

S2902
ViaSat, Inc.
VIASAT-2

SAT-AMD-20150105-00002

IB2015000013



File # SAT-AMD-20150105-00002**

Call Sign S2902 Grant Date 04/15/15
(or other identifier)

Term Dates
From 04/15/15 To: _____

Approved: Stephen J. Duall
Stephen J. Duall
Chief, Satellite Policy Branch

** see also
SAT-MOD-20141105-00121

Approved by OMB
3060-0678

Date & Time Filed: Jan 5 2015 4:31:02:946PM
File Number: SAT-AMD-20150105-00002

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:
ViaSat-2 Amendment to Modification Application

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		

ViaSat, Inc.
IBFS File Nos. SAT-MOD-20141105-00121 and SAT-AMD-20150105-00002
Call Sign S2902

The Letter of Intent of ViaSat, Inc. (ViaSat), as amended, IBFS File Nos. SAT-MOD-20141105-00121 and SAT-AMD-20150105-00002, requesting modification of the grant of access to the United States market for the ViaSat-2 space station, IS GRANTED. Accordingly, the grant of U.S. market access for the ViaSat-2 space station is modified to change the center frequencies used for telemetry, tracking, and command (TT&C) operations and otherwise to reflect the revised technical parameters of the ViaSat-2 satellite under contract for construction. ViaSat-2 will operate under the authority of the United Kingdom at the 69.9° W.L. orbital location. ViaSat is granted access to the U.S. market to provide Fixed-Satellite Service (FSS) using the 18.3-18.8 GHz and 19.7-20.2 GHz (space-to-Earth), and 28.35-28.6 GHz and 29.5-30.0 GHz (Earth-to-space) frequency bands on a primary basis; the 28.1-28.35 GHz and 28.6-29.1 GHz (Earth-to-space) frequency bands on a secondary basis; and the 18.8-19.3 GHz (space-to-Earth) frequency band on a non-conforming basis.¹ ViaSat-2 will use the following modified center frequencies for TT&C operations: 18301 MHz and 18303 MHz (space-to-Earth) and 29501 MHz and 29999 MHz (Earth-to-space). In addition, ViaSat-2 will support an autotrack function using the center frequencies 18799.6 MHz (space-to-Earth) and 29501 MHz (Earth-to-space), and a pseudo-noise modulated carrier also using the center frequency 18799.6 MHz (space-to-Earth). Communications between U.S.-licensed earth stations and the ViaSat-2 space station must be in accordance with the terms, conditions, and technical specifications set forth in ViaSat's Letter of Intent, as amended, the Federal Communications Commission's rules not waived herein, and the following conditions:

1. ViaSat must comply with the conditions placed on its original grant of U.S. market access for the ViaSat-2 space station not explicitly modified by this action. *See* IBFS File No. SAT-LOI-20130319-00040 (granted Dec. 12, 2013).²
2. ViaSat's request for a waiver of Section 25.114(c)(4) of the Commission's rules, 47 C.F.R. § 25.114(c)(4), to the extent necessary to provide antenna beam information for two representative beams in lieu of replicating the beam information for additional, identical beams, IS GRANTED. Specifically, we waive in part Sections 25.114(c)(4)(i), (ii) and (v) of the Commission's rules, 47 C.F.R. §§ 25.114(c)(4)(i), (ii), (v). We find that a waiver is warranted in this instance because the representative beam information, when combined with the antenna gain contour information ViaSat provided under Section 25.114(c)(4)(vii)(C) of the Commission's rules, 47 C.F.R. § 25.114(c)(4)(vii)(C), is sufficient to fulfill the relevant informational requirements.
3. ViaSat's request for a waiver of Section 25.210(i) of the Commission's rules, 47 C.F.R. § 25.210(i), IS GRANTED. Section 25.210(i)(1) requires space station antennas used for FSS operation to provide cross-polarization isolation of at least 30 dB within the primary coverage

¹ The ViaSat-2 satellite also will be capable of operating in the 17.7-18.3 GHz (space-to-Earth) and 27.5-28.1 GHz (Earth-to-space) frequency bands. ViaSat has not requested U.S. market access for these operations. *See* IBFS File No. SAT-MOD-20141105-00121, Narrative at 1 n.1.

