MHz)	12,200.5
Transmit Power	(dBW)	-11.4
Line Losses	(dB)	10.0
Antenna Gain (EOC)	(dBi)	28.4
EIRP	(dBW)	7.0
Free Space Path Loss	(dB)	206.0
Rx E/S Antenna Gain	(dBi)	56.0
Receiver Input Power	(dBm)	-113.0
Receiver Threshold	(dBm)	-114.0
Margin	(dB)	1.0

12. LINK BUDGETS

Table 12-1 provides a representative broadcast link budget to 45 cm receive antennas. The link budget assumes co-frequency co-coverage DBS satellites operating at 72.5°W and 82°W.

Table 12-1: Representative Link Budget

EchoStar-4 DBS Link Budget (Normal Mode)				
Link Parameters		**Clear Sky (Los Angeles)**	**Faded D/L (Los Angeles)**	**Faded D/L (Miami)**
Link Geometry:				
Tx E/S Range to Satellite (Gilbert)	(km)	38,073	38,073	38,073
Rx E/S Range to Satellite	(km)	38,447	38,447	36,681
Uplink (per carrier):				
Carrier Frequency	(MHz)	17,500	17,500	17,500
Tx E/S Antenna Diameter	(m)	13.2	13.2	13.2
Tx E/S Power to Antenna	(dBW)	15.3	15.3	15.3
Tx E/S Antenna Gain	(dB)	65.5	65.5	65.5
Tx E/S EIRP per Carrier	(dBW)	80.8	80.8	80.8
Atmospheric and Other Losses	(dB)	0.4	0.4	0.4
Free Space Loss	(dB)	208.9	208.9	208.9
Satellite:				
G/T towards Tx E/S	(dB/K)	3.2	3.2	3.2
Sat'd EIRP	(dBW)	54.9	54.9	54.9
EIRP towards Rx E/S	(dBW)	50.9	50.9	52.9
Downlink (per carrier):				
Carrier Frequency	(MHz)	12,500	12,500	12,500
Atmospheric and Rain Losses	(dB)	0.1	2.4	4.8
Free Space Loss	(dB)	206.1	206.1	205.7
Rx E/S Antenna Diameter	(m)	0.45	0.45	0.45
Antenna Mis-pointing Error	(dB)	0.30	0.30	0.30
Rx E/S Antenna Gain	(dB)	34.0	34.0	34.0
Rx E/S G/T	(dB/K)	12.7	10.6	9.3
System (LNA+Sky) Noise Temp.	(K)	133	220	295
Total Link:				
Noise Bandwidth	(dB-Hz)	73.2	73.2	73.2
(C/N) - Thermal Uplink	(dB)	30.0	30.0	30.0
(C/N) - Thermal Downlink	(dB)	12.6	8.1	6.8
(C/I) - Adjacent Satellite Interference	(dB)	21.8	21.8	24.2
(C/I) - Other Link Degradations	(dB)	22.9	22.9	22.9
(C/N) - Total Actual	(dB)	11.7	7.7	6.6
(C/N) - Total Required	(dB)	6.1	6.1	6.1
Excess Margin	(dB)	5.6	1.6	0.5
Availability	(%)	N/A	99.90	99.70

13. INTERFERENCE ANALYSES - ANNEXES 1 TO APPENDICES 30 AND 30A

The ECHOSTAR-4 satellite at 77°W.L. will be operating as a Mexican satellite network, as far as ITU procedures are concerned. Mexico has original Region 2 BSS Plan assignments at the 78°W.L. cluster location (i.e., at 77.8°W.L and 78.2°W.L), and also has Plan Modifications filed with the ITU for BSS networks at the 77°W.L. cluster location (i.e., at 76.8°W.L. and 77.2°W.L.). The Plan Modifications have the network names MEX-TDH1A/1B (filed in 1996) and MEX-TVD1/2 (filed in 2003). The ECHOSTAR-4 satellite at 77°W.L. would operate nominally under the MEX-TDH1A and MEX-TDH1B filings and would fall within the parameters of these filings over the U.S. and Canada, although it would exceed some of the parameters of these filings towards certain Caribbean and Central American countries. As discussed below, Mexico will be able to operate this satellite without causing unacceptable interference to the assignments of other Administrations, as shown by the MSPACE analysis results given in Attachment 1.

