

RADIO STATION AUTHORIZATION

Name: Hawaii Pacific Teleport LLLP Call Sign: E010236

Authorization Type: Modification of License File Number: SES-MOD-20191106-01458

Non Common Carrier Grant date: 04/09/2021 Expiration Date: 12/20/2032

Nature of Service: Fixed Satellite Service

Class of Station: Fixed Earth Stations

A) Site Location(s)

# Site ID	Address	Latitude	Longitude	Elevation (Meters)	Special Provisions NAD (Refer to Section H)
1) KAPOLEI	91-340 FARRINGTON HIGH KAPOLEI, HONOLULU, HI 96707	21°20'10.2"N	158°5'18.0"W	36.6	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 December 20, 2017 (3 AM Eastern Standard Time) and ending December 20, 2032 (3 AM Eastern Standard Time). The required date of completion of construction and commencement of operation is April 9, 2022 (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.

Frequency # (MHz)	Polarization Code	n 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) 14000.0000-14500.0000	H, V	36M0G7W	Tx	74.10	34.60	1		Compressed Digital audio, data	Video,
2) 14000.0000-14500.0000	H, V	4M00G7W	Tx	64.70	34.70	1		Compressed Digital audio, data	Video,
3) 11700.0000-12200.0000	H, V	36M0G7W	Rx			1		Compressed Digital audio, data	Video,
4) 11700.0000-12200.0000	H, V	4M00G7W	Rx			1		Compressed Digital audio, data	Video,
5) 14000.0000-14500.0000	H, V	36M0G7W	Tx	85.14	45.60	2		Digital traffic, FEC, data modulation	Various rates,
6) 14000.0000-14500.0000	Н, V	51K2G7W	Tx	56.67	45.60	2		Digital traffic, FEC, data modulation	Various rates,

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101	t the text of these provisions, refe	i to section ii.			Max	Max EIRP		Special		
#	Frequency (MHz)	Polarization Code	Emission	Tx/Rx Mode	EIRP /Carrier (dBW)	Density /Carrier (dBW/4kHz)	Associated Antenna	Provisions (Refer to Section H)	Modulation/ Services	
7)	13750.0000-14000.0000	H, V :	36M0G7W	Tx	85.14	45.60	2		Digital traffic, FEC, data modulation	Various rates,
8)	13750.0000-14000.0000	H, V	51K2G7W	Tx	56.67	45.60	2		Digital traffic, FEC, data modulation	Various rates,
9)	13000.0000-13250.0000	H, V	36M0G7W	Tx	85.14	45.60	2		Digital traffic, FEC, data modulation	Various rates,
10)	13000.0000-13250.0000	H, V	51K2G7W	Tx	56.67	45.60	2		Digital traffic, FEC, data modulation	Various rates,
11)	12500.0000-12750.0000	Н, ∨	36M0G7W	Rx			2		Digital traffic, FEC, data modulation	Various rates,
12)	12500.0000-12750.0000	Н,∨	51K2G7W	Rx			2		Digital traffic, FEC, data modulation	Various rates,
13)	11700.0000-12200.0000	Н, ∨	36M0G7W	Rx			2		Digital traffic, FEC, data modulation	Various rates,
14)	11700.0000-12200.0000	H, V	51K2G7W	Rx			2		Digital traffic, FEC, data modulation	Various rates,
15)	11450.0000-11700.0000	H, V :	36M0G7W	Rx			2		Digital traffic, FEC, data modulation	Various rates,
16)	11450.0000-11700.0000	Н, ∨	36M0G7W	Rx			2		Digital traffic, FEC, data modulation	Various rates,
17)	11450.0000-11700.0000	H, V	51K2G7W	Rx			2		Digital traffic, FEC, data modulation	Various rates,
18)	11450.0000-1170.0000	H, V	51K2G7W	Rx			2		Digital traffic, FEC, data modulation	Various rates,
19)	10950.0000-11200.0000	H, V	36M0G7W	Rx			2		Digital traffic, FEC, data modulation	Various rates,

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For the text of these provisions, refer to Section H.

