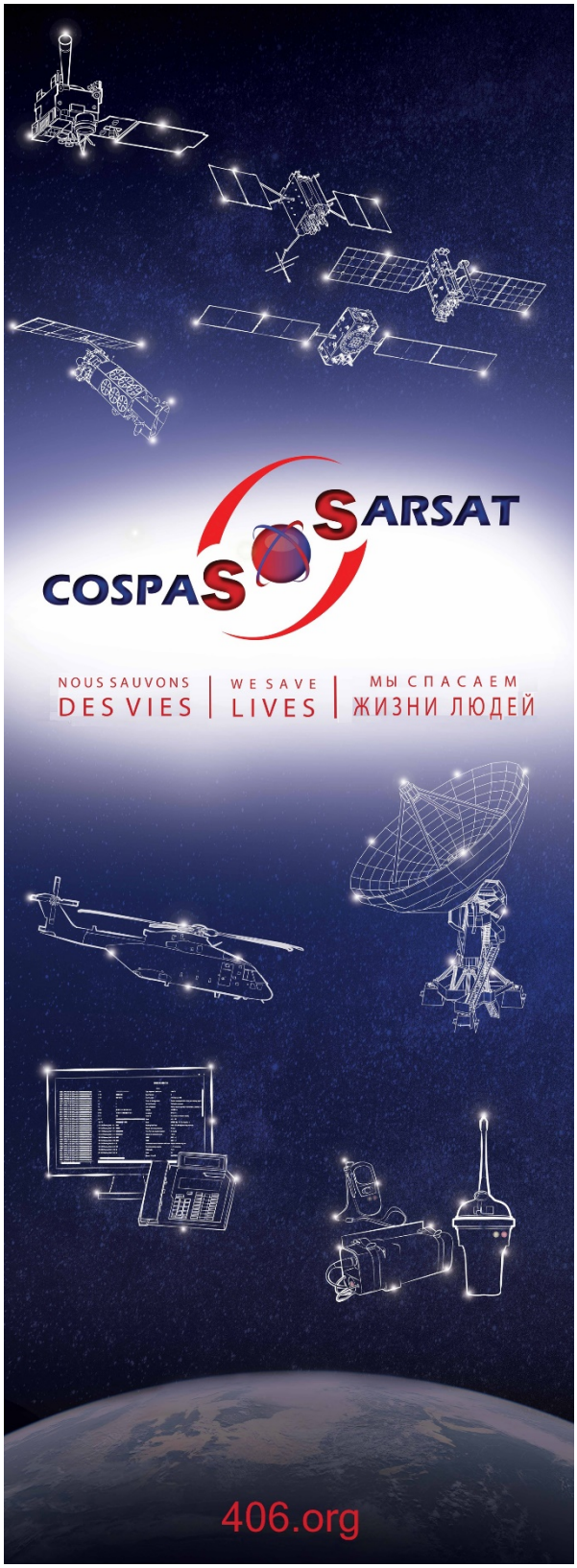

COSPAS-SARSAT SYSTEM DATA

No.44
December 2018

COSPAS-SARSAT SYSTEM DATA

No.44 - December 2018

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1 SUMMARY STATUS

PARTICIPANTS (December 2018)

Parties to the International Cospas-Sarsat Programme Agreement (ICSPA):	4
Ground Segment Providers:	29
User States:	9
Ground Segment Operators:	2
Total number of Participants:	**44**

SPACE SEGMENT (December 2018)

LEOSAR payloads (low-Earth orbit) (in Operation):	5
GEOSAR payloads (geostationary orbit) (in Operation):	9
MEOSAR payloads (medium-Earth orbit) (in Operation):	40

GROUND SEGMENT (December 2018)

Local User Terminals operating in the LEOSAR system (LEOLUTs*)	56
Local User Terminals operating in the GEOSAR system (GEOLUTs)	26
Local User Terminals commissioned in the MEOSAR system (MEOLUTs)	12
Mission Control Centres (MCCs) (including five commissioned LGM MCCs)	30

* These constitute 44 receiving stations as 23 co-located LUTs operate in dual mode.

406 MHZ BEACON POPULATION (December 2017)

Global beacon population estimated using the registration rate method:	about 2,105,000
Global beacon population estimated using the beacon survey method:	about 1,879,000
Global registered beacon population:	about 1,634,000

SAR OPERATIONS (December 2017)

From **January to December 2017**, the Cospas-Sarsat System provided assistance in **rescuing 2,746 persons in 963 SAR events**

Type of Distress	SAR Events	Persons Rescued
Aviation	162	364
Maritime	397	1,765
Land	404	617
Total	**963**	2,746

From **September 1982 to December 2017**, the Cospas-Sarsat System provided assistance in **rescuing at least 46,553 persons in 13,627 SAR events**.

