

## COSPAS-SARSAT SYSTEM DATA

No.50  
December 2024

# COSPAS-SARSAT SYSTEM DATA

No.50 - December 2024

## TABLE OF CONTENTS

	<u>Page</u>
1 Summary Status .....	3
2 Assistance in Search and Rescue Operations.....	4
3 Participating Countries and Organizations .....	6
4 Space Segment.....	7
5 Ground Segment .....	8
6 Beacons .....	13
7 Cospas-Sarsat System Overview.....	14

## LIST OF FIGURES

Figure 1: Geographic Distribution of Confirmed SAR Events for which Cospas-Sarsat Data Was Used (January - December 2023).....	4
Figure 2: Distribution of SAR Events Assisted by Cospas-Sarsat by Type of Events (January - December 2023) .....	4
Figure 3: Persons Rescued by Type of SAR Event Assisted by Cospas-Sarsat (January - December 2023) .....	4
Figure 4: Number of SAR Events and Persons Rescued with the Assistance of Cospas-Sarsat Alert Data (January 1994 - December 2023) .....	5
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 2023) .....	5
Figure 6: LEOSAR and Operational LEOLUT Mutual-Visibility Areas (31 December 2024) ...	8
Figure 7: Operational GEOSAR Satellite Coverage (31 December 2024) .....	10
Figure 8: Overview of the Cospas-Sarsat System .....	14

## LIST OF TABLES

Table 1: Cospas-Sarsat Participating Countries and Organizations (31 December 2024) .....	6
Table 2: LEOSAR Payload Availability (31 December 2024) .....	7
Table 3: GEOSAR Payload Availability (31 December 2024) .....	7
Table 4: MEOSAR Payload Availability (31 December 2024) .....	8
Table 5: LEOSAR Ground Segment Status (LEOLUTs) (31 December 2024).....	9
Table 6: GEOSAR Ground Segment Status (GEOLUTs) (31 December 2024).....	10
Table 7: MEOSAR Ground Segment Status (GEOLUTs) (31 December 2024) .....	11
Table 8: Mission Control Centre Status (31 December 2024).....	12

# 1 SUMMARY STATUS

PARTICIPANTS	(31 December 2024)
--------------	--------------------

Parties to the International Cospas-Sarsat Programme Agreement (ICSPA):	4
Ground Segment Providers:	30
User States:	9
Ground Segment Operators:	2
<b>Total number of Participants:</b>	<b>45</b>

SPACE SEGMENT	(31 December 2024)
---------------	--------------------

LEOSAR payloads (low-Earth orbit) (in operation):	3
GEOSAR payloads (geostationary orbit) (in operation):	11
MEOSAR payloads (medium-Earth orbit) (in operation):	50

GROUND SEGMENT	(31 December 2024)
----------------	--------------------

Local User Terminals operating in the LEOSAR system (LEOLUTs):	52
Local User Terminals operating in the GEOSAR system (GEOLUTs):	29
Local User Terminals operating in the MEOSAR system (MEOLUTs):	22
Mission Control Centres (MCCs) in operation (22 commissioned LGM MCCs):	32

406 MHz BEACON POPULATION	(31 December 2023)
---------------------------	--------------------

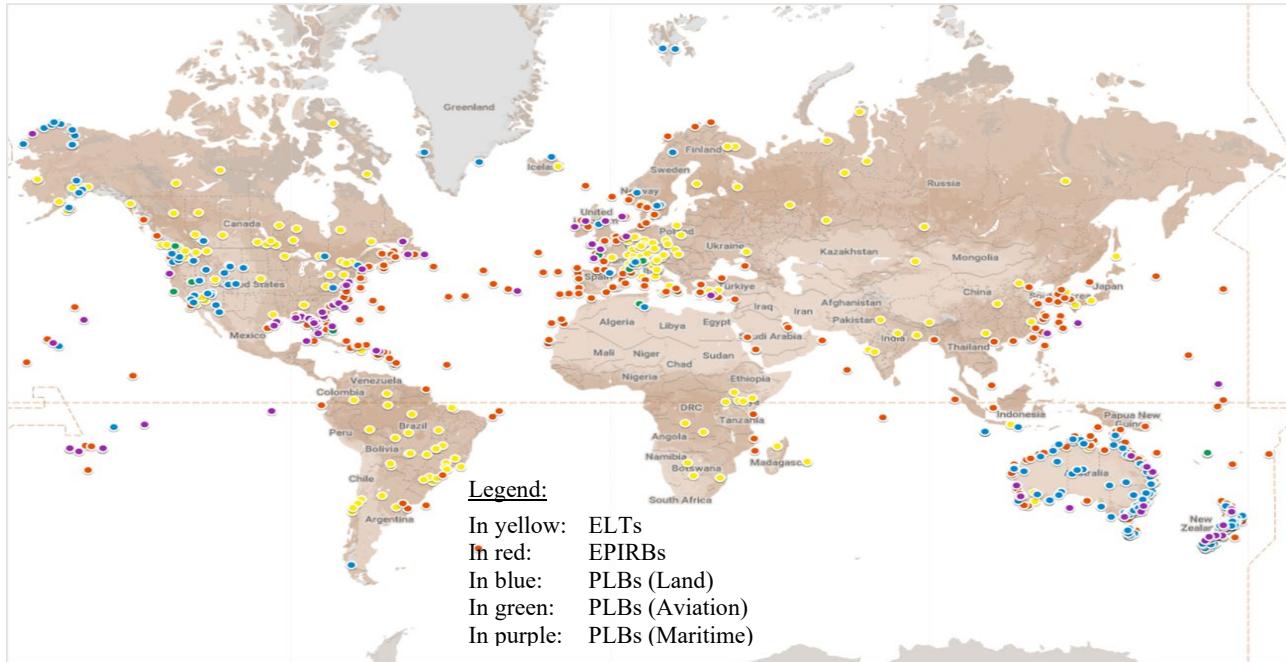
Global registered beacon population:	2,390,000
Global beacon population estimated using the registration-rate method:	3,170,000
Global beacon population estimated using the beacon-manufacturer survey:	2,190,000

