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File Number: SAT-MOD-20051007-00198

FCC APPLICATION FOR SPACE AND EARTH STATION:MOD OR AMD - MAIN FORM	FCC Use Only
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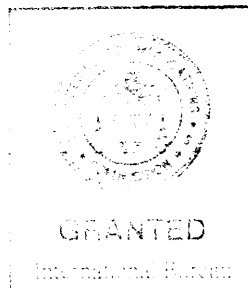
APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:

Application for Modification to Select TT&C Frequencies for Ka-band Satellite at 113 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		



File # SAT-MOD-2005/007-00198
with attached conditions
Call Sign S 2636 Grant Date 10/19/2006
(or other identifier) *see SAT-* Term Dates
From LOA-2004/0703-00117 To: _____

Approved: [Signature] *nick satellite*
Robert G. Nelson *Division*

See also File Nos.
SAT-AMD-2005/118-00248
SAT-AMD-2006/0724-00081

EchoStar Satellite Operating Corporation
Attachment - Conditions of Authorization
File Nos. SAT-MOD-20051007-00198, SAT-AMD-20051118-00248,
and SAT-AMD-20060724-00081
Call Sign: S2636

October 19, 2006

EchoStar Satellite Operating Corporation's (EchoStar) applications to modify its authorization to operate a Ka-band satellite, EchoStar-113, at 113° W.L., File No. SAT-MOD-20051007-00198, as amended by SAT-AMD-20051118-00248 and SAT-AMD-20060724-00081 are GRANTED, subject to the terms of its authorization in File No. SAT-LOA-20040803-00154, the technical specifications set forth in its applications, and the conditions set forth below.¹ Accordingly, EchoStar is authorized to operate telemetry, tracking, and command (TT&C) frequencies for its Ka-band satellite at 113° W.L. using 28.352 GHz and 28.598 GHz as the command frequencies, and 18.302 GHz and 18.798 GHz as the telemetry frequencies.

In addition, EchoStar's request for a waiver of section 25.202(g) of the Commission's rules is granted to allow EchoStar to operate TT&C launch and transfer orbit operations in the 13.752 GHz, 13.998 GHz, 11.452 GHz and 11.698 GHz frequency bands.² We find EchoStar has demonstrated good cause for a waiver in this instance.³ First, as EchoStar states, there is no worldwide ground network in the Ka-band frequencies to support TT&C functions during launch and transfer orbit operations, while there is an extensive network of Ku-band frequencies. Further, EchoStar maintains that it will only use small amounts of spectrum for a very limited time during the launch and transfer orbit operations and will coordinate with other authorized users of the bands. EchoStar also states it will operate on a non-harmful interference basis. The International Bureau previously granted a waiver of section 25.202(g) to EchoStar for its Ka-band satellite at 117° W.L. based on similar facts.⁴ The International Bureau has also previously granted the use of the 13.75-14.0 GHz frequency band for TT&C, both for launch and transfer orbit operations, and for on-station operations.⁵ We anticipate, however, that as more Ka-band satellite systems with TT&C links located within band are authorized, the Ka-band TT&C earth station network will be sufficiently developed and thus there will be no need for operators to request waivers of section 25.202(g) for out-of-band transfer orbit TT&C operations.

1. Pursuant to footnote US337 of the U.S. Table of Allocations, 47 C.F.R. 2.106, any earth station in the United States and its possessions communicating with

¹ EchoStar Satellite LLC, SAT-LOA-20040803-00154, grant stamped on October 8, 2004 with conditions.

² 47 C.F.R. § 25.202(g). Section 25.202(g) requires that TT&C functions for U.S.-licensed satellites be conducted at either or both ends of the allocated bands for the service.

³ 47 C.F.R. § 1.3.

⁴ See EchoStar Satellite LLC, Modification of License to Select TT&C Frequencies for its Ka-band Satellite at 117° W.L., *Order and Authorization*, 20 FCC Rcd 4281 (Int'l Bur. 2005).

⁵ See EchoStar Satellite LLC, Application for Authority to Construct, Launch and Operate a Geostationary Satellite Using the Extended Ku-band Frequencies in the Fixed-Satellite Service at the 109° W.L. Orbital Location, *Order and Authorization*, 20 FCC Rcd 930 (Int'l Bur. 2004); EchoStar Satellite LLC, SAT-MOD-20050930-00195, grant stamped on December 21, 2005 with conditions.

