

2009 Beacon Manufacturers' Workshop
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Cospas-Sarsat Update and Beacon Activities

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Source: CNES - D. Duross

Cospas-Sarsat Update and Beacon Activities

- International Cospas-Sarsat Programme
- Space Segment status
- 2008 Saves (preliminary)
- MEOSAR System and status
- MEOSAR Return Link Service
- Beacon Type Approval Activities
- International Beacon Registration Database
- Results of the Beacon Manufacturers Survey (2008)
- Beacon Production Status



Cospas-Sarsat Mission and Objective



- Mission:** To provide accurate, timely and reliable distress alert and location data to help SAR authorities assist persons in distress.
- Objective:** To reduce, as far as possible, delays in the provision of distress alerts to SAR and the time to locate a distress and provide assistance.
- Strategy:** To implement, maintain, co-ordinate and operate a satellite system capable of detecting transmissions from radio-beacons that comply with C/S specifications.



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Cospas-Sarsat Participating Countries



- 4 Parties
- 25 Ground Segment Providers
- 9 User States
- 2 Organisations



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Cospas-Sarsat Participating Countries Statistics



Cospas-Sarsat Participating Countries

- 60% of global land mass
- 71% of worldwide population
- 84% of overall wealth



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Cospas-Sarsat System Combined LEO / GEO Operations



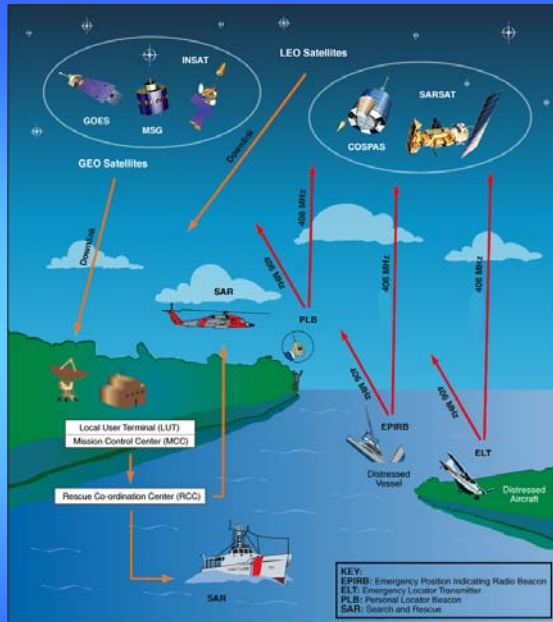
- LEOSAR: Sarsat (NOAA, MetOp) and Cospas (Sterkh)
- GEOSAR: GOES (USA), INSAT (India), MSG (EUMETSAT)



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Cospas-Sarsat System 406 MHz only

(121.5/243 MHz satellite processing terminated as of Feb 1 2009)



COSPAS SARSAT

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Cospas-Sarsat LEOSAR Space Segment

LEOSAR Space Segment Instrument Status

Satellite	L-band Downlink	406 MHz SARR		406 MHz SARP Status				Comments
		Status	Gain Control	Global Mode	Local Mode	Band-width	Pseudo Mode	
Sarsat-7	F	F	AGC	F	F	40 kHz	Disabled	
Sarsat-8	F	F	AGC	F	F	40 kHz	Disabled	
Sarsat-9	F	F	AGC	F	F	40 kHz	Disabled	
Sarsat-10	F	F	AGC	F	F	40 kHz	Disabled	
Sarsat-11	F	F	AGC	F	F	40 kHz	Disabled	SARP-3 instrument has an intermittent software issue that causes a memory reset approximately every 10 days
Sarsat-12	Under test	Under test	Under test	Tested	Under test	Under test	TBD	Under commissioning

