

File # SAT-MOD-20050308-00059
with attached conditions

Call Sign S2499 Grant Date April 20, 2005
(or other identifier)

Approved by OMB
3060-0678

Term Dates
From See conditions To: See conditions

Approved: Robert G. Nelson Chief Satellite
Engineering Branch



Date & Time Filed: Mar 8 2005 8:35:53:680PM
File Number: SAT-MOD-20050308-00059

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

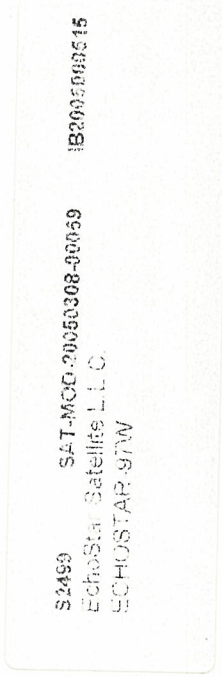
FCC 312 MAIN FORM FOR OFFICIAL USE ONLY

APPLICANT INFORMATION

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

Application of EchoStar Satellite L.L.C. for Modification of License to Select TT&C Frequencies for Its Ka-band GSO Satellite at 97W

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



Attachment
Conditions of Authorization
April 20, 2005

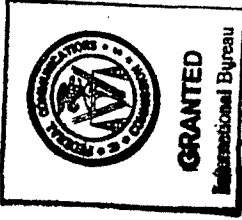
1. Echostar Satellite LLC's (Echostar's) application File No. SAT-MOD-20050308-00059 to modify its current authorization File No. SAT-LOA-20030827-00186, Call Sign S2499, IS GRANTED. Accordingly EchoStar is authorized to launch and operate its EchoStar-97W satellite into 97.0° W.L., in the 18.3-18.8 GHz (space-to-Earth), 19.7-20.2 GHz (space-to-Earth), 28.35-28.6 GHz (Earth-to-space), and 29.25-30.0 GHz (Earth-to-space) frequency bands and to operate its TT&C on-station at 29.999 GHz (RHCP) (Earth-to-space), 19.701 GHz (LHCP) (space-to-Earth), and 20.199 GHz (LHCP) (space-to-Earth), in accordance with the terms, conditions, and technical specifications set forth in its application, this attachment and the Federal Communications Commission's Rules.
2. Echostar's request for a waiver of 47 C.F.R. § 25.202(g) IS GRANTED as described herein. Requests to operate launch and transfer orbit TT&C for Ka-band networks outside of the authorized band are evaluated on a case-by-case basis until such time that the world wide network of TT&C facilities operational at Ka-band is in existence. Accordingly this grant is consistent with previous Commission actions.¹ Echostar may operate the TT&C for the Echostar-97W satellite during launch and transfer orbit operations using 1 megahertz of bandwidth at the center frequencies of 14.001 GHz (RHCP) (Earth-to-space), 14.003 GHz (RHCP) (Earth-to-space), 11.7055 GHz (LHCP) (space-to-Earth) and 12.198 GHz (LHCP) (space-to-Earth).
3. Echostar must cease operations of the TT&C for the Echostar-97W satellite at 14.001 GHz (RHCP) (Earth-to-space), 14.003 GHz (RHCP) (Earth-to-space), 11.7055 GHz (LHCP) (space-to-Earth) and 12.198 GHz (LHCP) (space-to-Earth)) upon arrival at its assigned orbital location. Upon arrival at its assigned orbital location Echostar shall not operate the TT&C for Echostar-97W on 14.001 GHz (RHCP) (Earth-to-space), 14.003 GHz (RHCP) (Earth-to-space), 11.7055 GHz (LHCP) (space-to-Earth) and 12.198 GHz (LHCP) (space-to-Earth) without further Commission authorization.
4. Echostar shall coordinate its launch and transfer orbit TT&C operations with existing satellite networks to ensure that no unacceptable interference results from its TT&C operations during its launch and transfer orbit operations.
5. Echostar's launch and transfer orbit operations shall not cause harmful interference to any lawfully operating in-orbit satellites and Echostar shall cease operations immediately upon notification of such interference and Echostar shall inform the FCC in writing immediately of such an event.
6. Echostar is required to accept interference from other lawfully operating in-orbit satellites during its launch and transfer orbit operations.
7. All conditions of the March 8, 2004 grant with the exception of condition 9 otherwise