2 ASSISTANCE IN SEARCH AND RESCUE OPERATIONS

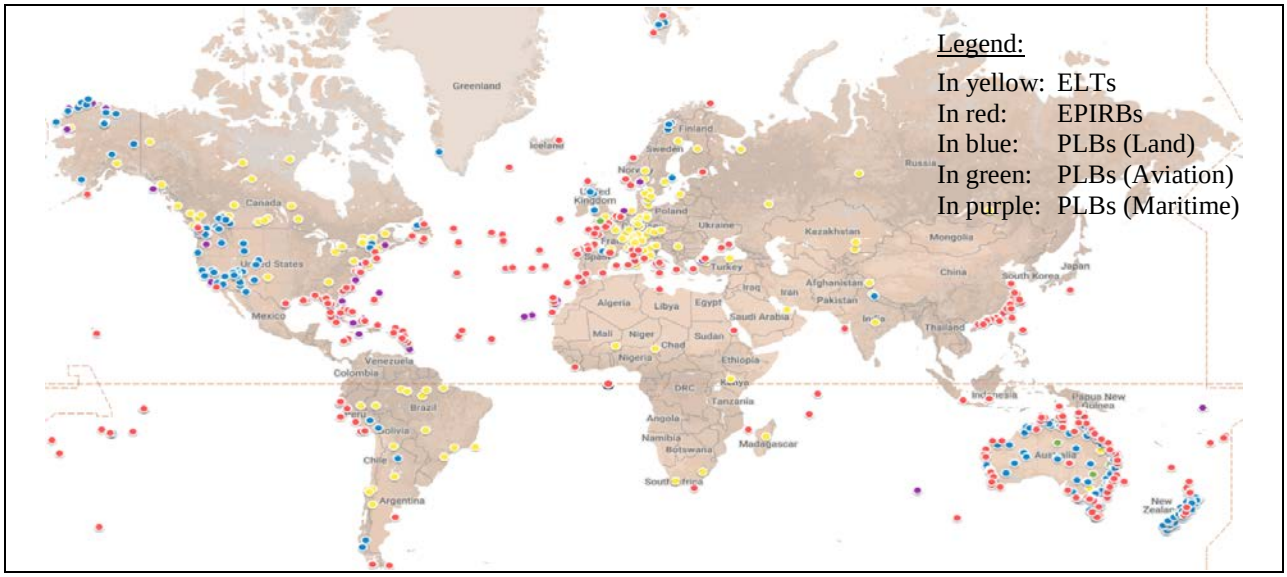

Figure 1: Geographic Distribution of Confirmed SAR Events for which Cospas-Sarsat Data Was Used (January - December 2017)

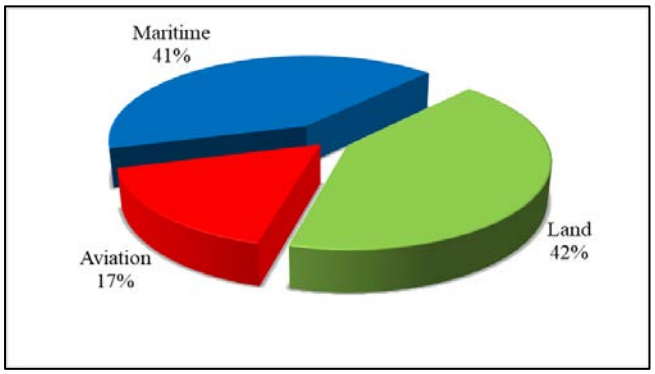

Figure 2: Distribution of SAR Events Assisted by Cospas-Sarsat by Type of Events (January - December 2017)

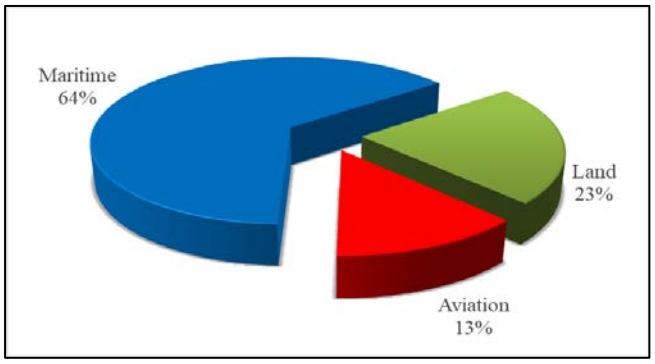

Figure 3: Persons Rescued by Type of SAR Event Assisted by Cospas-Sarsat (January - December 2017)

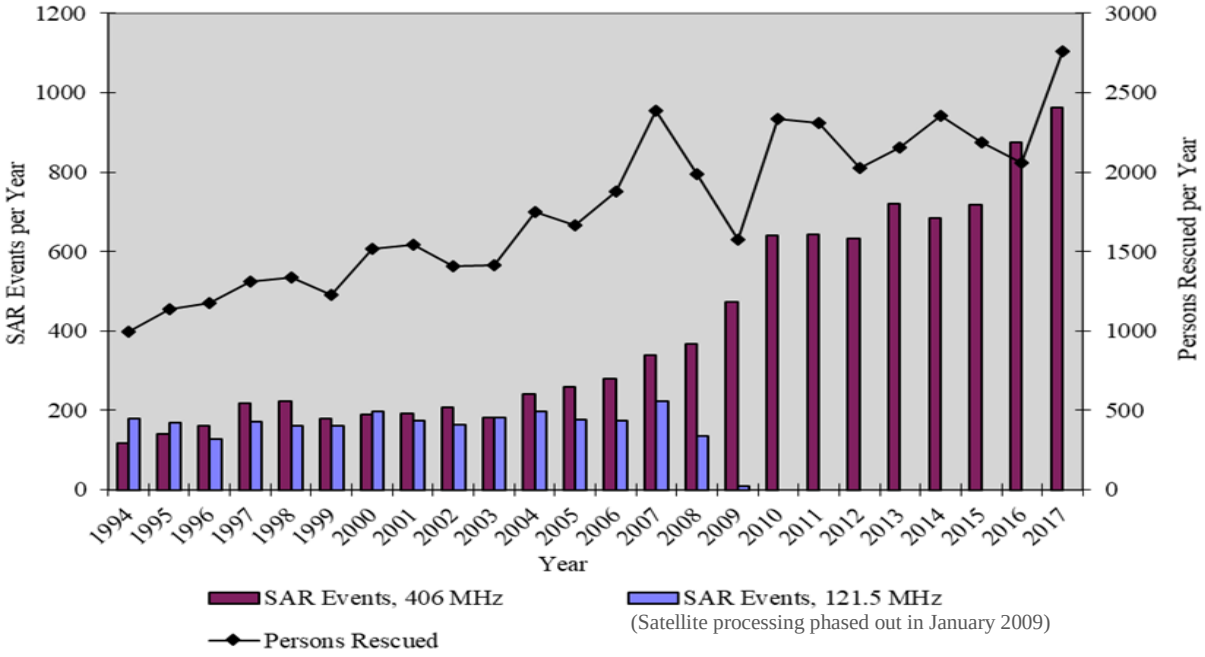

Figure 4: Number of SAR Events and Persons Rescued with the Assistance of Cospas-Sarsat Alert Data (January 1994 - December 2017)

