

RADIO STATION AUTHORIZATION

Name: GCL Licensee LLC Call Sign: E050237

Authorization Type: Renewal of License File Number: SES-RWL-20200916-01024

Non Common Carrier Grant date: 09/17/2020 Expiration Date: 10/17/2035

Nature of Service: Mobile 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) LPMA-4	Road 303 INT. KM 12.1 Las Palmas Cabo Rojo, Cabo Rojo, PR 0	17°58'48.0"N	67°8'12.0"W	53	27
	Licensee certifies antenna	a(s) comply with a	ain patterns sp	ecified 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 October 17, 2020 (3 AM Eastern Standard Time) and ending October 17, 2035 (3 AM Eastern Standard Time). The required date of 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)	Polarizatio Code	on Emission	Tx/Rx Mode	Max Max EIRP EIRP Density /Carrier /Carrier (dBW) (dBW/4kHz)	Associated	Provisions (Refer to Section H)	Modulation/ Services		
1)	6900.0000-7055.0000	L,R	1M23G7W	Rx		LPA RFT4		CDMA voice and	data	
2)	6900.0000-7055.0000	L,R	NON	Rx		LPA RFT4		Unmodulated testing	CW	for
3)	6900.0000-7055.0000	L,R	1HONON	Rx		LPA RFT4		Unmodulated testing	CW	for
4)	6900.0000-7055.0000	L,R	2M46G7W	Rx		LPA RFT4		Wideband CDMA data	voice	and
5)	6900.0000-7055.0000	L,R	2M46G2W	Rx		LPA RFT4		Wideband CDM single-carrier		r
6)	6900.0000-7055.0000	L,R	1M23XXX	Rx		LPA RFT4		White noise carrier for tes	modulat ting	ed
7)	6900.0000-7055.0000	L,R	1M23XXX	Rx		LPA RFT4		White-noise-mod carrier for tes		

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

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#	Frequency (MHz)	Polarization Code	Emission	Tx/Rx Mode	EIRP /Carrier (dBW)	Density /Carrier (dBW/4kHz)	Associated Antenna	Provisions (Refer to Section H)	Modulation/ Services
8) 690	00.0000-7055.0000	L,R	LM23G2W	Rx			LPA RFT4		Direct-sequence CDMA for single-carrier AMSS
9) 69(00.0000-7055.0000	L,R	LM23G2W	Rx			LPA RFT4		Direct-sequence CDMA for single-carrier AMSS
10) 69(00.0000-7055.0000	L,R 2	2M50G2D	Rx			LPA RFT4		Direct-sequence CDMA for single-carrier telemetry data
11) 69(00.0000-7055.0000	L,R 2	2M50G2D	Rx			LPA RFT4		Direct-sequence CDMA for single-carrier telemetry data
12) 690	00.0000-7055.0000	L,R	LM23G7W	Rx			LPA RFT4		CDMA voice and data: QPSK waveform consists of multiple direct-sequence spread-spectrum 1.23 Mchip/sec channels whose carriers are uniformly spaced.
13) 509	06.0000-5250.0000	L,R	LM23G7W	Tx	55.00	30.10	LPA RFT4		CDMA voice and data
14) 509	96.0000-5250.0000	L,R 2	2M46G7W	Tx	55.00	27.10	LPA RFT4		Wideband CDMA voice and data
15) 509	96.0000-5250.0000	L,R 1	LM23G2W	Tx	55.00	30.10	LPA RFT4		Wideband CDMA for single-carrier AMSS
16) 509	96.0000-5250.0000	L,R 2	2M46G2W	Tx	55.00	27.10	LPA RFT4		Wideband CDMA for single-carrier AMSS
17) 509	96.0000-5250.0000	L,R 1	LM23XXX	Tx	59.00	34.10	LPA RFT4		White noise modulated carrier for testing
18) 509	06.0000-5250.0000	L,R 1	LM23XXX	Tx	59.00	34.10	LPA RFT4		White-noise-modulated carrier for testing
19) 509	96.0000-5250.0000	L,R	LM23G2W	Tx	55.00	30.10	LPA RFT4		Direct-sequence CDMA for single-carrier AMSS
20) 509	96.0000-5250.0000	L,R M	NON	Tx	59.00	59.00	LPA RFT4		Unmodulated CW for testing; maximum EIRP density per carrier is 59.0 dBW in any bandwidth.
21) 509	96.0000-5250.0000	L,R	LHONON	Tx	59.00	59.00	LPA RFT4		Unmodulated CW for testing; maximum EIRP density per carrier is 59.0 dBW in any bandwidth.

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Non Common Carrier **Grant date:** 09/17/2020 10/17/2035 **Expiration Date:**

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		Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services
22) 5	5096.0000-5250.0000	L,R	1M23G7W	Tx	55.00	30.10	LPA RFT4		CDMA voice and data: QPSK waveform consists of multiple direct-sequence spread-spectrum 1.23 Mchip/sec channels whose carriers are uniformly spaced.

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)	5096.0000-5250.0000	NGSO	67.4-04.8	157.9-265.6	25.9	LPA RFT4
2)	6875.0000-7055.0000	NGSO	67.4-04.8	157.9-265.6	25.9	LPA RFT4
3)	5091.0000-5250.0000	NGSO	05.0-05.0	-360.0	22.9	LPA RFT4
4)	6875.0000-7055.0000	NGSO	05.0-05.0	-360.0	22.9	LPA RFT4

D) Points of Communications

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

- 1) LPMA-4 to GLOBALSTAR NGSO MSS (S2115) (U.S. licensed satellite)
- 2) LPMA-4 to GLOBALSTAR 2.0 NGSO MSS (France-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)
LPMA-4	LPA RFT4	1	5.5	Alcatel	9775	53	8.15 AGL/ 61.2 AMS	L
Max	x Gains(s):	50.2	dBi @	6.9750 GHz	47.6 dBi @ 5.15	00 GHz		
Max	ximum total input	power	at antenr	na flange (Watts)	= 110.00			
Max	ximum aggregate o	utput	EIRP for a	all carriers (dBW	68.00			

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Call Sign: N/A

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F) Remote Control Point:

LPMA-4 461 S. Milpitas Blvd.

Milpitas, Santa Clara, CA 95035

408-933-4600

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.
 - 5 --- Licensee must notify the Commission when this 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.
 - 3424 --- The authority granted here is subject to the outcome of the Commission's rulemaking proceeding in OET Docket No. 98-142, concerning domestic allocations in the 5/7 GHz frequency bands. No harmful interference shall be caused by the operations of this station to other lawfully operated radio stations and interference protection from authorized stations shall not be claimed. Operations shall terminate immediately upon notification of harmful interference.
- 90009 --- 1) Operation shall be in compliance with any restrictions established in the course of international coordination for Globalstar second generation satellites pursuant to ITU regulations.
- 90010 --- 2) The authority to operate granted in connection with these earth station applications shall become effective upon grant by France of an authorization for space operations under the June 3, 2008 French law n° 2008-518 relative to space operations, and only for communications with space stations for which France grants authority and undertakes to register under the United Nations Registration Convention. Globalstar shall notify the Commission immediately of any disposition by French officials of its request for such authorization. This authorization shall immediately cease in the event of denial of such request, or other action by Globalstar or France that would result in space operations by Globalstar second generation satellites becoming no longer subject to French supervision.
- 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 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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