The impact of the proposed operation of ECHOSTAR-4 at 77°W.L. has been assessed against the criteria in Annex 1 of Appendices 30 and 30A of the Radio Regulations, and the results are given in Attachments 1 and 2 to this Technical Annex. These criteria are used to determine if another Administration is potentially affected by a proposed modification to the Region 2 BSS Plan. If an Administration is found to be affected then the agreement of that Administration is sought through the procedures of the ITU. The assessment in Attachments 1 and 2 uses the technical characteristics of the ECHOSTAR-4 satellite as described herein. The results can be summarized as follows:

- **APP30 Annex 1 Section 2** Limits to the change in the overall equivalent protection margin for frequency assignments in conformity with the Region 2 Plan.

  This analysis involves running the MSPACE software. The results of this analysis are discussed below.

- **APP30 Annex 1 Section 3** Limits to the change in the power flux-density to protect the broadcasting-satellite service in Regions 1 and 2 in the band 12.2-12.5 GHz and in Region 3 in the band 12.5-12.7 GHz.

  This limit is met.

☐ **APP30 Annex 1 Section 4** Limits to the power flux-density to protect the terrestrial services of other administrations.

This limit is met.

☐ **APP30 Annex 1 Section 6** Limits to the change in the power flux-density of assignments in the Regions 1 and 3 Plan or List to protect the fixed-satellite service (space-to Earth) in the band 11.7-12.2 GHz in Region 2 or in the band 12.2-12.5 GHz in Region 3, and of assignments in the Region 2 Plan to protect the fixed-satellite service (space-to-Earth) in the band 12.5-12.7 GHz in Region 1 and in the band 12.2-12.7 GHz in Region 3.

This limit is met (possible need to coordinate with a potential future Australian satellite network filed at 74°W.L.)

☐ **APP30 Annex 1 Section 7** Limits to the change in equivalent noise temperature to protect the fixed-satellite service (Earth-to-space) in Region 1 from modifications to the Region 2 Plan in the band 12.5-12.7 GHz.

This limit is met.

☐ **APP30A Annex 1 Section 3** Limits to the change in the overall equivalent protection margin with respect to frequency assignments in conformity with the Region 2 feeder-link Plan.

This analysis involves running the MSPACE software. The results of this are discussed below.

☐ **APP30A Annex 1 Section 5** Limits applicable to protect a frequency assignment in the bands 17.3-18.1 GHz (Regions 1 and 3) and 17.3-17.8 GHz (Region 2) to a receiving space station in the fixed-satellite service (Earth-to-space).

This limit is met.

The MSPACE results are given as Annex 1 to Attachment 1 of this Technical Annex. This MSPACE analysis was performed using the Region 2 Plan data contained in IFIC 2540. Additionally the Mexican modifications MEX-TDH1A/1B were assumed to be in the Plan as we understand the Mexican government has completed all necessary coordination and is in the process of submitting the Part B filing for these modifications to the Plan. The MSPACE results of the ECHOSTAR-4 satellite at the 77°W.L. location show that no other administrations' assignments are affected by the proposed use of the ECHOSTAR-4 satellite at 77°W.L., as proposed herein.

13. IN-ORBIT COLLISION AVOIDANCE STATEMENT

In considering operational and planned satellites that may have a station-keeping volume that overlaps the ECHOSTAR-4 satellite, EchoStar reviewed the lists of FCC licensed systems and systems that are currently under consideration by the FCC. In addition, networks for which a request for coordination has been published by the ITU in the vicinity of 77° W.L., have also been reviewed. Only those networks that either operate, or are planned to operate, and can have an overlapping station-keeping volume with the ECHOSTAR-4 satellite, have been taken into account in the analysis.

Currently, there are no operational satellites in the immediate vicinity of 77° W.L. Intelsat has a pending application before the Commission for the C-/Ku-band IA-9 satellite. The satellite's estimated date of placement into service is August 30, 2008. Rainbow DBS Company LLC has Commission authorization to launch and operate the Ka-band RAINBOW KA3 satellite at 77° W.L. The satellite is not expected to be launched until the 2008 / 2009 timeframe.

With regard to ITU filings in the immediate vicinity of 77 °W.L., the ITU has published requests for coordination for U.S. FSS networks only:

- the U.S. C-/Ku-band USASAT-24Q network (assignment pending);
- the U.S. Ka-band USASAT-31Y network (Rainbow);
- the U.S. V-band USASAT-41V network (unassigned);
- the U.S. Ka-band USASAT-70E network (Rainbow);

EchoStar will therefore physically coordinate the ECHOSTAR-4 satellite with Intelsat and Rainbow to the extent necessary, depending on the launch plans for those operators' satellites at 77°W.L. EchoStar will begin coordination discussions with these operators within 60 days after the start of operations of ECHOSTAR-4 at 77°W.L.

