

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:
ViaSat-2 Special Temporary Authority for Orbit Raising to 69.9 W.L. - Des Moines

1. Applicant

Name:	ViaSat, Inc.	Phone Number:	760-476-4812
DBA Name:		Fax Number:	760-929-3941
Street:	6155 El Camino Real	E-Mail:	steven.hemple@viasat.com
City:	Carlsbad	State:	CA
Country:	USA	Zipcode:	92009
Attention:	Mr Steven C. Hemple		



File # SES-STA-20170504-00497
 E160091
 Call Sign 6-13-17 Grant Date 6-13-17
 (or other identifier)
 Term Dates
 From: 6-13-17 To: 10-17
 Approved: [Signature]



File # SES STA 20170504-00497
E160091
Call Sign E160091 Grant Date 6-13-17
(or other identifier)
From: 6-13-17 Term Dates To: 12-10-17
Approved: Paul E. Glass

Applicant: ViaSat, Inc.
Call Sign: E160091
File No.: SES-STA-20170504-00497
Special Temporary Authority (STA)

ViaSat, Inc. is granted STA for 180 days, beginning June 13, 2017, to operate its fixed earth station, Call Sign E160091, at 41° 34' 46.0" N.L./093° 35' 43.3" W.L. in Des Moines, Iowa to provide telemetry, tracking and control ("TT&C") functions on frequencies 29.501-29.999 GHz (Earth-to-space) and 18.301-18.303 GHz (space-to-Earth) to communicate with satellite ViaSat-2 (Call Sign S2902) as it drifts to the 69.9° W.L permanent orbital location during electric orbit raising ("EOR"). Operations are authorized under the following conditions:

1. Operations will not exceed the operational power levels and parameters requested:

- uplink maximum eirp: 87.0 dBW for both frequencies
- uplink eirp density : 63.0 dBW/4kHz
- downlink eirp: 12.0 dBW
- emission: 1M00F2D
- polarization: RHCP

2. All operations under this grant of STA shall be on an unprotected and non-harmful interference basis. ViaSat, Inc. shall not cause harmful interference to, and shall not claim protection from interference caused to it by, any other lawfully operating radio communication system.

3. In the event of any harmful interference ViaSat, Inc. shall cease operations immediately upon notification of such interference, and shall immediately inform the Commission, in writing, of such an event.

4. Currently the 24x7 contact information for the ViaSat-2 satellite mission is as follows: Jim Elliot, phone (720) 493-7350, Jim.elliott@viasat.com.

5. All operations must comply with the 17.8 - 20.2 GHz band is shared with U.S. Government space stations and associated earth stations in the fixed-Satellite Services. Services within the United States over the satellite network of which this is a cooperating earth station are subject to coordination under US334 and operation of the earth station(s) authorized herein will be subject to any technical constraints resulting from this coordination. See 47 C.F.R. § 2.106, Footnote US334.

6. Grant of this STA is without prejudice to any determination that the Commission may make regarding pending or future ViaSat, Inc. applications.

7. Any action taken or expense incurred as a result of operations pursuant to this STA is solely at ViaSat, Inc.'s risk.

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8. The licensee shall take all necessary measures to ensure that the antenna does not create potential exposure of humans to radiofrequency radiation in excess of the FCC exposure limits defined in 47 CFR 1.1307(b) and 1.1310 wherever such exposures might occur. Measures must be taken to ensure compliance with limits for both occupational/controlled exposure and for general population/uncontrolled exposure, as defined in these rule sections. The FCC's OET Bulletin 65 (available on-line at www.fcc.gov/oet/rfsafety) provides information on predicting exposure levels and on methods for ensuring compliance, including the use of warning and alert signs and protective equipment for workers.

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.

