

**OPERATION OF CALL SIGN E050237  
UNDER SPECIAL TEMPORARY AUTHORITY**

On June 30, 2020, the Commission granted Special Temporary Authority (“STA”) to GCL Licensee LLC (together with its parent Globalstar, Inc., “Globalstar”) with respect to operation of its licensed feeder link earth station antenna in Las Palmas, PR, under call sign E050237.<sup>1</sup> (Globalstar seeks renewal of call sign E050237 in the instant application.) This STA has enabled Globalstar to test and validate two new waveforms for use over its mobile satellite service (“MSS”) network. Globalstar plans to utilize new waveforms to improve and enhance its safety-of-life services.

Globalstar provided the relevant technical parameters for its transmissions of the two test waveforms in the technical exhibit to its May 8, 2020 STA request for call sign E050237 (attached to this exhibit).<sup>2</sup> As described in that technical exhibit, the two test waveforms are burst mode packet data carriers that support short-messaging data services. For one of these waveforms, the channel bandwidth is 200 kHz at 5096-5250 MHz (uplink) and 20 kHz at 6900-7055 MHz (downlink) while the bandwidth for the second waveform is 2 MHz at 5096-5250 MHz and 200 kHz at 6900-7055 MHz. While the total EIRP for these test transmissions is the same as for Globalstar’s existing licensed services, the EIRP density for these waveforms exceeds the EIRP density values for Globalstar’s current feeder link operations. These test transmissions nonetheless create no greater potential for interference than Globalstar’s existing, licensed operations at 5096-5250 MHz/6875-7055 MHz.

During the STA period, Globalstar’s Las Palmas antenna has transmitted this test waveform traffic concurrently with its existing, licensed commercial feeder link traffic at 5096-5250 MHz/6875-7055 MHz. Globalstar has avoided any interference to its current MSS operations through appropriate frequency separation in these bands.

On August 4, 2020, GCL Licensee LLC requested a 60-day extension of its existing STA so that it can continue to test and validate two waveforms for use on its MSS network.<sup>3</sup> As described in its August 4 extension request, Globalstar now plans to modify the second test waveform so that it has an uplink bandwidth of 4.5 MHz at 5096-5250 MHz (the downlink bandwidth for this waveform would remain 200 kHz at 6900-7055 MHz). This wider uplink bandwidth should improve service quality by providing greater protection against narrowband interference. Globalstar’s August 4 STA extension request is pending at the Commission.

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<sup>1</sup> See FCC File No. SES-STA-20200508-00513; *Satellite Communications Services Information re: Actions Taken*, Public Notice, Report No. SES-02281 at 275-76 (July 1, 2020).

<sup>2</sup> Application of GCL Licensee LLC, Exhibit 2: Earth Station Technical Information for STA Request, FCC File No. SES-STA-20200508-00513 (May 8, 2020).

<sup>3</sup> Application of GCL Licensee LLC, FCC File No. SES-STA-20200804-00828 (Aug. 4, 2020).

# Attachment

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:

Las Palmas-4 STA Request

**1. Applicant**

<b>Name:</b>	GCL Licensee LLC	<b>Phone Number:</b>	985-335-1503
<b>DBA Name:</b>		<b>Fax Number:</b>	985-335-1703
<b>Street:</b>	1351 Holiday Square Blvd.	<b>E-Mail:</b>	Barbee.Ponder@Globalstar.com
<b>City:</b>	Covington	<b>State:</b>	LA
<b>Country:</b>	USA	<b>Zipcode:</b>	70433 -
<b>Attention:</b>	Mr L. Barbee Ponder		

**2. Contact**

<b>Name:</b>	Wen Doong	<b>Phone Number:</b>	985-335-1675
<b>Company:</b>	Globalstar, Inc.	<b>Fax Number:</b>	
<b>Street:</b>	1351 Holiday Square Blvd.	<b>E-Mail:</b>	Wen.Doong@Globalstar.com
<b>City:</b>	Covington	<b>State:</b>	LA
<b>Country:</b>	USA	<b>Zipcode:</b>	70433 -
<b>Attention:</b>		<b>Relationship:</b>	Engineer

(If your application is related to an application filed with the Commission, enter either the file number or the IB Submission ID of the related application. Please enter only one.)

