

# **RADIO STATION AUTHORIZATION**

Name: Intelsat L	icense LLC			Call Sign:	KA261	
Authorization Ty	pe: Modification of License			File Number:	SES-MOD-	-20170804-00870
Non Common C	arrier Grant date:	09/18/2017	Expiration Date:	03/31/2024	and the second se	CONMUNIC
	Fixed Satellite Service Fixed Earth Stations				UV V*C	JAS S
A) Site Locati	on(s)					MISSIG
# Site ID	Address	Latitude	Longitude	Elevati (Mete		Special Provisions (Refer to Section H)
1) 1	17625 TECHNOLOGY BLVD. HAGERSTOWN, WASHINGTON, M 21740	39°35'57. ID	0"N 77°45'22.	0"W 16	6 83	

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 March 31, 2009 (3 AM Eastern Standard Time) and ending March 31, 2024 (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 Emiss	Tx/Rx ion Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services		
1)	5925.0000-6425.0000	H,V,L,R NON	Tx	55.70	55.70	1	5 Y 1	IOT		
2)	5925.0000-6425.0000	H,V,L,R 1M00F2	D Tx	79.70	55.70	1		TT&C		
3)	5925.0000-6425.0000	H,V,L,R 200KF2	D Tx	72.70	55.70	1		TT&C		
4)	5925.0000-6425.0000	H,V,L,R 56K0G7	W Tx	67.20	55.70	1		DIGITAL DATA		
5)	5925.0000-6425.0000	H,V,L,R 72M0G7	W Tx	79.70	37.10	1		DIGITAL DATA		
6)	5850.0000-5925.0000	H,V,L,R 56K0G7	W Tx	67.20	55.70	1		DIGITAL DATA, VOICE SERVICES	VIDEO	AND
7)	5850.0000-5925.0000	H,V,L,R 72M0G7	W Tx	88.00	45.40	1		DIGITAL DATA, VOICE SERVICES	VIDEO	AND
8)	3700.0000-4200.0000	H,V,L,RNON	Rx			1		IOT		
9)	3700.0000-4200.0000	H,V,L,R 1M00F2	D Rx			l		TT&C		



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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)	Polarization Code	ı Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services		
10) 37	00.0000-4200.0000	H,V,L,R	200KF2D	Rx			l		TT&C		
11) 37	00.0000-4200.0000	H,V,L,R	56K0G7W	Rx			1		DIGITAL DATA		
12)37	200.0000-4200.0000	H,V,L,R	72M0G7W	Rx			1		DIGITAL DATA		
13)36	25.0000-4200.0000	H,V,L,R	56K0G7W	Rx			1		DIGITAL DATA, VOICE SERVICES	VIDEO	AND
14)36	25.0000-4200.0000	H,V,L,R	72M0G7W	Rx			1		DIGITAL DATA, VOICE SERVICES	VIDEO	AND

### **C)** Frequency Coordination Limits

		Satellite Arc (Deg. Long.)	Elevation (Degrees)	Azimuth (Degrees)	Max EIRP Density toward	
#	Frequency Limits (MHz)	East West Limit Limit	East West Limit Limit	East West Limit Limit		Associated Antenna(s)
1)	5925.0000-6425.0000	18.0W-65.0W	14.4-42.3	110.4-160.4	0.3	1
2)	5850.0000-5925.0000	24.0W-25.0W	18.9-19.6	115.0-115.8	0.3	1
3)	3625.0000-3700.0000	24.0W-25.0W	18.9-19.6	115.0-115.8	0	1
4)	3700.0000-4200.0000	18.0W-65.0W	14.4-42.3	110.4-160.4	0	1
5)	5925.0000-6425.0000	6.0W-65.0W	05.3-42.3	101.9-160.4	-7.22	1
6)	3700.0000-4200.0000	6.0W-65.0W	05.3-42.3	101.9-160.4	0	1

#### **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 INTELSAT 905 (S2409) @ 24.5 degrees W.L. (U.S.-licensed)
- 3) 1 to INTELSAT 9 (S2380) @ 29.5 W.L. (U.S.-licensed)
- 4) 1 to Temporary Entry for Internet Applications