SAR OPERATIONS	(31 December 2023)
----------------	--------------------

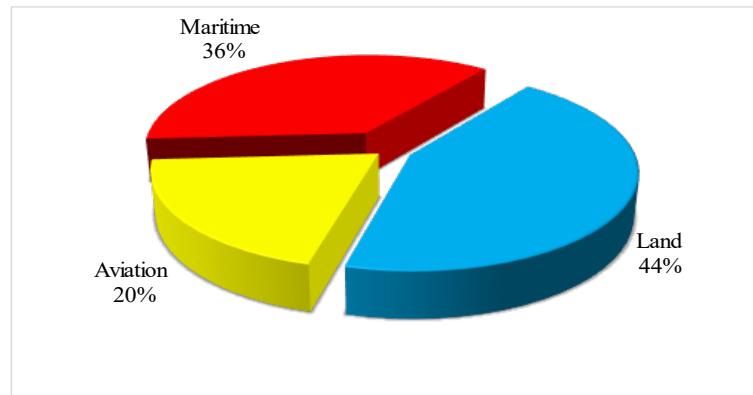
<b>From January to December 2023, the Cospas-Sarsat System provided assistance in rescuing at least 3,109 persons in 1,076 SAR events.</b>	Type of Distress	SAR Events	Persons Rescued
	Aviation	214	482
	Maritime	391	1,889
	Land	471	738
	<b>Total</b>	<b>1,076</b>	<b>3,109</b>

From **September 1982 to December 2023**, the Cospas-Sarsat System provided assistance in rescuing at least **63,745 persons** in **19,883 SAR events**.

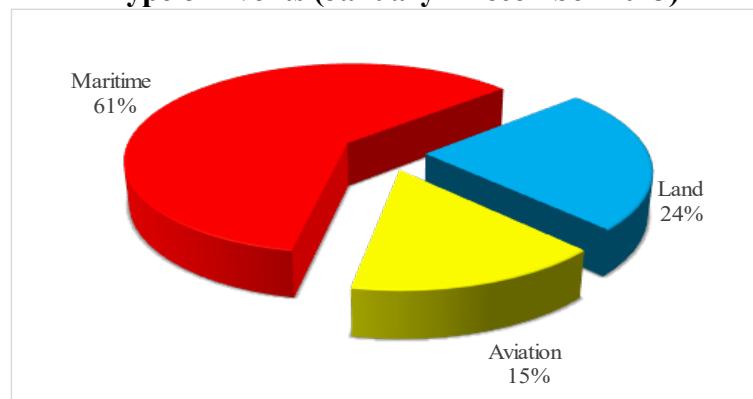
## 2 ASSISTANCE IN SEARCH AND RESCUE OPERATIONS



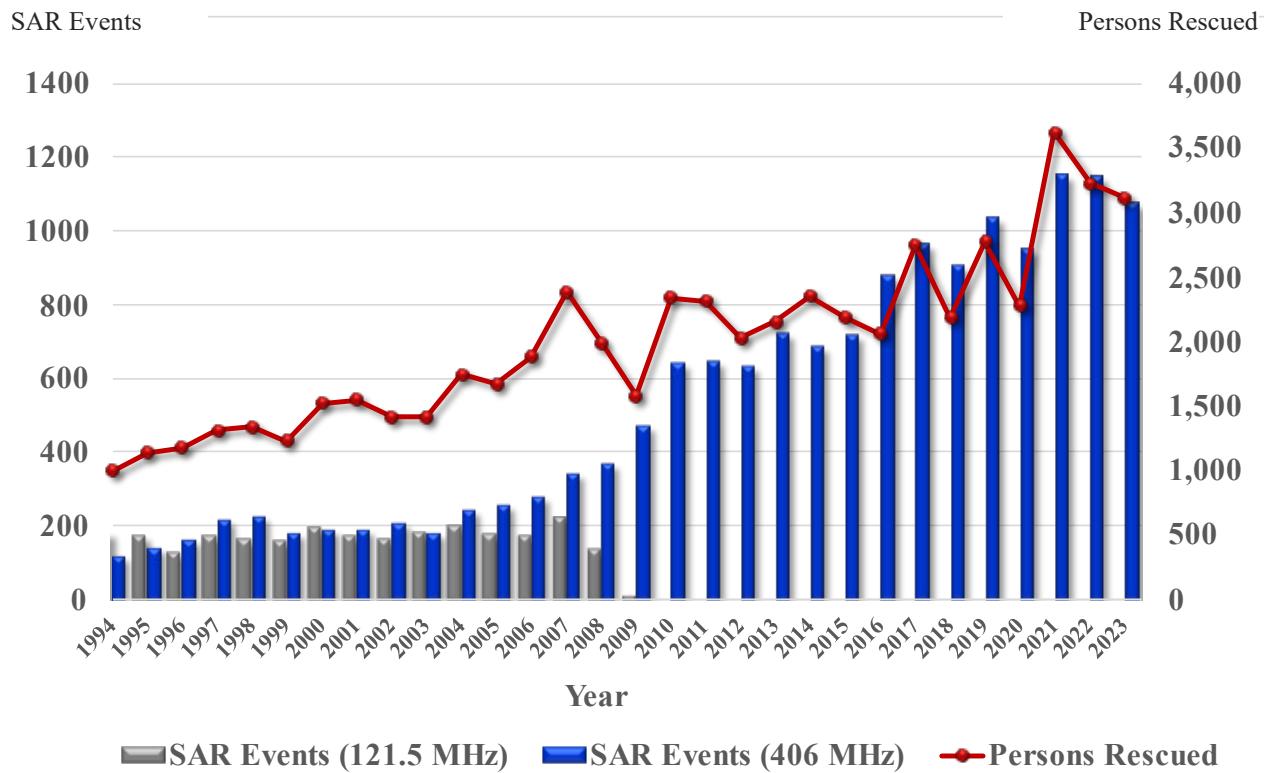
**Figure 1: Geographic Distribution of Confirmed SAR Events for which Cospas-Sarsat Data Was Used (January - December 2023)**