EchoStar-113 in the 13.75-14.0 GHz frequency band is required to coordinate with the National Telecommunications and Information Administration's (NTIA) Interdepartment Radio Advisory Committee's (IRAC) Frequency Assignment Subcommittee.⁶

2. Operations of any earth station in the United States and its possessions communicating with EchoStar-113 in the 13.75-14.0 GHz frequency band shall comply with footnotes US356 and US357 of the U.S. Table of Allocations which specify a minimum antenna diameter of 4.5 meters and a minimum equivalent isotropically radiated power (e.i.r.p.).⁷ Operations of any earth station located outside the United States and its possessions communicating with EchoStar-113 in the 13.75-14.0 GHz frequency band shall be consistent with footnotes 5.502 and 5.503 to the International Telecommunication Union (ITU) Radio Regulations, which allow minimum antenna diameter as small as 1.2 meters for earth stations of a GSO network.⁸
3. The 11.452 GHz and 11.698 GHz frequency bands in which EchoStar proposes to operate are allocated to terrestrial services and to the fixed-satellite service (FSS) on a co-primary basis.⁹ However, under footnote NG104 of section 2.106 and footnote 2 of section 25.202(a)(1) of our rules, FSS operations in these bands are limited to international service in order to limit the number of FSS earth stations with which the terrestrial wireless fixed-service would be required to coordinate.¹⁰ Accordingly, a U.S.-licensed

⁶ Footnote US337 requires that earth stations operating in the 13.75-13.8 GHz band be coordinated through NTIA's IRAC Frequency Assignment Subcommittee to minimize interference to the forward space-to-space link of the National Aeronautics and Space Administration Tracking and Data Relay Satellite System. 47 C.F.R. § 2.106, US337.

⁷ These footnotes place certain restrictions on FSS operations in order to protect government operations in the band, including manned space flight. Footnote US356 places a restriction on a minimum antenna size of 4.5 meters for earth stations operating in the 13.75-14.0 GHz band and indicates a minimum e.i.r.p. that should be used. Footnote US357 limits earth station e.i.r.p. spectral density in the 13.77-13.78 GHz band until those geostationary space stations in the space research service for which advance publication information was received by the ITU prior to January 31, 1992 cease to operate in this band. 47 C.F.R. § 2.106, Footnote US357.

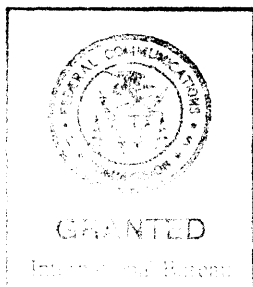
⁸ Footnote 5.502 to the ITU Radio Regulations establishes minimum antenna diameters for earth stations of geostationary and non-geostationary satellite networks, and places certain restrictions on either the minimum equivalent isotropically radiated power (e.i.r.p.) or the power flux density (p.f.d.) levels produced by earth stations operating in the 13.75-14.0 GHz band. Footnote 5.503 limits FSS earth station e.i.r.p. spectral density in the 13.770-13.780 GHz band for earth stations in the FSS operating with geostationary-orbit space stations, until those geostationary space stations in the space research service for which advance publication information was received by the ITU prior to January 31, 1992 cease to operate in this band.

⁹ 47 C.F.R. § 2.106 and 25.202(a)(1). Allocation of a given frequency band to a particular service on a primary basis entitles operators to protection against harmful interference from stations of "secondary" services. Further, secondary services cannot claim protection from harmful interference caused by stations of a primary service. See 47 C.F.R. §§ 2.104(d) and 2.105(c).

¹⁰ 47 C.F.R. § 2.106 footnote NG104 states "[t]he use of the bands 10.7- 11.7 GHz (space-to-Earth) and 12.75-13.25 GHz (Earth-to-space) by the fixed-satellite service in the geostationary-satellite orbit shall be limited to international systems, i.e. other than domestic systems." 47 C.F.R. § 25.202(a)(1) footnote 2

satellite may provide downlink service into the United States and its Possessions in the 10.7 -11.7 GHz frequency band only if the uplink originates outside of the United States and its Possessions. Therefore, if EchoStar wants to use any of these frequencies to provide domestic service, including telemetry and tracking services for a U.S.-licensed satellite, an earth station license application or modification, including a request for waiver of NG104 and footnote 2 of Section 25.202(a)(1), must be filed for the earth station(s) which will access the EchoStar-113 satellite in this band.

