++ RE-ISSUE W/NEW MILESTONE & BOND CONDITION ++

Approved:

S2917 SAT-LOI-20140204-00013 ViaSat, Inc.

IB2014000194

ViaSat, Inc. VIASAT-KA 89W GRANTED*
International Bureau

*with conditions

Call Sign S2917 Re-ISSUE
Corother identifier)

Term Dates See

Prom 03/23/17

To: conditions

Approved by OMB 3060-0678

Date & Time Filed: Feb 4 2014 2:03:49:206PM

File Number: SAT-LOI-20140204-00013

Callsign/Satellite ID: S2917

Chief, Satellite Alicy Branch

APPLICATION FOR SATELLITE SPACE STATION AUTHORIZATIONS FCC 312 MAIN FORM

FOR OFFICIAL USE ONLY

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APPLICANT INFORMATION

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

Nominal 89 W.L. Letter of Intent

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-LOI-20140204-00013, SAT-AMD-20140218-00023, and SAT-MOD-20150618-00037

IBFS File No(s):	SAT-LOI-20140204-00013, SAT-AMD-20140218-	GRANTED-			
	00023, SAT-MOD-20150618-00037	With Conditions			
Licensee/Grantee:	ViaSat, Inc.	OWW			
Call Sign:	S2917				
Satellite Name:	ViaSat-3 ¹				
Orbital Location:	88.9° W.L.	To A Was			
(required station-	(±0.05° East-West; ±0.05° North-South)	COMMISSION			
keeping tolerance)					
Administration:	United Kingdom	International Bureau			
Nature of Service:	Fixed-Satellite Service	Satellite Division			
Scope of Grant:	Modification to replace bond and milestone condition ²				
Service Area(s):	United States				
Frequencies:	18.3-19.3 GHz (space-to-Earth)				
-	19.7-20.2 GHz (space-to-Earth)				
	28.1-29.1 GHz (Earth-to-space)				
	29.5-30.0 GHz (Earth-to-space)				
	Telemetry, Tracking, and Command Frequencies:				
	18301 MHz, 18303 MHz (space-to-Earth)				
	29501 MHz, 29999 MHz (Earth-to-space)				
	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) ³				

Operations under this grant must comport with the legal and technical specifications set forth by the applicant or petitioner and with Federal Communication Commission's rules not waived herein. This grant is also subject to the following conditions:

¹ ViaSat-3 was previously referred to as VIASAT-KA 89W. See IBFS File No.SAT-MOD-20150618-00037, noting the name change.

² ViaSat was granted U.S. market access in IBFS File Nos. SAT-LOI-20140204-00013 and SAT-AMD-20140218-00023 (granted June 18, 2014), as modified by SAT-MOD-20150618-00037 (granted Oct. 21, 2015). Subsequently, the Commission revised the space station bond and milestone requirements in Comprehensive Review of Licensing and Operating Rules for Satellite Services, *Second Report and Order*, 30 FCC Rcd 14713 (2016), at paras 63 and 80. Existing licensees and market access recipients seeking to proceed under the new rules were directed to submit a letter requesting that its current milestone schedule and bond obligation be replaced with the single, final milestone and escalating bond requirement. ViaSat filed a letter requesting this change. *See* Letter to Marlene H. Dortch, Secretary, FCC from John P. Janka, Counsel for ViaSat, Inc. (June 8, 2016).

³ ViaSat-3 will also 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 frequencies. *See* IBFS File No. SAT-MOD-20150618-00037, Narrative at 1, n.1.

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- 1. This grant does not include provision of any direct-to-home (DTH) services, Direct Broadcast Satellite (DBS) Service, or Digital Audio Radio Service (DARS) to, from, or within the United States.⁴
- 2. ViaSat-3must be maintained with an east/west and north/south station-keeping tolerance of \pm 0.05 degrees of the 88.9° W.L. orbital location.
- 3. Communications between U.S.-licensed earth stations and the ViaSat-3 space station must be in compliance with all existing and future space station coordination agreements reached between the United Kingdom and other Administrations. In the absence of a coordination agreement, such communications must comply with applicable provisions of the ITU Radio Regulations as the Commission cannot guarantee the success of the required conditions.
- 4. ViaSat's request for a waiver of Footnote NG165 to Section 2.106 of the United States Table of Frequency Allocations, 47 CFR § 2.106, to permit ViaSat to operate its GSO FSS ViaSat-3 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 orbit (NGSO) FSS operations on a primary basis, with no designation for non-Federal GSO operations. The 18.8-19.3 GHz band is also 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. In addition, ViaSat must 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 must immediately cease operations upon notification of such harmful interference resulting from its operations.
- 5. ViaSat must coordinate its space-to-Earth operations in the 18.3-19.3 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 US334 to the United States Table of Frequency Allocations, 47 CFR § 2.106. In addition to meeting the terms of the coordination agreement, the non-conforming ViaSat-3 operations in the 18.8-19.3 GHz band must not cause harmful interference to, nor claim protection from, present and future Federal GSO and NGSO systems, non-Federal NGSO systems or any non-conforming services previously authorized on a non-harmful interference basis.
- 6. The power flux-density (PFD) at the Earth's surface produced by the emissions from the ViaSat-3 space station for all atmospheric conditions, and for all methods of modulation in the 18.3-19.3 GHz and 19.7-20.2 GHz frequency bands (space-to-Earth), must not exceed a level of -118 dBW/m2/MHz at any angle of arrival.⁵

