

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5842999

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	GRANT OF SECURITY INTEREST IN UNITED STATES PATENTS
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
GLOBALST AR, INC.	11/25/2019
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	GLAS TRUST CORPORATION LIMITED, AS SECURITY AGENT AND GRANTEE
<b>Street Address:</b>	45 LUDGATE HILL
<b>Internal Address:</b>	TRANSACTION MANAGEMENT GROUP / GSAT
<b>City:</b>	LONDON
<b>State/Country:</b>	UNITED KINGDOM
<b>Postal Code:</b>	EC4M 7JU
<b>PROPERTY NUMBERS Total: 39</b>	
<b>Property Type</b>	<b>Number</b>
Patent Number:	10045326
Patent Number:	9345029
Patent Number:	9906989
Patent Number:	8913960
Patent Number:	9294187
Patent Number:	8923849
Patent Number:	9143361
Patent Number:	8583036
Patent Number:	8594682
Patent Number:	8676121
Patent Number:	8604925
Patent Number:	8130096
Patent Number:	8106820
Patent Number:	8060082
Patent Number:	8179832
Patent Number:	7792487
Patent Number:	8463178
Patent Number:	8498238
Patent Number:	7711320

PATENT

Property Type	Number
Patent Number:	7630682
Patent Number:	7337061
Patent Number:	7099770
Patent Number:	8121605
Patent Number:	7672639
Patent Number:	6735439
Patent Number:	7142853
Patent Number:	6735440
Patent Number:	6804514
Patent Number:	7995989
Patent Number:	6628921
Patent Number:	7180873
Patent Number:	6594469
Patent Number:	6567645
Patent Number:	6253080
Application Number:	62776747
Application Number:	62752701
Application Number:	62736269
Application Number:	62559310
PCT Number:	US1851158

**CORRESPONDENCE DATA**

**Fax Number:** (212)294-4700

*Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.*

**Phone:** 2122946635

**Email:** dkumar@winston.com

**Correspondent Name:** WINSTON & STRAWN LLP - BECKY TROUTMAN

**Address Line 1:** 101 CALIFORNIA STREET

**Address Line 2:** 35TH FLOOR

**Address Line 4:** SAN FRANCISCO, CALIFORNIA 94111-5840

<b>ATTORNEY DOCKET NUMBER:</b>	17475.00001-PSA -GLAS TCL
<b>NAME OF SUBMITTER:</b>	BECKY L. TROUTMAN
<b>SIGNATURE:</b>	/Becky L. Troutman/
<b>DATE SIGNED:</b>	11/27/2019

**Total Attachments: 17**

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EXECUTION VERSION

GRANT OF SECURITY INTEREST  
IN UNITED STATES PATENTS

FOR GOOD AND VALUABLE CONSIDERATION, receipt and sufficiency of which are hereby acknowledged, Globalstar, Inc., a Delaware corporation (the "Grantor") with principal offices at 1351 Holiday Square Boulevard, Covington, Louisiana 70433, hereby grants to GLAS Trust Corporation Limited, as Security Agent, with principal offices at 45 Ludgate Hill, London EC4M 7JU, United Kingdom, (the "Grantee"), a continuing security interest in (i) all of the Grantor's rights, title and interest in, to and under the United States patents (the "Patents") set forth on Schedule A attached hereto, in each case together with (ii) all Proceeds (as such term is defined in the Security Agreement referred to below) and products of the Patents, and (iii) all causes of action arising prior to or after the date hereof for infringement of any of the Patents or unfair competition regarding the same.

THIS GRANT is made to secure the satisfactory performance and payment of all the Obligations of the Grantor, as such term is defined in the Second Lien Security Agreement among the Grantor, the other assignors from time to time party thereto and the Grantee, dated as of November 26, 2019 (as amended, modified, restated, amended and restated and/or supplemented from time to time, the "Security Agreement"). Upon the occurrence of the Termination Date (as defined in the Security Agreement), the Grantee shall execute, acknowledge, and deliver to the Grantor an instrument in writing releasing the security interest in the Patents acquired under this Grant.