4. EchoStar must file a modification to this authorization specifying the precise orbital location for the EchoStar-113 satellite.¹¹ EchoStar must file this modification within 60 days of this grant.
5. EchoStar has 30 days from the date of this grant to decline the authorization as conditioned. Failure to respond within this period will constitute formal acceptance of the authorization as conditioned.
6. This grant is issued pursuant to 47 C.F.R. § 0.261 of the Commission's rules on delegated authority and is effective upon adoption. Petitions for reconsideration or Applications for Review under the Commission's rules, 47 C.F.R. 1.106 and 1.115, may be filed within 30 days of the date of the public notice indicating this action was taken.



File # SAT-MOD-2005/2007-00198
with attached conditions
 Call Sign S2636 Grant Date 10/19/2006
 (or other identifier)
 see SAT-LOA Term Dates
 From 20040803-00154 To: _____
 Approved: [Signature] Chris Satellite
Robert A Nelson Division

See also File Nos.
SAT-AMD-20051118-00248
SAT-AMD-20060724-00081

states "[u]se of this band by geostationary satellite orbit satellite systems in the fixed-satellite service is limited to international systems, i.e. other than domestic systems." See also Assignment of Orbital Location to Space Stations in the Domestic Fixed Satellite Service and the Application of GE American Communications, Inc., Order and Authorization, 15 FCC Rcd 3385 (Int'l Bur. 1999).

¹¹ Pursuant to 47 C.F.R. § 25.114(d)(14), EchoStar submitted an application specifying its orbital debris mitigation plans for the 113° W.L. orbital location. In its application, File No. SAT-AMD-20060724-00081, EchoStar states that the in-orbit Satmex-6 satellite operated by Satelites Mexicanos S.A. DE C.V. (Satmex) is the only satellite that will be operated at or close to the EchoStar-113 satellite. EchoStar asserts that it has reached an agreement in principle, with Satmex, that each will operate their respective satellites at an off set from the nominal 113° W.L. orbital location, but failed to specify the offset.

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., 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.

- a1. Earth Station
- a2. Space Station

- (N/A) b1. Application for License of New Station
- (N/A) b2. Application for Registration of New Domestic Receive-Only Station
- (N/A) b3. Amendment to a Pending Application
- (N/A) b4. Modification of License or Registration
- b5. Assignment of License or Registration
- b6. Transfer of Control of License or Registration
- (N/A) b7. Notification of Minor Modification
- (N/A) b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite
- (N/A) b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States
- (N/A) b10. Other (Please specify)

<p>17c. Is a fee submitted with this application?</p> <p><input checked="" type="radio"/> If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).</p> <p><input type="radio"/> Governmental Entity <input type="radio"/> Noncommercial educational licensee</p> <p><input type="radio"/> Other (please explain):</p>	
<p>17d.</p> <p>Fee Classification BFY – Space Station Modification (Geostationary)</p>	
<p>18. If this filing is in reference to an existing station, enter:</p> <p>(a) Call sign of station: S2636</p>	<p>19. If this filing is an amendment to a pending application enter both fields, if this filing is a modification please enter only the file number:</p> <p>(a) Date pending application was filed:</p> <p>(b) File number: SATLOA2004080300154</p>