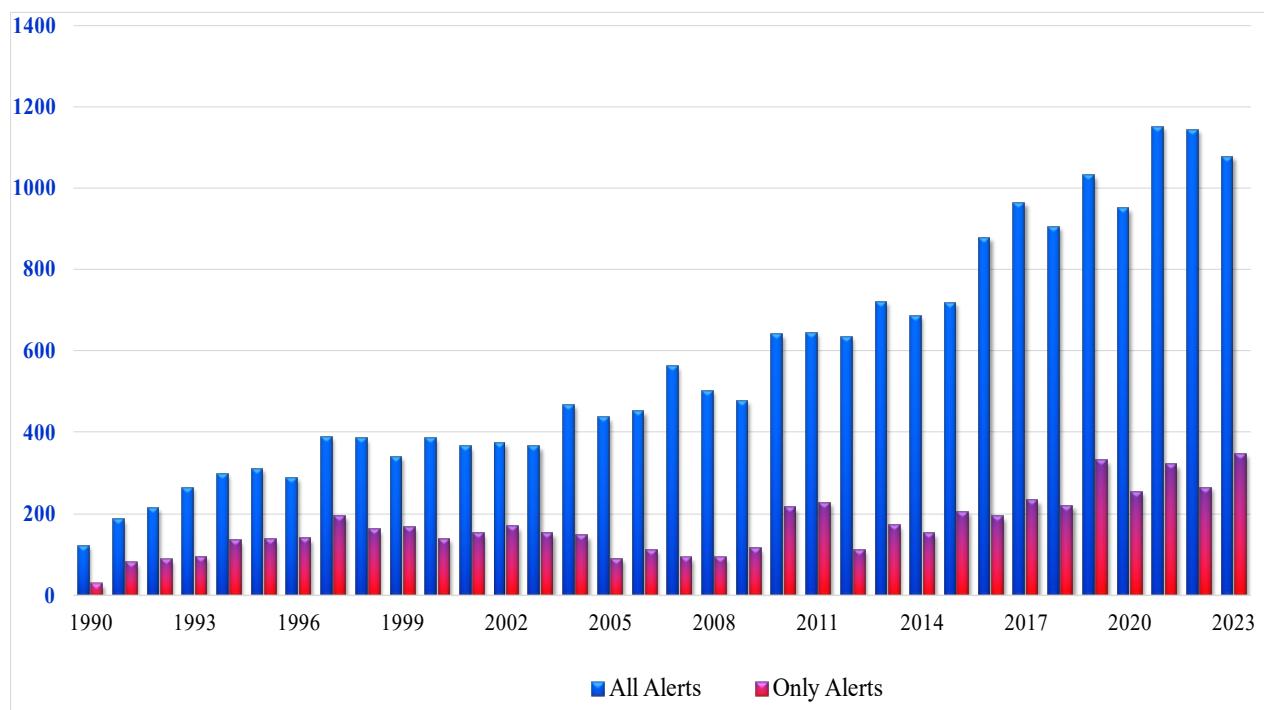
**Figure 2: Distribution of SAR Events Assisted by Cospas-Sarsat by Type of Events (January - December 2023)**



**Figure 3: Persons Rescued by Type of SAR Event Assisted by Cospas-Sarsat (January - December 2023)**



**Figure 4: Number of SAR Events and Persons Rescued with the Assistance of Cospas-Sarsat Alert Data (January 1994 - December 2023)**