This Grant has been granted in conjunction with the security interest granted to the Grantee under the Security Agreement. The rights and remedies of the Grantee with respect to the security interest granted herein are as set forth in the Security Agreement, all terms and provisions of which are incorporated herein by reference. In the event that any provisions of this Grant are deemed to conflict with the Security Agreement, the provisions of the Security Agreement shall govern.

**[Remainder of this page intentionally left blank; signature page follows]**

IN WITNESS WHEREOF, the undersigned have executed this Grant as of the 25<sup>th</sup> day of November, 2019.

GLOBALSTAR, INC., Grantor

By Rebecca Clary  
Name: Rebecca Clary  
Title: Vice President and Chief Financial Officer

GLAS TRUST CORPORATION LIMITED,  
as Security Agent and Grantee

By \_\_\_\_\_  
Name:  
Title:

IN WITNESS WHEREOF, the undersigned have executed this Grant as of the \_\_\_\_ day  
of November, 2019.

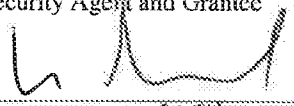
GLOBALSTAR, INC., Grantor

By \_\_\_\_\_

Name:

Title:

GLAS TRUST CORPORATION LIMITED,  
as Security Agent and Grantee

By  \_\_\_\_\_

Name: LEE MORISON

Title: TRANSACTION MANAGER

[Grant of Security Interest in United States Patents]

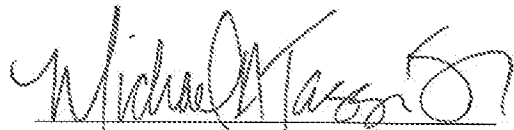
PATENT  
REEL: 051144 FRAME: 0007

STATE OF LOUISIANA

) ss.:

PARISH OF ST. TAMMANY

On this 25<sup>th</sup> day of November, 2019, before me personally came Rebecca Clary who, being by me duly sworn, did state as follows: that [s]he is Vice President and Chief Financial Officer of Globalstar, Inc., that [s]he is authorized to execute the foregoing Grant on behalf of said Globalstar, Inc. and that [s]he did so by authority of the Board of Directors of said Globalstar, Inc.



Michael A. Tassin, Jr.  
Notary Public, State of Louisiana  
LA Bar Roll Number 35345  
Commission Expires at Death!



STATE OF \_\_\_\_\_ )  
COUNTY OF \_\_\_\_\_ )

England & Wales  
City of London

) ss:

On this 26 day of November, 2019, before me personally came  
LEE GRAHAM MORRELL who, being by me duly sworn, did state as follows: that he is  
ATTORNEY-IN-FACT of GLAS Trust Corporation Limited, that he is authorized to execute the foregoing  
Grant on behalf of said GLAS Trust Corporation Limited and that he did so by authority of the Board of  
Directors of said GLAS Trust Corporation Limited.

*Sarah Karen Mackie*  
\_\_\_\_\_  
Notary Public

NOTARY PUBLIC  
LONDON, ENGLAND  
SARAH KAREN MACKIE  
(My Commission expires with Life)



**CHEESWRIGHTS**

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T: +44 (0) 20 7623 9477  
www.cheeswrights.com