¹ See, Echostar Satellite LLC., Modification of License to Select TT&C Frequencies for its Ka-band GSO Satellite at 117° W.L., *Order and Authorization*, DA 05-536, Adopted March 2, 2005.

remain in effect.²

8. Echostar is afforded thirty days from the date of release of this grant and authorization to decline this authorization as conditioned. Failure to respond within this period will constitute formal acceptance of the authorization as conditioned.
9. This grant is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective upon release. Petitions for reconsideration under Section 1.106 or applications for review under Section 1.115 of the Commission's rules, 47 C.F.R. §§ 1.106, 1.115, may be filed within 30 days of the date of the public notice indicating that this action was taken.

² See Stamp Grant, SAT-LOA-20030827-00186, Call Sign S2499, (granted March 8, 2004); Stamp Grant



File # SAT-LOA-20030827-00186
 WITH ATTACHED CONDITIONS
 Call Sign SE1499 Consolidated March 8, 2004
 (or other identifier)
 From See Conditions For See Conditions
 Approved by OMB 3060-0678
Tim Deane
Chief Satellite
Robert G. Nelson Engineer in Charge

Date & Time Filed: Aug 27 2003 12:00:52:220AM
 File Number: SAT-LOA-20030827-00186
 Callsign/Satellite ID: S2499

APPLICATION FOR SATELLITE SPACE STATION AUTHORIZATIONS
 FCC 312 MAIN FORM FOR OFFICIAL USE ONLY

APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:
 Application for Authority to Construct, Launch and Operate a Geostationary Satellite Using Ka-band Frequencies at 81 degrees W.L.

1-8. Legal Name of Applicant

Name:	EchoStar Satellite Corporation	Phone Number:	303-723-1000
DBA Name:		Fax Number:	303-723-1699
Street:	5701 South Santa Fe	E-Mail:	
City:	Littleton	State:	CO
Country:	USA	Zipcode:	80120
Attention:	David K Moskowitz		

S2499 SAT-LOA-20030827-00186 IB2003001607
 EchoStar Satellite L.L.C.
 EchoStar-S7W

Attachment
Conditions of Authorization
3/8/2004

1. EchoStar Satellite Corporation's application, SAT-LOA-20030827-00186, Call Sign S2499, IS GRANTED as amended by application SAT-AMD-20031203-00345 and EchoStar Satellite Corporation is authorized to launch and operate its EchoStar-97W satellite at 97° W.L., in the frequency bands 18.3-18.8 GHz, 19.7-20.2 GHz, 28.35-28.6 GHz, and 29.25-30.0 GHz, in accordance with the terms, conditions, and technical specifications set forth in its application and this Attachment.
2. EchoStar-97W must be constructed, launched, and placed into operation in accordance with the technical parameters and terms and conditions of this authorization by these specified time periods following the date of authorization:
 - a. Execute a binding contract for construction within one year (3/8/2005)
 - b. Complete the Critical Design Review within two years (3/8/2006)
 - c. Commence construction within three years (3/8/2007)
 - d. Launch and begin operations within five years (3/8/2009)
 - e. EchoStar Satellite Corporation must file a bond with the Commission in the amount of \$5 million, pursuant to the procedures set forth in Public Notice, DA 03-2602, 18 FCC Rcd 16283 (2003), within 30 days of the date of this grant (4/7/2004).

Failure to meet any of these dates shall render this authorization null and void.