3. Reference File Number SESMFS2009122101606 or Submission ID

4a. Is a fee submitted with this application?

If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).

Governmental Entity  Noncommercial educational licensee

Other (please explain):

4b. Fee Classification CGX – Fixed Satellite Transmit/Receive Earth Station

5. Type Request

Use Prior to Grant

Change Station Location

Other

6. Requested Use Prior Date

06/30/2020

7. City Las Palmas

8. Latitude

(dd mm ss.s h) 17 58 48.0 N

9. State PR	10. Longitude (dd mm ss.s h) 67 8 12.0 W
11. Please supply any need attachments. Attachment 1: Cover letter                      Attachment 2: Technical exhibit                      Attachment 3:	
12. Description. (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) <div style="border: 1px solid black; padding: 5px; margin: 10px 0;">GCL Licensee LLC (together with its parent Globalstar, Inc., ('Globalstar')) is seeking a 60-day Special Temporary Authority ('STA') in order to test and validate two waveforms for use in conjunction with Globalstar's licensed gateway earth station with call sign E050237 at Las Palmas, Puerto Rico.</div>	
13. By checking Yes, the undersigned certifies that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application"; for these purposes. <input checked="" type="radio"/> Yes <input type="radio"/> No	
14. Name of Person Signing L. Barbee Ponder IV	15. Title of Person Signing General Counsel and VP – Regulatory Affairs
WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT (U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).	

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## LAWLER, METZGER, KEENEY &amp; LOGAN, LLC

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SUITE 1075  
WASHINGTON, D.C. 20006

STEPHEN J. BERMAN

PHONE (202) 777-7700  
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May 8, 2020

*Via Electronic Filing*

Tom Sullivan  
Chief, International Bureau  
Federal Communications Commission  
445 Twelfth Street, SW  
Washington, DC 20554

Re: **Request for Special Temporary Authority – 60 Days (Las Palmas, PR)**  
**GCL Licensee LLC – Call Sign E050237**

Dear Mr. Sullivan:

Pursuant to Section 25.120(a) of the Commission's rules, GCL Licensee LLC (together with its parent Globalstar, Inc., "Globalstar") hereby requests a 60-day Special Temporary Authority ("STA"), beginning June 30, 2020, in order to test and validate two waveforms using Globalstar's licensed gateway earth station antenna operating under call sign E050237, in Las Palmas, PR.<sup>1</sup> Globalstar plans to utilize these new waveforms to improve and enhance its safety-of-life mobile satellite services ("MSS").

Globalstar will transmit these waveforms on a test basis over this gateway antenna in Las Palmas because this approach represents the best means of testing, validating, and finalizing the parameters for these carriers.<sup>2</sup> By using its operational feeder link facilities, Globalstar can

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<sup>1</sup> 47 C.F.R. § 25.120(a).

<sup>2</sup> GCL Licensee LLC has concurrently filed three additional STA requests so that it can utilize its other licensed Las Palmas earth station antennas in this test program. In addition, GCL Licensee's affiliate GUSA Licensee LLC (also wholly owned by Globalstar, Inc.) has concurrently filed four STA requests so that Globalstar can use its four licensed earth station antennas in Sebring, FL, for this testing. Globalstar is currently conducting test operations with the new waveforms at its licensed gateway earth facilities in Clifton, TX, under STAs granted to GUSA Licensee LLC in April. *See* Application for Special Temporary Authority of GUSA Licensee LLC, IBFS File No. SES-STA-20200330-00348 (filed Mar. 30, 2020); *Satellite Communications Services Information re: Actions Taken*, Public Notice, Report No. SES-02258 at 51 (Apr. 15, 2020); Application for Special Temporary Authority of GUSA Licensee LLC, IBFS File No. SES-STA-20200330-00349 (filed Mar. 30, 2020); *Satellite Communications Services Information re: Actions Taken*, Public Notice, Report No. SES-02258 at 51 (Apr. 15, 2020); Application for Special Temporary Authority of GUSA Licensee LLC, IBFS File No. SES-STA-20200330-00350 (filed Mar. 30, 2020); *Satellite Communications Services*

Mr. Tom Sullivan  
May 8, 2020  
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ensure that these waveforms will meet the specific requirements of its safety-of-life service offerings. Globalstar's Las Palmas gateway will transmit this test waveform traffic concurrently with its existing, licensed commercial feeder link traffic at 5091-5250 MHz/6875-7055 MHz. Globalstar will avoid any interference to its current MSS operations through appropriate frequency separation in these bands.