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### E) Antenna Facilities

	Site ID	Antenna ID	Units	Diameter (meters)	Manufacturer	Model number	Site Elevation (Meters)	Max Antenna Height (Meters)	Provisions (Refer to Section H)
1		1	1	15.2	VERTEX	15.2KPC	166	17.35 AGL/ 183.35 AMSL	
	Maxim	-	t power		3.9500 GHz na flange (Watts) all carriers (dBW	= 1,500.00	50 GHz		

#### F) Remote Control Point:

1

Call Sign:

### 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:
  - 4 --- Licensee must ensure that a current listing of the name, title, mailing address, email address, and telephone number of the responsible point of contact are on file at the FCC. Any changes must be filed electronically in the International Bureau Filing System (IBFS) in the "Other Filings" tab within 10 days of the change.
  - 5 --- Licensee must notify the Commission when an earth station is no longer operational or when it has not been used to provide any service during any 6-month operation.
  - 6 --- Licensee must comply with the license modification and notification requirements of 47 CFR § 25.118 to change the coordinates of its authorized earth station.
  - 5802 --- This authorization is issued pursuant to and subject to the terms and policy adopted in the Commission's Order, released December 11, 2000 (FCC 00-363).

Special



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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:
  - 5822 --- The 3600-3650 MHz band is shared on a co-primary basis in the U.S. and Possessions with Federal Government radiolocation systems. Unacceptable interference may be caused to this earth station from radiolocation systems, including high-powered, highly mobile, shipborne and airborne radar transmitters, operating in the frequency band. Consistent with the applicant's EMC analysis (as required by US245 and based on the NTIA TR-99-361 Report, Technical Characteristics of Radiolocation Systems operating in the 3.1-3.7 GHz Band and Procedures for assessing EMC with Fixed Earth Station Receivers (available at http://www.ntia.doc.gov/osmhome/reports.html), the licensee accepts this potential for unacceptable interference. In the case that out-of-band interference does occur, the licensee is further aware that use of a RF filter ahead of the low noise amplifier (LNA) will limit potential out-of-band interference to its receiving earth station. Additionally, per US 245, in the band 3600-3650 MHz, these fixed-satellite service operations are limited to international inter-continental satellite systems.
  - 5833 --- The operation with ALSAT shall be limited to the 5925-6425 and 3700-4200 MHz frequency bands.
  - 5859 --- The 3650-3700 MHz band is shared on a co-primary basis in three Federal Government radiolocation systems identified in US348. Unacceptable interference may be caused to this earth station from these three radiolocation systems operating in the frequency band. Consistent with the applicant's EMC analysis (as required by US348 and based on the NTIA TR-99-361 Report, Technical Characteristics of Radiolocation Systems operating in the 3.1-3.7 GHz Band and Procedures for assessing EMC with Fixed Earth Station Receivers (available at http://www.ntia.doc.gov/osmhome/reports.html), the licensee accepts this potential for unacceptable interference from the three stations identified in US348. In the case that out-of-band interference does occur, the licensee is further aware that use of a RF filter ahead of the low noise amplifier (LNA) will limit potential out-of-band interference to its receiving earth station. Additionally, per US 245, in the band 3650-3700 MHz, these fixed-satellite service operations are limited to international inter-continental satellite systems.
  - 5959 --- The extended C-band frequencies 5850-5925 MHz and 3625-3700 MHz are not permitted with ALSAT-designated satellites.
- 90023 --- Operation on extended C-band frequencies 3625-3700 MHz will be on non-protected basis.
- 90041 --- O3b Limited IS GRANTED a waiver of Section 25.210(i)(1) of the Commission's rules, 47 C.F.R § 25.210(i)(1), with respect to the cross-polarization isolation requirements for the O3b Limited NGSO satellite system space station antennas.
- 90398 --- Changes to previously authorized transmitting facilities, operations and devices regulated by the Commission that may have significant environmental impact, and are not excluded by §1.1306, require the preparation of an Environmental Assessment (EA) by the licensee. (See 47 C.F.R. §§1.1307, 1.1308 and 1.1311)



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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:
- 90399 --- The licensee shall, at all times, take all necessary measures to ensure that operation of this (these) authorized earth station(s) 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. Physical 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. Compliance can be accomplished in most cases by appropriate restrictions, such as fencing. Requirements for restrictions can be determined by predictions based on calculations, modeling, or by field measurements. 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 alerting signs and protective equipment for workers.



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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