**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 2023)**

### 3 PARTICIPATING COUNTRIES AND ORGANIZATIONS

**Table 1: Cospas-Sarsat Participating Countries and Organizations (31 December 2024)**

Participant	Agency	Status
Algeria	Service SAR, Ministère de la Défense Nationale	Ground Segment Provider
Argentina	Argentina Air Force – 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), Public Safety Canada	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	Ground Segment Provider
Cyprus	Larnaca Joint Rescue Co-ordination Centre	Ground Segment Provider
Denmark	Danish Civil Aviation and Railway Authority	User State
Finland	Ministry of the Interior, The 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	Royal Norwegian Ministry of Justice and Public Security	Ground Segment Provider
Pakistan	Space and Upper Atmosphere Research Commission (SUPARCO)	Ground Segment Provider
Peru	Dirección General de Capitanías y Guardacostas	Ground Segment Provider
Poland	Civil Aviation Authority, Air Navigation Department	User State
Qatar	Doha Joint Rescue Coordination Centre (DJRCC), Ministry of Defence	Ground Segment Provider
Russian Federation	Morsviaszputnik	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 and Pilotage Department	Ground Segment Provider
South Africa	Department of Transport	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
Togo	Le Ministère des Infrastructures et des Transports	Ground Segment Provider*
Tunisia	Ministère du Transport, Direction Générale de l'Aviation Civile (DGAC)	User State
Türkiye	Ministry of Transport and Infrastructure	Ground Segment Provider
UAE	Telecommunications Regulatory Authority	Ground Segment Provider
United Kingdom	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

Note: (\*) Ground Segment equipment not yet formally commissioned.

## 4 SPACE SEGMENT

**Table 2: LEOSAR Payload Availability (31 December 2024)**

Cospas-Sarsat Payload	Spacecraft	Launch Date	Capability	Status	SAR Processor (SARP)		SAR Repeater (SARR)
					Global Mode	Local Mode	
Cospas-15	Meteor-M No.2-3	June 2023	UT	<b>On</b>	On	On	On
Cospas-16	Meteor-M No.2-4	February 2024	UT	<b>On</b>	On	On	On
Sarsat-7	NOAA-15	May 1998	FOC	<b>On</b>	On	On	On
Sarsat-10	NOAA-18	May 2005	FOC	<b>On</b>	On	On	On
Sarsat-12	NOAA-19	February 2009	FOC	<b>On</b>	On	On	On
Sarsat-13	Metop-B	September 2012	FOC	Off	Off	Off	Off

**Table 3: GEOSAR Payload Availability (31 December 2024)**

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	March 2010	135°W	FOC	Off	In-orbit spare
GOES-16 (East)	November 2016	75.2°W	FOC	<b>On</b>	
GOES-17	March 2018	137.2°W	FOC	Off	In-orbit spare
GOES-18 (West)	March 2022	137.0°W	FOC	<b>On</b>	
GOES-19	June 2024	75.2°W	UT	<b>On</b>	Planned to replace GOES East
MSG-2	December 2005	45.5°E	FOC	<b>On</b>	
MSG-3	July 2012	0°	FOC	Off	In-orbit spare
MSG-4	July 2015	9.5°E	FOC	<b>On</b>	
MTG-II	December 2022	0°	FOC	<b>On</b>	
INSAT-3D	July 2013	82°E	FOC	<b>On</b>	Tracked on demand
INSAT-3DR	September 2016	74°E	FOC	<b>On</b>	
INSAT-3DS	February 2024	82°E	UT	<b>On</b>	
GSAT-17	June 2017	93.5°E	FOC	<b>On</b>	Tracked on demand
Electro-L No.2	December 2015	14.5°W	FOC	<b>On</b>	
Electro-L No.3	December 2019	76°E	FOC	<b>On</b>	
Electro-L No.4	February 2023	165.8°E	FOC	<b>On</b>	
Louch-5A	December 2011	167°E	FOC	<b>On</b>	(1)
Louch-5V	April 2014	95°E	FOC	<b>On</b>	(1)
Arktika-M No.1	February 2021	N/A	UT	<b>On</b>	Launched into a high-elliptical orbit to provide coverage of the Arctic region. SAR repeater is similar to the Electro-L GEOSAR payload
Arktika-M No.2	December 2023	N/A	UT	<b>On</b>	

Notes: (Tables 2 and 3)

1 Operational for GEOLUT equipped with active-tracking capability,

FOC Full Operational Capability,

IOC Initial Operational Capability,

N/A Information Not Available,

TBD To Be Determined,

UT Under Test.

Bold font style in the “Status” column shows payloads that were tracked on 31 December 2024.

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 and tracked.

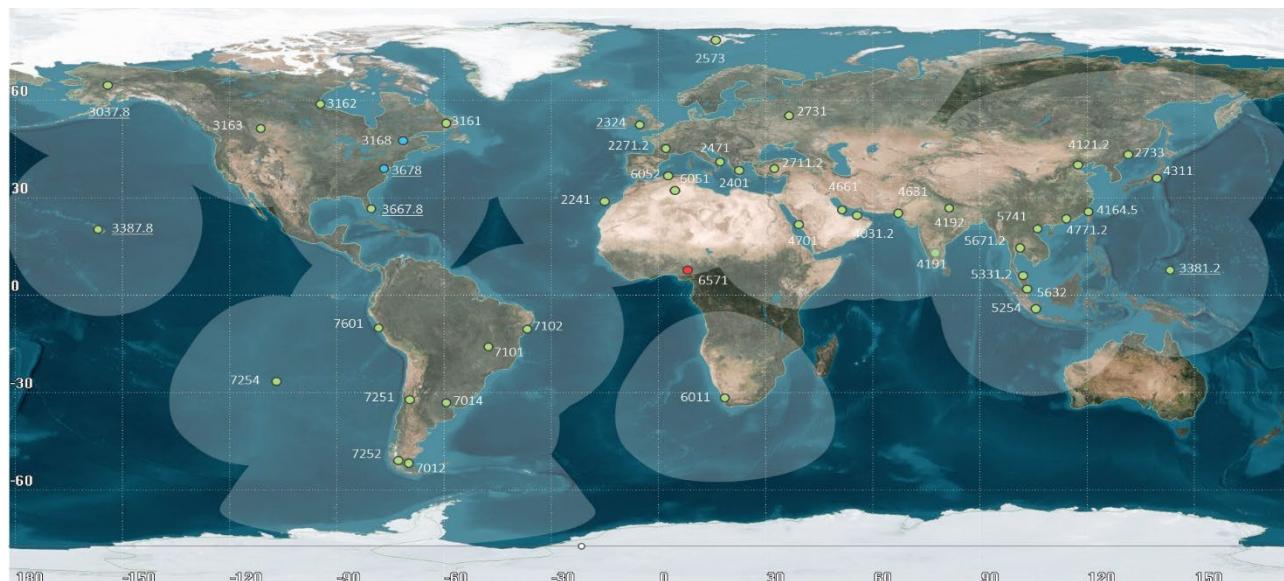
**Table 4: MEOSAR Payload Availability (31 December 2024)**

