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File Number: SAT-AMD-20080623-00131

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:
Amendment to 115 LOI

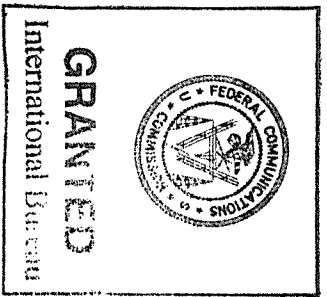
1-8. Legal Name of Applicant			
Name:	ViaSat, Inc.	Phone Number:	760-476-2583
DBA Name:		Fax Number:	760-929-3941
Street:	6155 El Camino Real	E-Mail:	daryl.hunter@viasat.com
City:	Carlsbad	State:	CA
Country:	USA	Zipcode:	92009
Attention:	Mr Daryl T Hunter		

File # SAT-~~AOI~~-20080107-00086, SAT-AMD-20080623-00131;
SAT-AMD-20090213-00023

Call Sign 52747 Grant Date 8/18/09
(or other identifier)

Term Dates
From: _____ To: _____

Approved: Fern G. Samuels



ViaSat, Inc.
File Nos. SAT-LOI-20080107-00006,
SAT-AMD-20080623-00131, and SAT-AMD-20090213-00023
Call Sign: S2747
Attachment – Conditions for Letter of Intent
August 18, 2009

ViaSat, Inc.'s (ViaSat's) request for market access to the United States using its geostationary satellite orbit (GSO) satellite, VIASAT-IOM, operating under the authority of the Isle of Man at the 115.1° W.L. orbital location, File Nos. SAT-LOI-20080107-00006, SAT-AMD-20080623-00131, and SAT-AMD-20090213-00023 is GRANTED.¹ Accordingly, ViaSat may access the United States to provide Fixed Satellite Service (FSS) using the 28.35-28.6 GHz and 29.5-30.0 GHz frequencies (Earth-to-space) and the 18.3-18.8 GHz and 19.7-20.2 GHz frequencies (space-to-Earth). ViaSat may also use the 18.8-19.3 GHz frequencies (space-to-Earth) on a non-interference basis, and the 28.10-28.35 GHz and 28.6-29.1 GHz frequencies (Earth-to-space) on a secondary basis. ViaSat's market access is subject to the technical specifications set forth in its Letter of Intent, the Commission's rules not waived herein, and the following conditions:

1. ViaSat is not authorized to provide any Direct-to-Home (DTH) service, Direct Broadcast Satellite (DBS) or Digital Audio Radio Service (DARS) to, from, or within the United States.

2. ViaSat's use of the 28.10-28.35 GHz frequency band (Earth-to-space) is on a secondary basis for gateway earth station operations only.² This band is designated on a primary basis to the Local Multipoint Distribution Service (LMDS). See Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services, *Third Report and Order*, FCC 97-378, 12 FCC Rcd 22310 (1997). Accordingly, ViaSat's operations must be on an unprotected, non-harmful interference basis relative to LMDS, in accordance with 47 C.F.R. § 2.105(c)(2). ViaSat shall not cause harmful interference to, nor claim protection from, authorized LMDS stations in the 28.10-28.35 GHz frequency band that are presently assigned, or that may be assigned these frequencies in the future. Further, ViaSat must terminate operations immediately upon notification of such interference. In addition, ViaSat may not claim protection from interference from LMDS stations authorized to operate in this band.

3. ViaSat is also granted access for the following telemetry, tracking, and command operations for the VIASAT-IOM space station: command/ranging links (for both transfer orbit and emergency, and on-station) using one megahertz of bandwidth, with either right-hand or left-hand circular polarizations, at each of the uplink center frequencies 29500.5 MHz and 29503.0 MHz; telemetry/ranging links (for both transfer orbit and emergency, and on-station) using one

¹ ViaSat's applications were placed on Public Notice on February 27, 2009. See Policy Branch Information, *Public Notice*, Report No. SAT-00583 (February 27, 2009). No comments were filed in response to the Notice.