LEOSAR Future Space Segment

Cospas-Sarsat Payload	Spacecraft	Launch Date	Status
Cospas-11	Sterkh-1	Projected 2009	ready for launch
Cospas-12	Sterkh-2	Projected 2009	Integration phase
Cospas-13	Sterkh-3	Projected 2012	-
Cospas-14	Sterkh-4	Projected 2014	-
Sarsat-13	METOP-B	Projected 2011	-
Sarsat-14	NPOESS-C1	Projected 2013	-
Sarsat-15	NPOESS-C2	Projected 2016	-

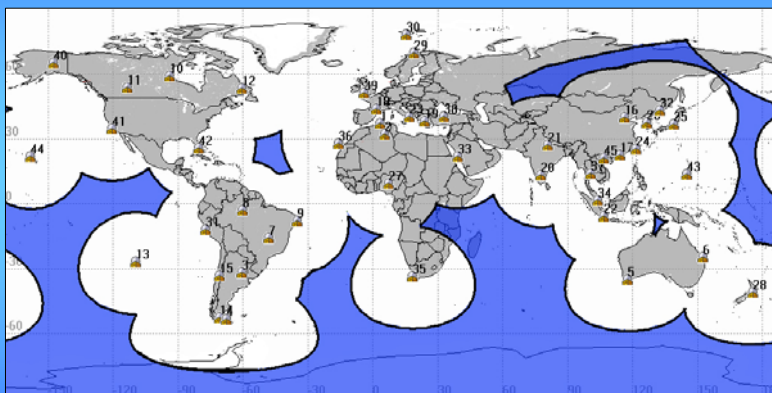
COSPAS SARSAT

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Cospas-Sarsat

LEOLUT Visibility Areas (February 2009)

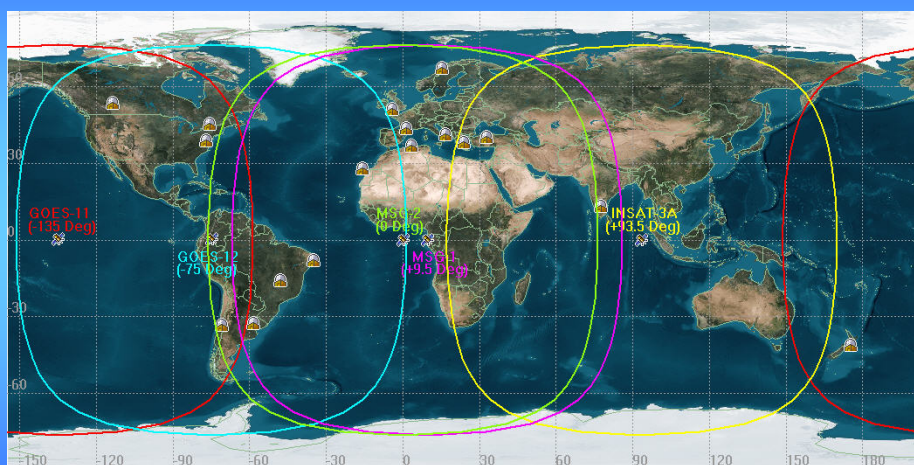
45 LEOLUTs in 30 countries



Blue = 406 MHz SARP only

Cospas-Sarsat

GEOSAR Coverage (March 2009)



Cospas-Sarsat GEOSAR Space Segment

- GEOSAR Spacecraft Availability

Spacecraft	Launch Date	Position	Status
GOES-10	April 1997	60° W	In-orbit spare
GOES-West	May 2000	135° W	In operation (GOES-11)
GOES-East	July 2001	75° W	In operation (GOES-12)
GOES-13	May 2006	105° W	In-orbit spare
INSAT-3A	April 2003	93.5° E	In operation
MSG-1	August 2002	9.5° W	In operation
MSG-2	December 2005	0°	In operation