3. EchoStar Satellite Corporation shall prepare the necessary information, as may be required, for submission to the International Telecommunication Union (ITU) to initiate and complete the advance publication, international coordination, due diligence, and notification process of this space station, in accordance with the ITU Radio Regulations. EchoStar Satellite Corporation shall be held responsible for all cost recovery fees associated with these ITU filings. We also note that no protection from interference caused by radio stations authorized by other administrations is guaranteed unless coordination and notification procedures are timely completed or, with respect to individual administrations, by successfully completing coordination agreements. Any radio station authorization for which coordination has not been completed may be subject to additional terms and conditions as required to effect coordination of the frequency assignments of other administrations. *See* 47 C.F.R. § 25.111(b).
4. The license term for the EchoStar-97W satellite, Call Sign S2499, is fifteen years and will begin to run on the date that EchoStar Satellite Corporation certifies to the Commission that the satellite has been successfully placed into orbit and its operation fully conforms to the terms and conditions of this authorization.
5. EchoStar Satellite Corporation must coordinate its downlink operations in the bands 18.3-18.8 GHz and 19.7-20.2 GHz with U.S. Government systems, including Government operations to earth stations in foreign countries, in accordance with footnote US334 to the Table of Frequency Allocations, 47 C.F.R. § 2.106.
6. EchoStar Satellite Corporation must conduct its operations pursuant to this authorization in a manner consistent with the power flux-density requirements of footnote US255 to the Table of Frequency Allocations, 47 C.F.R. § 2.106, and 47 C.F.R. § 25.208, of the Commission's Rules.

7. EchoStar Satellite Corporation shall provide a written statement to the Commission within 60 days of the date of this grant that identifies any known satellites located at, or planned to be located at, EchoStar Satellite Corporation's assigned orbital location, or assigned in the vicinity of that location such that the station-keeping volume of the respective satellites might overlap, and that states the measures that will be taken to prevent in-orbit collisions with such satellites. This statement should address any licensed FCC systems, or any systems applied for and under consideration by the FCC. The statement need not address every filing with the ITU that meets these criteria, but should assess and address any systems reflected in ITU filings that are in operation or that EchoStar Satellite Corporation believes may be progressing toward launch, *e.g.*, by the appearance of the system on a launch vehicle manifest. If EchoStar Satellite Corporation elects to rely on coordination with other operators to prevent in-orbit collisions, it shall provide a statement as to the manner in which such coordination will be effected.
8. This grant does not in any way constitute an approval of EchoStar Satellite Corporation's post-mission disposal plan for EchoStar-97W.
9. EchoStar Satellite Corporation shall submit to the Commission a modification to this authorization, specifying the exact frequencies for tracking, telemetry and command (TT&C) functions for EchoStar-97W, on, or prior to, the date of its first construction milestone, *i.e.*, 3/8/2005. EchoStar Satellite Corporation states in paragraph A.19 that the TT&C frequencies for EchoStar-97W will be "within the Ka bands" and that it will provide its final TT&C frequencies for the EchoStar-97W satellite to the Commission shortly after it has selected a manufacturer for the satellite. Thus, we conclude that EchoStar Satellite Corporation will be able to provide precise TT&C frequencies to the Commission by the time it has executed a binding contract for construction. In addition, we remind EchoStar Satellite Corporation that, consistent with 47 C.F.R. § 25.202(g), the frequencies selected for TT&C functions must be at either or both edges of the allocated bands.
9. EchoStar Satellite Corporation is afforded thirty days from the date of adoption of this grant and authorization to decline this authorization as conditioned. Failure to respond within this period will constitute formal acceptance of the authorization as conditioned.
10. Assignment of any orbital location is subject to change by summary order of the Commission on 30 days notice and does not confer any permanent right to use the orbit and spectrum.
11. Neither this grant nor any right granted by this authorization, shall be transferred, assigned or disposed of in any manner, voluntarily or involuntarily, or by transfer of control of any corporation holding this authorization, to any person except upon application to the Commission and upon a finding by the Commission that the public interest, convenience and necessity will be served thereby.
12. This grant is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective upon adoption. Petitions for reconsideration under Section 1.106 or applications for review under Section 1.115 of the Commission's rules, 47 C.F.R. §§ 1.106, 1.115, may be filed within 30 days of the date of the public notice indicating that this action was taken.

