

EMSA operational activities and CleanSeaNet

CleanSeaNet Info Day, Croatia
8 September 2008

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Department C

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Origin of EMSA

December 12, 1999
The "ERIKA" sinks off the
Coast of Brittany

The European Commission
reinforces existing Maritime
Legislation.

The ERIKA I & II packages



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Objectives of EMSA

Within the fields of maritime safety, pollution prevention from ships and ship security, EMSA has the following main operational objectives:

- To ensure the proper implementation of EU maritime legislation
- To foster technical cooperation and development and disseminate best practice
- To provide technical advice to the Commission and Member States
- To provide operational capabilities, in particular to top up Member State's capabilities for oil pollution response

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EMSA – Departments

Department A Corporate Services

- A.1 Human Resources and communication
- A.2 Legal and Financial
- A.3 Operations support

Department B Implementation

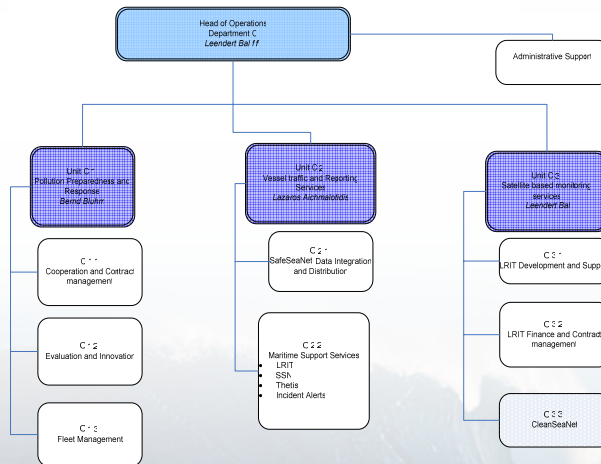
- B.1 Safety assessment and Inspections
- B.2 Ship safety
- B.3 Marine Environment and Statistics

Department C Operations

- C.1 Pollution and preparedness response
- C.2 Vessel traffic and reporting services
- C.3 Satellite based monitoring services

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Department C - Operations



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C.1: Setting-up and operating a Network of stand-by Oil Recovery Vessels:

- Vessel to undertake normal commercial service
- At request of a Member State, rapidly transformed and mobilised at short notice for at-sea oil recovery services
- "TOP-UP" pollution response capabilities of Member States
- under "Operational Control" of the affected Member State

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Vessels - Mediterranean: Mistra Bay

Storage Capacity:

1,805 m³

Speed:

12 knots

Heating:

2,326 kW

Bow Thruster:

185 kW

Pumping Rate:

3 x 360 m³/h+
+ 1 spare 125m³/h



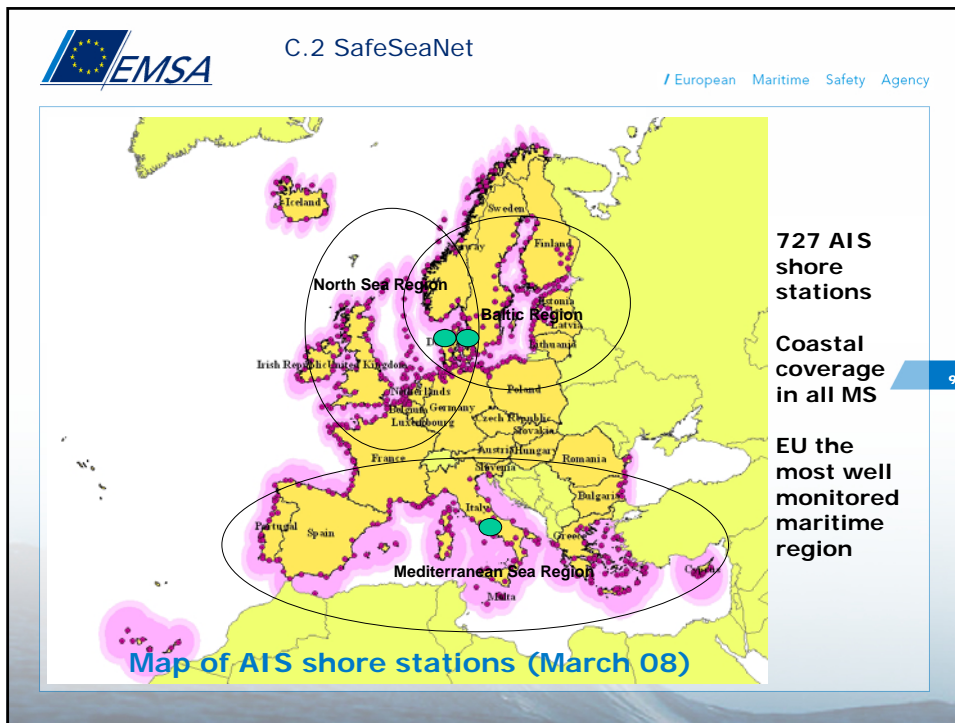
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C.2. Setting-up and operating a European traffic monitoring system: SafeSeaNet