TYPE OF SERVICE

<p>20. NATURE OF SERVICE: This filing is for an authorization to provide or use the following type(s) of service(s): Select all that apply:</p> <p><input checked="" type="checkbox"/> a. Fixed Satellite</p> <p><input type="checkbox"/> b. Mobile Satellite</p> <p><input type="checkbox"/> c. Radiodetermination Satellite</p> <p><input type="checkbox"/> d. Earth Exploration Satellite</p> <p><input checked="" type="checkbox"/> e. Direct to Home Fixed Satellite</p> <p><input type="checkbox"/> f. Digital Audio Radio Service</p> <p><input type="checkbox"/> g. Other (please specify)</p>	
<p>21. STATUS: Choose the button next to the applicable status. Choose only one.</p> <p><input type="radio"/> Common Carrier <input checked="" type="radio"/> Non-Common Carrier</p>	<p>22. If earth station applicant, check all that apply.</p> <p><input type="checkbox"/> Using U.S. licensed satellites</p> <p><input type="checkbox"/> Using Non-U.S. licensed satellites</p>
<p>23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities:</p> <p><input type="radio"/> Connected to a Public Switched Network <input type="radio"/> Not connected to a Public Switched Network <input checked="" type="radio"/> N/A</p>	
<p>24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all applicable frequency band(s).</p> <p><input type="checkbox"/> a. C-Band (4/6 GHz) <input type="checkbox"/> b. Ku-Band (12/14 GHz)</p> <p><input checked="" type="checkbox"/> c. Other (Please specify upper and lower frequencies in MHz.)</p> <p>Frequency Lower: 18300 Frequency Upper: 30000 (Please specify additional frequencies in an attachment)</p>	

TYPE OF STATION

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

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

26. TYPE OF EARTH STATION FACILITY:

- Transmit/Receive Transmit-Only Receive-Only N/A

"For Space Station applications, select N/A."

PURPOSE OF MODIFICATION

27. The purpose of this proposed modification is to: (Place an 'X' in the box(es) next to all that apply.)

- a — authorization to add new emission designator and related service
- b — authorization to change emission designator and related service
- c — authorization to increase EIRP and EIRP density
- d — authorization to replace antenna
- e — authorization to add antenna
- f — authorization to relocate fixed station
- g — authorization to change frequency(ies)
- h — authorization to add frequency
- i — authorization to add Points of Communication (satellites & countries)
- j — authorization to change Points of Communication (satellites & countries)
- k — authorization for facilities for which environmental assessment and radiation hazard reporting is required
- l — authorization to change orbit location
- m — authorization to perform fleet management
- n — authorization to extend milestones
- o — Other (Please specify)

ENVIRONMENTAL POLICY

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. 1.1308 and 1.1311, as an exhibit to this application. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments. Yes No

ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeronautical en route or aeronautical fixed radio station services are not required to respond to Items 30-34.

29. Is the applicant a foreign government or the representative of any foreign government? Yes No

30. Is the applicant an alien or the representative of an alien? Yes No N/A

31. Is the applicant a corporation organized under the laws of any foreign government? Yes No N/A

32. Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country? Yes No N/A

33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?

Yes No N/A

34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit an identification of the aliens or foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.

BASIC QUALIFICATIONS

35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules?
If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.

Yes No

36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explanation of circumstances.

Yes No

Response to Q. 36

37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explanation of circumstances.

Yes No

38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances

Yes No

39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhibit, an explanation of the circumstances.

Yes No

40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, address, and citizenship of those stockholders owning a record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer.

Response to Q. 40

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 attached narrative, technical annex and Schedule S.

Nar. and Tech. Annex

CERTIFICATION

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The applicant certifies that grant of this application would not cause the applicant to be in violation of the spectrum aggregation limit in 47 CFR Part 20. All statements made in exhibits are a material part hereof and are incorporated herein as if set out in full in this application. The undersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are true, complete and correct to the best of his or her knowledge and belief, and are made in good faith.

44. Applicant is a (an): (Choose the button next to applicable response.)

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

45. Name of Person Signing
David K. Moskowitz

→

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

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

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

Application of)	
)	
ECHO STAR SATELLITE OPERATING)	
CORPORATION)	Call Sign S2636
)	File No. SAT-LOA-20040803-00154
For Modification of License To Select TT&C)	SAT-MOD-20050308-_____
Frequencies For Its Ka-band GSO Satellite)	
at 113° W.L.)	
)	

APPLICATION FOR MODIFICATION

EchoStar Satellite Operating Corporation (“EchoStar”) hereby applies to the Commission for authority to modify its authorization to operate a geostationary Ka-band satellite at 113° W.L. in order to specify exact tracking, telemetry and command (“TT&C”) frequencies as required by Condition 9 of that authorization.¹

I. KA-BAND ON-STATION TT&C FREQUENCIES

For on-station operations, EchoStar specifies the following TT&C frequencies for its authorized Ka-band satellite at 113° W.L.:

- 28.352 GHz and 28.598 GHz (both using Right Hand Circular Polarization) as the command frequencies, and
- 18.302 GHz and 18.798 GHz (both using Left Hand Circular Polarization) as the telemetry frequencies.