SCHEDULE A

Title	Publication Number	Publication Date	Application Number	Application Date	Status	Assignee
(Leo Satellite) Optimized Distribution Precision Satellite Ephemerides Over a Bent-Pipe Satellite Communications Network			62776747	12/07/2018	Pending Provisional [Unpublished]	
Optimized Distribution of GNSS Satellite Differential Correction Data over a Satellite Network			62752701	10/30/2018	Pending Provisional [Unpublished]	
System and Method to Reduce PP Filter Convergence Time Using LEO Frequency Band Signals			62736269	09/25/2018	Pending Provisional [Unpublished]	
Communication System Allowing Roaming and Soft Handover between Multiple Networks			62559310	09/15/2017	Expired Provisional [Unpublished]	
Cell tower functionality with satellite access to allow a cell device to roam on a satellite network or call forward on a satellite network	US10045326	08/07/2018	15257547	09/06/2016	Patented	Globalstar Inc.
Satellite communication system employing a combination of time division multiplexing and non-orthogonal pseudorandom noise codes and time slots	US9345029	05/17/2016	14837579	08/27/2015	Patented	Globalstar Inc.
Apparatus Method and System for Integrating Mobile and Satellite Phone Service	US9906989	02/27/2018	14491777	09/19/2014	Patented	
Method and apparatus for transmitting message from short-range wireless device over a satellite network	US8913960	12/16/2014	14201208	03/07/2014	Patented	Globalstar Inc.

SCHEDULE A

Title	Publication Number	Publication Date	Application Number	Application Date	Status	Assignee
Method for frequency channel selection in a satellite communication system	US9294187	03/22/2016	13886969	05/03/2013	Patented	Globalstar Inc.
System and method for providing an improved terrestrial subsystem for use in mobile satellite systems	US8923849	12/30/2014	1461468	10/23/2013	Patented	Globalstar Inc.
Satellite communication system employing a combination of time slots and orthogonal codes	US9143361	09/22/2015	13652115	10/15/2012	Patented	Globalstar Inc.
System and method for providing an improved terrestrial subsystem for use in mobile satellite systems	US8583036	11/12/2013	13445253	04/12/2012	Patented	Globalstar Inc.
Resource allocation to terrestrial and satellite services	US8594682	11/26/2013	13350357	01/13/2012	Patented	Globalstar Inc.
Method and apparatus for transmitting message from short-range wireless device over a satellite network	US8676121	03/18/2014	13205350	08/08/2011	Patented	Globalstar Inc.
Simplex personal and asset tracker	US8604925	12/10/2013	12910322	10/22/2010	Patented	Globalstar Inc.
Simplex personal and asset tracker	US8130096	03/06/2012	12657470	01/20/2010	Patented	Globalstar Inc.
Personal locator and locating method	US8106820	01/31/2012	12215462	06/27/2008	Patented	Globalstar Inc.
Ancillary terrestrial component services using multiple frequency bands	US8060082	11/15/2011	11895754	08/26/2007	Patented	Globalstar Inc.
System and method for providing an improved terrestrial subsystem for use in mobile satellite systems	US8179832	05/15/2012	11447265	06/05/2006	Patented	Globalstar Inc.
Satellite communication system for communicating packet data messages	US7792487	09/07/2010	11447251	06/05/2006	Patented	Globalstar Inc.

SCHEDULE A

Title	Publication Number	Publication Date	Application Number	Application Date	Status	Assignee
Handover between ATC and satellite component of an integrated MSS/ATC system	US8463178	06/11/2013	11446992	06/05/2006	Patented	Globalstar Inc.
Satellite communication system employing a combination of time division multiplexing and non-orthogonal pseudorandom noise codes and time slots	US8498238	07/30/2013	11403632	04/13/2006	Patented	Globalstar Inc.
Satellite communication system for communicating packet data messages	US7711320	05/04/2010	11325177	01/04/2006	Patented	Globalstar Inc.
Satellite communication system employing a combination of time slots and orthogonal codes	US7630682	12/08/2009	11325176	01/04/2006	Patented	Globalstar Inc.
Location monitoring and transmitting device method and computer program product using a simplex satellite transmitter	US7337061	02/26/2008	11063589	02/24/2005	Patented	Globalstar Inc.
Location monitoring and transmitting device method and computer program product using a simplex satellite transmitter	US7099770	08/29/2006	10656133	09/08/2003	Patented	Globalstar Inc.
Resource allocation to terrestrial and satellite services	US8121605	02/21/2012	10463524	06/18/2003	Patented	Globalstar Inc.
Method and system for routing telemetry in a simplex mode	US7672639	03/02/2010	10353618	01/29/2003	Patented	Globalstar Inc.
Pseudo-global title translation for international roaming of ansi-41 subscribers	US6735439	05/11/2004	10094752	03/11/2002	Patented	Globalstar Inc.
Low performance warning system and method for mobile satellite service user terminals	US7142853	11/28/2006	09846995	05/01/2001	Patented	Globalstar Inc.