2. Contact	
Name:	ViaSat, Inc. Phone Number: 760-476-4812
Company:	Fax Number: 760-929-3941
Street:	6155 El Camino Real E-Mail: steven.hemple@viasat.com
City:	Carlsbad State: CA
Country:	USA Zipcode: 92009 -
Attention:	Relationship: Engineer
(If your application is related to an application filed with the Commission, enter either the file number or the IB Submission ID of the related application. Please enter only one.)	
3. Reference File Number or Submission ID	
4a. 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):	
4b. Fee Classification CGX - Fixed Satellite Transmit/Receive Earth Station	
5. Type Request	
<input type="radio"/> Use Prior to Grant <input type="radio"/> Change Station Location <input checked="" type="radio"/> Other	
6. Requested Use Prior Date	
06/12/2017	
7. City/Des Moines	
8. Latitude (dd mm ss.s h) 41 34 46.0 N	

9. State IA	10. Longitude (dd mm ss.s h) 93 35 43.3 W
11. Please supply any need attachments. Attachment 1: Attachment A Attachment 2: Attachment 3:	
12. Description. (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 Attachment A	
13. 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"; party to the application; for these purposes. Yes <input checked="" type="radio"/> No <input type="radio"/>	
14. Name of Person Signing Steven C. Hemple	15. Title of Person Signing Regulatory Engineer
WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT (U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).	

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THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104-13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.

Request for Special Temporary Authority

ViaSat, Inc. (“ViaSat”) requests special temporary authority (“STA”) to operate two currently licensed 9.1 meter earth stations at modified parameters to support telemetry, tracking and control (“TT&C”) communications during the orbit raising of the ViaSat-2 satellite,¹ which is scheduled to be launched on or about June 1, 2017. ViaSat seeks STA for its earth stations located in Albuquerque, NM (call sign E160089) and Des Moines, IA (call sign E160091). Each is authorized to communicate with ViaSat-2, but additional authority is necessary to allow operations at higher EIRP levels than are authorized for regular operations, and to allow communications with ViaSat-2 while tracking the satellite through the sky as it is drifted to the 69.9° W.L. orbital location during electric orbit raising.

ViaSat-2 is expected to be launched on or about June 1, 2017, and orbit raising is expected to commence two weeks after launch. Because the satellite utilizes electric propulsion, orbit raising is expected to occur over five months. Therefore, STA is requested to commence on or about June 12, 2017 and continue for 180 days.

The following are the modified technical parameters for the earth stations for the requested STA:

Transmit Frequencies (center): 29.501 GHz and 29.999 GHz (narrowband command)
Bandwidth: 1 MHz
Polarization: RHCP
Uplink EIRP: 87 dBW
Emission Designator: 1M00F2D

Receive Frequencies: 18.301 GHz and 18.303 GHz
Bandwidth: 1 MHz
Polarization: RHCP
Downlink EIRP: 12 dBW
Emission Designator: 1M00F2D

Azimuth Range: 90-270 degrees
Elevation Range: 15-50 degrees

ViaSat-2 is authorized by the United Kingdom. All technical parameters of the satellite are as specified in the ViaSat-2 authorization or as identified here for purposes of orbit raising. However, to the extent necessary, ViaSat seeks a waiver of any informational requirements of Sections 25.114 and 25.137 in connection with the proposed STA operations to the extent such information has not been provided herein or in connection with the Commission’s grant of U.S. market access for ViaSat-2. Furthermore, Section 25.137 is designed to ensure that “U.S.-licensed satellite systems have effective competitive opportunities to provide analogous services” in other countries. This STA request does not relate to any service that will be provided by the

¹ See Call Sign 2902; IBFS File Nos. SAT-LOI-20130319-00040 (granted Dec. 12, 2013); SAT-MOD-20141105-00121 & SAT-AMD-20150105-00002 (granted Apr. 15, 2015); SAT-MOD-20160527-00053 (granted Jan. 12, 2017).

satellite, but rather seeks authority to use earth station facilities for TT&C while the satellite is in transfer orbit on the way to its final orbital location. Thus, the purpose of the information required by Section 25.137 is not implicated here.²

ViaSat will coordinate radiofrequency communications for the support of orbit raising with other spacecraft operators that may potentially be affected during these operations. In accordance with normal industry practices, communications with other operators will be kept open in the period leading to and throughout the orbit raising activities to ensure that STA operations will be conducted on a non-interference basis.

Grant of the requested STA will serve the public interest, convenience and necessity because it will enable ViaSat to conduct essential operations to support the orbit raising operations of ViaSat-2 that need to be completed to bring this new satellite into commercial operation.

² See, e.g., *EchoStar Satellite Operating Company Application for Special Temporary Authority*, File No. SAT-STA-20130220-00023, Call Sign S2232, Order and Authorization, DA 13-593, ¶ 5 n.10 (rel. Apr. 1, 2013) (noting that request for earth station STA for TT&C operations during satellite relocation does not constitute the provision of “DBS service to the United States”).