9-16. Name of Contact Representative (If other than applicant)

Name: Pantelis Michalopoulos **Phone Number:** 202-429-3000
Company: Steptoe & Johnson LLP **Fax Number:** 202-429-3902
Street: 1330 Connecticut Avenue NW **E-Mail:** pmichalo@steptoe.com
City: Washington **State:** DC
Country: USA **Zipcode:** 20036-
Contact Title: 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)

9-16. Name of Contact Representative (If other than applicant)

Name: Pantelis Michalopoulos **Phone Number:** 202-429-3000
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
Contact Title: **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? <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). <input type="radio"/> Governmental Entity <input type="radio"/> Noncommercial educational licensee <input type="radio"/> Other (please explain):</p>	
<p>17d. Fee Classification BFY – Space Station Modification (Geostationary)</p>	
<p>18. If this filing is in reference to an existing station, enter: (a) Call sign of station: S2499</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: (a) Date pending application was filed: (b) File number: SATLOA2003082700186</p>

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
- g. Other (please specify)

21. STATUS: Choose the button next to the applicable status. Choose only one.

Common Carrier
 Non-Common Carrier

22. If earth station applicant, check all that apply.

Using U.S. licensed satellites
 Using Non-U.S. licensed satellites

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

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: 18000 Frequency Upper: 30000 (Please specify additional frequencies in an attachment)

TYPE OF STATION

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

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

26. TYPE OF EARTH STATION FACILITY:

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

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

PURPOSE OF MODIFICATION

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

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

ENVIRONMENTAL POLICY

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. 1.1308 and 1.1311, as an exhibit to this application. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments.

Yes No

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 N/A

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

Yes No N/A

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

Yes No N/A

32. Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?

Yes No N/A

<p>33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?</p>	<p><input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A</p>
<p>34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit an identification of the aliens or foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.</p>	

BASIC QUALIFICATIONS

<p>35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules? If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No</p>
<p>36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explanation of circumstances.</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p style="text-align: right;">Q36</p>

<p>37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explanation of circumstances.</p>	<input type="radio"/> Yes	<input checked="" type="radio"/> No
<p>38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances</p>	<input type="radio"/> Yes	<input checked="" type="radio"/> No
<p>39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhibit, an explanation of the circumstances.</p>	<input type="radio"/> Yes	<input checked="" type="radio"/> No
<p>40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, address, and citizenship of those stockholders owning a record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer.</p>		

Q40

<p>41. By checking Yes, the undersigned certifies, that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application"; for these purposes.</p>	<p style="text-align: right;"> <input checked="" type="radio"/> Yes <input type="radio"/> No </p>
<p>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.</p>	<p style="text-align: right;"> <input type="radio"/> Yes <input checked="" type="radio"/> No </p>
<p>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?</p>	
<p>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.)</p> <div style="border: 1px solid black; padding: 5px; min-height: 100px;"> <p>See attached narrative, technical annex and Schedule S.</p> </div> <p style="text-align: right;">Narrative and Annex</p>	

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 & 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).**

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.

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

Application of)	
ECHOSTAR SATELLITE L.L.C.)	
For Modification of License To Select TT&C)	Call Sign S2499
Frequencies For Its Ka-band GSO Satellite)	File No. SAT-LOA-20030827-00186
at 97° W.L.)	SAT-AMD-20031203-00345
)	SAT-MOD-20050308-_____

APPLICATION FOR MODIFICATION

EchoStar Satellite L.L.C. ("EchoStar") hereby applies to the Commission for authority to modify its authorization to operate a geostationary Ka-band satellite at 97° W.L. in order to specify exact tracking, telemetry and command ("TT&C") frequencies as required by Condition 8 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 97° W.L.:

- 29.999 GHz (using Right Hand Circular Polarization) as the command frequency, and
- 19.701 GHz and 20.199 GHz (both using Left Hand Circular Polarization) as the telemetry frequencies.

¹ See Stamp Grant, SAT-LOA-20030827-00186, SAT-AMD-20041203-00345, Call Sign S2499, Condition 8 (granted Mar. 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-97W, on, or prior to, the date of its first construction milestone, *i.e.* 3/08/05.").