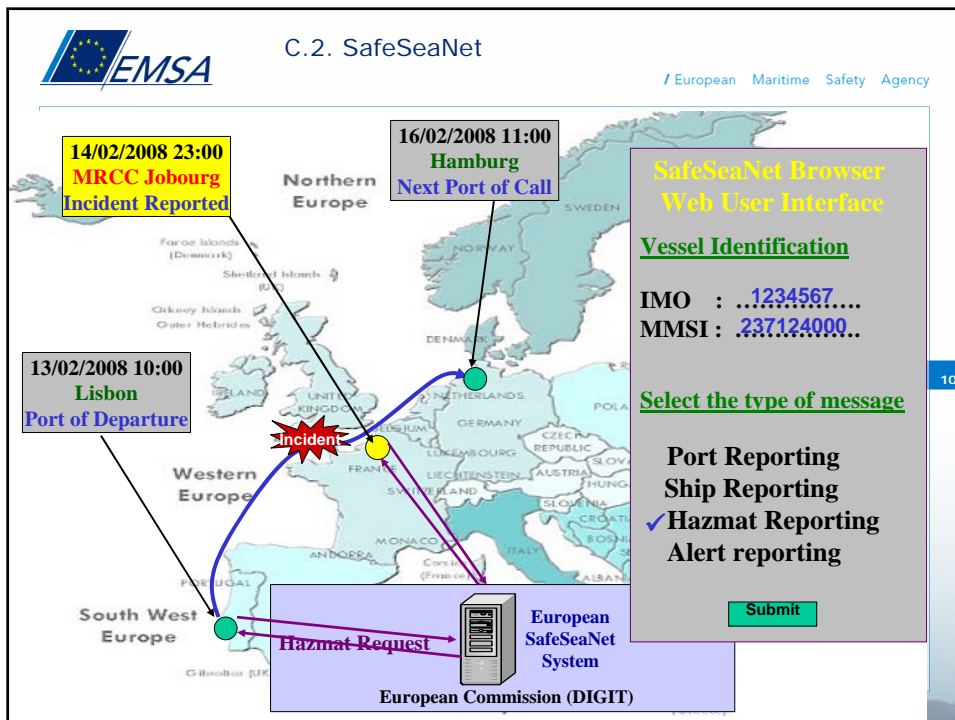
- Ground network of European shore-based AIS stations receiving automatic radio messages from ships (on board AIS) and Maritime Reporting Systems (MRS)
- Port and HAZMAT notifications
- Information about incidents or accidents



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LRIT (Long Range Identification and Tracking) EU LRIT main characteristics

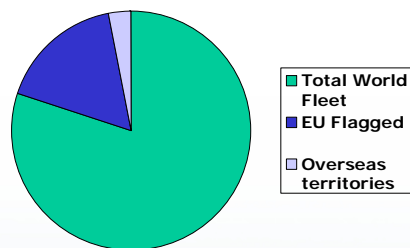
- Worldwide system put in place by the International Maritime Organisation (IMO)
- LRIT should provide information on:
 - Positions of EU flag ships worldwide and on
 - Non-EU flagged ships coming to Europe (1.000 nm)
- Positions every 6 hours, but scalable: remotely upgraded up to every 15 minutes
- Complementary to “coastal” AIS information
- Combined with SafeSeaNet

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Significance of EU

- **EU flagged ships** =
Approximately 9,500 vessels*
- **Overseas territories** =
approximately 1,800 vessels

* only vessels engaged in international voyages, preliminary conservative estimations



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EU LRIT DC to cover about 20-25 % of world's fleet

How does LRIT work?