CERTIFICATION OF PERSON RESPONSIBLE FOR PREPARING ENGINEERING INFORMATION

I hereby certify that I am the technically qualified person responsible for preparation of the engineering information contained in this application, that I am familiar with Part 25 of the Commission's rules, that I have either prepared or reviewed the engineering information submitted in this application and that it is complete and accurate to the best of my knowledge and belief.

/s/

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

Dated : June 30, 2005

Attachments 1 and 2

to

Technical Annex

(ECHOSTAR-4)

Attachment 1

Analysis of Appendix 30 (Annex 1)

Section 2 Limits to the change in the overall equivalent protection margin for frequency assignments in conformity with the Region 2 Plan

With respect to § 4.2.3 c) of Article 4, an administration in Region 2 is considered as being affected if the overall equivalent protection margin[28] *corresponding to a test point of its entry in the Region 2 Plan, including the cumulative effect of any previous modification to that Plan or any previous agreement, falls more than 0.25 dB below 0 dB, or, if already negative, more than 0.25 dB below the value resulting from:*

- *the Region 2 Plan as established by the 1983 Conference; or*
- *a modification of the assignment in accordance with this Appendix; or*
- *a new entry in the Region 2 Plan under Article 4; or*
- *any agreement reached in accordance with this Appendix. (WRC-03)*

An MSPACE analysis was performed using the Region 2 SPS Plan contained in IFIC 2540. Additionally the Mexican modifications MEX-TDH1A/1B were assumed to be in the Plan. The results of the analysis are shown below and indicate that no other administrations' assignments are affected, with the exception of the Dominican Republic and Haiti.

Adm	Beam_No	Beam_Name	Long_Nom	Aff_CHs	EPM_Dgr	Sat_Name
MEX	1	00008956	-77	2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32	15.363	ECHO-4
MEX	2	00008957	-77	1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31	17.525	ECHO-4
DOM	90	DOMIFRB2	-83.3	4,8,12	0.762	DOMIFRB2
HTI	106	HTI00002	-83.3	2,6,10,14	1.462	HTI00002
MEX	120	MEX01SUR	-69.2	1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31	0.315	MEX01SUR

For the Dominican Republic and Haitian assignments we performed a C/I analysis to determine how serious the interference impact would be, and the results are given below.

Beam	Country	Orbit	Sep'n	EIRP	Echo-4 Max EIRP over Country's Territory	R2 E/S Rejection	C/I	C/I Threshold	Margin
HTI00002	Haiti	-83.3	6	60.9	54.9	-27.69	33.69	40.28	-6.59
DOMIFRB2	Dominican Republic	-83.3	6	61.1	51.9	-27.69	36.89	40.28	-3.39

In light of these high C/I values, and the fact that these assignments are not in use, nor expected to be in use in the foreseeable future, we consider there not to be any interference problem.

[28] For the definition of the overall equivalent protection margin, see § 1.11 of Annex 5.

Section 3 Limits to the change in the power flux-density to protect the broadcasting-satellite service in Regions 1 and 2 in the band 12.2-12.5 GHz and in Region 3 in the band 12.5-12.7 GHz.

With respect to § 4.2.3 a), 4.2.3 b) or 4.2.3 f) of Article 4, as appropriate, an administration in Region 1 or 3 is considered as being affected if the proposed modification to the Region 2 Plan would result in exceeding the following power flux-density values, at any test point in the service area of its overlapping frequency assignments:

-147 dB(W/(m^2 · 27 MHz))	for $0° \le \theta < 0.23°$
$-135.7 + 17.74 \log \theta$ dB(W/(m^2 · 27 MHz))	for $0.23° \le \theta < 2.0°$
$-136.7 + 1.66\,\theta^2$ dB(W/(m^2 · 27 MHz))	for $2.0° \le \theta < 3.59°$
$-129.2 + 25 \log \theta$ dB(W/(m^2 · 27 MHz))	for $3.59° \le \theta < 10.57°$
-103.6 dB(W/(m^2 · 27 MHz))	for $10.57° \le \theta$

where θ is the minimum geocentric orbital separation in degrees between the wanted and interfering space stations, taking into account the respective East-West station-keeping accuracies. (WRC-03)

The closest Regions 1 and 3 BSS orbital location in the Regions 1 and 3 List is 37.2°W, which is 39.8° from the 77°W orbital location. Therefore the –103.6 dBW/m^2/27 MHz level from the above limits applies in this case. This PFD level corresponds to an EIRP of approximately 58.4 dBW/27MHz (assuming 162 dB spreading loss) which is higher than the peak EIRP of the ECHOSTAR-4 satellite (which is 54.9 dBW). Therefore this limit is met, regardless of where the territory is.