Constellation	Downlink Frequency	Capability	Number / Status	Comments
BDS	L-Band	A	6	The Declaration of Intent for the co-operation on the MEOSAR satellite system was signed 14 November 2022. Pending Ground Segment availability.
Galileo	L-Band	27*/FOC 2/IOC (2/UT)	25*/On+2/Off 2/On (2/On)	* Two additional Galileo satellites with no SAR payload onboard are Return-Link-Service-capable.
Glonass-K1	L-Band	2/FOC (2/UT)	2/On (2/On)	Two payloads, onboard satellites launched in July 2022 and August 2023 respectively, are under test.
GPS BIIR & F GPS III A	S-Band S-Band	17/FOC 4/FOC	17/On 4/On	Experimental commissioned payloads. Eight GPS III satellites with DASS / S-band capability expected.

Notes: A Available,  
FOC Full Operational Capability,  
IOC Initial Operational Capability,  
UT Under Test.

## 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 2024)**

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

Underlined numbers refer to 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 2024)**

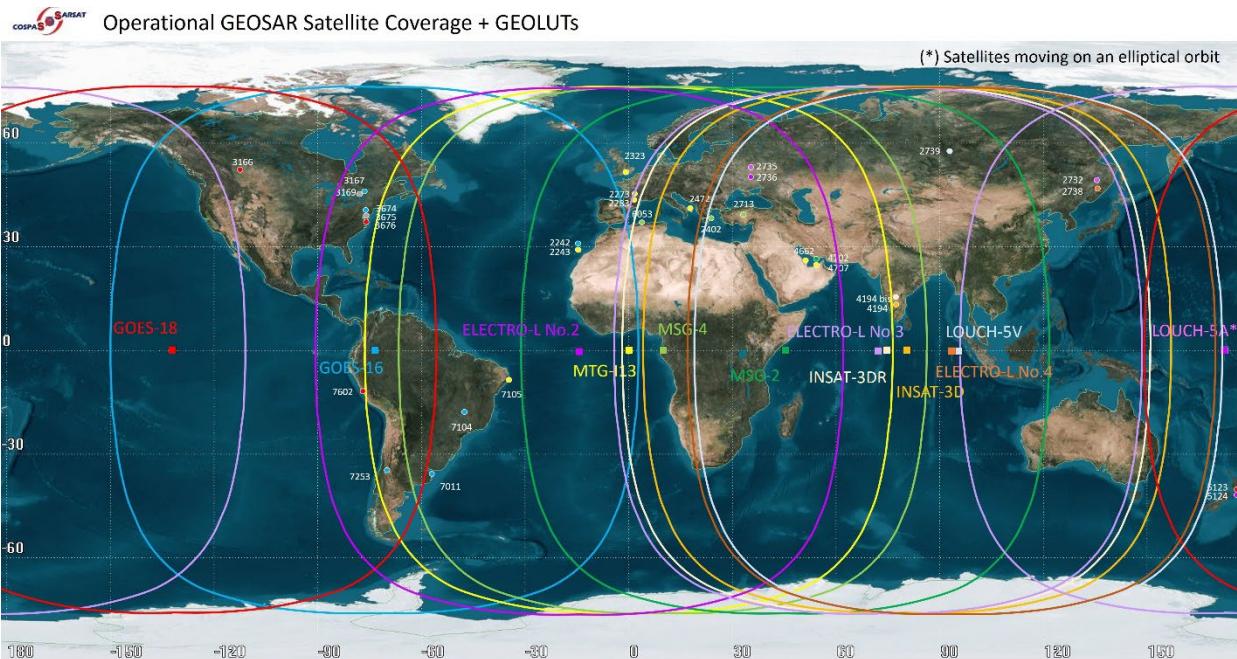
<b>Code</b>	<b>Location</b>	<b>Provider</b>	<b>Status</b>	<b>Associated MCC</b>	<b>Dual</b>	<b>Comments</b>
2241	Maspalomas	Spain	FOC	SPMCC	No	
2271-2	Toulouse	France	FOC	FMCC	Yes	
2324	Lee-on-Solent	UK	FOC	UKMCC	No	
2401	Penteli	Greece	FOC	GRMCC	No	
2471	Bari	Italy	FOC	ITMCC	No	
2573	Spitsbergen	Norway	FOC	NMCC	No	
2711-2	Ankara	Türkiye	FOC	TRMCC	Yes	
2733	Nakhodka	Russia	FOC	CMC	No	
3037-8	Alaska	USA	FOC	USMCC	Yes	Combined LEO-MEO antenna.
3161	Goose Bay	Canada	FOC	CMCC	No	
3162	Churchill	Canada	FOC	CMCC	No	
3163	Edmonton	Canada	FOC	CMCC	No	
3168	Ottawa (LOW)	Canada	Backup	CMCC	No	For testing and back-up, used operationally as needed.
3381-2	Guam	USA	IOC	USMCC	Yes	Combined LEO-MEO antenna.
3387-8	Hawaii	USA	FOC	USMCC	Yes	Combined LEO-MEO antenna.
3667-8	Florida	USA	FOC	USMCC	Yes	Combined LEO-MEO antenna.
3678	Maryland (LME)	USA	FOC	USMCC	No	LEO-MEO support Equipment. Combined
4031-2	Jeddah	Saudi Arabia	FOC	SAMCC	Yes	
4121-2	Beijing	China (P.R. of)	FOC	CNMCC	Yes	
4164-5	Dapingding	ITDC	IOC	TAMCC	Yes	
4191	Bangalore	India	FOC	INMCC	No	
4192	Lucknow	India	FOC	INMCC	No	
4311	Futtsu	Japan	FOC	JAMCC	No	
4631	Karachi	Pakistan	FOC	PAMCC	No	
4661	Doha	Qatar	FOC	QAMCC	No	
4701	Abu Dhabi	UAE	FOC	AEMCC	No	
4771-2	Hong Kong	Hong Kong, China	FOC	HKMCC	Yes	
5254	Jakarta	Indonesia	FOC	IDMCC	No	
5331-2	Kuntan	Malaysia	UD	MYMCC*	Yes	Pending MCC commissioning.
5632	Changi	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	
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	
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, IOC Initial Operational Capability,  
 (\*) Ground Segment equipment not yet formally commissioned, if any.