Globalstar provides the relevant technical parameters for its proposed transmissions of these waveforms in the Technical Exhibit to this application ("Exhibit 2"). As described in this exhibit, the two proposed waveforms are burst mode packet data carriers that will support short-messaging data services. For one of these waveforms, the channel bandwidth will be 200 kHz at 5096-5250 MHz and 20 kHz at 6900-7055 MHz, while the bandwidth for the second waveform will be 2 MHz at 5096-5250 MHz and 200 kHz at 6900-7055 MHz. In addition, as Exhibit 2 indicates, while the total EIRP for these test transmissions will be the same as for Globalstar's existing licensed services, the EIRP density for these waveforms will exceed the EIRP density values for Globalstar's current feeder link operations. These test transmissions will nonetheless create no greater potential for interference than Globalstar's existing operations at 5091-5250 MHz/6875-7055 MHz.

Globalstar respectfully asks that the Commission grant the requested STA effective June 30, 2020. Grant of this 60-day STA effective June 30 will allow Globalstar to utilize these waveforms and develop enhanced safety-of-life services as rapidly as possible. Once the testing and validation process has been completed, Globalstar will apply to modify call sign E050237 to permit use of these waveforms on a permanent basis.

Please do not hesitate to contact me with any questions.

Respectfully submitted,

/s/ Stephen J. Berman  
Stephen J. Berman

cc: Paul Blais

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*Information re: Actions Taken*, Public Notice, Report No. SES-02258 at 51 (Apr. 15, 2020); Application for Special Temporary Authority of GUSA Licensee LLC, IBFS File No. SES-STA-20200330-00351 (filed Mar. 30, 2020); *Satellite Communications Services Information re: Actions Taken*, Public Notice, Report No. SES-02258 at 52 (Apr. 15, 2020); Application for Special Temporary Authority of GUSA Licensee LLC, IBFS File No. SES-STA-20200330-00352 (filed Mar. 30, 2020); *Satellite Communications Services Information re: Actions Taken*, Public Notice, Report No. SES-02258 at 52 (Apr. 15, 2020).



Exhibit 2: Earth Station Technical Information for STA Request

GCL Licensee LLC (together with its parent Globalstar, Inc., ("Globalstar")) is seeking a 60-day Special Temporary Authority ("STA") in order to test and validate two waveforms for use in conjunction with Globalstar's licensed gateway earth station at Las Palmas, Puerto Rico, with the following parameters:

File No.:	SES-MFS-20091221-01606
Call Sign:	E050237 (LPMA-4)
STA term:	June 30, 2020 to August 29, 2020
Location:	Las Palmas, Puerto Rico
Latitude:	17° 58' 48" N
Longitude:	67° 8' 12" W
Transmit frequency:	5091 – 5250 MHz
Receive frequency:	6875 – 7055 MHz
Polarization:	RHCP & LHCP
Antenna Size:	5.5 m
Gain:	Tx: 47.6 dBi at 5.150 GHz Rx: 50.2 dBi at 6.975 GHz
Max. antenna height:	26.73 feet above ground level
Necessary Bandwidth:	Transmit bandwidth is 159 MHz Receive bandwidth is 180 MHz Maximum carrier bandwidth is 2.5 MHz Maximum carrier bandwidth for test waveforms is 2 MHz for transmit and 200 KHz for receive
Carrier:	See final four rows of table below, for carriers with emission designators 200KG7D, 20K0G7D, 2M00G7D, and 200KG7D