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C.3 CleanSeaNet: Legal basis

Mandated by Directive 2005/35/EC of 7 September 2005 on
Ship-source pollution and on the introduction
of penalties for infringements
(entered into force on 1 March 2007)

Article 10

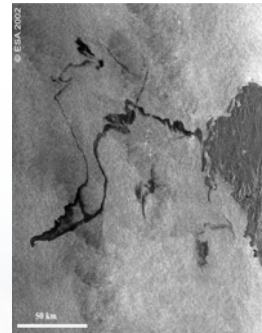
Accompanying measures

2. In accordance with its tasks as defined in Regulation (EC) No 1406/2002, the European Maritime Safety Agency shall:
 - (a) work with the Member States in developing technical solutions and providing technical assistance in relation to the implementation of this Directive, in actions such as tracing discharges by satellite monitoring and surveillance;
 - (b) assist the Commission in the implementation of this Directive, including, if appropriate, by means of visits to the Member States, in accordance with Article 3 of Regulation (EC) No 1406/2002.

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CleanSeaNet: benefits of an European approach

- Sustainability
- Cost Sharing
 - Reduced price for a large amount of images
- Co-Operation
 - Mutual benefits for coastal states
 - Sharing of images and aerial surveillance
- European standardised service
 - All European waters
 - comprehensive information
 - easy to compare



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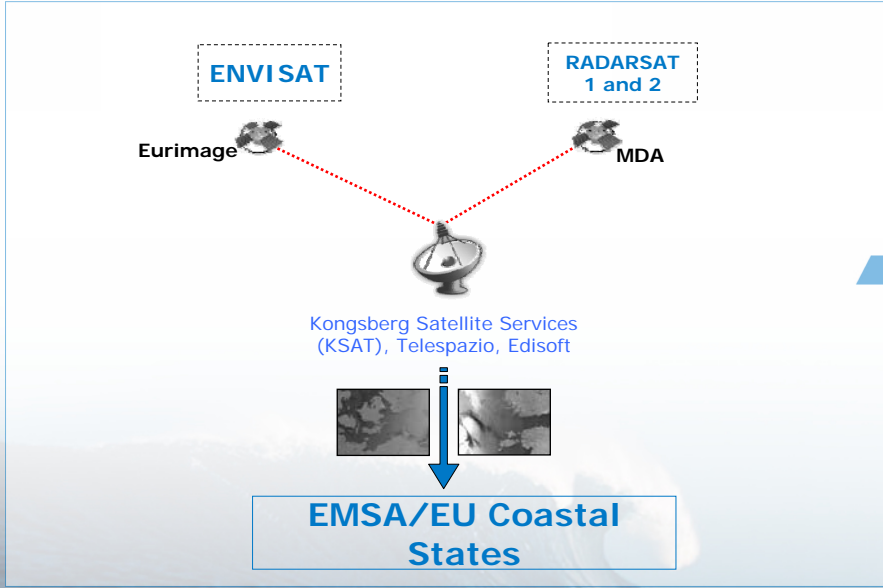
Scope of CleanSeaNet

- European system for detecting oil slicks at sea using satellite surveillance on request of the Commission and all EU and EFTA countries (Iceland and Norway)
- A system that links into the national/regional response chain and strengthens operational pollution surveillance and response for accidental spills:
 - Routine monitoring of European seas for illegal discharges in co-operation with Coastal States,
 - Support in case of an accidental spill,
 - Investigation of pollution 'hot spots' and development of statistics

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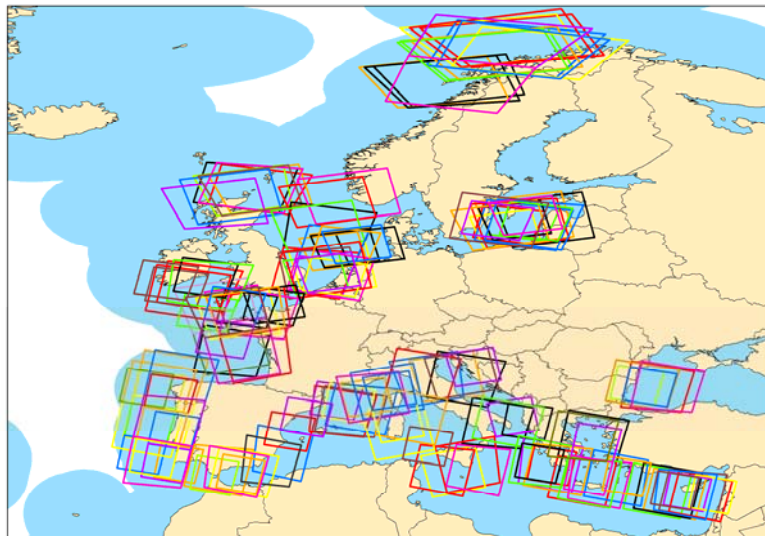
CleanSeaNet: based on 3 contracts

