



**UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
RADIO STATION AUTHORIZATION**

Name: ViaSat, Inc.

Call Sign: E050318

Authorization Type: Modification of License

File Number: SES-MFS-20090624-00789

Non Common Carrier

Grant date: 06/24/2010

Expiration Date: 11/20/2022



Nature of Service: Fixed Satellite Service
Nature of Service: Mobile Satellite Service

Class of Station: Mobile Earth Station

A) Site Location(s)

| # | Site ID | Address | Latitude | Longitude | Elevation (Meters) | NAD | Special Provisions (Refer to Section H) |
|----|------------|-------------------------------|----------|-----------|--------------------|-----|---|
| 1) | Airborne 1 | Carlsbad, San Diego, CA 92009 | | | | | NA |

Licensee certifies antenna(s) do not comply with Section 25.209. Please refer to Section E for special conditions placed upon antennas at this site.

| | | | | | | | |
|----|------------|------------------------|--|--|--|--|----|
| 2) | Airborne 2 | US and adjacent waters | | | | | NA |
|----|------------|------------------------|--|--|--|--|----|

Licensee certifies antenna(s) do not comply with Section 25.209. Please refer to Section E for special conditions placed upon antennas at this site.

Subject to the provisions of the Communications Act of 1934, The Communications Satellite Act of 1962, subsequent acts and treaties, and all present and future regulations made by this Commission, and further subject to the conditions and requirements set forth in this license, the grantee is authorized to construct, use and operate the radio facilities described below for radio communications for the term beginning November 20, 2007 (3 AM Eastern Standard Time) and ending November 20, 2022 (3 AM Eastern Standard Time) . The required date of completion of construction and commencement of operation is 00/00/0000. Grantee must file with the Commission a certification upon completion of construction and commencement of operation.

B) Particulars of Operations

The General Provision 1010 applies to all receiving frequency bands.
The General Provision 1900 applies to all transmitting frequency bands.
For the text of these provisions, refer to Section H.

| # | Frequency (MHz) | Polarization Code | Emission | Tx/Rx Mode | Max EIRP /Carrier (dBW) | Max EIRP Density /Carrier (dBW/4kHz) | Associated Antenna | Special Provisions (Refer to Section H) | Modulation/ Services |
|----|-----------------------|-------------------|----------|------------|-------------------------|--------------------------------------|--------------------|---|---------------------------------------|
| 1) | 14400.0000-14500.0000 | H, V | 28M8G7D | Tx | 37.75 | -0.82 | 1000009 | | GMSK, Direct Sequence Spread Spectrum |
| 2) | 14000.0000-14500.0000 | H, V | 14M4G7D | Tx | 37.75 | 2.19 | 1000009 | | GMSK, Direct Sequence Spread Spectrum |
| 3) | 14000.0000-14500.0000 | H, V | 36M0G7D | Tx | 37.75 | -1.79 | 1000009 | | GMSK, Direct Sequence Spread Spectrum |



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|----|-----------------------|-------------------|----------|------------|-------------------------|--------------------------------------|--------------------|---|---|
| 4) | 11700.0000-12200.0000 | H, V | 36M0G7D | Rx | | | 1000009 | | QPSK, Direct Sequence Spread Spectrum |
| 5) | 14000.0000-14500.0000 | H, V | 14M4G7D | Tx | 39.50 | 3.94 | 1060076 | | GMSK, Direct Sequence Spread Spectrum and Internet Access |
| 6) | 14000.0000-14500.0000 | H, V | 28M8G7D | Tx | 39.50 | 0.93 | 1060076 | | GMSK, Direct Sequence Spread Spectrum and Internet Access |
| 7) | 14000.0000-14500.0000 | H, V | 36M0G7D | Tx | 39.50 | -0.04 | 1060076 | | GMSK, Direct Sequence Spread Spectrum and Internet Access |
| 8) | 11700.0000-12200.0000 | H, V | 36M0G7D | Rx | | | 1060076 | | QPSK, Direct Sequence Spread Spectrum and Internet Access |
| 9) | 11450.0000-11700.0000 | H, V | 36M0G7D | Rx | | | 1060076 | 386 | QPSK, Direct Sequence Spread Spectrum and Internet Access |