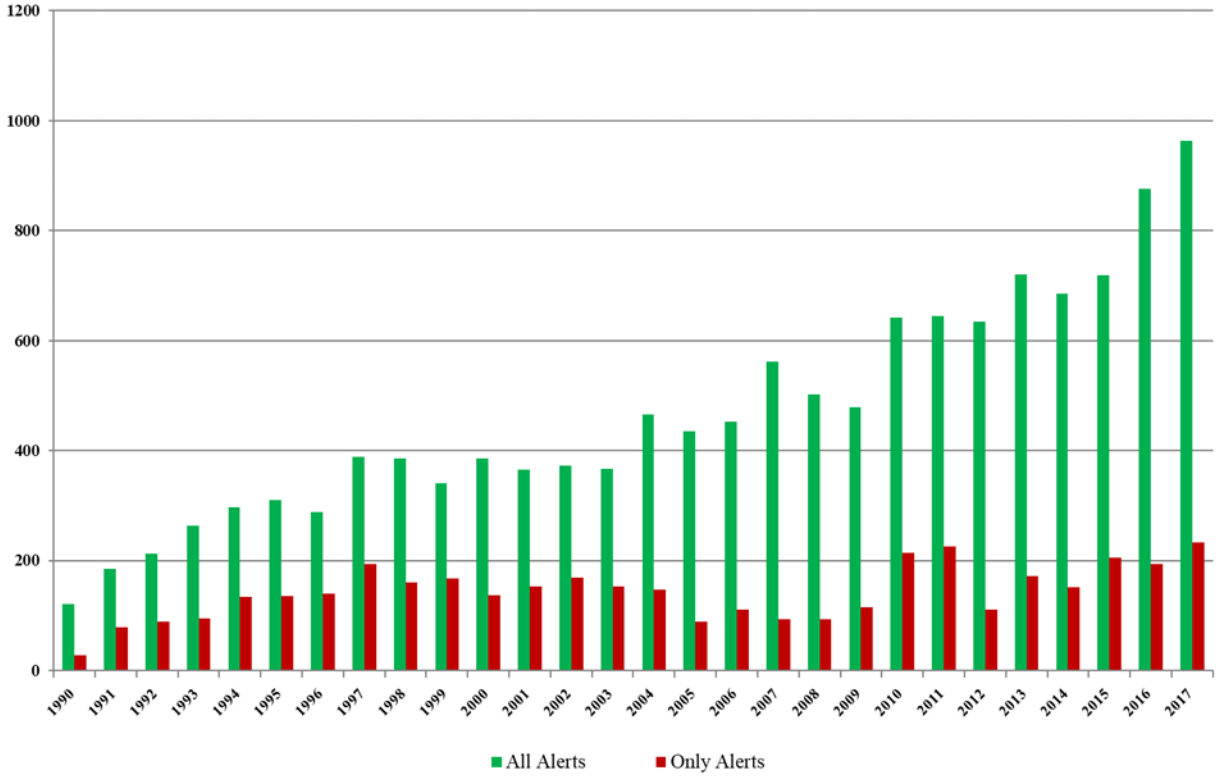

Figure 5: Number of SAR Events where Cospas-Sarsat Assisted and Number of SAR Events where Cospas-Sarsat Provided the Only Alert (January 1990 - December 2017)

3 PARTICIPATING COUNTRIES AND ORGANIZATIONS

Table 1: Cospas-Sarsat Participating Countries and Organizations (December 2018)

Participant	Agency	Status
Algeria	Service SAR, Ministère de la Défense Nationale	Ground Segment Provider
Argentina	Argentina Navy – SASS (Satellite Distress Alert Service)	Ground Segment Provider
Australia	Australian Maritime Safety Authority (AMSA)	Ground Segment Provider
Brazil	Air Space Control Department (DECEA), Operations Sub-Department (SDOP)	Ground Segment Provider
Canada	National SAR Secretariat (NSS)	Party - Space Segment Provider
Chile	Servicio de Búsqueda y Salvamento de la Fuerza Aérea de Chile	Ground Segment Provider
China (P. R. of)	Maritime Safety Administration, Bureau of Harbour Super-intendency	Ground Segment Provider
Cyprus	Larnaca Joint Rescue Co-ordination Centre	Ground Segment Provider*
Denmark	Denmark Transport Authority	User State
Finland	Ministry of the Interior, Finnish Border Guard	User State
France	Centre National d'Études Spatiales (CNES)	Party - Space Segment Provider
Germany	Federal Ministry of Transport and Digital Infrastructure	User State
Greece	Ministry of Maritime Affairs and Insular Policy	Ground Segment Provider
Hong Kong, China	Hong Kong Marine Department	Ground Segment Operator
India	Department of Space, Government of India	Space & Ground Segment Provider
Indonesia	National SAR Agency of Indonesia (BASARNAS)	Ground Segment Provider
Italy	Dipartimento della Protezione Civile	Ground Segment Provider
ITDC	International Telecommunication Development Company	Ground Segment Operator
Japan	Japan Coast Guard, Information-Communications Division, Administration Dept.	Ground Segment Provider
Korea (Rep. of)	Korea Coast Guard	Ground Segment Provider
Malaysia	Malaysia Maritime Enforcement Agency (MMEA)	Ground Segment Provider*
Netherlands (The)	The Netherlands Coastguard	User State
New Zealand	Rescue Coordination Centre New Zealand (RCCNZ)	Ground Segment Provider
Nigeria	National Emergency Management Agency (NEMA)	Ground Segment Provider
Norway	Ministry of Justice	Ground Segment Provider
Pakistan	Space & Upper Atmosphere Research Commission (SUPARCO)	Ground Segment Provider
Peru	Dirección General de Capitanías y Guardacostas	Ground Segment Provider
Poland	Civil Aviation Authority	User State
Qatar	Doha Joint Rescue Coordination Centre (DJRCC), Ministry of Defence	Ground Segment Provider*
Russian Federation	Morsviazsputnik	Party-Space Segment Provider
Saudi Arabia	General Authority of Civil Aviation, Directorate of Air Traffic Services	Ground Segment Provider
Serbia	Civil Aviation Directorate of the Republic of Serbia	User State
Singapore	Civil Aviation Authority of Singapore / Maritime and Port Authority of Singapore, Operations Planning	Ground Segment Provider
South Africa	South African Maritime Safety Authority (SAMSA)	Ground Segment Provider
Spain	Instituto Nacional de Técnica Aeroespacial (INTA)	Ground Segment Provider
Sweden	Swedish Civil Contingencies Agency	User State
Switzerland	Federal Office of Civil Aviation	User State
Thailand	Department of Civil Aviation, Ministry of Transport	Ground Segment Provider
Tunisia	Ministère du Transport, Direction Générale de l'Aviation Civile (DGAC)	User State
Turkey	Ministry of Transport, Maritime Affairs and Communication	Ground Segment Provider
UAE	Telecommunications Regulatory Authority	Ground Segment Provider
UK	Maritime and Coastguard Agency	Ground Segment Provider
USA	National Oceanic and Atmospheric Administration (NOAA)	Party-Space Segment Provider
Vietnam	Vietnam Maritime Administration (VINAMARINE) / Vietnam Maritime Communication and Electronics LLC (VISHIPEL)	Ground Segment Provider

Notes: (*) Ground Segment equipment is not yet commissioned.