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 Attachment A and accompanying Schedule S to this Application.

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

In addition, the EchoStar-97W 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:

- 14.001 GHz and 14.003 GHz (both using Right Hand Circular Polarization) as the command frequencies; and
- 11.7055 GHz and 12.198 GHz (both using Left 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 a similar request for EchoStar's Ka-band satellite at the 117 W.L. orbital location.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 reactivated in the future if the spacecraft develops anomalies such that the Ka-band TT&C

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).

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.

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).

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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).

Response to Question 40

OWNERSHIP AND CORPORATE
OFFICERS AND DIRECTORS

OWNERSHIP

EchoStar Satellite L.L.C. (a Colorado limited liability company) 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 - Chairman and Chief Executive Officer
James DeFranco - Executive Vice President
Steven B. Schaver - President - EchoStar International Corporation
David K. Moskowitz - Executive Vice President, General Counsel and Secretary
Mark W. Jackson - President - EchoStar Technologies Corporation
David J. Rayner - Senior Vice President and Chief Financial Officer
Michael Kelly - Executive Vice President - DISH Network Service, L.L.C. and Customer Service
Michael Schwimmer - Executive Vice President of Marketing and Programming
O. Nolan Daines - Senior Vice President of Broadband

Board of Directors:

Charles W. Ergen - Chairman
Steven R. Goodbarn
James DeFranco
David K. Moskowitz
Michael T. Dugan
Cantey M. Ergen
Raymond L. Friedlob
C. Michael Schroeder

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

EchoStar Satellite L.L.C.

Executive Officers:

Charles W. Ergen: President and Chief Executive Officer

James DeFranco: Executive Vice President

David K. Moskowitz: Executive Vice President, General Counsel and Secretary

Board of Directors:

Charles W. Ergen - Chairman

James DeFranco

David K. Moskowitz

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)	14,003	14,003
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)	12,198
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)	206.5
Rx E/S G/T	(dB/K)	38.0
Downlink C/N	(dB)	12.6
C/N Required	(dB)	9.0
Margin	(dB)	3.6

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

Command Link Budget (On Station)			
Link Parameters		High U/L	Low U/L
Frequency	(MHz)	29,999	29,999
Incident Flux Density	(dBW/m ²)	-75.0	-90.0
Aperture Factor	(dB-m ²)	-51.0	-51.0
Incident Isotropic Power	(dBW)	-126.0	-141.0
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)	-87.7	-102.7
Receiver Threshold	(dBm)	-110.0	-110.0
Spacecraft Margin	(dB)	22.3	7.3

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

Telemetry Link Budget (On Station)		
Link Parameters		
Frequency	(MHz)	20,199
Transmit Power	(dBW)	6.0
Line Losses	(dB)	3.0
Antenna Gain (EOC)	(dBi)	16.3
EIRP	(dBW)	19.3
Free Space Path Loss	(dB)	210.4
Rx E/S G/T	(dB/K)	37.0
Downlink C/N	(dB)	14.5
C/N Required	(dB)	9.0
Margin	(dB)	5.5

FCC 312 Schedule S FEDERAL COMMUNICATIONS COMMISSION Page 1: General, Frequency Bands, and GSO Orbit
SATELLITE SPACE STATION AUTHORIZATIONS (Technical and Operational Description)

S1. GENERAL INFORMATION Complete for all satellite applications.

a. Space Station or Satellite Network Name: ECHOSTAR-97W	e. Estimated Date of Placement into Service: N	i. Will the space station(s) operate on a Common Carrier Basis: N
b. Construction Commencement Date:	f. Estimated Lifetime of Satellite(s): Years	j. Number of transponders offered on a common carrier basis:
c. Construction Completion Date:	g. Total Number of Transponders:	k. Total Common Carrier Transponder Bandwidth: MHz
d1. Est Launch Date Begin:	d2. Est Launch Date End:	l. Orbit Type: Mark all boxes that apply: <input checked="" type="checkbox"/> GSO <input type="checkbox"/> NGSO

S2. OPERATING FREQUENCY BANDS Identify the frequency range and transmit/receive mode for all frequency bands in which this station will operate. Also indicate the nature of service(s) for each frequency band.