¹ See Stamp Grant, SAT-LOA-20040803-00154, Call Sign S2636, Condition 9 (granted Oct. 8, 2004) (requiring EchoStar to “submit to the Commission a modification to this authorization, specifying the exact frequencies for tracking, telemetry and command (TT&C) functions for EchoStar-113W, on, or prior to, the date of its first construction milestone, *i.e.* 10/08/05.”).

These TT&C frequencies are on the edges of the authorized Ka-band, as required by Section 25.202(g) of the Rules.² EchoStar also supplies the emission designators and allocated bandwidth, as well as typical link budgets, for these TT&C frequencies in Exhibit 1 and accompanying Schedule S to this Application.

II. KU-BAND LAUNCH AND TRANSFER ORBIT TT&C FREQUENCIES

In addition, the EchoStar-113W spacecraft will have two Ku-band beacons, which will be used for TT&C operations during launch and transfer orbit operations. Accordingly, EchoStar requests a further modification to its authorization to use the following TT&C frequencies for a limited period of time during the launch and transfer orbit operations of the authorized Ka-band satellite:

- 13.752 GHz and 13.998 GHz (both using Left Hand Circular Polarization) as the command frequencies; and
- 11.452 GHz and 11.698 GHz (both using Right Hand Circular Polarization) as the telemetry frequencies.

EchoStar also supplies the emission designators and allocated bandwidth, as well as typical link budgets, for these TT&C frequencies in Attachment A and accompanying Schedule S to this Application.

A. Request for Limited Waiver of Section 25.202(g) of the Rules

EchoStar notes that the use of these TT&C frequencies for a U.S.-licensed spacecraft may not comply with the requirements of Section 25.202(g) of the Rules, 47 C.F.R. § 25.202(g). Accordingly, EchoStar requests a limited waiver of the Rules to allow for such operations.

² See 47 C.F.R. § 25.202(g).

Commission rules can be waived for good cause shown. *See* 47 C.F.R. § 1.3. The Commission recently granted similar requests for EchoStar's Ka-band satellites at the 117° W.L. and 97° W.L. orbital locations.³ There is good cause for a waiver of the Rules in this case because there currently is no worldwide ground network in the Ka-band frequencies to support TT&C functions during launch and transfer orbit operations, while there is an extensive and well-established ground network in the Ku-band frequencies. In addition, the use of Ku-band frequencies for TT&C during launch and transfer orbit operations is prudent because such frequencies are generally more reliable in a wider variety of weather conditions than Ka-band frequencies -- an important consideration during the critical launch and transfer orbit operations of the satellite.

Moreover, grant of the requested waiver would not undermine the purposes of the Commission's rule. The stated purpose of Section 25.202(g) of the Rules is to "minimize interference into other satellite networks" and with the satellite network itself. Another articulated goal of this Rule is spectrum efficiency. Here, the proposed use of small amounts of Ku-band spectrum at the edges of the allocated band for a very limited amount of time during launch and transfer orbit operations will be fully coordinated with other authorized users of these frequencies and achieved on a non-harmful interference basis. Therefore, such operations will not raise any interference concerns for other authorized operations in these frequencies.

Once the satellite has achieved its authorized orbital location, the Ku-band beacons will be turned off and the specified frequencies will not be used for any TT&C functions. At that point, the Ku-band beacons will serve only as backup TT&C beacons, and will only be

³ *See In the Matter of EchoStar Satellite L.L.C. for Modification to Select TT&C Frequencies for its Ka-band GSO Satellite at 117 W.L.*, Order and Authorization, DA 05-536 (Released: March 2, 2005) and SAT-MOD-20050308-00059, Grant of Authority, Public Notice, DA No. 05-1130, (April 22, 2005).

reactivated in the future if the spacecraft develops anomalies such that the Ka-band TT&C frequencies are no longer functional. In that event, EchoStar will request such authority as may be necessary for emergency use of the Ku-band frequencies.

For all of the above reasons, the requested waiver of Section 25.202(g) of the Rules is in the public interest, and EchoStar should be authorized to make limited use of Ku-band frequencies during launch and transfer orbit operations for its authorized satellite.