4 SPACE SEGMENT

Table 2: LEOSAR Payload Availability (December 2018)

Cospas-Sarsat Payload	Spacecraft	Launch Date	Capability	Status	SAR Processor (SARP)		SAR Repeater (SARR)
					Global Mode	Local Mode	
Sarsat-7	NOAA-15	May 1998	FOC	On	On	On	On
Sarsat-10	NOAA-18	May 2005	FOC	On	On	On	On
Sarsat-11	Metop-A	October 2006	FOC	On	On	On	On
Sarsat-12	NOAA-19	February 2009	FOC	On	On	On	On
Sarsat-13	Metop-B	September 2012	FOC	On	On	On	On

Note: FOC Full Operational Capability.

Table 3: GEOSAR Payload Availability (December 2018)

Spacecraft	Launch Date	Position	Capability	Status	Comments
GOES-13	May 2006	60° W	FOC	Off	In-orbit spare
GOES-14	June 2009	105° W	FOC	Off	In-orbit spare
GOES-15 (West-1)	March 2010	137° W	FOC	**On**	
GOES-16 (East)	November 2016	75° W	FOC	**On**	Downlink center frequency is 1544.5**5** MHz
GOES-17 (West-2)	March 2018	128° W	FOC	**On**	
INSAT-3D	July 2013	82° E	FOC	**On**	
INSAT-3DR	September 2016	74° E	FOC	**On**	
GSAT-17	June 2017	93.5° E	IOC	Off	
MSG-1	August 2002	41.5° E	FOC	**On**	See note 1
MSG-2	December 2005	3.5° E	FOC	Off	In-orbit spare
MSG-3	July 2012	9.5° E	FOC	**On**	
MSG-4	July 2015	0°	FOC	**On**	
Electro-L No.2	December 2015	76° E	UT	On	
Louch-5A	December 2011	165.8° E	IOC	**On**	See note 1
Louch-5V	April 2014	95° E	UT	On	

Notes: 1 Moving in an elliptic orbit. Operational for GEOLUTs equipped with active-tracking capability.
FOC Full Operational Capability.
IOC Initial Operational Capability.
TBD To Be Determined.
UT Under Test.

A GEOSAR coverage map is available at Figure 7 “GEOSAR Satellite Coverage” in section 5 of this document, showing footprints for commissioned payloads that are switched on.

Table 4: MEOSAR Payload Availability (December 2018)

Constellation	Downlink Frequency	Capability	Number / Status	Comments
Galileo	L-Band	FOC	15/On[1] & 1/Off	Payload #422 switched off for maintenance.
	L-Band	IOC	4/On	Commissioning reports submitted to CSC-61.
	L-Band	UT	4/Off	Payloads switched off pending testing.
Glonass-K1	L-Band	UT	2/On	One payload available for detection testing. One payload available for detection and location testing.
GPS BIIR & F	S-Band	FOC	19/On	Experimental payloads. Commissioned
GPS III A	S-Band	UT	1/Off	First of eight GPS III satellites with DASS / S-band capability.

Notes: FOC Full Operational Capability.
IOC Initial Operational Capability.
UT Under Test.
1 In addition, two more Galileo satellites with no SAR payload onboard are Return-Link-Service-capable.

5 GROUND SEGMENT

Note: Ground Segment equipment under development is not listed under this section.

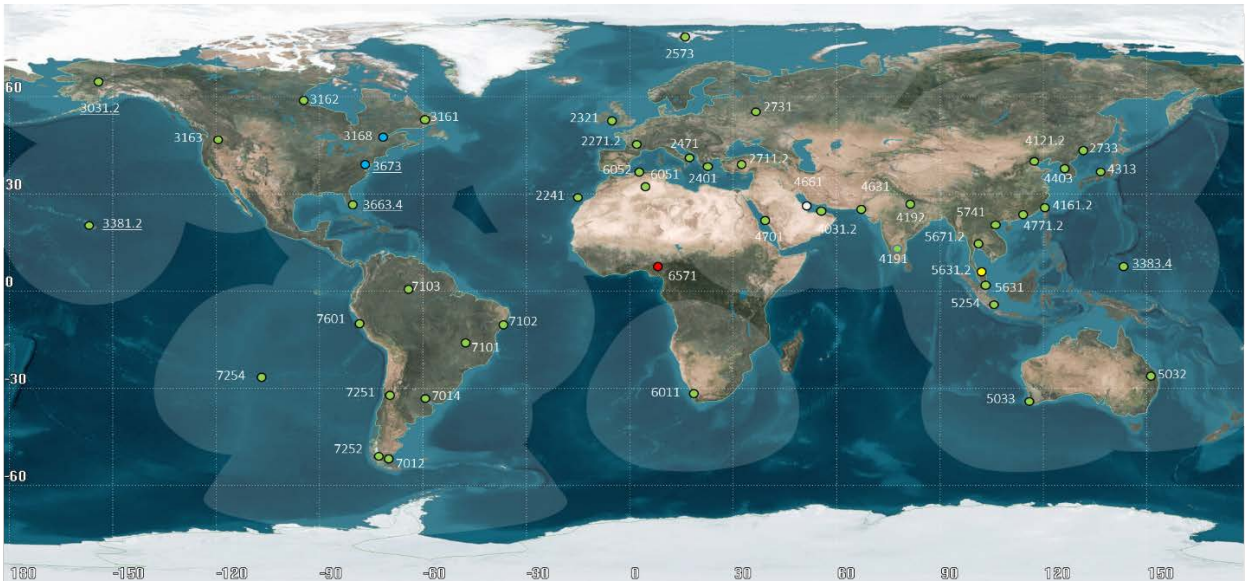

Figure 6: LEOSAR and Operational LEOLUT Mutual-Visibility Areas (31 December 2018)

Notes: 6571 The Abuja LEOLUT is not operational. Nigerian MCC is configured as a SAR point of contact of the Spanish MCC.