1011	ne text of these provisions, refe	a to section i	1.		Max EIRP	Max EIRP		Special Provisions		
#	Frequency (MHz)	Polarizatio Code	on Emission	Tx/Rx Mode	/Carrier	Density /Carrier (dBW/4kHz)	Associated Antenna	(Refer to Section H)	Modulation/ Services	
20) 1	.0950.0000-11200.0000	Н,∨	51K2G7W	Rx		0.00	2		Digital traffic, FEC, data modulation	Various rates,
21) 1	4000.0000-14500.0000	H , V	36M0G7W	Tx	74.14	34.60	HPT07-24		Digital Data, Vari 3/4, 1/2 Etc. V Mod. QPSK, Etc.	
22) 1	4000.0000-14500.0000	H , V	4M00G7W	Tx	64.70	34.70	HPT07-24		Digital Data, Vari 3/4, 1/2 Etc. V Mod. QPSK, Etc.	
23) 1	1700.0000-12200.0000	Н, V	36M0G7W	Rx			HPT07-24		Digital Data, Vari 3/4, 1/2 Etc. V Mod. QPSK, Etc.	
24) 1	1700.0000-12200.0000	Н,∨	4M00G7W	Rx			HPT07-24		Digital Data, Vari 3/4, 1/2 Etc. V Mod. QPSK, Etc.	
25) 1	4000.0000-14500.0000	Н,∨	36M0G7W	Tx	85.14	45.60	HPT11-81K		Digital Data, Vari 3/4, 1/2 Etc. V Mod. QPSK, Etc.	
26) 1	4000.0000-14500.0000	Н, V	51K2G7W	Tx	56.67	45.60	HPT11-81K		Digital Data, Vari 3/4, 1/2 Etc. V Mod. QPSK, Etc.	
27) 1	1450.0000-11700.0000	Н,∨	36M0G7W	Rx			HPT11-81K		Digital Data, Vari 3/4, 1/2 Etc. V Mod. QPSK, Etc.	
28) 1	1450.0000-11700.0000	H , V	51K2G7W	Rx			HPT11-81K		Digital Data, Vari 3/4, 1/2 Etc. V Mod. QPSK, Etc.	
29) 1	0950.0000-11200.0000	H , V	36M0G7W	Rx			HPT11-81K		Digital Data, Vari 3/4, 1/2 Etc. V Mod. QPSK, Etc.	
30) 1	0950.0000-11200.0000	Н,∨	51K2G7W	Rx			HPT11-81K		Digital Data, Vari 3/4, 1/2 Etc. V Mod. QPSK, Etc.	

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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)	11700.0000-12200.0000	83.0W-194.0W	05.2-42.6	095.5-243.3	1	_
2)	14000.0000-14500.0000	83.0W-194.0W	05.2-42.6	095.5-243.3	-3.45	_
3)	10950.0000-11200.0000	188.0W-188.0W	48.0-48.0	237.7-237.7	F	IPT11-81K
4)	11450.0000-11700.0000	188.0W-188.0W	48.0-48.0	237.7-237.7	F	IPT11-81K
5)	14000.0000-14500.0000	188.0W-188.0W	48.0-48.0	237.7-237.7	F	IPT11-81K
6)	11700.0000-12200.0000	83.0W-194.0W	05.2-42.6	095.5-243.3	F	IPT07-24
7)	14000.0000-14500.0000	83.0W-194.0W	05.2-42.6	095.5-243.3	0.43 F	IPT07-24
8)	14000.0000-14500.0000	154.0E-154.0E	31.2-31.2	251.8-251.8	2	2
9)	14000.0000-14500.0000	154.0E-154.0E	31.2-31.2	251.8-251.8	2	2
10)	11450.0000-11700.0000	154.0E-154.0E	31.2-31.2	251.8-251.8	2	2
11)	13750.0000-14000.0000	133.0W-133.0W	52.2-52.2	127.9-127.9	-24 2	2
12)	13000.0000-14000.0000	133.0W-133.0W	52.2-52.2	127.9-127.9	-24 2	2
13)	12500.0000-13250.0000	133.0W-133.0W	52.2-52.2	127.9-127.9	2	2
14)	11450.0000-12750.0000	133.0W-133.0W	52.2-52.2	127.9-127.9	2	2
15)	10950.0000-11700.0000	133.0W-133.0W	52.2-52.2	127.9-127.9	2	2