**Table 6: GEOSAR Ground Segment Status (GEOLUTs) (31 December 2024)**

Code	Location	Provider	Status	Associated GEOSAR	Comments
2242	Maspalomas	Spain	FOC	GOES-East	
2243	Maspalomas	Spain	FOC	MTG-II	
2273	Toulouse	France	FOC	MTG-II	
2323	Lee-on-Solent	UK	FOC	MTG-II	
2402	Penteli	Greece	FOC	MTG-II	
2472	Bari	Italy	FOC	MTG-II	
2713	Ankara	Turkey	FOC	MSG-4	
2732	Khabarovsk (2)	Russia	FOC	Louch-5A	
2735	Moscow	Russia	FOC	Electro-L No.3	
2736	Moscow	Russia	FOC	Electro-L No.2	
2738	Khabarovsk (1)	Russia	FOC	Electro-L No.4	
2739	Krasnoyarsk	Russia	FOC	Louch-5V	
3166	Edmonton	Canada	FOC	GOES-West	
3167	Ottawa	Canada	FOC	GOES-East or GOES-West	Test / back-up facility.
3169	Ottawa	Canada	FOC	GOES-East	
3674	Maryland	USA	FOC	GOES-East	
3675	Maryland GSE	USA	FOC	GOES-East or GOES-West	Test facility used operationally as needed.
3676	Maryland	USA	FOC	GOES-West	
4194	Bangalore	India	FOC	INSAT-3D/DR or GSAT-17	
4662	Doha	Qatar	FOC	MTG-II	
4702	Abu Dhabi	UAE	FOC	MSG-4	
4707	Abu Dhabi	UAE	FOC	MTG-II	
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	MTG-II	
7253	Santiago	Chile	FOC	GOES-East	
7602	Callao	Peru	FOC	GOES-West	

Notes: FOC Full Operational Capability,  
IOC Initial Operational Capability.



**Figure 7: Operational GEOSAR Satellite Coverage (31 December 2024)**

Note:

(\*) For satellite on geosynchronous orbit, associated footprint displayed on this map are centered on their average position.

**Table 7: MEOSAR Ground Segment Status (MEOLUTs) (31 December 2024)**

<b>Code</b>	<b>Location</b>	<b>Provider</b>	<b>Channels</b>	<b>Comments</b>	<b>Additional Capabilities (b)</b>
6054	Algiers	Algeria	4		
5035	Mingenew	Australia	6	Networked with NZ MEOLUT 5125	1, 2, 4, 5, 7, 8
7255	Santiago	Chile	6		4, 5, 7, 8
4123	Beijing	China (P.R. of)	6		7f
2091	Larnaca / EU	Cyprus	4	Part of European 12-channel MEOLUT.	4, 5f, 7f
2275	Toulouse	France	20	Phased-array L-band antenna.	4, 5f, 7f
6601	Saint-Denis-La Réunion / EU	France	30	Phased-Array L-Band antenna. Connected to the FR MEOLUT network.	4, 5f, 7
2405	Keratea	Greece	6		
4163	Dapingding	ITDC	8		7f
4314	Futtsu	Japan	6		4, 5f, 7f
4402	Geumsan	Korea (Rep. of)	6		
5125	Taupo	New Zealand	6	Linked to AUMCC. Networked with AU MEOLUT 5035.	1, 2, 4, 5, 7, 8
2574	Spitsbergen / EU	Norway	4	Part of European 12-channel MEOLUT.	4, 5f, 7f
4034	Jeddah	Saudi Arabia	10		
5635	Changi	Singapore	6	One additional LEO/MEO channel with Changi LEOLUT (5632).	7f
2244	Maspalomas / EU	Spain	4	Part of European 12-channel MEOLUT.	4, 5f, 7f
2714	Ankara	Türkiye	6		
4706	Abu Dhabi	UAE	6		
2325	Lee-On-Solent	UK	7	One combined MEO/LEO antenna. Two additional antennas installed at Kinloss (UK) for D&E if needed.	
3385	Hawaii	USA	12	6 MEO, and 6 LEO/MEO channels - 2 in HI, - 2 in AK - 2 in GU	4, 5, 7, 8
3669	Florida	USA	9		4, 5, 7, 8
3683	NSOF	USA	8	Backup of MEOLUT 3669.	4, 5, 7, 8