Underlined numbers refer to future combined LEO-MEO installations.

The Cospas-Sarsat LEOSAR system provides global coverage for 406-MHz beacons. Light-blue areas show areas of LEOSAR-satellite/LEOLUT 'mutual visibility', i.e., where a LEOSAR satellite passing inside the area can be actively tracked by a LEOLUT. When a satellite is outside a light-blue area and detects beacons, data is stored onboard and periodically retransmitted for receipt by a LEOLUT as soon as the satellite reenters another light-blue area. The map was created assuming a satellite altitude of 850 km with a 5°-elevation detection angle at the LEOLUT. Below is the list of the LEOLUTs and their status.

Table 5: LEOSAR Ground Segment Status (LEOLUTs) (31 December 2018)

Code	Location	Provider	Status	Associated MCC	Dual	Comments
2271-2-d	Toulouse	France	**FOC**	FMCC	Yes	
2241	Maspalomas	Spain	**FOC**	SPMCC	No	
2321	Combe Martin	UK	**FOC**	UKMCC	No	To be replaced by Lee-on-Solent antenna (2324).
2401	Penteli	Greece	**FOC**	GRMCC	No	
2471	Bari	Italy	**FOC**	ITMCC	No	
2573	Spitsbergen	Norway	**FOC**	NMCC	No	
2711-2	Ankara	Turkey	**FOC**	TRMCC	Yes	
2733	Nakhodka	Russia	**FOC**	CMC	No	
3031-2	Alaska	USA	**FOC**	USMCC	Yes	To be replaced by LEO-MEO antennas.
3161	Goose Bay	Canada	**FOC**	CMCC	No	
3162	Churchill	Canada	**FOC**	CMCC	No	
3163	Edmonton	Canada	**FOC**	CMCC	No	
3168	Ottawa	Canada	**Backup**	CMCC	No	Test and backup facility.
3381-2	Hawaii	USA	**FOC**	USMCC	Yes	To be replaced by LEO-MEO antenna (3387-8).
3383-4	Guam	USA	**FOC**	USMCC	Yes	To be replaced by LEO-MEO antennas.
3663-4	Florida	USA	**FOC**	USMCC	Yes	To be replaced by LEO-MEO antennas (3667-8).
3673	Maryland	USA	**FOC**	CMCC	No	LEOSAR Support Equipment. To be replaced by LEO-MEO antenna (3678).
4031-2	Jeddah	Saudi Arabia	**FOC**	SAMCC	Yes	
4121-2	Beijing	China (P.R. of)	**FOC**	CNMCC	Yes	
4161-2	Keelung	ITDC	**FOC**	TAMCC	Yes	To be replaced by Dapingding antennas (4164-5).
4191	Bangalore	India	**FOC**	INMCC	No	
4192	Lucknow	India	**FOC**	INMCC	No	
4313	Gunma	Japan	**FOC**	JAMCC	No	
4403	Incheon	Korea (Rep. of)	**FOC**	KOMCC	No	
4631	Karachi	Pakistan	**FOC**	PAMCC	No	
4661	Doha	Qatar	**UD**	QAMCC*	No	MCC not yet commissioned.
4701	Abu Dhabi	UAE	**FOC**	AEMCC	No	
4771-2	Hong Kong	Hong Kong China	**FOC**	HKMCC	Yes	
5032	Bundaberg	Australia	**FOC**	AUMCC	No	Planned to be decommissioned in mid-2019.
5033	Albany	Australia	**FOC**	AUMCC	No	Planned to be decommissioned in January 2019.
5254	Jakarta	Indonesia	**FOC**	IDMCC	No	Providing data to LGM IDMCC (under development).
5331-2	Kuntan	Malaysia	**IOC**	MYMCC*	Yes	MCC not yet commissioned.
5631	Singapore	Singapore	**FOC**	SIMCC	No	
5671-2	Bangkok	Thailand	**FOC**	THMCC	Yes	
5741	Haiphong	Viet Nam	**FOC**	VNMCC	No	
6011	Cape Town	South Africa	**FOC**	ASMCC	No	
6051	Ouargla	Algeria	**FOC**	ALMCC	No	
6052	Algiers	Algeria	**FOC**	ALMCC	No	
6571	Abuja	Nigeria	**CNO**	NIMCC	No	MCC configured as a SPOC of the Spanish MCC.
7012	Rio Grande	Argentina	**FOC**	ARMCC	No	
7014	El Palomar	Argentina	**FOC**	ARMCC	No	
7101	Brasilia	Brazil	**FOC**	BRMCC	No	
7102	Recife	Brazil	**FOC**	BRMCC	No	
7103	Manaus	Brazil	**FOC**	BRMCC	No	
7251	Santiago	Chile	**FOC**	CHMCC	No	
7252	Punta Arenas	Chile	**FOC**	CHMCC	No	
7254	Easter Island	Chile	**FOC**	CHMCC	No	
7601	Callao	Peru	**FOC**	PEMCC	No	

Notes: CNO Commissioned, Not Operational. UD Under Development.
FOC Full Operational Capability. (*) Ground Segment equipment not yet commissioned.
IOC Initial Operational Capability.