² At present, no applications have been filed by earth station operators seeking authority to communicate with the VIACOM-IOM space station. In the event an earth station operator seeks to commence service in the United States via VIACOM-IOM prior to October 31, 2011, it must coordinate these operations with any grandfathered co-primary fixed-service stations in the 18.3-19.3 GHz band before beginning service. See 47 C.F.R. § 2.106, NG144.

megahertz of bandwidth at each of the downlink center frequencies 19701.0 MHz (left-hand circular polarization) and 19703.0 MHz (right-hand circular polarization); and beacon links using one kilohertz of bandwidth at the downlink center frequency 20199.0 MHz (right-hand circular polarization) and the uplink center frequency 29999.0 MHz (right-hand or left-hand circular polarization).

4. ViaSat's request for a waiver of Footnote NG165 to Section 2.106 of the United States Table of Frequency Allocations, 47 C.F.R. § 2.106, to permit ViaSat to operate its GSO FSS VIASAT-IOM space station in the 18.8-19.3 GHz (space-to-Earth) frequency band on a non-conforming basis is GRANTED. In the United States, the 18.8-19.3 GHz frequency band is designated for non-Federal, non-geostationary satellite orbit (NGSO) FSS operations on a primary basis, with no designation for non-Federal GSO FSS operations, and is allocated to Federal GSO and NGSO FSS operations on a primary basis. As a non-conforming user, ViaSat must accept any interference from any non-Federal NGSO FSS system, any Federal GSO FSS or NGSO FSS system, or any grandfathered co-primary fixed service stations authorized to use the 18.8-19.3 GHz frequency band. Also, so as not to constrain the development of currently authorized and future NGSO systems in the 18.8-19.3 GHz band, ViaSat must operate in accordance with the technical and operational parameters specified in its Letter of Intent and the Amendment thereto. In addition, ViaSat shall not cause harmful interference to any authorized non-Federal NGSO FSS system, any authorized Federal GSO FSS or NGSO FSS system, or any grandfathered co-primary fixed service stations, and shall immediately cease operations upon notification of such harmful interference resulting from its operations.

5. ViaSat's request for a waiver of Section 25.210(i) of the Commission's rules is GRANTED. Section 25.210(i) requires space station antennas in the FSS to be designed to meet a cross-polarization isolation of 30 dB within the primary coverage area of the antenna.³ This requirement facilitates two-degree orbital spacing between geostationary satellites. ViaSat maintains that the VIASAT-IOM satellite uplink spot beam receive antennas provide a maximum cross-polarization isolation of 26 dB. ViaSat states the shortfall is in the uplink direction only and will have no adverse effect on adjacent satellite networks.⁴ ViaSat also states that the receive cross-polarization interference is an intrasystem design issue, and does not affect adjacent satellite networks.⁵ We concur with ViaSat that other Ka-band satellite systems should not be affected by the non-compliant operations. Consequently, we find that a waiver is warranted. We grant this waiver with the condition that VIASAT-IOM's operations must accommodate future satellite networks serving the United States that are two-degree compliant. Further, ViaSat shall accept any interference to its non-compliant operations caused by space stations that comply with Section 25.210(i). Grant of this waiver request is consistent with our precedent. *See* Star One S.A.- Petition for Declaratory Ruling to Add the Star One C1 Satellite at 65° W.L. to the Permitted Space Station List, *Order*, 19 FCC Rcd 16334 (Sat. Div. 2004) (finding that the impact on neighboring satellite systems of a 3-5 dB difference from the required cross polarization isolation ratio would be negligible).