Section 4 Limits to the power flux-density to protect the terrestrial services of other administrations.

With respect to § 4.2.3 d) of Article 4, an administration in Region 1, 2 or 3 is considered as being affected if the consequence of the proposed modification to an existing assignment in the Region 2 Plan is to increase the power flux-density arriving on any part of the territory of that administration by more than 0.25 dB over that resulting from that frequency assignment in the Region 2 Plan at the time of entry into force of the Final Acts of the 1985 Conference. The same administration is considered as not being affected if the value of the power flux-density anywhere in its territory does not exceed the limits expressed below.

With respect to § 4.1.1 d) or § 4.2.3 d) of Article 4, an administration in Region 1, 2 or 3 is considered as being affected if ... a proposed new frequency assignment in the Region 2 Plan would result in exceeding a power flux-density, for any angle of arrival, at any point on its territory, of:

–148 dB(W/(m² · 4 kHz)) for $\theta \leq 5°$

–148 + 0.5 (θ – 5) dB(W/(m² · 4 kHz)) for $5° < \theta \leq 25°$

–138 dB(W/(m² · 4 kHz)) for $25° < \theta \leq 90°$

where θ represents the angle of arrival. (WRC-03)

These limits are expressed in a 4 kHz reference bandwidth. Converting the maximum ECHOSTAR-4 satellite EIRP (54.9 dBW) to a PFD in this reference bandwidth gives –144.9 dBW/m^2/4kHz (assuming 162 dB spreading loss). This is only 3.1 dB higher than the low elevation PFD limit in the formula above. Therefore, provided there is at least 3.1 dB of roll-off from the beam peak towards the territory of another country with an angle of arrival of 5° or less, then these limits are met.

For countries in Regions 1 and 3 the roll-off from beam peak is well above the 3.1 dB required and so the limits are met.

For Region 2 only Canada is below an angle of arrival of 5°, and in this case the antenna isolation provided is above the 3.1 dB required to meet the specified limit. Additionally Canada is assigned all 32 channels in the Plan and therefore these limits do not need to be met on Canadian territory (See Section 4.2.3d). The other Region 2 countries are at very high elevation angles, and therefore the higher limit (-138 dBW/m^2/4kHz) applies, and this PFD is not exceeded.

Section 6 Limits to the change in the power flux-density of assignments in the Regions 1 and 3 Plan or List to protect the fixed-satellite service (space-to Earth) in the band 11.7-12.2 GHz in Region 2 or in the band 12.2-12.5 GHz in Region 3, and of assignments in the Region 2 Plan to protect the fixed-satellite service (space-to-Earth) in the band 12.5-12.7 GHz in Region 1 and in the band 12.2-12.7 GHz in Region 3.

With respect to § 4.2.3 e), an administration is considered as being affected if the proposed modification to the Region 2 Plan would result in an increase in the power flux-density over any portion of the service area of its overlapping frequency assignments in the fixed-satellite service in Region 1 or 3 of 0.25 dB or more above that resulting from the frequency assignments in the Region 2 Plan at the time of entry into force of the Final Acts of the 1985 Conference.

With respect to § 4.1.1 e) or 4.2.3 e) of Article 4, with the exception of cases covered by Note 1 below, an administration is considered as not being affected if ... a proposed modification to the Region 2 Plan gives a power flux-density anywhere over any portion of the service area of its overlapping frequency assignments in the fixed-satellite service in Region 1, 2 or 3 of less than:

–186.5 dB(W/(m² · 40 kHz)) for $0° \leq \theta < 0.054°$

–164.0 + 17.74 log θ dB(W/(m² · 40 kHz)) for $0.054° \leq \theta < 2.0°$

$-165.0 + 1.66\,\theta^2$ dB(W/(m^2 · 40 kHz))	for $2.0° \le \theta < 3.59°$
$-157.5 + 25 \log \theta$ dB(W/(m^2 · 40 kHz))	for $3.59° \le \theta < 10.57°$
-131.9 dB(W/(m^2 · 40 kHz))	for $10.57° \le \theta$

where θ is the minimum geocentric orbital separation in degrees between the wanted and interfering space stations, taking into account the respective East-West station-keeping accuracies.