III. CONCLUSION

EchoStar respectfully requests that this modification application to specify the TT&C frequencies of its licensed Ka-band satellite at 113° W.L. be expeditiously granted, along with the requested waiver of Section 25.202(g) of the Rules, and that the Condition 9 of its authorization be removed.

Respectfully submitted,

EchoStar Satellite Operating Corporation

/s/

David K. Moskowitz

Executive Vice President and

General Counsel

EchoStar Satellite Operating Corporation

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Counsel for EchoStar Satellite Operating Corporation

Exhibit 1

TECHNICAL ANNEX

TT&C CHARACTERISTICS OF THE ECHOSTAR-113W SATELLITE

1. GENERAL DESCRIPTION

The TT&C sub-system provides for communications during pre-launch, transfer orbit and on-station operations. The TT&C sub-system will operate at the edges of the Ku-bands during transfer orbit and emergency operations. When on-station, the satellite will operate at the edges of the Ka-bands through a global beam. All transmissions will operate in a circular polarization mode. A summary of the TT&C subsystem performance is given in Table 1-1.

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

Parameter	Transfer Orbit and Emergency	On-Station
Command/Ranging Frequencies	13,752 MHz 13,998 MHz	28,352 MHz 28,598 MHz
Uplink Flux Density	Between -80 and -60 dBW/m ²	Between -90 and -75 dBW/m ²
Uplink Polarization	LHCP	RHCP
Uplink Antenna Coverage (relative to the negative yaw axis of the spacecraft)	0 to $\pm 30^\circ$ $\pm 70^\circ$ to $\pm 110^\circ$	$\pm 9^\circ$
Peak Deviation (Command/Ranging)	± 400 kHz	± 400 kHz
Telemetry/Ranging Frequencies	11,452 MHz 11,698 MHz	18,302 MHz 18,798 MHz
Downlink Polarization	RHCP	LHCP
Downlink Antenna Coverage (relative to the negative yaw axis of the spacecraft)	0 to $\pm 30^\circ$ $\pm 70^\circ$ to $\pm 110^\circ$	$\pm 9^\circ$
Maximum Downlink EIRP	16.0 dBW	22.0 dBW
Telemetry/Ranging Modulation Index		
1 sub-carrier	1.0	1.0
2 sub-carriers	0.7	0.7
3 sub-carriers	0.6	0.6

2. EMISSION DESIGNATORS AND ALLOCATED BANDWIDTH

The emission designators and allocated bandwidths for both the telecommand and telemetry emissions are as follows:

Telecommand: 1M00F2D (1.0 MHz)

Telemetry: 1M00G2D (1.0 MHz)

3. LINK BUDGETS

Tables 3-1 through 3-4 provide the command and telemetry link budgets for transfer orbit/emergency operations and on-station operations.

Table 3-1: Command Link Budget (Transfer Orbit and Emergency Operations)

Command Link Budget (Transfer Orbit and Emergency)			
Link Parameters		High U/L	Low U/L
Frequency	(MHz)	13,998	13,998
Incident Flux Density	(dBW/m ²)	-60.0	-80.0
Aperture Factor	(dB-m ²)	-44.4	-44.4
Incident Isotropic Power	(dBW)	-104.4	-124.4
Antenna Gain (EOC)	(dBi)	-0.5	-0.5
Noise Temperature	(dB-K)	30.0	30.0
Total Receive Losses	(dB)	12.0	12.0
Satellite G/T	(dB/K)	-30.5	-30.5
Receiver Input Power	(dBm)	-86.9	-106.9
Receiver Threshold	(dBm)	-112.0	-112.0
Spacecraft Margin	(dB)	25.1	5.1

Table 3-2: Telemetry Link Budget (Transfer Orbit and Emergency Operations)

Telemetry Link Budget (Transfer and Emergency)		
Link Parameters		
Frequency	(MHz)	11,698
Transmit Power	(dBW)	16.0
Line Losses	(dB)	3.0
Antenna Gain (EOC)	(dBi)	-0.5
EIRP	(dBW)	12.5
Free Space Path Loss	(dB)	206.1
Rx E/S G/T	(dB/K)	38.0
Downlink C/N	(dB)	13.0
C/N Required	(dB)	9.0
Margin	(dB)	4.0

