

**United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
RADIO STATION CONSTRUCTION PERMIT
AND LICENSE**

EXPERIMENTAL

(Nature of Service)

XD FX MO

(Class of Station)

WE2XBE

(Call Sign)

0131-EX-CM-2018

(File Number)

NAME ViaSat, Inc.

Subject to the provisions of the Communications Act of 1934, subsequent acts, and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions and requirements set forth in this license, the licensee hereof is hereby authorized to use and operate the radio transmitting facilities hereinafter described for radio communications in accordance with the program of experimentation described by the licensee in its application for license.

Operation: In accordance with Sec. 5.3(d, f, i) of the Commission's Rules

Station Locations

- (1) Gaithersburg (MONTGOMERY), MD - NL 39-11-43; WL 77-15-28; MOBILE:
Gaithersburg and surrounding area, Gaithersburg, MD, within 100 km, centered around
NL 39-11-43; WL 77-15-28
- (2) Duluth (GWINNETT), GA - NL 33-57-46; WL 84-05-41
- (3) Carlsbad (SAN DIEGO), CA - NL 33-07-35; WL 117-16-30
- (4) MOBILE: US, US
- (5) Miami (DADE), FL - NL 25-55-02; WL 80-13-30
- (6) MOBILE: ATLANTIC OCEAN, US
- (7) MOBILE: PACIFIC OCEAN, US
- (8) MOBILE: GULF OF MEXICO, US

Frequency Information

Gaithersburg (MONTGOMERY), MD - NL 39-11-43; WL 77-15-28; MOBILE: Gaithersburg and surrounding area, Gaithersburg

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14000-14500 MHz	MO	34M0G7D	30 kW (ERP)	

This authorization effective December 13, 2018 and
will expire 3:00 A.M. EST August 01, 2019

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

Duluth (GWINNETT), GA - NL 33-57-46; WL 84-05-41

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14000-14500 MHz	FX	34M0G7D	6 MW (ERP)	

Carlsbad (SAN DIEGO), CA - NL 33-07-35; WL 117-16-30

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14000-14500 MHz	FX	36M0G7D	6 MW (ERP)	

MOBILE: US, US

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14000-14500 MHz	MO	36M0G7D 36M0G7D	30 kW (ERP)	

Miami (DADE), FL - NL 25-55-02; WL 80-13-30

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14000-14500 MHz	FX	36M0G7D	6 MW (ERP)	

Frequency Information

MOBILE: ATLANTIC OCEAN, US

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14000-14500 MHz	MO	36M0G7D	30 kW (ERP)	

MOBILE: PACIFIC OCEAN, US

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14000-14500 MHz	MO	36M0G7D	30 kW (ERP)	

MOBILE: GULF OF MEXICO, US

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
14000-14500 MHz	MO	36M0G7D	30 kW (ERP)	

Special Conditions:

- (1) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (2) Licensee should be aware that other stations may be licensed on these frequencies and if any interference occurs, the licensee of this authorization will be subject to immediate shut down.
- (3) Operation is limited to 2 units per event and 12 units at any given time.
- (4) The designated point-of-contact to terminate transmissions if interference occurs is Mr. Daryl Hunter at (888) 272-7232.
- (5) POINTS OF COMMUNICATION: Geostationary-satellite orbit (GSO) Satellites: SES Americom AMC-6 & AMC-15, SES New Skies NSS-7, SES Gibraltar AMC-21, Telesat - T11N & T14 and SAT-GE 23 Satellites, SES-2 @87 WL, Horizons-1 @127 WL, E117WA @ 116.8 WL, T-14R @ 63 WL.

Special Conditions:

- (6) Prior to commencement of operations with SES Americom AMC-6 & AMC-15, SES New Skies NSS-7, SES Gibraltar AMC-21, Telesat - T11N & T14, SAT-GE 23, SES-2, Horizons-1, E117WA and T-14R, pursuant to this experimental license, ViaSat Inc. shall obtain a certification from SES Americom, SES New Skies, SES Gibraltar licensed, Telesat, SAT-GE, SES-2, Horizons-1, E117WA and T-14R have notified all satellite operators with co-frequency operations within +/-6 degrees of each of SES Americom AMC-6 & AMC-15, SES New Skies NSS-7, SES Gibraltar AMC-21, Telesat - T11N & T14, SAT-GE 23, SES-2, Horizons-1, E117WA and T-14R generally describing the experimental operations authorized herein, including the term thereof, and providing a point of contact for the purpose of resolving any complaints of interference. ViaSat Inc. shall obtain a similar certification from SES Americom, SES New Skies, SES Gibraltar, Telesat, SAT-GE 23, SES-2, Horizons-1, E117WA and T-14R if, during the term of this experimental license, SES Americom AMC-6 & AMC-15, SES New Skies NSS-7, SES Gibraltar AMC-21, Telesat - T11N & T14 SAT-GE 23, SES-2, Horizons-1, E117WA and T-14R move orbit locations, or if a satellite operator commences co-frequency operations within +/- 6 degrees of SES Americom AMC-6 & AMC-15, SES New Skies NSS-7, SES Gibraltar AMC-21, Telesat - T11N & T14, SAT-GE 23, SES-2, Horizons-1, E117WA and T-14R. If the point of contact receives a complaint of harmful interference, the party receiving the complaint (if not ViaSat Inc.) will notify ViaSat Inc., and ViaSat Inc. shall immediately cease such operations or adjust such operations to avoid harmful interference. ViaSat Inc. will submit a copy of SES Americom AMC-6 & AMC-15, SES New Skies NSS-7, SES Gibraltar AMC-21, Telesat - T11N & T14, SAT-GE 23, SES-2, Horizons-1, E117WA and T-14R's certification(s) to the Commission for incorporation into the record of this file.
- (7) In accordance with Article 4.4 of the ITU Radio Regulations, the operations authorized herein shall not cause harmful interference to, and shall not claim protection from harmful interference caused by, a station operating in accordance with the provisions of the ITU Constitution, the ITU Convention, and the ITU Radio Regulations.
- (8) Prior to operating in the 14.0-14.2 GHz frequency band, in the listed locations, ViaSat Inc. will coordinate with National Aeronautics and Space Administration (NASA) and notify the Commission of the results of that coordination:
Within 125 km of the NASA TDRSS facilities on Guam (latitude 13° 36' 55" N, longitude 144° 51' 22" E) or,
Within 125 km of the NASA TDRSS facilities in White Sands, New Mexico (latitude 32° 20' 59" N, longitude 106° 36' 31" W and latitude 32° 32' 40" N, longitude 106° 36' 48"W) or,
Within 125 km of the TDRSS facilities in Blossom Point, Maryland (latitude 38° 25' 44" N, longitude 77° 05' 20" W).
- (9) No transmissions are permitted between 14.47 GHz and 14.5 GHz within 125 km of Mauna Kea, HI (at latitude 19° 48' N, longitude 155° 28' W).
- (10) Maximum EIRP density allowed is 14 dBW/4kHz.