Table 6: GEOSAR Ground Segment Status (GEOLUTs) (December 2018)

Code	Location	Provider	Status	Associated GEOSAR	Comments
2242	Maspalomas	Spain	FOC	GOES-East	
2243	Maspalomas	Spain	FOC	MSG-4	
2273	Toulouse	France	FOC	MSG-4	
2322	Combe Martin	UK	FOC	MSG-4	To be replaced by Lee-on-Solent antenna (2323)
2402	Penteli	Greece	FOC	MSG-3	
2472	Bari	Italy	FOC	MSG-4	
2572	Fauske	Norway	FOC	MSG-4	
2713	Ankara	Turkey	FOC	MSG-3	
2735	Moscow	Russia	FOC	Pending	Satellite to be tracked is pending, as Electro-L No.1 was decommissioned on 1 June 2017.
3166	Edmonton	Canada	FOC	GOES-West	
3167-9	Ottawa	Canada	FOC	GOES-East & GOES-West	
3674	Maryland	USA	FOC	GOES-East	
3676	Maryland	USA	FOC	GOES-West	
4194	Bangalore	India	FOC	INSAT-3D	
4194bis	Bangalore	India	FOC	INSAT-3DR	
4662	Doha	Qatar	UD	MSG-4	IOC to be announced by SPMCC.
4702	Abu Dhabi	UAE	FOC	MSG 4	
4707	Abu Dhabi	UAE	FOC	MSG-1	Active-tracking capable antenna.
5123	Goudies Road	New Zealand	FOC	GOES-West	
5124	Goudies Road	New Zealand	FOC	Louch-5A	Active-tracking capable antenna.
6053	Algiers	Algeria	FOC	MSG-4	
7011	El Palomar	Argentina	FOC	GOES-East	
7104	Brasilia	Brazil	FOC	GOES-East	
7105	Recife	Brazil	FOC	MSG-4	
7253	Santiago	Chile	FOC	GOES-East	
7602	Callao	Peru	FOC	GOES-West	

Notes: FOC Full Operational Capability.
IOC Initial Operational Capability.
UD Under Development.

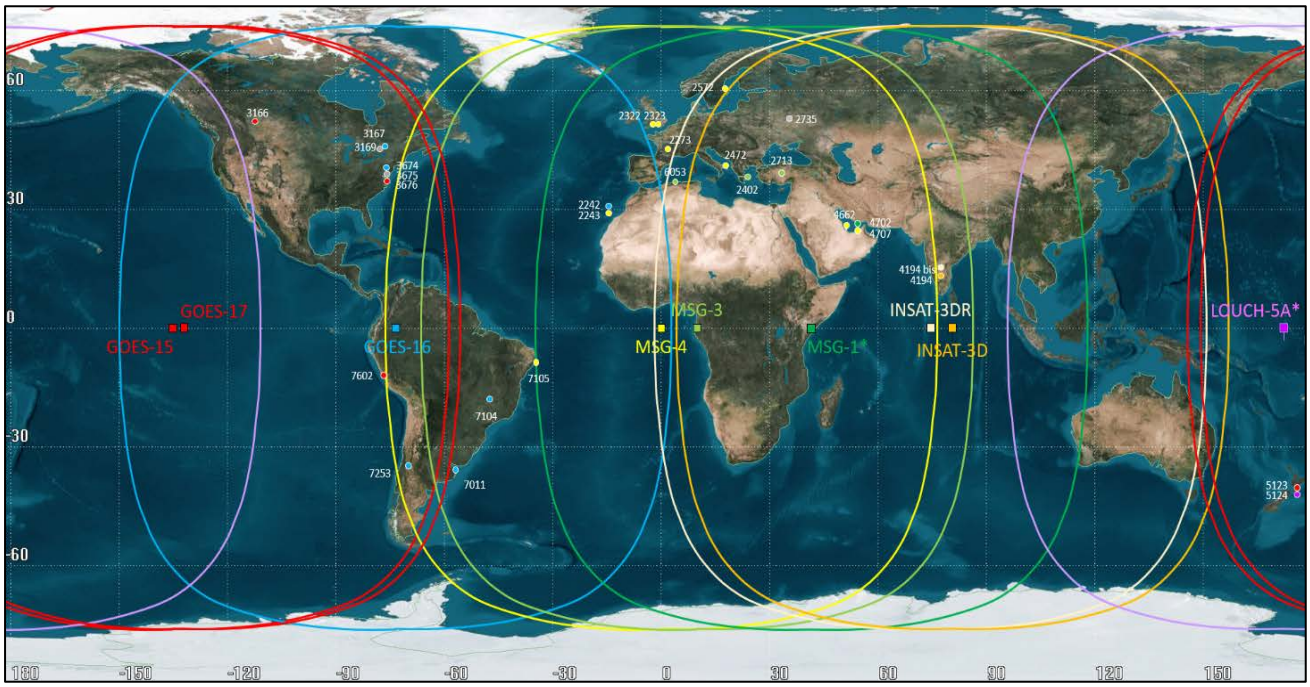

Figure 7: GEOSAR Satellite Coverage (December 2018)

Notes: (*) MSG-1 and Louch-5A moving on elliptical orbits, associated footprints displayed on this map are centered on their average position.
Doha GEOLUT (4662), Qatar, does not yet provide any operational data to the System.

Table 7: Mission Control Centre Status (December 2018)

Code	MCC	Location	Provider	DDR	Status	Comments
2240	**SPMCC**	Maspalomas	Spain	SCDDR	FOC	LGM Commissioning Report submitted to CSC-61.
2270	**FMCC**	Toulouse	France	CDDR	**LGM**	
2320	**UKMCC**	Fareham	United Kingdom	CDDR	FOC	
2400	**GRMCC**	Athens	Greece	CDDR	FOC	
2470	**ITMCC**	Bari	Italy	CDDR	FOC	
2570	**NMCC**	Bodoe	Norway	CDDR	**LGM**	
2710	**TRMCC**	Ankara	Turkey	CDDR	FOC	
2730	**CMC**	Moscow	Russia	EDDR	FOC	
3160	**CMCC**	Trenton	Canada	WDDR	FOC	
3660	**USMCC**	Suitland	USA	WDDR	**LGM**	
4030	**SAMCC**	Jeddah	Saudi Arabia	SCDDR	FOC	
4120	**CNMCC**	Beijing	China	NWPDDR	FOC	
4160	**TAMCC**	Chinese Taipei	ITDC	NWPDDR	FOC	
4190	**INMCC**	Bangalore	India	EDDR	FOC	Manned 7/7 between 0300 UTC and 1130 UTC.
4310	**JAMCC**	Gunma	Japan	NWPDDR	FOC	
4400	**KOMCC**	Incheon	Korea (Rep. of)	NWPDDR	FOC	
4630	**PAMCC**	Karachi	Pakistan	EDDR	FOC	
4700	**AEMCC**	Abu Dhabi	UAE	SCDDR	FOC	
4770	**HKMCC**	Hong Kong	Hong Kong China	NWPDDR	FOC	
5030	**AUMCC**	Canberra	Australia	SWPDDR	FOC	LGM Commissioning Report submitted to CSC-61.
5250	**IDMCC**	Jakarta	Indonesia	SWPDDR	FOC	Data not sent to the LG AUMCC as no FTP link available. Will be linked to LGM AUMCC.
5630	**SIMCC**	Singapore	Singapore	SWPDDR	FOC	
5670	**THMCC**	Bangkok	Thailand	SWPDDR	FOC	
5740	**VNMCC**	Haiphong	Viet Nam	NWPDDR	FOC	
6010	**ASMCC**	Cape Town	South Africa	SWPDDR	FOC	
6050	**ALMCC**	Algiers	Algeria	SCDDR	FOC	
6570	**NIMCC**	Abuja	Nigeria	SCDDR	CNO	Configured as a SPMCC SPOC. Planned to be restored as an LGM MCC.
7010	**ARMCC**	El Palomar	Argentina	WDDR	FOC	
7100	**BRMCC**	Brasilia	Brazil	WDDR	FOC	
7250	**CHMCC**	Santiago	Chile	WDDR	FOC	
7600	**PEMCC**	Callao	Peru	WDDR	FOC	