Table 3-3: Command Link Budget (On-Station Operations)

Command Link Budget (On Station)			
Link Parameters		High U/L	Low U/L
Frequency	(MHz)	28,598	28,598
Incident Flux Density	(dBW/m ²)	-75.0	-90.0
Aperture Factor	(dB-m ²)	-50.6	-50.6
Incident Isotropic Power	(dBW)	-125.6	-140.6
Antenna Gain (EOC)	(dBi)	16.3	16.3
Noise Temperature	(dB-K)	30.0	30.0
Total Receive Losses	(dB)	8.0	8.0
Satellite G/T	(dB/K)	-13.7	-13.7
Receiver Input Power	(dBm)	-87.3	-102.3
Receiver Threshold	(dBm)	-110.0	-110.0
Spacecraft Margin	(dB)	22.7	7.7

Table 3-4: Telemetry Link Budget (On-Station Operations)

Telemetry Link Budget (On Station)		
Link Parameters		
Frequency	(MHz)	18,798
Transmit Power	(dBW)	6.0
Line Losses	(dB)	3.0
Antenna Gain (EOC)	(dBi)	16.0
EIRP	(dBW)	19.0
Free Space Path Loss	(dB)	209.7
Rx E/S G/T	(dB/K)	37.0
Downlink C/N	(dB)	14.9
C/N Required	(dB)	9.0
Margin	(dB)	5.9

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 pleading, 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 pleading, 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, Maryland 20815
(301) 656-8969

RESPONSE TO QUESTION 40

OWNERSHIP AND CORPORATE OFFICERS AND DIRECTORS

OWNERSHIP

EchoStar Satellite Operating Corporation is an indirect, wholly-owned subsidiary of EchoStar Communications Corporation (a Nevada corporation). The stockholders owning of record and/or voting 10 percent or more of the voting stock of EchoStar Communications Corporation include:

<u>Ownership Interest</u>	<u>Citizenship</u>	<u>Approx. Equity Interest</u> ¹
Charles W. Ergen ² Chairman and CEO EchoStar Communications Corporation 9601 South Meridian Blvd. Englewood, CO 80112	USA	53%
Fidelity Management and Research Corporation 82 Devonshire Street Boston, MA 02109	USA (Massachusetts corporation)	15%

¹ As of March 8, 2005. Mr. Ergen and Fidelity Management and Research Corporation have an approximately 92% and 1% voting interest, respectively, in EchoStar Communications Corporation.

² Includes both Class A common and Class B common stock ownership. Class B common stock is owned through a family trust.

CORPORATE OFFICERS AND DIRECTORS³

EchoStar Communications Corporation

Executive Officers:

Charles W. Ergen	Chief Executive Officer
James DeFranco	Executive Vice President
Carl E. Vogel	Vice Chairman
Michael A. Neuman	President and Chief Operating Officer
David K. Moskowitz	Executive Vice President, General Counsel and Secretary
Steven B. Schaver	President, EchoStar International Corporation
David J. Rayner	Executive Vice President and Chief Financial Officer
Mark W. Jackson	President, EchoStar Technologies Corporation
Michael Schwimmer	Executive Vice President, Programming and Marketing
O. Nolan Daines	Executive Vice President, Information Technology and Broadband
Michael Kelly	Executive Vice President, DISH Network Service L.L.C. and Customer Service Operations

Board of Directors:

Charles W. Ergen	Chairman
Carl Vogel	Vice Chairman
Steven R. Goodbarn	
James DeFranco	
David K. Moskowitz	
Cantey M. Ergen	
Raymond L. Friedlob	
C. Michael Schroeder	
Michael T. Dugan	
Tom A. Ortolf	

EchoStar Satellite Operating Corporation

Executive Officers:

Charles W. Ergen	President and Chief Executive Officer
James DeFranco	Executive Vice President
David K. Moskowitz	Executive Vice President, General Counsel, Corporate Secretary
Kyle J. Kiser	Treasurer
Stanton Dodge	Assistant Corporate Secretary

³ The address for all officers and directors of EchoStar Communications Corporation and EchoStar Satellite Operating Corporation is 9601 South Meridian Blvd., Englewood, CO 80112.

Board of Directors:

Charles W. Ergen Chairman

James DeFranco

David K. Moskowitz