Notes: TBD To be determined.

- (a) Number to be confirmed.
- (b) Additional information on “MEOLUT Configuration” is available in a dedicated table at <https://www.cospas-sarsat.int/en/system/meosar-system-status/meolut-configuration>, where:
  - the following information is provided to indicate:
    - (1) whether the MEOLUT has networking capability with external MEOLUT(s),
    - (2) the networked MEOLUT IDs if applicable,
    - (3) the MEO-GEO processing capability of the MEOLUT;
  - the following status information has been provided by nodal MCCs when:
    - (4) the MEOLUT meets the DOA Location Accuracy and EHE requirements per document C/S T.019,
    - (5) the MEOLUT meets the Processing Anomaly Rate requirement per document C/S T.019,
    - (6) the MEOLUT meets the Fast-Moving Beacon DOA Location Accuracy requirement per document C/S T.019 (when defined);
  - the following status information is provided from the EWG/JC formal recommendation when:
    - (7) the MEOLUT is commissioned for ELT(DT) capability,
    - (8) the MEOLUT is commissioned for SGB capability (including SGB ELT(DT));
  - the following status information is provided from the EWG/JC formal recommendation when:
    - (f) the associated MEOLUT capability is commissioned for FGB only,
    - (s) the associated MEOLUT capability is commissioned for SGB only (does not apply to 8).

**Table 8: Mission Control Centre Status (31 December 2024)**

<b>Code</b>	<b>MCC</b>	<b>Location</b>	<b>Provider</b>	<b>DDR</b>	<b>Status in Operation</b>	<b>Comments</b>
4700	AEMCC	Abu Dhabi	UAE	SCDDR	<b>LGM FOC</b>	
6050	ALMCC	Algiers	Algeria	SCDDR	<b>LGM FOC</b>	
7010	ARMCC	El Palomar	Argentina	WDDR	BU/FOC	Backed up by CHMCC.
6010	ASMCC	Cape Town	South Africa	SWPDDR	<b>FOC</b>	
5030	AUMCC	Canberra	Australia	SWPDDR	<b>LGM FOC</b>	
7100	BRMCC	Brasilia	Brazil	WDDR	<b>FOC</b>	
7250	CHMCC	Santiago	Chile	WDDR	<b>LGM FOC</b>	
2730	CMC	Moscow	Russia	EDDR	<b>LGM FOC</b>	
3160	CMCC	Trenton	Canada	WDDR	<b>FOC</b>	
4120	CNMCC	Beijing	China	NWPDDR	<b>LGM FOC</b>	
2090	CYMMC	Larnaca	Cyprus	CDDR	<b>LGM FOC</b>	
2270	FMCC	Toulouse	France	CDDR	<b>LGM FOC</b>	
2400	GRMCC	Athens	Greece	CDDR	<b>LGM FOC</b>	
4770	HKMCC	Hong Kong	Hong Kong China	NWPDDR	<b>FOC</b>	
5250	IDMCC	Jakarta	Indonesia	SWPDDR	<b>LGM IOC</b>	IOC since Aug-24.
4190	INMCC	Bangalore	India	EDDR	<b>FOC</b>	
2470	ITMCC	Bari	Italy	CDDR	<b>LGM FOC</b>	No associated MEOLUT.
4310	JAMCC	Gunma	Japan	NWPDDR	<b>LGM FOC</b>	
4400	KOMCC	Incheon	Korea (Rep. of)	NWPDDR	<b>LGM FOC</b>	
5330	MYMCC	Kuantan	Malaysia	SWPDDR	<b>UD</b>	
6570	NIMCC	Abuja	Nigeria	SCDDR	<b>CNO</b>	Configured as a SPOC of the SPMCC.
2570	NMCC	Bodo	Norway	CDDR	<b>LGM FOC</b>	
4630	PAMCC	Karachi	Pakistan	EDDR	<b>FOC</b>	
7600	PEMCC	Callao	Peru	WDDR	<b>FOC</b>	
4660	QAMCC	Doha	Qatar	SCDDR	<b>LGM FOC</b>	No associated MEOLUT.
4030	SAMCC	Jeddah	Saudi Arabia	SCDDR	<b>LGM FOC</b>	
5630	SIMCC	Singapore	Singapore	SWPDDR	<b>LGM FOC</b>	
2240	SPMCC	Maspalomas	Spain	SCDDR	<b>LGM FOC</b>	
4160	TAMCC	Chinese Taipei	ITDC	NWPDDR	<b>LGM FOC</b>	
6710	TGMCC	Lomé	Togo	SCDDR	<b>UD</b>	
5670	THMCC	Bangkok	Thailand	SWPDDR	<b>FOC</b>	
2710	TRMCC	Ankara	Turkey	CDDR	<b>LGM FOC</b>	
2320	UKMCC	Fareham	United Kingdom	CDDR	<b>LGM FOC</b>	
3660	USMCC	Suitland	USA	WDDR	<b>LGM FOC</b>	
5740	VNMCC	Haiphong	Viet Nam	NWPDDR	<b>FOC</b>	