SCHEDULE A

Title	Publication Number	Publication Date	Application Number	Application Date	Status	Assignee
Low earth orbit distributed gateway communication system	US6735440	05/11/2004	09827975	04/06/2001	Patented	Globalstar Inc.
Global dual terminal low earth orbit communications system	US6804514	10/12/2004	09811910	03/19/2001	Patented	Globalstar Inc.
Method and apparatus providing suppression of system access by use of confidence polygons volumes and surfaces in a mobile satellite system	US7995989	08/09/2011	09751765	12/29/2000	Patented	Globalstar Inc.
Return link channel loading of multiple satellites with multiple spread spectrum user terminals	US6628921	09/30/2003	09687664	10/13/2000	Patented	Globalstar Inc.
Spread spectrum code division destination access (SS-CDDA) for satellite communication system with distributed gateways	US7180873	02/20/2007	09680227	10/06/2000	Patented	Globalstar Inc.
Methods and apparatus for broadcasting regional information over a satellite communication system	US6594469	07/15/2003	09650513	08/29/2000	Patented	Globalstar Inc.
Multiple satellite repeater management system using frame error rate for diversity selection	US6567645	05/20/2003	09649326	08/28/2000	Patented	Globalstar Inc.
Low earth orbit distributed gateway communication system	US6253080	06/26/2001	09350096	07/08/1999	Patented	Globalstar Inc.

SCHEDULE A

Title	Country	Publication Number	Publication Date	Application Number	Application Date	Status	Assignee
Location Monitoring and Transmitting Device, Method, and Computer Program Product Using a Simplex Satellite Transmitter	Canada	2446289	08/18/2009	2446289	10/23/2003	Granted	Globalstar, Inc.
Apparatus, Method, and System for Integrating Mobile and Satellite Phone Service	Australia	2013235428	11/09/2017	PCT 2013235428	10/13/2014	Granted	Globalstar, Inc.
Apparatus, Method, and System for Integrating Mobile and Satellite Phone Service	Brazil			PCT 1120140231419	09/18/2014	Pending	Globalstar, Inc.
Apparatus, Method, and System for Integrating Mobile and Satellite Phone Service	Canada	2867520	05/14/2019	2867520	03/14/2013	Granted	Globalstar, Inc.
Apparatus, Method, and System for Integrating Mobile and Satellite Phone Service	Canada	3038195	03/14/2013	3038195	09/26/2013	Published	Globalstar, Inc.
Method, and System for Integrating Mobile and Satellite Phone Service	China	104396281	03/04/2015	201380021157.6	03/14/2013	Granted	Globalstar, Inc.
Method, and System for Integrating Mobile and Satellite Phone Service	European Patent Convention	2829085	01/28/2015	13764379.7	03/14/2013	Published	Globalstar, Inc.

