



# NOAA Report



# NOAA-SARSAT Status



## Status of Operational Spacecraft

|               |                                                                                                                 |
|---------------|-----------------------------------------------------------------------------------------------------------------|
| S7 (NOAA-15)  | FOC                                                                                                             |
| S8 (NOAA-16)  | FOC                                                                                                             |
| S9 (NOAA-17)  | FOC                                                                                                             |
| S10 (NOAA-18) | FOC                                                                                                             |
| S11 (MetOp A) | FOC (The SARP-3 instrument has an intermittent software issue which causes a memory reset about every 10 days.) |
| S12 (NOAA-19) | FOC (launched February 6, 2009 from Vandenberg)                                                                 |

- GOES-10: Positioned at 60W to support Brazil
- GOES-11 (West): Positioned at 135W and operating as GOES-West.  
Due to spacecraft battery issues, SARR is turned off for two hours each day during the solar eclipse seasons (MAR/APR & again in SEP/OCT).
- GOES-12 (East): Positioned at 75W and operating as GOES-East.
- GOES-13: Positioned at 105W with SARR payloads turned-on to support GOES-11 during solar eclipse periods.

# NOAA-SARSAT Status



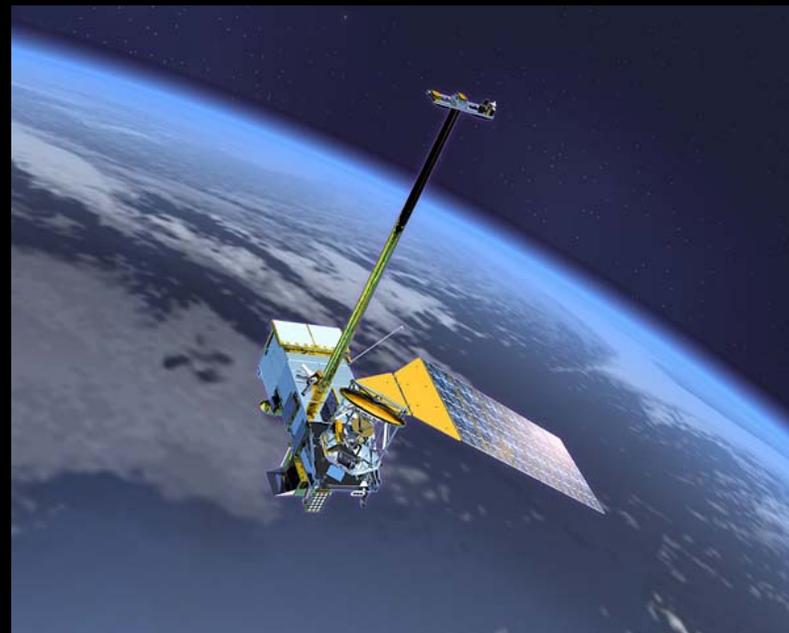
## Future SARSAT spacecraft launches (approx.)

### LEOSAR

|            |          |
|------------|----------|
| MetOp B:   | Jan 2011 |
| NPOESS C1: | 2014     |
| NPOESS C2: | 2016     |

### GEOSAR

|         |             |
|---------|-------------|
| GOES-O: | Summer 2009 |
| GOES-P: | Oct 2009    |
| GOES R: | Sep 2012    |



NPOESS

# NOAA-SARSAT Status



## Status of Ground Segment

### LEOLUTs

AK 1 & 2 (NOAA CDA Station - Fairbanks, Alaska) - operational

CA 1 & 2 (Vandenberg AFB, California) - operational

FL 1 & 2 (USCG Commsta Miami, Florida) - operational

GU 1 & 2 (Anderson AFB, Guam) - operational

HI 1 & 2 (USCG Commsta, Wahiawa, Hawaii) - operational

LSE (NSOF – Suitland, Maryland)

### GEOLUT

MD 1 & 2 (NSOF – Suitland, Maryland) – operational

GSE (NSOF – Suitland, Maryland)

### MEOLUT

NOAA began development activities in 2008 for a MEOLUT capability to be installed in Hawaii

# NOAA-SARSAT Status



## Status of U.S. Mission Control Center

USMCC system availability: 99.998% available for 2008 (0.2 hours downtime)  
100.0% available for 1Q09



# NOAA-SARSAT Status



## Status of U.S. Mission Control Center (USMCC)

USMCC moved its backup location to NOAA Satellite Wallops Island, VA facility in 2008