Notes:
- CNO Commissioned, Not Operational.
- FOC Full Operational Capability.
- LGM LEOSAR, GEOSAR, MEOSAR-capable.
- LG LEOSAR, GEOSAR-capable.

6 BEACONS

The registered 406-MHz beacon population reported by the Administrations at the end of 2017 was about 1,634,000 devices.

The estimated 2017 global 406-MHz beacon population calculated using the registration rate method was about 2,105,000 units.

The estimated 2017 global 406-MHz beacon population reporting in the beacon manufacturer survey was about 1,879,000 units.

All information on Cospas-Sarsat type-approved 406-MHz beacons and a list of 406-MHz beacon manufacturers are available on the Cospas-Sarsat website at www.cospas-sarsat.int.

7 COSPAS-SARSAT DOCUMENTS

Table 8: Cospas-Sarsat Documents (December 2018)

Reference	Title	Issue	Rev.	Date
C/S A.000 Series - Operational				
C/S A.001	Cospas-Sarsat Data Distribution Plan (DDP)	8	-	February 2018
C/S A.002	Cospas-Sarsat Mission Control Centres Standard Interface Description (SID)	7	-	February 2018
C/S A.003	Cospas-Sarsat System Monitoring and Reporting	3	-	February 2018
C/S A.004	Cospas-Sarsat System Exercising (not available in e-format)	1	1	July 1998*
C/S A.005	Cospas-Sarsat Mission Control Centre (MCC) Performance Specification and Design Guidelines	5	-	February 2018
C/S A.006	Cospas-Sarsat Mission Control Centre Commissioning Standard	5	-	February 2018
C/S D.000 Series - IBRD				
C/S D.001	Functional Requirements for the Cospas-Sarsat International 406 MHz Beacon Registration Database	2	1	October 2014
C/S D.002	Cospas-Sarsat International 406 MHz Beacon Registration Database (IBRD) Software Maintenance Manual	1	-	November 2005
C/S D.003	Cospas-Sarsat International 406 MHz Beacon Registration Database (IBRD) System Maintenance Manual,	1	1	October 2013
C/S D.004	Operations Plan for the Cospas-Sarsat International 406 MHz Beacon Registration Database	1	5	October 2013
C/S G.000 Series - General				
C/S G.003	Introduction to the Cospas-Sarsat System	6	2	October 2014
C/S G.004	Cospas-Sarsat Glossary	2	-	December 2016
C/S G.005	Cospas-Sarsat Guidelines on 406 MHz Beacon Coding, Registration and Type Approval	3	-	February 2018
C/S G.007	Handbook on Distress Alert Messages for Rescue Coordination Centres (RCCs), Search and Rescue Points of Contact (SPOCs) and IMO Ship Security Competent Authorities	2	1	February 2018
C/S G.008	Operational Requirements for Cospas-Sarsat Second-Generation 406-MHz Beacons	1	3	October 2014
C/S G.009	Action Plan in the Event of Possible LEOSAR Degradation Prior to MEOSAR Full Operational Capability	1	-	December 2015*
C/S P.000 Series - Programme				
C/S P.001	International Cospas-Sarsat Programme Agreement	-	-	July 1988*
C/S P.002	Procedure for the Notification of Association with the International Cospas-Sarsat Programme by States Non-Party to the Cospas-Sarsat Agreement	-	-	December 1992*
C/S P.005	Arrangement between Canada, The Republic of France, the Russian Federation and the United States of America regarding the Headquarters of the International Cospas-Sarsat Programme	-	-	April 2005*
C/S P.006	Understanding Between the Cospas-Sarsat Programme and the Gouvernement du Québec concerning Exemptions, Fiscal Advantages and Courtesies accorded to the Programme, Representatives of Member States and Officials of the Secretariat	-	-	May 2005*
C/S P.007	Guidelines for Participating in the Cospas-Sarsat System	5	-	October 2009*