SCHEDULE A

Title	Country	Publication Number	Publication Date	Application Number	Application Date	Status	Assignee
Apparatus, Method, and System for Integrating Mobile and Satellite Phone Service	Japan	6091595	02/17/2017	2015-501789	09/17/2014	Granted	Globalstar, Inc.
Apparatus, Method, and System for Integrating Mobile and Satellite Phone Service	Korea, Republic of	10-1829502	02/08/2018	10-2014-7029053	10/16/2014	Granted	Globalstar, Inc.
Apparatus, Method, and System for Integrating Mobile and Satellite Phone Service	Mexico	356014	05/09/2018	MX/a/2014/011265	09/19/2014	Granted	Globalstar, Inc.
Apparatus, Method, and System for Integrating Mobile and Satellite Phone Service	Russian Federation	2646326	03/02/2018	2014142027	10/17/2014	Granted	Globalstar, Inc.
Apparatus, Method, and System for Integrating Mobile and Satellite Phone Service	Singapore	11201405864T	03/28/2016	11201405864T	03/14/2013	Granted	Globalstar, Inc.
Satellite Communication System Employing a Combination of Time Division Multiplexing and Non-Orthogonal Pseudorandom Noise Codes and Time Slots	Canada	2589369	08/04/2015	2589369	05/14/2007	Granted	Globalstar, Inc.

SCHEDULE A

Title	Country	Publication Number	Publication Date	Application Number	Application Date	Status	Assignee
Satellite Communication System Employing a Combination of Time Division Multiplexing and Non-Orthogonal Pseudorandom Noise Codes and Time Slots	France	0703948	09/18/2009	07/03948	06/04/2007	Granted	Globalstar, Inc.
Cell Tower Functionality with Satellite Access to Allow a Cell Device to Roam on a Satellite Network	Australia	112016020635	05/15/2018	2015226958	03/06/2015	Granted	Globalstar, Inc.
Cell Tower Functionality with Satellite Access to Allow a Cell Device to Roam on a Satellite Network	Brazil			BR 1120160206355	09/06/2016	Granted	Globalstar, Inc.
Cell Tower Functionality with Satellite Access to Allow a Cell Device to Roam on a Satellite Network	Canada	2941658	09/11/2015	2941658	03/06/2015	Granted	Globalstar, Inc.
Cell Tower Functionality with Satellite Access to Allow a Cell Device to Roam on a Satellite Network	China	106797591	05/31/2017	201580023959	03/06/2015	Granted	Globalstar, Inc.
Cell Tower Functionality with Satellite Access to Allow a Cell Device to Roam on a Satellite Network	European Patent Convention	3114876	01/11/2017	15759347.6	03/06/2015	Granted	Globalstar, Inc.



SCHEDULE A

Title	Country	Publication Number	Publication Date	Application Number	Application Date	Status	Assignee
Cell Tower Functionality with Satellite Access to Allow a Cell Device to Roam on a Satellite Network	Japan	2017-514412	06/01/2017	2016-573701	03/06/2015	Granted	Globalstar, Inc.
Cell Tower Functionality with Satellite Access to Allow a Cell Device to Roam on a Satellite Network	Korea, Republic of	2016130480	11/11/2016	10-2016-7027808	03/06/2015	Granted	Globalstar, Inc.
Cell Tower Functionality with Satellite Access to Allow a Cell Device to Roam on a Satellite Network	Mexico	2016011578	04/13/2017	MX/a/2016/011578	03/06/2015	Granted	Globalstar, Inc.
Cell Tower Functionality with Satellite Access to Allow a Cell Device to Roam on a Satellite Network	Russian Federation	2677634	01/18/2019	2016139112	03/06/2015	Granted	Globalstar, Inc.
Cell Tower Functionality with Satellite Access to Allow a Cell Device to Roam on a Satellite Network	Singapore	11201607413	10/28/2016	11201607413V	03/06/2015	Granted	Globalstar, Inc.
Simplex Personal and Asset Tracker	France	2348496	03/12/2014	11150595.4	01/11/2011	Granted	Globalstar, Inc.
Simplex Personal and Asset Tracker	Turkey	2348496	03/12/2014	11150595.4	01/11/2011	Granted	Globalstar, Inc.
Simplex Personal and Asset Tracker	United Kingdom	2348496	03/12/2014	11150595.4	01/11/2011	Granted	Globalstar, Inc.