² We note that Condition 10 of the original grant was added in error. ViaSat has not requested that we include the ViaSat-2 space station on the Commission's Permitted Space Station List, and we have not done so.


ViaSat, Inc.
IBFS File Nos. SAT-MOD-20141105-00121 and SAT-AMD-20150105-00002
Call Sign S2902

area. The ViaSat-2 transmit and receive antennas are designed to provide a minimum cross-polarization isolation of 24 dB. ViaSat states that this deficit will cause a negligible increase in interference to adjacent satellite networks and to the ViaSat-2 satellite network, and that it has accounted for the self-interference in the design of its link budgets. We find that a waiver is warranted under these circumstances. As a condition of this waiver, ViaSat must not claim greater protection from interference from other radiocommunication systems operating in accordance with the Commission's rules than if its antennas complied with Section 25.210(i)(1).

4. This grant is based upon a continued finding that ViaSat is and will be subject to direct and effective regulation by the United Kingdom concerning orbital debris mitigation. This grant will become effective and remain effective only to the extent that launch and space operations are authorized by the United Kingdom Space Agency under the United Kingdom Outer Space Act. ViaSat must file evidence in the public record of this proceeding demonstrating grant of any such authorizations within five business days of action by the United Kingdom Space Agency.

5. This action is taken pursuant to 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, 1.115, may be filed within 30 days of the date of the public notice indicating that this action was taken.

SAT-MOD-20141105-00121

 GRANTED* International Bureau *with conditions	File # SAT-AMD-2015 0105 - 00002
	Call Sign S2902 Grant Date 04/15/15 (or other identifier)
	Term Dates From 04/15/15 To:
	Approved: <i>Stephen J. Duall</i> Stephen J. Duall Chief, Satellite Policy Branch

9-16. Name of Contact Representative

Name:	John P. Janka	Phone Number:	202-637-2200
Company:	Latham & Watkins LLP	Fax Number:	202-637-2201
Street:	555 Eleventh Street, NW Suite 1000	E-Mail:	john.janka@lw.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20004-1304
Attention:	John P. Janka	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):

17d.

Fee Classification CWY – Space Station Amendment (Geostationary)

18. If this filing is in reference to an existing station, enter:

(a) Call sign of station:
S2902

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: 11/05/2014
(b) File number: SATMOD2014110500121

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 <input type="checkbox"/> b. Mobile Satellite <input type="checkbox"/> c. Radiodetermination Satellite <input type="checkbox"/> d. Earth Exploration Satellite <input type="checkbox"/> e. Direct to Home Fixed Satellite <input type="checkbox"/> f. Digital Audio Radio Service <input type="checkbox"/> g. Other (please specify)</p>	
<p>21. STATUS: Choose the button next to the applicable status. Choose only one. <input checked="" type="radio"/> Common Carrier <input checked="" type="radio"/> Non-Common Carrier</p>	<p>22. If earth station applicant, check all that apply. <input type="checkbox"/> Using U.S. licensed satellites <input type="checkbox"/> Using Non-U.S. licensed satellites</p>
<p>23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities: <input checked="" 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). <input type="checkbox"/> a. C-Band (4/6 GHz) <input type="checkbox"/> b. Ku-Band (12/14 GHz) <input checked="" type="checkbox"/> c. Other (Please specify upper and lower frequencies in MHz.) Frequency Lower: 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?	<input type="radio"/> Yes <input checked="" type="radio"/> No
30. Is the applicant an alien or the representative of an alien?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> 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?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> 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? 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.)

See attached narrative.

Description

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
Daryl T. Hunter

46. Title of Person Signing
Sr. Director, Regulatory Affairs

—>

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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