C) Frequency Coordination Limits

| # | Frequency Limits (MHz) | Satellite Arc (Deg. Long.) | | Elevation (Degrees) | | Azimuth (Degrees) | | Max EIRP Density toward Horizon (dBW/4kHz) | Associated Antenna(s) |
|----|------------------------|----------------------------|------------|---------------------|------------|-------------------|------------|--|-----------------------|
| | | East Limit | West Limit | East Limit | West Limit | East Limit | West Limit | | |
| 1) | 14000.0000-14500.0000 | 44.0W | 190.5W | 05.3 | 05.0 | 105.6 | 225.0 | -13.51 | 1000009 |
| 2) | 11700.0000-12200.0000 | 44.0W | 190.5W | 05.3 | 05.0 | 105.6 | 225.0 | | 1000009 |
| 3) | 14000.0000-14500.0000 | 37.5W | 172.0W | 05.0 | 05.0 | 102.0 | 256.0 | -11.76 | 1060076 |
| 4) | 11700.0000-12200.0000 | 37.5W | 172.0W | 05.0 | 05.0 | 102.0 | 256.0 | | 1060076 |

D) Points of Communications

The following stations located in the Satellite orbits consistent with Sections B and C of this Entry:

- 1) Airborne 1 to AMC-6 (S2347) @ 72 degrees W.L. (U.S.-licensed satellite)
- 2) Airborne 1 to AMC 21 (S2676) @ 125 W.L. (United Kingdom-licensed)
- 3) Airborne 1 to EUTELSAT 172A (S2610) @ 172 degrees E.L. (formerly GE-23) (U.S.-licensed)
- 4) Airborne 1 to AMC-15 (S2180) @ 105 degrees W.L.(U.S.-licensed)



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D) Points of Communications

The following stations located in the Satellite orbits consistent with Sections B and C of this Entry:

- 5) Airborne 1 to TELSTAR 11N (S2357) @ 37.55 degrees W.L. (U.S.-licensed)
- 6) Airborne 2 to AMC-6 (S2347) @ 72 degrees W.L. (U.S.-licensed satellite)
- 7) Airborne 2 to AMC 21 (S2676) @ 125 W.L. (United Kingdom-licensed)
- 8) Airborne 2 to AMC-15 (S2180) @ 105 degrees W.L.(U.S.-licensed)
- 9) Airborne 2 to EUTELSAT 172A (S2610) @ 172 degrees E.L. (formerly GE-23) (U.S.-licensed)
- 10) Airborne 2 to TELSTAR 11N (S2357) @ 37.55 degrees W.L. (U.S.-licensed)

E) Antenna Facilities

| Site ID | Antenna ID | Units | Diameter (meters) | Manufacturer | Model number | Site Elevation (Meters) | Max Antenna Height (Meters) | Special Provisions (Refer to Section H) |
|--|------------|------------|-------------------|--------------|--------------|-------------------------|-----------------------------|---|
| Airborne 1 | 1000009 | 1000 | 0.2921 | ViaSat | 1000009 | | 0 AGL/ 0 AMSL | |
| Max Gains(s): | | 29.6 dBi @ | 11.9500 GHz | 31.3 dBi @ | 14.2500 GHz | | | |
| Maximum total input power at antenna flange (Watts) = | | | | | | 4.00 | | |
| Maximum aggregate output EIRP for all carriers (dBW) = | | | | | | 37.75 | | |
| Airborne 2 | 1060076 | 1000 | 0.292 | ViaSat | 1060076 | | 0 AGL/ 0 AMSL | |
| Max Gains(s): | | 30.8 dBi @ | 12.2000 GHz | 31.8 dBi @ | 14.3000 GHz | | | |
| Maximum total input power at antenna flange (Watts) = | | | | | | 5.66 | | |
| Maximum aggregate output EIRP for all carriers (dBW) = | | | | | | 39.50 | | |

F) Remote Control Point:

| | | |
|------------|--|--------------------|
| Airborne 1 | 6155 El Camino Real Carlsbad, San Diego, CA 92009 1-888-272-7232 | Call Sign: E030131 |
| Airborne 2 | 6155 El Camino Real Carlsbad, San Diego, CA 92009 1-888-272-7232 | Call Sign: E030131 |

G) Antenna Structure marking and lighting requirements:

None unless otherwise specified under Special and General Provisions



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H) Special and General Provisions

A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:

- 386 --- ViaSat's request for waivers of Sections 2.106 and 25.202(a)(1) of the Commission's rules, 47 C.F.R. §§ 2.106 and 25.202(a), and Footnote NG104 to the United States Table of Frequency Allocations, 47 C.F.R. §2.106, NG104, for non-conforming use of the 11.45-11.7 GHz band to provide domestic AMSS is GRANTED on a non-interference, unprotected basis. ViaSat shall not cause harmful interference to any other lawfully operating station, and shall not claim protection from interference caused to it by any other lawfully operating station. In the event of harmful interference, ViaSat shall cease operations immediately upon notification of such interference and shall inform the Commission, in writing, immediately of such an event. ViaSat must inform its customers in writing of this limitation. As of June 24, 2010, the Telstar-11N and GE-23 space stations (Call Signs S2357 and S2610 respectively) have not sought similar rule waivers regarding the limitation on use of the 11.45-11.7 GHz frequency band by satellite systems to international service. Accordingly, ViaSat shall ensure that any communications via these space stations, including reception of signals, conform to the space stations' authorization.
- 387 --- 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.
- 388 --- Upon completion of construction, each licensee must file with the Commission a certification including the following information: name of the licensee, file number of the application, call sign of the antenna, date of the license and certification that the facility as authorized has been completed, that each antenna facility has been tested and is within 2 dB of the pattern specified in ViaSat's modification applications and that the station is operational including the date of commencement of service and will remain operational during the license period unless the license is submitted for cancellation
- 390 --- Unless otherwise modified herein, ViaSat's operations shall continue to be in accordance with the terms and conditions contained in our prior Order and Authorization, DA 07-4674, the terms, conditions, and technical specifications set forth in its application, and the Commission's rules.
- 391 --- On our own motion, pursuant to section 1.108 of the Commission's rules, 47 C.F.R. § 1.108, we modify our prior May 28, 2010 grant of IBFS File No. SES-MFS-20090624-00789 to specifically note grant of the request to waive Sections 2.106 and 25.202(a)(1) of the Commission's rules, 47 C.F.R. §§ 2.106 and 25.202(a), and Footnote NG104 to the United States Table of Frequency Allocations, 47 C.F.R. §2.106, NG104.
- 1010 --- Applicable to all receiving frequency bands. Emission designator indicates the maximum bandwidth of received signal at associated station(s). Maximum EIRP and maximum EIRP density are not applicable to receive operations.
- 1900 --- Applicable to all transmitting frequency bands. Authority is granted to transmit any number of RF carriers with the specified parameters on any discrete frequencies within associated band in accordance with the other terms and conditions of this authorization, subject to any additional limitations that may be required to avoid unacceptable levels of inter-satellite interference.
- 2916 --- Transmitter(s) must be turned off during antenna maintenance to ensure compliance with the FCC-specified safety guidelines for human exposure to radiofrequency radiation in the region between the antenna feed and the reflector. Appropriate measures must also be taken to restrict access to other regions in which the earth station's power flux density levels exceed the specified guidelines.



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A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:

3465 --- This authorization is subject to the policies adopted in the Report and Order, "Amendment of the Commission's Regulatory Policies to allow Non-US-Licensed Space Stations to provide Domestic and International Satellite Services in the United States," IB Docket 96-111, FCC 97-399 (Released November 26, 1997). (DISCO II)

B) This RADIO STATION AUTHORIZATION is granted subject to the additional conditions specified below:

This authorization is issued on the grantee's representation that the statements contained in the application are true and that the undertakings described will be carried out in good faith.

This authorization shall not be construed in any manner as a finding by the Commission on the question of marking or lighting of the antenna system should future conditions require. The grantee expressly agrees to install such marking or lighting as the Commission may require under the provisions of Section 303(q) of the Communications Act. 47 U.S.C. § 303(q).

Neither this authorization nor the right granted by this authorization shall be assigned or otherwise transferred to any person, firm, company or corporation without the written consent of the Commission. This authorization is subject to the right of use or control by the government of the United States conferred by Section 706 of the Communications Act. 47 U.S.C. § 706. Operation of this station is governed by Part 25 of the Commission's Rules. 47 C.F.R. Part 25.

This authorization shall not vest in the licensee any right to operate this station nor any right in the use of the designated frequencies beyond the term of this license, nor in any other manner than authorized herein.

This authorization is issued on the grantee's representation that the station is in compliance with environmental requirements set forth in Section 1.1307 of the Commission's Rules. 47 C.F.R. § 1.1307.

This authorization is issued on the grantee's representation that the station is in compliance with the Federal Aviation Administration (FAA) requirements as set forth in Section 17.4 of the Commission's Rules. 47 C.F.R. § 17.4.

The following condition applies when this authorization permits construction of or modifies the construction permit of a radio station.

This authorization shall be automatically forfeited if the station is not ready for operation by the required date of completion of construction unless an application for modification of authorization to request additional time to complete construction is filed by that date, together with a showing that failure to complete construction by the required date was due to factors not under control of the grantee.

Licensees are required to pay annual regulatory fees related to this authorization. The requirement to collect annual regulatory fees from regulatees is contained in Public Law 103-66, "The Omnibus Budget Reconciliation Act of 1993." These regulatory fees, which are likely to change each fiscal year, are used to offset costs associated with the Commission's enforcement, public service, international and policy and rulemaking activities. The Commission issues a Report and Order each year, setting the new regulatory fee rates. Receive only earth stations are exempt from payment of regulatory fees.