/ European Maritime Safety Agency

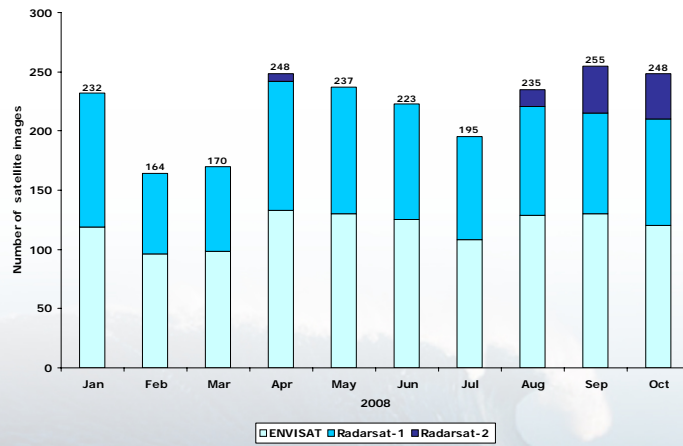


/ European Maritime Safety Agency

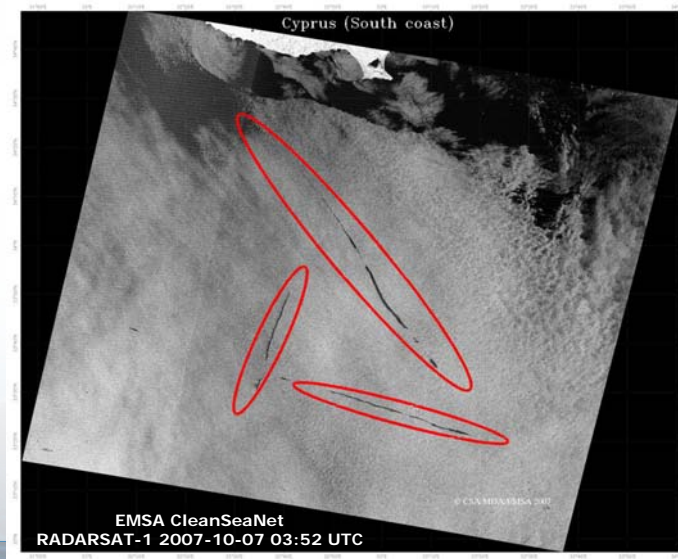
CSN: planned images for one month



CleanSeaNet – Ordered images for 2008



CleanSeaNet Examples

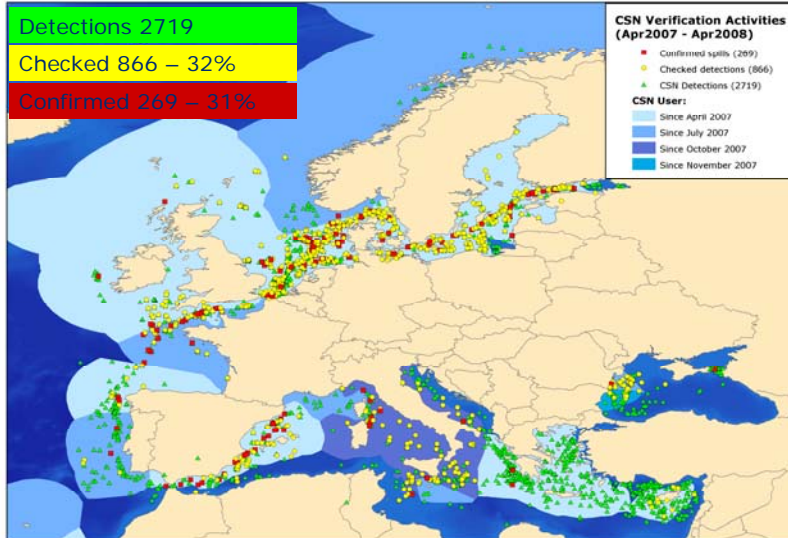


Verified oil spill 10/07/2008, Baltic Sea



Satellite image: © CSA/MDA/EMSA 2008
SEAR image: © Swedish Coast Guard 2008
Photo: © Swedish Coast Guard 2008