⁴ With respect to DBS and DTH, this condition excludes from the scope of this market access grant those services specified in Section 25.701(a)(1)-(5).

⁵ Footnote US255 to the Table of Frequency Allocations, 47 CFR § 2.106, requires that the PFD across the 200 megahertz of the 18.6-18.8 GHz band not exceed -95 dBW/m². ViaSat proposes to operate the ViaSat-3 space station with a maximum PFD of -118 dBW/m²/MHz in this band. This level corresponds to a maximum PFD of -95 dBW/m²/200 MHz. Consequently, ViaSat-3's proposed operations meet the PFD limit in US255. ViaSat 3's operations also meet other PFD limits for transmitting Ka-band space stations. *See* 47 CFR §§ 25.138(a)(6), 25.208(c), 25.208(d), and 25.208(e).

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- 7. ViaSat's request for limited waivers of Sections 25.114(c) and 25.114(d)(3) of the Commission's rules, 47 CFR §§ 25.114(c), 25.114(d)(3), relating to the form of submission of receiver noise temperatures and gain contour diagrams, respectively, is GRANTED. Specifically, we waive Section 25.114(c)(4)(iv) of the Commission's rules, 47 CFR § 25.114(c)(4)(iv), with regard to the receiver noise temperatures. See International Bureau Adopts Policy of Granting Interim Waiver of Certain Requirements for Space Station Applications, Public Notice, Report No. SPB-255, DA 14-90 (Jan. 28, 2014). ViaSat's request for limited waivers of Sections 25.114(c) and 25.114(d)(4) of the Commission's rules, 47 CFR §§ 25.114(c), 25.114(d)(4), relating to the submission of supplementary service area outlines imposed on its gain contour diagrams, is unnecessary.
- 8. ViaSat-3's operations must not cause harmful interference to any non-Federal station authorized to operate on a primary basis in the 28.6-29.1 GHz frequency band, must accept any interference from these systems, and must terminate operations immediately upon notification of harmful interference.
- 9. This grant is based upon a 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.
- 10. Communications between U.S. licensed earth stations and ViaSat-3 in the 28.10-28.35 GHz (Earth-to-space) frequency band is on a secondary basis with respect to LMDS until the provisions adopted in FCC 16-89 go into force. After that, communications between U.S. licensed earth stations and ViaSat-3 in this band are secondary with respect to Upper Microwave Flexible Use Service (UMFUS) operations, except for FSS operations associated with earth stations authorized pursuant to 47 CFR § 25.136.
- 11. ViaSat's request for a waiver of Section 25.114(c)(4) of the Commission's rules, 47 CFR §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 CFR §§ 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 Sections 25.114(c)(4)(vii)(C) of the Commission's rules, 47 CFR §§ 25.114(c)(4)(vii)(C), is sufficient to fulfill the relevant informational requirements.
- 12. This grant of U.S. market access is subject to the following requirements:
 - a. ViaSat must post a surety bond in satisfaction of 47 CFR §§ 25.165(a)(2) & (b) no later than April 22, 2017, and thereafter maintain on file a surety bond requiring payment in the event of a default in an amount, at minimum, determined according to the formula set forth in 47 CFR § 25.165(a)(2);⁶ and

⁶ See also, International Bureau Clarifies Procedures for Maintaining Satellite Space Station Surety Bonds Pursuant to Escalating Bond Requirements, Public Notice, DA 17-81 (Jan. 18, 2017), and International Bureau Updates Procedures for Filing and Maintaining Surety Bonds Pursuant to Revised Milestone and Escalating Bond Requirements, Public Notice, 31 FCC Rcd 11054 (Oct. 7, 2016).

