

### RADIO STATION AUTHORIZATION

Name: Globecomm License Sub LLC

Authorization Type: Modification of License

b LLC Call Sign: E990402

Non Common Carrier

Grant date: 01/05/2016

**Expiration Date:** 

12/01/2024

File Number: SES-MOD-20150626-00427

Nature of Service: Fixed Satellite Service

Class of Station: Fixed Earth Stations

#### A) Site Location(s)

# Site ID Address Latitude Longitude (Meters) NAD (Refer to Section H)

1) 1 45 OSER AVENUE 40°48'54.1"N 73°14'17.8"W 33.5 83
HAUPPAUGE, SUFFOLK, NY 11788

Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209

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 December 1, 2009 (3 AM Eastern Standard Time) and ending December 1, 2024 (3 AM Eastern Standard Time). The required date of completion of construction and commencement of operation is January 5, 2017 (3 AM Eastern Standard Time). 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.

	To the tent of meso provident, tent				Max EIRP	Max EIRP Density		Special Provisions	
	Frequency # (MHz)	Polarizatio Code	n Emission	Tx/Rx Mode	/Carrier	/Carrier (dBW/4kHz)	Associated Antenna	(Refer to Section H)	Modulation/ Services
_	1) 14000.0000-14500.0000	H,V	36M0G7W	Tx	85.70	46.16	AOT-10		DIGITAL DATA/VIDEO, QPSK FEC 3/4 45,000 KBPS
	2) 14000.0000-14500.0000	H,V	222KG7D	Tx	64.20	46.80	AOT-10		DIGITAL DATA, QPSK FEC 3/4 & REED SOLOMON 188/204, 256 KBPS
	3) 13874.0000-13910.0000	H,V	15M4G7D	Tx	72.50	36.60	AOT-10		DIGITAL DATA, 16QAM, FEC 7/8, 45,000 KBPS
	4) 13874.0000-13910.0000	H,V	18M0G7D	Tx	72.50	36.00	AOT-10		DIGITAL DATA, 16QAM, FEC 7/8, 45,000 KBPS
	5) 13834.0000-13870.0000	H,V	15M4G7D	Tx	72.50	36.60	AOT-10		DIGITAL DATA, 16QAM, FEC 7/8, 45,000 KBPS
	6) 13834.0000-13870.0000	H,V	18M0G7D	Tx	72.50	36.00	AOT-10		DIGITAL DATA, 16QAM, FEC 7/8, 45,000 KBPS
	7) 13794.0000-13830.0000	H,V	15M4G7D	Tx	72.50	36.60	AOT-10		DIGITAL DATA, 16QAM, FEC 7/8, 45,000 KBPS

FCC Form 488

(page 1 of 7)



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#	Frequency (MHz)	Polarizatio Code	n Emission	Tx/Rx Mode	EIRP /Carrier (dBW)	Density /Carrier (dBW/4kHz)	Associated Antenna	Provisions (Refer to Section H)	Modulation/ Services
8)	13794.0000-13830.0000	H,V	18M0G7D	Tx	72.50	36.00	AOT-10		DIGITAL DATA, 16QAM, FEC 7/8, 45,000 KBPS
9)	13754.0000-13790.0000	H,V	15M4G7D	Тх	72.50	36.60	AOT-10		DIGITAL DATA, 16QAM, FEC 7/8, 45,000 KBPS
10)	13754.0000-13790.0000	H,V	18M0G7D	Tx	72.50	36.00	AOT-10		DIGITAL DATA, 16QAM, FEC 7/8, 45,000 KBPS
11)	13750.0000-14000.0000	H,V	3M00G2D	Tx	64.60	35,80	AOT-10	182	DIGITAL DATA
12)	13750.0000-14000.0000	H,V	615KG2D	Tx	57.90	36.00	AOT-10	182	DIGITAL DATA
13)	11700.0000-12200.0000	H,V	3M00G2D	Rx			AOT-10		DIGITAL DATA
14)	11700.0000-12200.0000	H,V	615KG2D	Rx			AOT-10		DIGITAL DATA
15)	11700.0000-12200.0000	H,V	15M4G7D	Rx			AOT-10		DIGITAL DATA, 16QAM, FEC 7/8, 45,000 KBPS
16)	11700.0000-12200.0000	H,V	18M0G7D	Rx			AOT-10		DIGITAL DATA, 16QAM, FEC 7/8, 45,000 KBPS
17)	11700.0000-12200.0000	H,V	36M0G7W	Rx			AOT-10		DIGITAL DATA/VIDEO, QPSK FEC 3/4 45,000 KBPS
18)	11700.0000-12200.0000	H,V	222KG7D	Rx			AOT-10		DIGITAL DATA, QPSK FEC 3/4 & REED SOLOMON 188/204, 256 KBPS
19)	14000.0000-14500.0000	H,V	222KG7D	Tx	64.20	46.80	AOT-7		DIGITAL DATA
20)	14000.0000-14500.0000	H,V	36M0G7W	Tx	86.30	46.80	AOT-7		DIGITAL VIDEO, AUDIO, AND DATA
21)	13780.0000-14000.0000	H,V	36M0G7W	Tx	84.80	45.30	AOT-7		DIGITAL VIDEO, AUDIO, AND DATA
22)	13780.0000-14000.0000	H,V	600KG7W	Tx	68.50	46.70	AOT-7		DIGITAL VIDEO, AUDIO, AND DATA
23)	13750.0000-14000.0000	H,V	30M0G7W	Tx	75.90	37.10	AOT-7		DIGITAL VIDEO, AUDIO, AND DATA
24)	13750.0000-13770.0000	H,V	600KG7W	Tx	68.50	46.70	AOT-7		DIGITAL VIDEO, AUDIO, AND DATA
25)	11700.0000-12200.0000	H,V	15M4G7D	Rx			AOT-7		DIGITAL DATA
26)	11700.0000-12200.0000	H,V	18M0G7D	Rx			AOT-7		DIGITAL DATA
27)	11700.0000-12200.0000	H,V	222KG7D	Rx			AOT-7		DIGITAL DATA