SCHEDULE A

Title	Country	Publication Number	Publication Date	Application Number	Application Date	Status	Assignee
Personal Locator and Locating Method	Canada	2639004	03/31/2015	2639004	08/21/2008	Granted	Globalstar, Inc.
Ancillary Terrestrial Component Services Using Multiple Frequency Bands	Australia	2007231852	12/09/2010	2007231852	11/06/2007	Granted	Globalstar, Inc.
Method for Handover Between ATC and Satellite Component of an Integrated MSS/ATC System	Canada	2590266	05/23/2017	2590266	05/29/2007	Granted	Globalstar, Inc.
Method for Handover Between ATC and Satellite Component of an Integrated MSS/ATC System	France	2901952	10/22/2010	07/03947	06/04/2007	Granted	Globalstar, Inc.
System and Method for Providing an Improved Terrestrial Subsystem for Use in Mobile Satellite Systems	Canada	2591025	12/05/2007	2591025	05/29/2007	Published	Globalstar, Inc.
System and Method for Providing an Improved Terrestrial Subsystem for Use in Mobile Satellite Systems	France	2901935	12/09/2011	0703950	06/04/2007	Granted	Globalstar, Inc.

SCHEDULE A

Title	Country	Publication Number	Publication Date	Application Number	Application Date	Status	Assignee
Satellite Communication System Employing a Combination of Time Slots and Orthogonal Codes	Canada	2590791	09/18/2018	2590791	05/30/2007	Granted	Globalstar, Inc.
Satellite Communication System Employing a Combination of Time Slots and Orthogonal Codes	France	2901934	11/05/2010	0703949	06/04/2007	Granted	Globalstar, Inc.
Satellite Communication System for Communicating Packet Data Messages	Canada	2590268	07/29/2014	2590268	05/29/2007	Granted	Globalstar, Inc.
Satellite Communication System for Communicating Packet Data Messages	France	2901933	11/23/2012	0703946	06/04/2007	Granted	Globalstar, Inc.
Method and System for Routing Telemetry in Simplex Mode	France	1443735	03/13/2013	1443735	01/28/2004	Granted	Globalstar, Inc.
Method and System for Routing Telemetry in Simplex Mode	Italy	1443735	03/13/2013	04250452.2	01/28/2004	Granted	Globalstar, Inc.
Method and System for Routing Telemetry in Simplex Mode	Turkey	2013 05331	03/13/2013	04250452.2	01/28/2004	Granted	Globalstar, Inc.
Communication System Allowing Roaming and Soft Handover between Multiple Networks	Patent Cooperation Treaty	WO2019055833	03/21/2019	PCT/US18/51158	09/14/2018	Published	Globalstar, Inc.

SCHEDULE A

Title	Country	Publication Number	Publication Date	Application Number	Application Date	Status	Assignee
Low earth orbit distributed gateway communication system	India	450CHE2000	09/30/2000	450CHE2000	06/12/2000	Published	Globalstar, Inc.
Dynamic satellite filter controller for leo satellites	India	755CHE2000	04/21/2001	755CHE2000	09/13/2000	Published	Globalstar, Inc.
Closed loop power control for low earth orbit satellite communications system	India	907CHE2000	06/23/2001	907CHE2000	10/25/2000	Published	Globalstar, Inc.
Satellite communication system using time division multiplexing combination and non-orthogonal pseudo-random noise codes and time intervals	France	2916918	09/18/2009	0703948	06/04/2007	Granted	Globalstar, Inc.
Global double terminal low earth-orbiting communication system	Japan	2002359589	12/13/2002	20020076378	03/19/2002	Published	Globalstar, Inc.
Cell tower functionality with satellite access to allow a cell device to roam on a satellite network	Australia	2015226958	10/24/2019	2015226958	03/06/2015	Granted	Globalstar, Inc.
Cell tower functionality with satellite access to allow a cell device to roam on a satellite network	Korea, Republic of	20160130480	11/11/2016	20167027808	03/06/2015	Published	Globalstar, Inc.