Reference	Title	Issue	Rev.	Date
C/S P.008	Arrangement on Cooperation between the Cooperating Agencies of the Parties to the International Cospas-Sarsat Programme Agreement and the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) on the EUMETSAT Contribution to the Cospas-Sarsat GEOSAR System	-	-	October 2010*
C/S P.009	Understanding Between the States Parties to the International Cospas-Sarsat Programme Agreement and The Republic of India Concerning the Association of The Republic of India with the Cospas-Sarsat Programme as a Provider of Geostationary Satellite Service	-	-	February 2007*
C/S P.010	List of States & Organizations Associated with the Cospas-Sarsat Programme	1	2	3 December 2018*
C/S P.011	Cospas-Sarsat Programme Management Policy	2	-	February 2018
C/S P.012	Cospas-Sarsat Secretariat Management Guide	1	1	November 2005
C/S P.014	Declaration of Intent for Co-operation on the Development and Evaluation of the Medium Earth Orbit Search and Rescue (MEOSAR) Satellite System between the Co-operating Agencies of the International Cospas-Sarsat Programme and the Galileo Joint Undertaking	-	-	December 2006*
C/S P.015	Cospas-Sarsat Quality Manual	1	2	October 2010
C/S P.016	Cospas-Sarsat Strategic Plan	1	6	December 2016
C/S P.017	Declaration of Intent Between the Co-operating Agencies of the International Cospas-Sarsat Programme and the European Commission for Co-operation on the Initial Operational Capability of the Cospas-Sarsat MEOSAR Satellite System	-	-	December 2016*
C/S R.000 Series - Reports				
C/S R.006	Cospas-Sarsat Demonstration and Evaluation Plan for the 406 MHz GEOSAR Systems	1	3	October 1997*
C/S R.007	Cospas-Sarsat Report on System Status and Operations No. 32 (Jan - Dec 2015)	33	-	February 2018
C/S R.009	Summary Report of the 406 MHz Geostationary System Demonstration and Evaluation	-	-	October 1999*
C/S R.011	Cospas-Sarsat Meteosat Second Generation (MSG) GEOSAR Performance Evaluation Plan	1	1	October 2003
C/S R.012	Cospas-Sarsat 406 MHz MEOSAR Implementation Plan	1	13	February 2018
C/S R.013	METEOSAT Second Generation (MSG) GEOSAR Performance Evaluation Report	1	1	October 2006
C/S R.014	Cospas-Sarsat INSAT GEOSAR Performance Evaluation Plan	1	-	October 2009
C/S R.015	Cospas-Sarsat INSAT GEOSAR Performance Evaluation Report	1	-	October 2009*
C/S R.016	Cospas-Sarsat Electro GEOSAR Performance Evaluation Plan	1	1	October 2011
C/S R.017	Second Generation 406 MHz Beacon Implementation Plan	1	6	December 2016
C/S R.018	Cospas-Sarsat Demonstration and Evaluation Plan for the 406 MHz MEOSAR System	2	5	February 2018
C/S R.019	Cospas-Sarsat Electro GEOSAR Performance Evaluation Report	1	-	October 2012*
C/S R.020	Cospas-Sarsat Louch GEOSAR Performance Evaluation Plan	1	-	October 2012*
C/S R.021	Cospas-Sarsat MEOSAR System Demonstration and Evaluation Phase I Report	1	-	December 2015*

Reference	Title	Issue	Rev.	Date
C/S S.000 Series - Secretariat				
C/S S.007	Handbook of Beacon Regulations	2	1	August 2018
C/S T.000 Series - Technical				
C/S T.001	Specification for Cospas-Sarsat 406 MHz Distress Beacons	4	3	June 2018
C/S T.002	Cospas-Sarsat Local User Terminal Performance Specification and Design Guidelines	5	-	February 2018
C/S T.003	Description of the 406-MHz Payloads Used in the Cospas-Sarsat LEOSAR System	5	-	February 2018
C/S T.004	Cospas-Sarsat LEOSAR Space Segment Commissioning Standard	2	4	December 2016
C/S T.005	Cospas-Sarsat LEOLUT Commissioning Standard	3	1	October 2013
C/S T.006	Cospas-Sarsat Orbitography Network Specification	2	3	October 2013
C/S T.007	Cospas-Sarsat 406 MHz Distress Beacon Type Approval Standard	5	2	June 2018
C/S T.008	Cospas-Sarsat Acceptance of 406 MHz Beacon Type Approval Test Facilities	3	1	June 2018
C/S T.009	Cospas-Sarsat GEOLUT Performance Specification and Design Guidelines	2	-	February 2018
C/S T.010	Cospas-Sarsat GEOLUT Commissioning Standard	1	7	October 2013
C/S T.011	Description of the 406 MHz Payloads Used in the Cospas-Sarsat GEOSAR System	2	-	February 2018
C/S T.012	Cospas-Sarsat 406 MHz Frequency Management Plan	1	13	February 2018
C/S T.013	Cospas-Sarsat GEOSAR Space Segment Commissioning Standard	1	2	October 2013
C/S T.014	Cospas-Sarsat Frequency Requirements and Coordination Procedures	2	1	October 2010
C/S T.015	Cospas-Sarsat Specification and Type Approval Standard for 406 MHz Ship Security Alert (SSAS) Beacons	1	1	November 2007
C/S T.016	Description of the 406 MHz Payloads Used in the Cospas-Sarsat MEOSAR System	1	3	February 2018
C/S T.017	Cospas-Sarsat MEOSAR Space Segment Commissioning Standard	1	4	February 2018
C/S T.018	Specification for Second-Generation Cospas-Sarsat 406-MHz Distress Beacons	1	3	June 2018
C/S T.019	Cospas-Sarsat MEOLUT Performance Specification and Design Guidelines	2	2	June 2018
C/S T.020	Cospas-Sarsat MEOLUT Commissioning Standard	2	1	June 2018
C/S T.021	Cospas-Sarsat Second Generation 406-MHz Distress Beacon Type Approval Standard - Preliminary Issue A	-	-	June 2018*
C/S T.022	Cospas-Sarsat MEOSAR Reference Beacon Network Design Guideline	1	-	February 2018*
C/S IP Series - Interim Procedures				
C/S T.IP (LIRB)	Interim Procedure for Type Approval of 406 MHz Beacons Equipped with Li-Ion Rechargeable Batteries	-	4	October 2014
C/S T.IP (TCXO)	Interim Procedure for the Determination of Compliance of 406 MHz Beacons Equipped with a TCXO with Cospas-Sarsat Type Approval Requirements	-	5	October 2013

Note: (*) No archive available.

8 COSPAS-SARSAT SYSTEM OVERVIEW

Figure 8: Cospas-Sarsat System Overview

Legend:

COSPAS:	Space system for the search of vessels in distress.	GEO:	Geostationary satellite system.
SARSAT:	Search and rescue satellite-aided tracking system.	LEO:	Low Earth Orbit satellite system.
ELT:	Emergency Locator Transmitter. in-flight Distress Tracking.	LUT:	Local User Terminal.
ELT(DT):	Emergency Locator Transmitter for	MCC:	Mission Control Centre.
EPIRB:	Emergency Position-Indicating Radio Beacon.	MEO:	Medium Earth Orbit satellite system.
		PLB:	Personal Locator Beacon.
		RCC:	Rescue Coordination Centre.
		RLSP:	Return Link Service Provider.
		SAR:	Search and Rescue.

Cospas-Sarsat Programme videos are available at:
https://www.cospas-sarsat.int/en/search-and-rescue/programme-videos-en.

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