<u>Frequency Band (MHz)</u>	<u>T/R Mode &amp; Polarization</u>	<u>Emission Designator</u>	<u>Maximum EIRP (dBW)</u>	<u>Maximum EIRP Density (dBW/4kHz)</u>	<u>Modulation</u>
5091 – 5092	Tx- LHCP	76K0F2D	68	55.2	FM subcarrier on telecommand carrier
6875.95 – 6877.15	Rx – LHCP	7K00G1D			Telemetry carrier
5096 – 5250	Tx – L/RHCP	1M23XXX	59	34.1	White noise modulated carrier for testing
6900 – 7055	Rx – L/RHCP	1M23XXX			White noise modulated carrier for testing
5096 – 5250	Tx – L/RHCP	N0N	59	59	Unmodulated CW for testing
6900 – 7055	Rx – L/RHCP	N0N			Unmodulated CW for testing
5096 – 5250	Tx – L/RHCP	1M23G7W	55	30.1	CDMA/voice and data
6900 – 7055	Rx – L/RHCP	1M23G7W			CDMA/voice and data
5096 – 5250	Tx – L/RHCP	1M23G2W	55	30.1	CDMA/for single-carrier AMSS.
6900 – 7055	Rx – L/RHCP	1M23G2W			CDMA/for single-carrier AMSS
6900 – 7055	Rx – L/RHCP	2M50G2D			Direct sequence CDMA for single-carrier telemetry data
5096 – 5250	Tx – L/RHCP	2M46G7W	55	27.1	CDMA/voice and data
6900 – 7055	Rx – L/RHCP	2M46G7W			CDMA/voice and data
5096 – 5250	Tx – L/RHCP	2M46G2W	55	27.1	CDMA/for single-carrier AMSS.
6900 – 7055	Rx – L/RHCP	2M46G2W			CDMA/for single-carrier AMSS
5091.38 – 5091.62	Tx- LHCP	40K0G2D	68	58	Telecommand carrier
6875.9 – 6879.1	Rx – LHCP	70K0G7D			Telemetry carrier
5096 – 5250	Tx – L/RHCP	200KG7D	68	51	Burst mode packet data with $\pi/2$ -BPSK modulation

6900 – 7055	Rx – L/RHCP	20K0G7D			Burst mode packet data with BPSK modulation
5096 – 5250	Tx – L/RHCP	2M00G7D	68	41	Burst mode packet data with $\pi/2$ -BPSK modulation
6900 – 7055	Rx – L/RHCP	200KG7D			Burst mode packet data with BPSK modulation

Maximum EIRP: 68 dBW (for all carriers combined)

Maximum EIRP Density: 51 dBW/4 KHz

Satellite: S2115 (U.S.-licensed Globalstar Big LEO MSS system)

Orbital Location: NGSO (1414 km altitude, 52 degree inclination)

Elevation Angle (E/W): 10 degrees to 90 degrees

Azimuth (E/W): 0 degrees to 360 degrees

Satellite: HIBLEO-X GLOBALSTAR 2.0 (French-licensed Globalstar Big LEO MSS system)

Orbital Location: NGSO (1414 km altitude, 52 degree inclination)

Elevation Angle (E/W): 10 degrees to 90 degrees

Azimuth (E/W): 0 degrees to 360 degrees

NOTE: The telecommand / telemetry carrier with designator 40K0G2D/70K0G7D are for GLOBALSTAR 2.0 satellites while the telecommand / telemetry carrier with designator 76K0F2D/7K00G1D are for current Globalstar satellites (Call Sign S2115).

Information on MLS Sites

For the Finca Pascual, Las Palmas, Cabo Rojo, Puerto Rico, Globalstar gateway site, there is one potential MLS site, i.e., Category III airport, within the 200 nautical miles transmit coordination distance. The Las Palmas site is located at (NAD 83) 17-58-42 N, 67-08-12 W. The airport is:

SJU	San Juan Luis Muñoz Marin International Airport, approximately 69 nautical miles from Las Palmas
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This airport site is located near San Juan in Carolina, Puerto Rico, and falls outside the 39.8 nautical mile maximum trigger distance for MLS/MSS coordination. In addition, based on a directory used for MLS coordination purposes, and to the best of its knowledge, Globalstar believes that MLS is not active at this airport.