Lower Frequency (Hz)	Frequency Band Limits		e. T/R Mode	f. Nature of Service(s): List all that apply to this band	
	a. Numeric	b. Unit (K/M/G)			c. Numeric
14000.5	M	14001.5	M	R	Fixed Satellite Service
14002.5	M	14003.5	M	R	Fixed Satellite Service
11705	M	11706	M	T	Fixed Satellite Service
29998.5	M	29999.5	M	R	Fixed Satellite Service
19700.5	M	19701.5	M	T	Fixed Satellite Service
20198.5	M	20199.5	M	T	Fixed Satellite Service
12197.5	M	12198.5	M	T	Fixed Satellite Service

S3. ORBITAL INFORMATION FOR GEOSTATIONARY SATELLITES ONLY:

a. Nominal Orbital Longitude (Degrees E/W): 97 W	b. Alternate Orbital Longitude (Degrees E/W):	c. Reason for orbital location selection:
Longitudinal Tolerance or E/W Station-Keeping: d. Toward West: 0.05 Degrees e. Toward East: 0.05 Degrees	f. Inclination Excursion or N/S Station-Keeping Tolerance: 0.05 Degrees	g. Westernmost: h. Easternmost:
i. Reason for service are selection (Optional):		

**FCC 312
Schedule S**

**FEDERAL COMMUNICATIONS COMMISSION
SATELLITE SPACE STATION AUTHORIZATIONS
(Technical and Operational Description)**

S1. GENERAL INFORMATION Complete for all satellite applications.

a. Space Station or Satellite Network Name: ECHOSTAR-97W		e. Estimated Date of Placement into Service:		i. Will the space station(s) operate on a Common Carrier Basis: N	
b. Construction Commencement Date:		f. Estimated Lifetime of Satellite(s): Years		j. Number of transponders offered on a common carrier basis:	
c. Construction Completion Date:		g. Total Number of Transponders:		k. Total Common Carrier Transponder Bandwidth: MHz	
d1. Est Launch Date Begin:		d2. Est Launch Date End:		l. Orbit Type: Mark all boxes that apply: <input checked="" type="checkbox"/> GSO <input type="checkbox"/> NGSO	
		h. Total Transponder Bandwidth (no. transponders x Bandwidth) MHz			

**S2. OPERATING FREQUENCY BANDS Identify the frequency range and transmit/receive mode for all frequency bands in which this station will oper
Also indicate the nature of service(s) for each frequency band.**

Lower Frequency (Hz) a. Numeric	Frequency Band Limits		d. Unit (K/M/G)	e. T/R Mode	f. Nature of Service(s): List all that apply to this band
	Upper Frequency (Hz) b. Numeric	c. Unit (K/M/G)			
14000.5	M	14001.5	M	R	Fixed Satellite Service
14002.5	M	14003.5	M	R	Fixed Satellite Service
11705	M	11706	M	T	Fixed Satellite Service
29998.5	M	29999.5	M	R	Fixed Satellite Service
19700.5	M	19701.5	M	T	Fixed Satellite Service
20198.5	M	20199.5	M	T	Fixed Satellite Service
12197.5	M	12198.5	M	T	Fixed Satellite Service

S3. ORBITAL INFORMATION FOR GEOSTATIONARY SATELLITES ONLY:

a. Nominal Orbital Longitude (Degrees E/W): 97 W	b. Alternate Orbital Longitude (Degrees E/W):	c. Reason for orbital location selection:	
f. Inclination Excursion or N/S Station-Keeping Tolerance: 0.05 Degrees 0.05 Degrees		Range of orbital are in which adequate service can be provided (Optional): Degrees <u>EW</u>	
g. Westernmost: h. Easternmost:			
i. Reason for service are selection (Optional):			

**FEDERAL COMMUNICATIONS COMMISSION
SATELLITE SPACE STATION AUTHORIZATIONS
FCC Form 312 - Schedule S: (Technical and Operational Description)**