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- b. ViaSat must launch the space station, position it in its assigned orbital location, and operate it in accordance with the station authorization no later than June 18, 2019, 47 CFR § 25.164(a).
- 13. This grant of U.S. market access will be null and void automatically, without further Commission action if ViaSat fails to comply with any of these requirements. Failure to comply with the milestone requirement of 47 CFR § 25.164(a) will also result in forfeiture of ViaSat's surety bond. By July 4, 2019, ViaSat must either demonstrate compliance with its milestone requirement or notify the Commission in writing that the requirement was not met. 47 CFR § 25.164(f).

Licensee/grantee is afforded thirty (30) days from the date of release of this action to decline the grant as conditioned. Failure to respond within this period will constitute formal acceptance of the grant as conditioned.

This action is taken pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 CFR § 0.261, and is effective upon release.

Station licenses are subject to the conditions specified in Section 309(h) of the Communications Act of 1934, as amended, 47 U.S.C. § 309(h).

Action	March 23, 2017	
Date:		
Term Dates	From: March 23, 2017	To: see conditions

Approved:

Stephen J. (Driall

Chief, Satellite Policy Branch

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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:

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E-Mail:

john.janka@lw.com

Suite 1000

City:

Washington

State:

DC

Country:

USA

Zipcode:

20004

-1304

Attention:

Mr. John P. Janka

Relationship:

Legal Counsel

CLASSIFICATION OF FILING

17. Choose the buttonnext to the classification that applies to this filing for both questions a. and b. Choose only one for 17a and only one for 17b.

a.

(N/A) a1. Earth Station

a2. Space Station

b.

o 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

(N/A) b5. Assignment of License or Registration

(N/A) b6. Transfer of Control of License or Registration

(N/A) b7. Notification of Minor Modification

(N/A) b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite

6 b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States

o b10. Replacement Satellite Application - no new frequency bands

6 b12. Petition for Declaratory Ruling to be Added to the Permitted List

(N/A) b13. Other (Please specify)

17c. Is a fee submitted with this application? O If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114 O Governmental Entity O Noncommercial educational licensee Other(please explain): Letter of Intent – No fee required).
17c. Fee Classification BNY – Space Station (Geostationary)	
18. If this filing is in reference to an existing station, enter: (a) Call sign of station: Not Applicable	
19. If this filing is an amendment to a pending application enter: (a) Date pending application was filed: Not Applicable	(b) File number of pending application: Not Applicable

TYPE OF SERVICE

le or use the following type(s) of service(s): Select all that apply:
22. If earth station applicant, check all that apply. Not Applicable
service, see instructions regarding Sec. 214 filings. Choose one.Are these
to a Public Switched Network N/A
applicable frequency band(s).
(Please specify additional frequencies in an attachment)

TYPE OF STATION

THEORSTATION
25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.
(N/A) a. Fixed Earth Station
(N/A) b. Temporary—Fixed Earth Station
(N/A) c. 12/14 GHz VSAT Network
(N/A) d. Mobile Earth Station
e. Geostationary Space Station.
o f. Non-Geostationary Space Station
O g. Other (please specify)
26. TYPE OF EARTH STATION FACILITY: Not Applicable
PURPOSE OF MODIFICATION
27. The purpose of this proposed modification is to: (Place an "X" in the box(es) next to all that Not Applicable apply.)
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. ALIEN OWNERSHIP
ALIEN OWNERSHII

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?	O Yes ⊚ No
30. Is the applicant an alien or the representative of an alien?	O Yes O No O N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	O Yes ⊗ No O 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?	O Yes ⊚ No O 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?	O Yes ⊗ No O 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.	
36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explination of circumstances.	Yes No
37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explination of circumstances.	O 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	O Yes ⊗ No
39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhinit, an explanation of the circumstances.	O 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.	0	Yes	0	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.	0	Yes	0	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.)

ViaSat, Inc. files this Letter of Intent seeking to use a satellite under the authority of the United Kingdom to access the United States using portions of the Ka band at the nominal 89 degree W.L. orbital location.

GIMS Files

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.	O _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.	o 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.)		
O Individual			
O Unincorporated Association			
O Partnership			
⊚ Corporation			
Governmental Entity	·		
Other (please specify)			
45. Name of Person Signing	46. Title of Person Signing		
Daryl T. Hunter	Director, Regulatory Affairs		
47. Please supply any need attachments.			
1:	2: 3:		
	ADE 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).			
(U.S. Code, Title 47, Section	312(a)(1)), AND/OK PORPETTURE (U.S. Code, Title 47, Section 303).		

Completed Schedule S

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