D) Points of Communications

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

- 1) KAPOLEI to Permitted Space Station List
- 2) KAPOLEI to EUTELSAT 174A (S2610) @ 174 degrees E.L. (formerly GE-23) (U.S.-licensed)
- 3) KAPOLEI to JCSAT-2B (M174163) @ 154 degrees E.L. (Japan-licensed)(SES-MFS-20090106-00002)
- 4) KAPOLEI to EUTELSAT 133 WA (S3031) @ 132.85 W.L. (France licensed)

E) Antenna Facilities

Sit II		Units	Diameter (meters)	Manufacturer	Model numbe	Site Elevation (Meters)	Max Antenna Height (Meters)	Provisions (Refer to Section H)
KAPOLE	EI 1	1	2.4	PRODELIN	2.4	36.6	3.4 AGL/ 40 AMSL	_
	Max Gains(s):	49.2	dBi @	14.2500 GHz	47.6 dBi @ 11.	9500 GHz		
	Maximum total input	t power	at anten	na flange (Watts)	= 350.00			
	Maximum aggregate o	output	ETRP for	all carriers (dBW)	= 74.10			

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E) Antenna Facilities

Sit		Antenna ID	Units	Diameter (meters)	Manufacturer	Mode	l number	Site Elevation (Meters)	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
KAPOLE	ΞI	2	1	8.1	VERTEX RSI		KPK	36.6	9 AGL/ 45.58 AMSL	
	Max Gai		58.0 7000 GH:	-	11.9500 GHz 59 .8 dBi @ 13.0000	.8 dBi @ GHz	14.000	00 GHz	58.0 dBi @	
		-	-		na flange (Watts) = all carriers (dBW) =	:	342.00 85.14			
KAPOLE	ΞI	HPT07-24	1	2.4	VERTEX RSI		2.4	36.6	3 AGL/ 39.58 AMSL	
		total input	power	at antenr	11.9500 GHz 49 na flange (Watts) = all carriers (dBW) =		14.250 312.00 74.14	00 GHz		
KAPOLE	ΞΙ	HPT11-81K	1	8.1	VERTEX RSI		KPK	36.6	9 AGL/ 45.58 AMSL	
		total input	power	at antenr	11.2000 GHz 59 na flange (Watts) = all carriers (dBW) =		14.250 350.00 85.14	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:
 - 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 (MyIBFS) using the "Pleadings and Comments" link on the MyIBFS homepage within 10 days of the change.
 - 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.
 - 8 --- Licensee must notify the Commission when all earth stations operating under this authorization are no longer operational or when they have not been used to provide any service during any 6-month operation.
 - 258 --- The licensee shall comply with the terms of Footnote US251 to 47 U.S.C. § 2.106 to ensure that operation of this station in the 12.75-13.25 MHz frequency band does not interfere with space research operation at Goldstone, California.