GEOSAR Future Space Segment

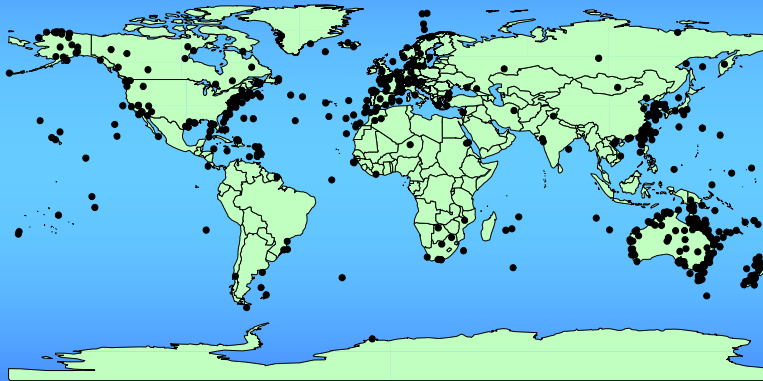
GOES-14	2009	T.B.D.	Projected
GOEG-15	2009	T.B.D.	Projected
GOES-16	2012	T.B.D.	Projected
GOES-17	2014	T.B.D.	Projected
INSAT-3D	2009	83.5° E	Projected
MSG-3	2011	T.B.D.	Projected
MSG-4	2013	T.B.D.	Projected
Electro-L No.1	2009	76° E	Projected
Luch-M-5	2011	95° E	Projected
Electro-L No.2	2011	T.B.D.	Projected

Notes: T.B.D. To be determined.



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Cospas-Sarsat 2008 - Alert Locations (preliminary)



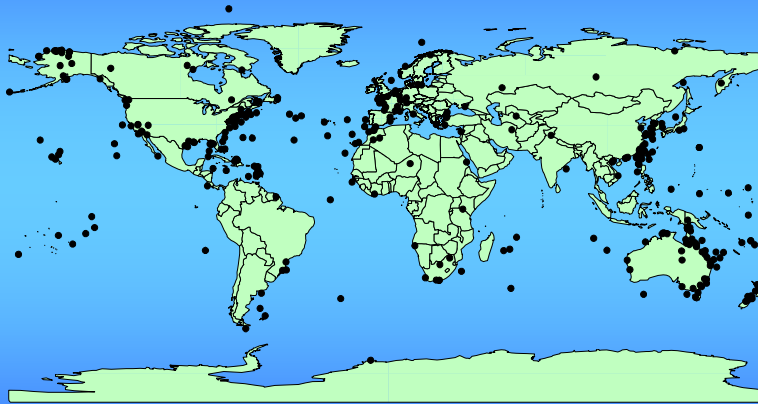
SAR Events: 508 (+12.4% from 2006)
P. Rescued: 1,984 (+5.5% from 2006)



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Cospas-Sarsat

2008 – 406 MHz Alert Locations (preliminary)



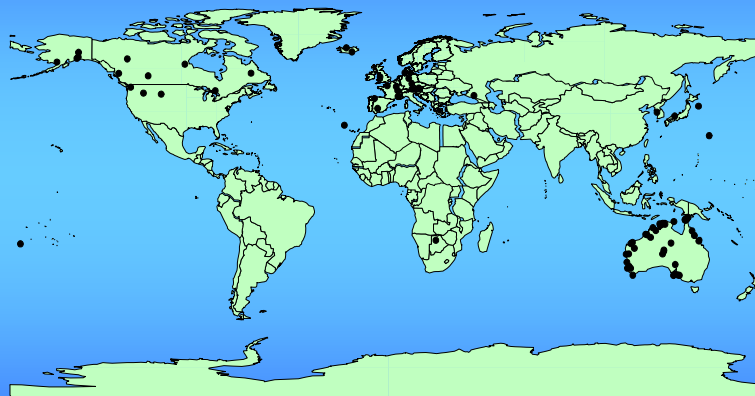
SAR Events: 372 (73% of total)
P. Rescued: 1,517 (83% of total)



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Cospas-Sarsat

2008 - 121.5 MHz Alert Locations (preliminary)



SAR Events: 136 (-21.4% from 2006)
Rescued: 364 (-8.2% from 2006)



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