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#### 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)	Polarizatio Code	n Emission	Tx/Rx Mode	EIRP /Carrier (dBW)	Density /Carrier (dBW/4kHz)	Associated Antenna	Provisions (Refer to Section H)	Modulatio Services			
28) 11	700.0000-12200.0000	H,V	3M00G2D	Rx			AOT-7		DIGITAL I	ATA		
29) <sub>11</sub>	700.0000-12200.0000	H,V	615KG2D	Rx			AOT-7		DIGITAL D	ATA		
30) 11	700.0000-12200.0000	H,V	36M0G7W	Rx			AOT-7		DIGITAL V	/IDEO,	AUDIO,	AND

## C) Frequency Coordination Limits

#	Frequency Limits (MHz)	Satellite Arc (Deg. Long.) East West Limit Limit	Elevation (Degrees) East West Limit Limit	Azimuth (Degrees) East West Limit Limit	Max EIRP Density toward Horizon (dBW/4kHz)	Associated Antenna(s)
1)	14000.0000-14500.0000	2.0W-130.0W	05.4-16.2	102.5-246.8	-1.39	AOT-10
2)	11700.0000-12200.0000	2.0W-130.0W	05.4-16.2	102.5-246.8		AOT-10
3)	13750.0000-14000.0000	28.0W-32.0W	24.3-26.9	123.0-126.7	-25.9	AOT-10
4)	13754.0000-13790.0000	30.0W-30.0W	25.6-25.6	124.8-124.8	-34	AOT-10
5)	13794.0000-13830.0000	30.0W-30.0W	25.6-25.6	124.8-124.8	-34	AOT-10
6)	13834.0000-13870.0000	30.0W-30.0W	25.6-25.6	124.8-124.8	-34	AOT-10
7)	13874.0000-13910.0000	30.0W-30.0W	25.6-25.6	124.8-124.8	-34	AOT-10
8)	14000.0000-14500.0000	2.0W-130.0W	05.4-16.2	102.5-246.8	-1	AOT-7
9)	11700.0000-12200.0000	2.0W-130.0W	05.4-16.2	102.5-246.8		AOT-7
10)	13750.0000-14000.0000	2.0W-130.0W	05.4-16.2	102.5-246.8	-1.13	AOT-7
11)	13780.0000-14000.0000	2.0W-130.0W	05.4-16.2	102.5-246.8	-1.13	AOT-7

#### D) Points of Communications

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

- 1) 1 to Permitted Space Station List
- 2) 1 to EUTELSAT Atlantic Bird-2 (S2596) @ 8 ° W.L. (France-licensed)
- 3) 1 to Telstar 12 (S2462) @ 15 W.L. (U.S.-licensed)



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#### E) Antenna Facilities

	Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model r	ıumber	Site Elevation (Meters)	Max Antenna Height (Meters)	Provisions (Refer to Section H)
1		AOT-10	1	9.3	VERTEX	9.3	KPK	33.5	9.3 AGL/ 42.8 AMSL	
	Maxim	-	power	at anten	14.0000 GHz na flange (Watts) all carriers (dBW)		12.000 10.00 35.70	00 GHz		
1		AOT-7	1	9.3	VERTEX CORPORAT	TON 9.3	KPK	33.5	10.1 AGL/ 43.6 AMSI	ı
	Maxim	-	power	at antenr	11.9500 GHz na flange (Watts) all carriers (dBW)		14.250 55.00 36.30	00 GHz		