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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:
 - 385 --- The use of the band 10.7-11.7 GHz (Space-to-Earth) and 12.75-13.25 GHz (Earth-to-Space) by the fixed-satellite service in the geostationary satellite orbit shall be limited to international systems, i.e. other than domestic systems. (NG52)
 - 448 --- Licensee may be required to coordinate pursuant to C.F.R. Section 25.203(g) with the FCC Field Office in Waipahu, HI, if the earth station ERP values are exceeded.
 - 2325 --- Antennas and all antenna supporting structures used under this authorization shall not exceed 20 feet in height.
 - 5885 --- This authorization does not authorize Licensee to provide any Direct-to-Home ("DTH"), Direct Broadcast Satellite ("DBS") service or Digital Audio Radio Service ("DARS") to, from, or within the United States via a non-U.S.-licensed satellite.
 - 5886 --- Communications between earth station and the JCSAT 1B satellite shall be in compliance with the satellite coordination agreements reached between Japan and other administrations.
 - 5887 --- Licensee is restricted to the transmission of only digital carriers to the JCSAT 1B satellite and may transmit only within the 14.0-14.5 GHz band.
 - 5888 --- Licensee is restricted to receive only digital carriers from the JCSAT 1B satellite and may receive only within the 11.7-12.2 GHz band.
- 90094 --- The licensee must maintain a U.S. point of contact available 24 hours per day, seven days per week, with the authority and ability to terminate operations authorized herein.
- 90341 --- The applicant's request for a waiver of Section 25.283(c) of the Commission's rules, 47 C.F.R. § 25.283(c), is granted. Section 25.283(c) specifies that space stations must discharge all stored energy sources at end-of-life of the space station. JCSAT-2B is a Space Systems/Loral 1300 model spacecraft that was launched on May 6, 2016. Applicant states that JCSAT-2B's two identical interconnected helium tanks will be vented as a part of the retirement procedures for this spacecraft, but a pressure regulator will prevent complete expulsion of the helium in the tanks by cutting off the flow of helium after the 400 psia minimum inlet pressure of the regulator is reached. Applicant states that the helium tanks will retain a total mass of approximately 440 grams of helium at end of life, with each tank volume being 49 liters. We grant a waiver of the Section 25.283(c) with respect this de minimis inert gas.
- 90356 --- This authorization is limited to antenna ID 2, Vertex RSI model 8.1m KPK to communicate with JCSAT-2B at orbital location 154 degrees E.L. in the 14.0-14.5 GHz (Earth-to-space) frequency band and 11.7-12.2 GHz (space-to-Earth) frequency band.
- 90357 --- Transmissions between the Hawaii Pacific Teleport, L.P. Kapolei, Hawaii earth station, Call Sign E010236, and the JCSAT-2B space station, at the 154° E.L. orbital location, are limited to the provision of gateway services in the 11.7-12.2 GHz (space-to-Earth) and 14.0-14.5 GHz (Earth-to-space) frequency bands. This authorization is limited to the earth station call sign E010236 and does not permit JCSAT-2B to operate with any other earth station in the United States.

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Non Common Carrier 12/20/2032 Grant date: 04/09/2021 **Expiration Date:**

H) Special and General Provisions

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

- 90358 --- Communications between the Kapolei, Hawaii earth station (Call Sign E010236) and the JCSAT-2B space station shall comply with all coordination agreements reached between Japan and other Administrations.
- 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)
- 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.
- 90405 --- Operations with PERMITTED LIST satellite must comply with §25.212 levels and operations above these levels must coordinate with satellite operators prior to operations.
- 900407 --- The Permitted Space Station List (Permitted List) is a list of all geostationary space stations providing fixed-satellite service pursuant to a Commission license or grant of U.S. market access. The Permitted List currently includes the following frequency bands per §25.103 and §25.115(k)(1):

5850-6725 MHz (Earth-to-space) 10.95-11.2 GHz (space-to-Earth) 11.45-12.2 GHz (space-to-Earth) 13.75-14.5 GHz (Earth-to-space) 18.3-18.8 GHz (space-to-Earth) 19.7-20.2 GHz (space-to-Earth)

3600-4200 MHz (space-to-Earth)

24.75-25.25 GHz (Earth-to-space)

28.35-28.6 GHz (Earth-to-space)

29.25-30.0 GHz (Earth-to-space).

Earth stations with "Permitted List" designated as a point of communication may access any space station on the Permitted List, provided the operations comply with the applicable "routine" uplink and downlink limits, are within the specific frequency bands authorized in the earth station license, have completed coordination with terrestrial stations pursuant to §25.203, and otherwise comply with all terms and conditions of both the earth station license and the space station grant.

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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 regulates 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.

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