NOTE 1 – Not relevant in this case.

These limits are expressed in a 40 kHz reference bandwidth. The maximum PFD level of the ECHOSTAR-4 satellite in this reference bandwidth is –134.9 dBW/(m^2 · 40 kHz). According to the SNS there is only one FSS satellite that is less than 10.57° from the 77°W orbital location. This is an AUS satellite filed at 74°W, which includes the 12.2-12.7 GHz band for service to Region 3. The roll-off of ECHOSTAR-4 towards Region 3, from Figure 2-1, is approximately 20 dB. This results in a pfd of –154.9 dBW/(m^2 · 40 kHz), which is less than the Section 6 level of –151.5 dBW/(m^2 · 40 kHz) for the orbital separation between 77° and 74° W, including station-keeping tolerance. For all other FSS networks the limit is met.

Section 7 Limits to the change in equivalent noise temperature to protect the fixed-satellite service (Earth-to-space) in Region 1 from modifications to the Region 2 Plan in the band 12.5-12.7 GHz.

With respect to § 4.2.3 e) of Article 4, an administration of Region 1 shall be considered as being affected if the proposed modification to the Region 2 Plan would result in:

- *the value of $\Delta T/T$ resulting from the proposed modification is greater than the value of $\Delta T/T$ resulting from the assignment in the Region 2 Plan as of the date of entry into force of the Final Acts of the 1985 Conference; and*
- *the value of $\Delta T/T$ resulting from the proposed modification exceeds 4%,*

using the method of Appendix 8 (Case II).

A search of the ITU SNS database indicates that there are no assignments registered in the Earth-to-space direction in the frequency band 12.5-12.7 GHz.

Attachment 2

Analysis of Appendix 30A (Annex 1)

Section 3 Limits to the change in the overall equivalent protection margin with respect to frequency assignments in conformity with the Region 2 feeder-link Plan[33] (WRC-2000)

With respect to the modification to the Region 2 feeder-link Plan and when it is necessary under this Appendix to seek the agreement of any other administration of Region 2, except in cases covered by Resolution **42 (Rev.WRC-03)**, *an administration is considered as being affected if the overall equivalent protection margin*[34] *corresponding to a test point of its entry in that Plan, including the cumulative effect of any previous modification to that Plan or any previous agreement, falls more than 0.25 dB below 0 dB, or, if already negative, more than 0.25 dB below the value resulting from:*

- *the feeder-link Plan as established by the 1983 Conference; or*
- *a modification of the assignment in accordance with this Appendix; or*
- *a new entry in the feeder-link Plan under Article 4; or*
- *any agreement reached in accordance with this Appendix except for Resolution* **42 (Rev.WRC-03)**. *(WRC-03)*

The MSPACE analysis was performed see discussion under Section 2 in Attachment 1.

Section 5 Limits applicable to protect a frequency assignment in the bands 17.3-18.1 GHz (Regions 1 and 3) and 17.3-17.8 GHz (Region 2) to a receiving space station in the fixed-satellite service (Earth-to-space)

An administration in Region 1 or 3 is considered as being affected by a proposed modification in Region 2, with respect to § 4.2.2 a) or 4.2.2 b) of Article 4, or an administration in Region 2 is considered as being affected by a proposed new or modified assignment in the Regions 1 and 3 feeder-link List, with respect to § 4.1.1 c) of Article 4, when the power flux-density arriving at the receiving space station of a broadcasting-satellite feeder-link would cause an increase in the noise temperature of the feeder-link space station which exceeds the threshold value of $\Delta T/T$ corresponding to 6%, where $\Delta T/T$ is calculated in accordance with the method given in Appendix **8**, *except that the maximum power densities per hertz averaged over the worst 1 MHz are replaced by power densities per hertz averaged over the necessary bandwidth of the feeder-link carriers. (WRC-03)*
Interim systems of Region 2 in accordance with Resolution **42 (Rev.WRC-03)** *shall not be taken into consideration when applying the above paragraph to proposed new or modified assignments*

---

33 With respect to § 3 the limit specified relates to the overall equivalent protection margin calculated in accordance with § 1.12 of Annex 3.