S4. ORBITAL INFORMATION FOR NON-GEOSTATIONARY SATELLITES ONLY

- S4a. Total Number of Satellites in Network or System: _____
- S4c. Celestial Reference Body (Earth, Sun, Moon, etc.): _____
- S4b. Total Number of Orbital Planes in Network or System: _____
- S4d. Orbit Epoch Date: _____

For each Orbital Plane Provide:

(e) Orbital Plane No.	(f) No. of Satellites in Plane	(g) Inclination Angle (degrees)	(h) Orbital Period (Seconds)	(i) Apogee (km)	(j) Perigee (km)	(k) Right Ascension of the Ascending Node (Deg.)	(l) Argument of Perigee (Degrees)	(m) Begin Angle	(n) End Angle	(o) Other

S5. INITIAL SATELLITE PHASE ANGLE For each satellite in each orbital plane, provide the initial phase angle.

(a) Orbital Plane No.	(b) Satellite Number	(c) Initial Phase Angle (Degrees)

NO NGSO DATA FILED

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SATELLITE SPACE STATION AUTHORIZATIONS
FCC Form 312 - Schedule S: (Technical and Operational Description)

S6. SERVICE AREA CHARACTERISTICS for each service area provide:

(a) Service Area ID	(b) Type of Associated Station (Earth or Space)	(c) Service Area Diagram File Name (GXT File)	(d) Service Area Description. Provide list of geographic areas (state postal codes or ITU 3-lr codes), satellites or Figure No. of Service Area Diagram.
SA1	S		Visible Earth

FEDERAL COMMUNICATIONS COMMISSION
SATELLITE SPACE STATION AUTHORIZATIONS
FCC Form 312 - Schedule S: (Technical and Operational Description)

S7. SPACE STATION ANTENNA BEAM CHARACTERISTICS For each antenna beam provide:

(a) Beam ID	(b) T/R Mode	(c) Isotropic Antenna Gain (dB)		(e) Pointing Error (Degrees)	(f) Rotational Error (Degrees)	(g) Min. Cross-Polarization (dB)	(h) Polarization Switchable? (Y/N)	(i) Polarization Alignment Rel. Plane (Degrees)	(j) Service Area ID	Transmit		Receive				
		(c) Peak (dB)	(d) Edge (dB)							(k) Input Losses (dB)	(l) Effective Output Power (W)	(m) Max. EIRP (dBW)	(n) System Noise Temp (K)	(o) G/T Max. Gain Pt. (dbi/K)	(p) Min. Saturation Flux Density (dBW/m2)	(q) Max. Value
GBL R	R	19.3	16.3	0.15		30	N		SA1			1000	-10.7	-90		
GBLL T	T	19.3	16.3	0.15		30	N		SA1	2	22.3					
OMN R	R	3	-0.5			30	N		SA1				-27	-80		
OMN T	T	3	-0.5			30	N		SA1	3	39.8	16				

FEDERAL COMMUNICATIONS COMMISSION
 SATELLITE SPACE STATION AUTHORIZATIONS
 FCC Form 312 - Schedule S: (Technical and Operational Description)

S8. ANTENNA BEAM DIAGRAMS For each beam pattern provide the reference to the graphic image and numerical data. Also provide the power flux density levels in each beam that result from the emission with the highest power flux density.

(a) Beam ID	(b) T/R Mode	(c) Co-or Cross Polar Mode ("C" or "X")	(d) GSO Ref. Orbital Longitude (Deg. E/W)	(e) NGSO Antenna Gain Contour Description (Figure/Table/ Exhibit)	(f) GSO Antenna Gain Contour Data (GXT File)	Max. Power Flux Density (dBW/M2/Hz)				
						At Angle of Arrival above horizontal (for emission with highest PFD)				
						(g) 5 Deg	(h) 10 Deg	(i) 15 Deg	(j) 20 Deg	(k) 25 Deg
GBL R	C		-97		GBLR.gxt					
GBLL T	C		-97		GBLL.gxt	-128	-128	-128	-128	-128
GBL R	C		-97		GBLR.gxt					
GBLL T	C		-97		GBLL.gxt	-128	-128	-128	-128	-128