Notes: BU Backed Up,  
 FOC Full Operational Capability,  
 LGM LEOSAR, GEOSAR, MEOSAR-capable,  
 CNO Commissioned, Not Operational,  
 IOC Initial Operational Capability,  
 UD Under Development.

## 6 BEACONS

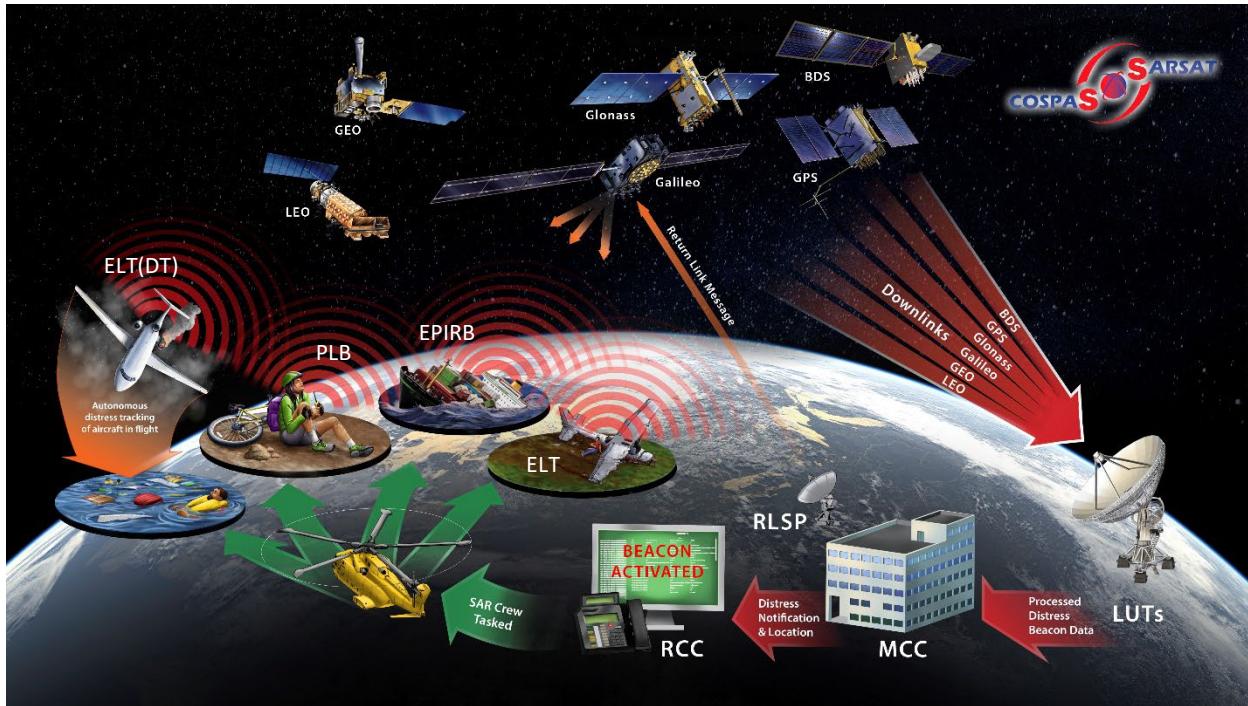
The registered 406-MHz beacon population reported by the Administrations at the end of 2023 was about 2,390,000 devices.

The estimated 2023 global 406-MHz beacon population computed using the registration-rate method was about 3,170,000 units.

The estimated 2023 global 406-MHz beacon population computed using the results of the beacon-manufacturer survey was about 2,190,000 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](http://www.cospas-sarsat.int).

## 7 COSPAS-SARSAT SYSTEM OVERVIEW



**Figure 8: Overview of the Cospas-Sarsat System**

Legend:

COSPAS: Space system for the search of vessels in distress,  
SARSAT: Search and rescue satellite-aided tracking system,  
ELT: Emergency Locator Transmitter, in-flight Distress  
Tracking,  
ELT(DT): Emergency Locator Transmitter for Distress  
Tracking  
EPIRB: Emergency Position-Indicating Radio Beacon,  
GEO: Geostationary satellite system,

LEO: Low Earth Orbit satellite system,  
LUT: Local User Terminal,  
MCC: Mission Control Centre,  
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>.



Published by the  
**Secretariat of the International Cospas-Sarsat Programme**  
1250 Boulevard René Levesque, Suite 4215, Montréal (Québec), H3B 4W8 Canada  
Telephone: +1 514 500 7999 / Fax: +1 514 500 7996  
Email: [mail@cospas-sarsat.int](mailto:mail@cospas-sarsat.int) / Website: [www.cospas-sarsat.int](http://www.cospas-sarsat.int)