34 For the definition of the overall equivalent protection margin, see § 1.11 of Annex 5 to Appendix **30**.

in the Regions 1 and 3 feeder-link List. However, the above paragraph shall be applied to Region 2 interim systems with respect to Regions 1 and 3 administrations, referred to in § 5.2 b) of Resolution ***42 (Rev.WRC-03)****.* *(WRC-03)*

An analysis was performed of the closest Region 1 or 3 feeder link space stations. As shown in the Table below the ΔT/T is well below the 6% criteria.

Closest Region 1 or 3 Feeder Link Space Station			Orbital Separation from 77°W	E/S Off-Axis EIRP SD (dBW/Hz)	Victim Satellite Rx Interfering PSD (dBW/Hz)	Victim Satellite Rx System Noise Temp (K)	Calculated ΔT / T (%)
Beam Name	Orbital Position (°E)	Peak Receive Antenna Gain (dBi)					
IRL – IRL21100	-37.2	48.08	39.8	-63.30	-224.85	900	0.264%
NGR – NGR11500	-37.2	38.47	39.8	-63.30	-234.46	900	0.029%
AND – AND34100	-37	48.88	40	-63.35	-224.11	900	0.313%
GMB – GMB30200	-37	47.69	40	-63.35	-225.30	900	0.238%
GUI – GUI19200	-37	42.29	40	-63.35	-230.70	900	0.069%
POR – POR_100	-37	47.17	40	-63.35	-225.82	900	0.211%
MTN – MTN_100	-36.8	37.55	40.2	-63.41	-235.49	900	0.023%
SMR – SMR31100	-36.8	48.88	40.2	-63.41	-224.16	900	0.309%
CPV – CPV30100	-33.5	47.56	43.5	-64.26	-226.40	900	0.184%
DNK – DNK090XR	-33.5	43.48	43.5	-64.26	-230.48	900	0.072%
DNK – DNK091XR	-33.5	44.73	43.5	-64.26	-229.23	900	0.096%
G – G02700	-33.5	43.23	43.5	-64.26	-230.73	900	0.068%
ISL – ISL04900	-33.5	46.67	43.5	-64.26	-227.29	900	0.150%
ISL – ISL05000	-33.5	44.67	43.5	-64.26	-229.29	900	0.095%
LBR – LBR24400	-33.5	45.13	43.5	-64.26	-228.83	900	0.105%
SRL – SRL25900	-33.5	47.2	43.5	-64.26	-226.76	900	0.170%

SCHEDULE S HAS BEEN SUBMITTED

ELECTRONICALLY THROUGH IBFS

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

In the Matter of	)
EchoStar Satellite L.L.C.	)
Petition for Waiver of Application Fees Pursuant to Section 1.1117 of the Commission's Rules	)

To: Office of the Managing Director

PETITION FOR WAIVER OF APPLICATION FEES

EchoStar Satellite L.L.C. ("EchoStar") respectfully requests that, pursuant to Sections 1.3 and 1.1117 of the Commission's Rules,[1] and the Communications Act of 1934, as amended (the "Act"),[2] the Commission waive to the extent necessary certain application fees associated with its concurrently filed application seeking authority to operate 1,000,000 receive-only earth stations in the United States to receive Direct Broadcast Satellite ("DBS") programming from the EchoStar 4 satellite, operating at the Canadian Broadcasting Satellite Service ("BSS") orbital slot at 77° W.L.[3] The Commission's Rules and the Act specifically provide that such fees may be waived where good cause is shown and the public interest would

---

[1] 47 C.F.R. §§ 1.3 and 1.1117.

[2] 47 U.S.C. § 158(d)(2).

[3] *See EchoStar Blanket Receive-Only Earth Station Application -- 77 W.L.*, File No. SES-LFS-2005_____ (filed July 1, 2005) ("Application"). For your convenience, enclosed is a copy of the Application materials to which this request for waiver is associated (see Attachment A).

be served.[4] As demonstrated below, good cause exists for, and the public interest would be served by, waiver of fees in this case because the application fee would not be commensurate with the Commission's actual costs of processing EchoStar's Application and would represent a regulatory barrier to EchoStar's proposed provision of service. If the Commission determines that a fee is required, EchoStar requests that the Commission find that the "VSAT" application fee is appropriate. EchoStar has already paid the $8,260 fee for such applications, to which the instant request to provide service to up to a million receive-only dishes is similar.