# NOAA-SARSAT Status



## Status of U.S. Mission Control Center

Number of 406 MHz beacon activations reported to RCCs/SPOCs within the USMCC service area

| Alert Classifications                            | EPIRB <sup>1</sup> | ELT <sup>1</sup> | PLB <sup>1</sup> | Sub-Total | Total |
|--------------------------------------------------|--------------------|------------------|------------------|-----------|-------|
| Distress alerts                                  | 109                | 15               | 43               |           | 167   |
| False alerts                                     |                    |                  |                  |           | 1220  |
| Unfiltered processing anomalies                  |                    |                  |                  | 0         |       |
| Operational false alerts<br>(beacon activations) |                    |                  |                  |           |       |
| Beacon mishandling <sup>2</sup>                  | 194                | 261              | 32               | 487       |       |
| Beacon malfunction <sup>2</sup>                  | 73                 | 38               | 4                | 115       |       |
| Mounting failure <sup>2</sup>                    | 85                 | 5                | 1                | 91        |       |
| Environmental conditions <sup>2</sup>            | 58                 | 6                | 0                | 64        |       |
| Unknown <sup>2</sup>                             | 244                | 200              | 19               | 463       |       |
| Undetermined                                     | 681                | 406              | 32               |           | 1119  |
| Total                                            | 1444               | 931              | 131              |           | 2506  |

# NOAA-SARSAT Status



## Status of U.S. Mission Control Center

Number of 121.5/243 MHz beacon activations reported to RCCs/SPOCs within the USMCC service area

| Alert Classifications                            | EPIRB <sup>1</sup> | ELT <sup>1</sup> | PLB <sup>1</sup> | Sub-Total | Total |
|--------------------------------------------------|--------------------|------------------|------------------|-----------|-------|
| Distress alerts                                  | 151                | 14               | 0                |           | 165   |
| False alerts                                     |                    |                  |                  |           | 1771  |
| Unfiltered processing anomalies                  |                    |                  |                  | 0         |       |
| Interference                                     |                    |                  |                  | 0         |       |
| Operational false alerts<br>(beacon activations) |                    |                  |                  |           |       |
| Beacon mishandling <sup>2</sup>                  | 423                | 52               | 0                | 475       |       |
| Beacon malfunction <sup>2</sup>                  | 105                | 2                | 0                | 107       |       |
| Mounting failure <sup>2</sup>                    | 9                  | 0                | 0                | 9         |       |
| Environmental conditions <sup>2</sup>            | 46                 | 1                | 0                | 47        |       |
| Unknown <sup>2</sup>                             |                    |                  |                  |           |       |
| Undetermined                                     |                    |                  |                  |           | 3935  |
| Total                                            | 5726               | 144              | 1                |           | 5871  |

# SARSAT Saves



In 2008 a total of **282** lives were rescued in the U.S. SRR as a result of the Cospas-Sarsat System:

- 200 lives rescued via EPIRBs
- 14 lives rescued via ELTs
- 68 lives rescued via PLB

Continues the recent upward trend in the number of lives saved:

2007: 353

2006: 272

2005: 222

2004: 260

2003: 224

2002: 171

2001: 166



## 2008 Breakdown by State (Top 3):

Alaska – 49 lives rescued in 25 cases

New Jersey – 18 lives rescued in 5 cases

Florida – 15 lives rescued in 7 cases

# SARSAT Saves



## Rescues in the US SRR:

As of May 1, 2009

**Total: 52 lives saved in 39 events**

**EPIRB – 41 lives saved in 28 events**

**ELT – 1 lives saved in 1 events**

**PLB – 10 lives saved in 10 events**

***There were 117 people rescued  
at this time last year.***



**6,091 people have been rescued in the United States since 1982**

# 406 MHz Beacon Population



Registered Beacons in the  
U.S. Beacon Registration Database (RGDB)...

*...to be provided by Mr. Apurve Mathur*

## U.S. Beacon Population Forecast

| Year         | 2010    |           | 2015    |           |
|--------------|---------|-----------|---------|-----------|
|              | 406 MHz | 121.5 MHz | 406 MHz | 121.5 MHz |
| ELTs         | 57,000  | 298,000   | 108,000 | 259,000   |
| EPIRBs       | 182,000 | 5,000     | 222,000 | 1500      |
| PLBs         | 80,000  | 0         | 125,000 | 0         |
| SSAS beacons | 500     |           | 1000    |           |

# 121.5/243 MHz Termination



121.5 MHz Satellite Processing  
Terminates February 1, 2009



*Get the Fix...  
Switch to 406*



[www.sarsat.noaa.gov](http://www.sarsat.noaa.gov)

Termination of  
satellite listening  
on 121.5/243 MHz  
occurred  
February 1<sup>st</sup> of  
this year

## Questions and Contact Information



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