Special Conditions:

- (11) Note that if, during the term of this authorization, NASA seeks to provide similar protection to a future TDRSS site that has been coordinated through the National Telecommunications and Information Administration (NTIA) Interdepartment Radio Advisory Committee (IRAC) Frequency Assignment Subcommittee process, NTIA will notify the Commission that the site is nearing operational status. Upon notice from the Commission, ViaSat Inc. must cease operations in the 14.0-14.2 GHz band within 125 km of the new TDRSS site until ViaSat Inc. has coordinated with the new site. After coordination, ViaSat Inc. operations will then again be permitted in the 14.0-14.2 GHz band within 125 km of the new TDRSS site, subject to any operational constraints developed in the coordination process.
- (12) Prior to operating in the 14.47-14.5 GHz frequency band, in the listed locations, ViaSat Inc. will coordinate with the National Academy of Sciences (NSF) and notify the Commission of the results of that coordination:
 - Within 45 km of the radio observatory on St. Croix, Virgin Islands (latitude 17° 46' N, longitude 64° 35' W);
 - Within 125 km of the radio observatory on Mauna Kea, Hawaii (latitude 19° 48' N, longitude 155° 28' W);
 - Within 90 km of the Arecibo Observatory on Puerto Rico (latitude 18° 20' 46" N, longitude 66° 45' 11" W); and
 - Within 160 km of the radio observatories listed in US203 as observing in the 14.47-14.5 GHz band.
- (13) Off-axis EIRP spectral density for cross-polarized signals emitted from the earth station shall not exceed the calculations given in 47CFR 25.222(a)(4).
- (14) Operation is subject to prior coordination with all the respective satellite operators as necessary to minimize interference.
- (15) Prior to activation, the applicant must coordinate with GSFC SPEC Manager at 301-286-5087.
- (16) Operation pursuant to this authorization must be in compliance with Section 25.222 of the Commission's rules, 47CFR 25.222.
- (17) The earth stations are authorized, on a non-protected and non-harmful interference basis, to transmit to the geostationary-orbit space station using the 14.0-14.5 GHz frequency band that is authorized by the Commissions. The earth station authorized herein must immediately terminate operations upon notification that such operation is causing harmful interference to any other radio system lawfully operating in the 14.0-14.5 GHz frequency band. The earth stations authorized herein cannot claim protection from harmful interference from any radio system lawfully operating in the 14.0-14.5 GHz frequency band.
- (18) Operation pursuant to this authorization must be in compliance with the terms of coordination agreements between the satellite operators, listed in the point of communication, operating in the 14.0-14.5 GHz frequency band and operators of other Ku-band geostationary space stations within six angular degrees of those space stations. In the event that another GSO FSS space station commences operation in the Ku-band at a location within six degrees of any of these space stations, earth stations operating pursuant to this temporary authority shall cease transmitting to that space station unless and until such operation has been coordinated with the new space station's operator or Licensee demonstrates that such operation will not cause harmful interference to the new co-frequency space station.

Special Conditions:

- (19) Communications between the authorized earth stations and the Ku-band geostationary space station must be in compliance with all existing and future space station coordination agreements reached between the Ku-GSO operators listed in the point of communication and other administrations.
- (20) Licensee must maintain a point of contact available 24 hours per day, seven days per week, with the authority and ability to terminate operations authorized herein, for discussing interference concerns with other licensees, and must submit a letter to be included in its license file with the name and telephone number of the point of contact prior to commencing operation.
- (21) The authorized earth stations must be in compliance with the Federal Aviation Administration (FAA) requirements as set forth in Section 17.4 of the Commission's Rules.
- (22) The authorized earth stations must be in compliance with environmental requirement set forth in Section 1.1307 of the Commission's Rules.
- (23) This authorization is without prejudice to any determination that the Commission may make regarding pending or future experimental satellite earth station applications.

- (24) Operations are on a non-interference basis (NIB) and shall not cause harmful interference to, and shall not claim protection from, interference caused to it by any other lawfully operating station and it shall cease transmission(s) immediately upon notice of such interference and notify the FCC in writing.
- (25) All operations within 125 km of NASA White Sands Center (WSC), NM or Blossom Point Complex, MD shall be coordinated with the NASA GSFC Spectrum Manager, Scott Galbraith at 301-286-5089 or vincent.s.galbraith@nasa.gov, at least 7 days in advance of operation.
- (26) This operation must protect NASA earth stations.