I. BACKGROUND

EchoStar is requesting authorization for 1,000,000 receive-only earth station antennas in order to expand its provision of multichannel video services to consumers in the United States. The Commission's Rules do not designate any specific charges for the type of application being filed in the DBS service. The following schedule of charges for applications for the types of services which could be applied to EchoStar's Application include:

- Initial Application for a Fixed Satellite Very Small Aperture Terminal (VSAT) System = $8,260.00[5]
- Receive-Only Earth Stations = $340.00[6]

EchoStar's proposed network of DBS earth stations is most like a VSAT system, therefore, it should be subject to at most the $8,260.00 application fee for an initial application for a VSAT system.

---

[4] 47 C.F.R. § 1.1117; 47 U.S.C. § 158(d)(2).

[5] 47 C.F.R. § 1.1107(6)(a).

[6] 47 C.F.R. § 1.1107(5)(a).

EchoStar's proposed system architecture consists of as many as 1,000,000 technically identical earth stations operating in the DBS portion of the Ku-band. This architecture is consistent with the FCC's definition of VSAT networks which are networks of technically identical small antennas that generally communicate with a larger hub station and operate in the 12/14 GHz frequency bands.[7] Because EchoStar believes that its system is most like a VSAT network, it has paid the $8,260.00 application fee. However, if the Commission determines that the $340.00 fee for receive-only earth stations applies to each of EchoStar's 1,000,000 consumer units, EchoStar seeks a waiver of that $340,000,000.00 application fee.

II. GOOD CAUSE EXISTS FOR, AND THE PUBLIC INTEREST WOULD BE SERVED BY, WAIVER OF THE RECEIVE-ONLY EARTH STATION APPLICATION FEE

The Commission has the authority to waive application fees where -- such as here -- good cause is shown and the public interest would be served.[8] As demonstrated below, a fee of up to $340 million would be prohibitively high for EchoStar, would deny competitive service offerings to the public, and would not be commensurate with FCC processing resources.

A. FCC Application Fees are Intended to Recover the Costs of Standard Application Processing

The Commission's schedule of application fees is intended to reimburse the government for the work involved in providing certain regulatory services associated with processing applications. In setting the fees, the Commission has noted that "the charges

---

[7] *See Streamlining the Commission's Rules and Regulations for Satellite Application and Licensing Procedures*, Order, 11 FCC Rcd. 21581, 21592 (1996).

[8] *See WAIT Radio v. FCC*, 418 F.2d 1153, 1157 (D.C. Cir. 1969), *aff'd*, 459 F.2d 1203 (D.C. Cir. 1972), *cert. denied*, 409 U.S. 1027 (1972).

represent a rough approximation of the Commission's actual cost of providing the regulatory actions listed" and that "the very core of this effort is to reimburse the government -- and the general public -- for the regulatory services provided to certain members of the public."[9] However, in certain instances, the Commission's schedule of filing fees may not reasonably approximate the costs involved in handling a particular application or may not otherwise serve the public interest. For this reason, the Commission's Rules and the Act allow for parties to seek a waiver of the application fees.[10]

A filing fee waiver is warranted here because many of the processing activities required to issue a new system license -- the costs of which the application fees are designed to recover -- are simply not required in reviewing EchoStar's Application. For example, the Commission need not review 1,000,000 different technical parameters to grant EchoStar's Application. Rather, as in the case of a VSAT network, the Commission only needs to review one set of technical parameters for all of the technically identical earth stations.

In similar contexts, the Commission has accepted application fees for VSAT networks. *See, e.g., Letter from Mark A. Reger, Chief Financial Officer to Pantelis Michalopoulos and Philip L. Malet, Re: EchoStar Satellite L.L.C. Petition for Waiver of Application Fees*, Fee Control Number 00000RROG-04-094, March 10, 2005 (approving a fee waiver request in which EchoStar paid VSAT application fee for 1,000,000 receive only terminals for BSS service from a Canadian satellite); *Application of DIRECTV Enterprises, LLC*, DA 04-2526 (rel. Aug. 13, 2004) (approving application in which applicant paid VSAT

---

[9] *Establishment of a Fee Collection Program to Implement the Provisions of the Consolidated Omnibus Budget Reconciliation Act of 1985*, Report and Order, 2 FCC Rcd. 947, 948 (1987).