6. ViaSat must coordinate its space-to-Earth operations in the 18.3-18.8 GHz and 19.7-20.2 GHz frequency bands with the U.S. Federal systems, including Federal operations to earth stations in foreign countries, in accordance with footnote US 334 to the United States Table of Frequency Allocations, 47 C.F.R. § 2.106. In addition to meeting the terms of the coordination agreement, the non-conforming ViaSat GSO operations at 18.8-19.3 GHz, shall not cause harmful

³ 47 C.F.R. § 25.210(i).

⁴ *ViaSat Amendment*, Technical Annex at 26.

⁵ *ViaSat Amendment*, Technical Annex, at 26, n. 10.

interference to, nor claim protection from, present and future Federal, non-Federal, GSO and NGSO systems or any non-conforming services previously authorized on a non-harmful interference basis.

7. Consistent with the technical specifications in its application, the power flux density (pfd) limits for ViaSat's Ka-band space-to-Earth operations in the 18.3-19.3 GHz frequency band must not exceed -122.1 dBW/m²/MHz at any angle of arrival. Based on ViaSat operating with this pfd of -122.1 dBW/m²/MHz, the pfd limit contained in 47 C.F.R. § 25.208(d) and ITU Article 21.16.2 for the 18.6-18.8 GHz frequency band will also be met.

8. ViaSat's VIASAT-IOM satellite must be constructed, launched, and placed into operation in accordance with the technical parameters in its Letter of Intent and Amendment thereto, and the terms and conditions of this authorization by the following dates:

- a. Enter into a binding non-contingent construction contract by August 18, 2010;
- b. Complete critical design review by August 18, 2011;
- c. Begin construction by August 18, 2012;
- d. Launch and operate by August 18, 2014;
- e. ViaSat must file a bond with the Commission in the amount of \$3 million, pursuant to the procedures set forth in the Public Notice, DA 03-2602, 18 FCC Rcd 16283 (2003) by September 17, 2009.

Failure to meet any of these dates renders this grant null and void.

9. ViaSat is afforded 30 days from the date of the release of this grant and authorization to decline it, as conditioned. Failure to respond within this period will constitute formal acceptance of the authorization, as conditioned.

10. This grant and authorization is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective immediately. 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 and 1.115 may be filed within 30 days of the date of the Public Notice indicating this action was taken.

9-16. Name of Contact Representative

Name:	Elizabeth R. Park	Phone Number:	202-637-2200
Company:	Latham & Watkins LLP	Fax Number:	202-637-2201
Street:	555 Eleventh Street, NW Suite 1000	E-Mail:	elizabeth.park@lw.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20004-
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
- b3. Amendment to a Pending Application
- b4. Modification of License or Registration
- b5. Assignment of License or Registration
- b6. Transfer of Control of License or Registration
- 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)
- (N/A) 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
- (N/A) b12. Application for Database Entry
- b13. Amendment to a Pending Database Entry Application
- b14. Modification of Database Entry

- 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): Amendment to Letter of Intent Filing – No Fee Required

17d.

Fee Classification BFY – Space Station Modification(Geostationary)

<p>18. If this filing is in reference to an existing station, enter: (a) Call sign of station:</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: 01/07/2008 SATL012008010700006</p>
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TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provide or use the following type(s) of service(s): Select all that apply:

- 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: 18300 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

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

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.

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? Isle of Man / United Kingdom

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.)

Viasat, Inc. files this amendment to its pending Letter of Intent to specify additional frequencies at 18.8-19.3 GHz and 28.6-29.1 GHz, to move certain TT&C carriers to different frequencies, and to reflect changes in the satellite design.

Amendment Narrative

43a. Geographic Service Rule Certification

By selecting A, the undersigned certifies that the applicant is not subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25.

A

By selecting B, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will comply with such requirements.

B

By selecting C, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will not comply with such requirements because it is not feasible as a technical matter to do so, or that, while technically feasible, such services would require so many compromises in satellite design and operation as to make it economically unreasonable. A narrative description and technical analysis demonstrating this claim are attached.

C

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

Richard A. Baldrige

46. Title of Person Signing

President & COO

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(U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION
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