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CleanSeaNet Operational Support - emergencies:

EMSA has already been involved in monitoring 5 accidents:
 4 with CleanSeaNet
 1 under the Int.Charter

- Don Pedro, Ibiza
- New Flame, Gibraltar
- Kerch Strait
- Statfjord Platform spill, North Sea/Norway (Charter)
- Ice Princess, Channel

European Maritime Safety Agency | CleanSeaNet Briefing 14/09/2007

CleanSeaNet Briefing: New Flame, Gibraltar

Introduction

Following the head on collision between the double hulled oil tanker *New Flame* (IMO 9208202) and the bulk carrier *Don Pedro* (IMO 9208201) on 27th September 2007, the incident caused damage to the partially submerged hull of the oil tanker, authorities (SARCOM) requested EMSA to assist in monitoring of a possible oil spill from the damaged vessel. Following the first CleanSeaNet briefing (27/09/2007) which included the analysis of two scenes acquired on the 27 and 28 of September, this report focuses on the first set of images acquired and detected by EMSA.

Image Analysis

The following sequence of images was acquired between the 27 and 28 of September from the ENVISAT and RADARSAT satellites. Both low and high resolution images were acquired, as well as several high resolution images of the CleanSeaNet area for monitoring of a possible oil spill from the damaged vessel. Following the first CleanSeaNet briefing (27/09/2007) which included the analysis of two scenes acquired on the 27 and 28 of September, this report focuses on the first set of images acquired and detected by EMSA.

ENVISAT 28 September 2007 Image

In the ENVISAT scene the area of very low wind is clearly visible (in darker patches), as are the expected wave patterns (indicated below).

RADARSAT 28 September 2007 Image

The pattern seen in this RADARSAT scene of alternating bands of rough and smooth sea represent internal waves generated by the interaction between tidal currents and topographic features.

Other Observations

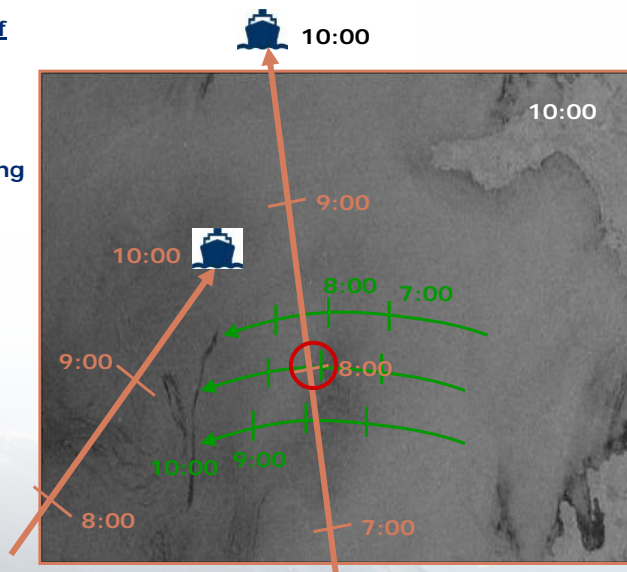
Additional observations on 27/09/2007

#CleanSeaNet / European Maritime Safety Agency | 1/2

CleanSeaNet: future steps

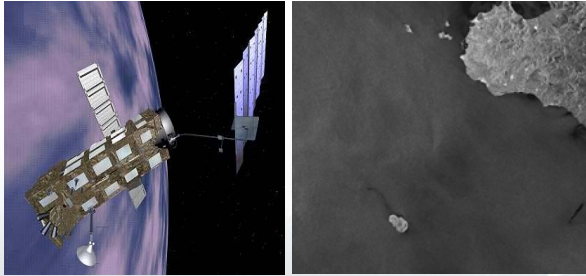
Combination of

- Satellite detection
- Spill drifting
- Vessel tracking



CleanSeaNet
EMSA's satellite oil spill monitoring and detection
service:

<http://cleanseanet.emsa.europa.eu>



First test image CleanSeaNet
c) CSA/MDA/EMSA Radarsat
11/04/2007