FEDERAL COMMUNICATIONS COMMISSION
 SATELLITE SPACE STATION AUTHORIZATIONS
 FCC Form 312 - Schedule S: (Technical and Operational Description)

S9. SPACE STATION CHANNELS For each frequency channel provide: S10. SPACE STATION TRANSPONDERS For each transponder provide:

(a) Channel No.	(B) Assigned Bandwidth (kHz)	(c) T/R Mode	(d) Center Frequency (MHz)	(e) Polarization (H, V, L, R)	(f) TTC or Comm Channel (T or C)
C1	1000 R		14001	R	T
C2	1000 R		14003	R	T
C3	1000 R		29999	R	T
TM1	1000 T		11705.5	L	T
TM2	1000 T		12198	L	T
TM3	1000 T		19701	L	T
TM4	1000 T		20199	L	T

(a) Transponder ID	(b) Transponder Gain (dB)	Receive Band		Transmit Band	
		(c) Channel No.	(d) Beam ID	(e) Channel No.	(f) Beam ID
C001		C1	OMNU		
C002		C2	OMNU		
C003		C3	GBLR		
T001				TM1	OMND
T002				TM2	OMND
T003				TM3	GBLL
T004				TM4	GBLL

FEDERAL COMMUNICATIONS COMMISSION
SATELLITE SPACE STATION AUTHORIZATIONS
FCC Form 312 - Schedule S: (Technical and Operational Description)

S12. ANALOG MODULATION PARAMETERS For each analog emission provide:

(a) Analog Mod. ID	(b) Emission Designator	(c) Assigned Bandwidth (kHz)	(d) Signal Type	(e) Channels per Carrier	Multi-channel Telephony			(j) Video Standard NTSC, PAL, etc.	(k) Video Noise- Weighting (dB)	(l) Video and SCPC/FM Modulation Index	(m) SCPC/FM Componder, Preemphasis, and Noise Weighting (dB)	(n) Total C/N Performance Objective (dB)	(o) Single Entry C/I Objective (dB)
					(f) Ave. Companded Talker Level (dBm0)	(g) Bottom Baseband Freq. (MHz)	(h) Top Baseband Freq. (MHz)						
CMD1	1M00F2D	1000		1								10	22.2
TLM1	1M00G2D	1000		1								9	21.2
CMD2	1M00F2D	1000		1								10	22.2
TLM2	1M00G2D	1000		1								9	21.2

FEDERAL COMMUNICATIONS COMMISSION
 SATELLITE SPACE STATION AUTHORIZATIONS

FCC Form 312 - Schedule S: (Technical and Operational Description)

S14. Is the space station(s) controlled and monitored remotely? If Yes, provide the location and telephone number of the TT and C control point(s): Yes

Remote Control (TT C) Location(s):

S14a: Street Address: 530 EchoStar Drive			
S14b. City: Cheyenne	S14c. County: Laramie	S14d. State/Country: WY	S14e. Zip Code:
S14f. Telephone Number:		S14g. Call Sign of Control Station (if appropriate):	

Remote Control (TT C) Location(s):

S14a: Street Address: 801 North American Sky Boulevard			
S14b. City: Gibert	S14c. County: Maricopa	S14d. State/Country: AZ	S14e. Zip Code:
S14f. Telephone Number:		S14g. Call Sign of Control Station (if appropriate):	

S15. SPACECRAFT PHYSICAL CHARACTERISTICS:

S16. SPACECRAFT ELECTRICAL CHARACTERISTICS:

S17. CERTIFICATIONS:

a. Are the power flux density limits of § 25.208 met?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
b. Are the appropriate service area coverage requirements of § 25.143(b)(ii) and (iii), or § 25.145(c)(1) and (2) met?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> N/A
c. Are the frequency tolerances of § 25.202(e) and the out-of-band emission limits of § 25.202(f)(1), (2) and (3) met?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A

In addition to the information required in this Form, the space station applicant is required to provide all the information specified in Section 25.114 of the Commission's rules, 47 C.F.R. § 25.114.