### G) Antenna Structure marking and lighting requirements:

None unless otherwise specified under Special and General Provisions

#### H) Special and General Provisions

- A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:
  - 182 --- Operations in the 13.75-14.0 GHz band below 68 dBW (Footnote US356 of the Table of Frequency Allocations) are permitted on an unprotected basis.
  - 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.
  - 2010 --- This authorization is issued pursuant to the Commission's Second Report and Order adopted June 16, 1972 (35 FCC 2d 844) and Memorandum, Opinion and Order adopted December 21, 1972 (38 FCC 2d 665) in Docket No. 16495 and is subject to the policies adopted in that proceeding.
  - 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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#### H) Special and General Provisions

- A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:
  - 3212 --- The licensee shall take extraordinary measures to ensure that multiple antennas co-located at the same site do not create potential exposure to radiofrequency radiation in excess of FCC safety guidelines. Antennas shall be surrounded by a fence, at least 2 meters tall with a locked gate, to prevent human exposure in excess of the FCC-specified safety limit of 1 mW/cm2. Warning signs, such as those discussed in the FCC's OET Bulletin 65, shall be posted informing members of the public to keep outside the locked area. All operations must be in compliance with Section 1.1307 (b)(3) of the Commission's Rules. (See 47 CFR 1.1307 (b) (3)).
  - 3219 --- All existing transmitting facilities, operations and devices regulated by the Commission must be in compliance with the Commission's radiofrequency (RF) exposure guidelines, pursuant to Section 1.1307(b)(1) through (b)(3) of the Commission's rules, or if not in compliance, file an Environmental Assessment (EA) as specified in Section 1.1311. See 47 CFR § 1.1307 (b) (5).
  - 3428 --- This authorization is not to be construed as including any uplink or downlink authority in other countries.
  - 3462 --- Use of the extended Ku-band frequency band (13.75 GHz to 14.0 GHz) has been approved by The National Telecommunications and Information Administration. This authorization is subject to the terms and conditions set forth in the Commission's Report and Order adopted September 12,1996, (11 FCC Record 11951).
  - 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)
  - 3854 --- Licensee shall comply with EIRP density limit 71 dBW in any 6MHz band from 13.77 to 13.78 GHz, per ITU footnote S5.503 and the Section 25.204 (f) of the Commission's Rules.
  - 5011 --- The Licensee(s) shall maintain on file with the Commission a current list or plan of the precise frequencies in use at the station, specifying for each frequency the RF center frequency, polarization, emission designator, nominal EIRP (in dBW) and maximum EIRP density (in dbW/4kHz). This list or plan may be submitted either on a station-by-station basis or on a system-wide basis and shall be updated within seven (7) days of any changes in frequency usage at this station. The Licensee(s) need not notify the Commission of temporary usage of frequencies for periods of less than seven (7) days. However, the Licensee(s) shall maintain accurate station records of the times and particulars of such temporary frequency usage.
  - 5012 --- The authority granted here is limited to the operation of the facilities described above and does not include any authority to install and operate channelizing equipment or any other authority under Section 214 of the Communications Act of 1934, as amended, to establish channels of communications.
  - 5015 --- 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 Section 25.209 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.

(page 5 of 7) FCC Form 488



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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:
  - 5017 --- Operation of this station is governed by the terms, conditions and limitations in Part 25 of the Commission's Rules and Regulations and the following additional conditions: 1. This license shall not vest in the Licensee(s) any right to operate the station or any right in the use of the frequencies designated in the license beyond its term or in any other manner than authorized in the license; 2. Neither the license nor the right granted under it shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended, or the Commission's Rules and Regulations issued under it; and 3. This station is subject to the right of use or control conferred by Section 706 of the Communications Act of 1934, as amended.
  - 5018 --- This license shall be forfeited automatically if this station is not ready for operation within the time specified unless, prior to the expiration date of this license, the Commission receives an Application for Additional Time to Construct a Radio Station (FCC Form 701) filed by the Licensee(s) showing good cause why the Licensee(s) could not complete construction on time.
  - 5216 --- All operations shall be on a non-common carrier basis.
  - 5525 --- This authorization is issued pursuant to the Commission's Report and Order released January 22, 1996 (FCC 96-14), Disco I.
  - 5630 --- International services shall be consistent with this emission designator, the underlying title III application(s) and the acquisition of any necessary Section 214 authority.
  - 5723 --- All communications shall be in accordance with the satellites and services which have completed any necessary technical consultations under Article XIV (d) of the INTELSAT Agreement and which the Commission has approved.
  - 5736 --- Licensee is authorized to provide fixed-satellite service other than Direct-to-Home service via non-U.S. licensed satellites.
  - 9967 --- The user must provide the Naval Electromagnetic Spectrum Center (703-325-2750) a 24hr phone number (631-457-1238) which would be contacted when national defense and US naval operation requirements necessitate immediate cessation of operations. The applicant is aware that they would be required to temporarily cease satellite operations on these frequencies until notified otherwise.



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#### 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.

FCC Form 488