[10] *See supra* note 4.

application fee for 1,000,000 receive-only terminals to be used for DBS service from a Canadian satellite); *see also In the Matter of Digital Broadband Application Corp.*, Order, 18 FCC Rcd. 9455 (2003) (approving application in which applicant paid VSAT and fixed satellite transmit/receive earth station application fees for one hub earth station to be used with one million two-way FSS and DBS service from Canadian satellites). Thus, the $8,260.00 application fee paid for this Application would be consistent with past practice and fairly compensate the Commission for the costs involved in its review of the application.

B. The Public Interest Would Be Served by Granting the Requested Fee Waiver

In addition to being supported by the requisite good cause, granting EchoStar's request for a waiver of application fees for its Application is also consistent with the public interest. As described in detail in the Application, grant of the authority requested by EchoStar to provide DBS services in the United States using the EchoStar 4 satellite at 77° W.L. will further a number of compelling public interest objectives. Among other benefits, a grant would allow EchoStar to expand the availability of Spanish language programming to underserved communities in the southern U.S. Second, it would allow EchoStar to compete more effectively with established cable operators in the MVPD market. Lastly, grant of the Application will allow EchoStar to offer DBS services to the United States from an orbital location that has not previously been available to serve the U.S. market.

EchoStar should not be required to pay a $340.00 fee for each of its 1,000,000 earth stations merely because it is providing service from a non-U.S. satellite when an operator providing an identical service using a U.S. licensed satellite would not need to apply for licenses

for each of its consumer dishes.[11] The result would be overtly discriminatory treatment among DBS and Direct-to-Home ("DTH") providers serving the United States. Moreover, in its recent *Space Station Licensing Order*, the Commission concluded that there is no need for a satellite operator to seek separate authorization for routinely-licensed receive-only earth station antennas -- or to pay a separate fee -- if the Commission has concluded that the public interest is served by that provider's satellite being added to the Permitted Space Station List, including providers authorized to provide DTH services.[12]

III. CONCLUSION

Under current Commission fee guidelines, EchoStar could potentially be required to pay a fee of $340.00 for each of its receive-only earth station. That would amount to a total fee of up to $340,000,000.00. Clearly, the imposition of such a high fee was not what Congress or the Commission intended when the fee guidelines were adopted. Such an astronomical application fee would be a barrier to any operator that desires to offer an innovative, competitive service to the public, as proposed by EchoStar.

The financial hardship that a $340 million filing fee would impose on EchoStar, or indeed any other entity, would clearly preclude an application from being filed at all. Filing fees should reimburse the government for the costs of processing applications, not act as a

---

[11] Except for the fact that EchoStar will be using a Mexican orbital location, EchoStar would not have to file an application for these earth stations. *See* 47 C.F.R. § 25.131(j); *see also In the Matter of Telesat Canada Petition for Declaratory Ruling for Inclusion of ANIK F1 on the Permitted Space Station List*, Order, 16 FCC Rcd. 16365, 16369 (2001) (holding that "receive-only earth stations receiving transmissions from any non-U.S. licensed satellite, regardless of whether the satellites is on the Permitted List, must be licensed.").

[12] *See Amendment of the Commission's Space Station Licensing Rules and Policies*, Second Report and Order in IB Docket No. 02-34, Second Report and Order in IB Docket No. 00-248, and Declaratory Order in IB Docket No. 96-111, 18 FCC Rcd. 12507, 12516-17 (2003).

regulatory barrier to entry for competitive services. For all of the aforementioned reasons, EchoStar respectfully requests that the Commission grant the requested fee waiver to the extent necessary in conjunction with its Application to provide DBS service from EchoStar 4 at the 77° W.L. orbital location.

Respectfully submitted,

Philip L. Malet/MAP

Pantelis Michalopoulos
Philip L. Malet
Brendan Kasper
Steptoe & Johnson LLP
1330 Connecticut Avenue, N.W.
Washington, D.C. 20036-1795
(202) 429-3000

Counsel for EchoStar Satellite L.L.C.

Dated: July 1, 2005

cc: Andrew S. Fishel, Managing Director, Office of the Managing Director (via hand delivery)

CONFIDENTIAL MATERIAL FILED UNDER SEAL

ECHOSTAR-4 Downlink Beam Coverage from 77°W.L.

(Revised July 1, 2005)

Peak EIRP = 54.9 dBW per transponder (normal mode)
Contours shown are -2, -4, -6, -8, -10, -15 and -20 dB relative to peak