

EMSA's Marine Pollution Preparedness & Response and other related services

**REMPEC 10th Focal Points Meeting
3-5 May 2011, Malta**

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Pollution Preparedness and Response**



The European Maritime Safety Agency (EMSA)

Background:

- Post *Erika*
(2002: EMSA established, started in 2003);
- Post *Prestige*
(2004: new Task Marine Pollution Preparedness & Response);
- Multi Annual Funding
(2007 – 2013 with an envelope of 154 Million Euro).

Regulatory Agency of the European Community

- Own legal identity;
- Technical and operational support.



Objectives of EMSA

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

- To ensure the proper implementation of EU maritime legislation by Member States;
- To foster technical cooperation and development and disseminate best practice;
- To provide technical advice to the Commission and Member States;
- To **provide assistance** to top-up Member States' capabilities for **oil pollution response**.

EMSA SOSRV Network was established due to:

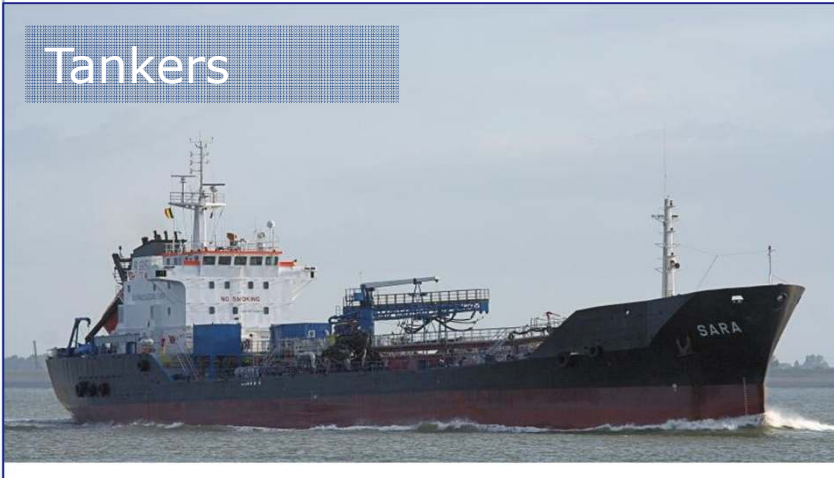
Lessons learnt after the *Prestige* and other significant oil spills, such as:

- Reserve for disaster as European Tier to support the EU Member States is needed;
- Providing suitable means in a cost efficient way via public-private partnership;
- The lack of recovery vessels with large storage capacities and the ability to cope with high viscous oils;
- The lack of predefined Incident Response Contracts with pre-agreed tariffs and conditions.

Framework for the Network of Stand-by Oil Spill Response Vessels

- Action Plan 2004 + Subsequent WPs (Admin. Board)
- 'Top-up' Member States pollution response capacities with 14 contracts (1-2 more to come in 2011)
- 'European Tier' of resources – 'reserve for disasters'
- Mobilisation by EMSA at request of MS, EEA or Candidate States, or European Commission.
Assistance to third countries & EU neighbouring countries through the European Commission.
- Always request channelled through/to "EU Mechanism for Civil Protection" - Monitoring and Information Centre (MIC) in DG ECHO
- Under 'operational control' of the affected Member State

Tankers



Icebreaker



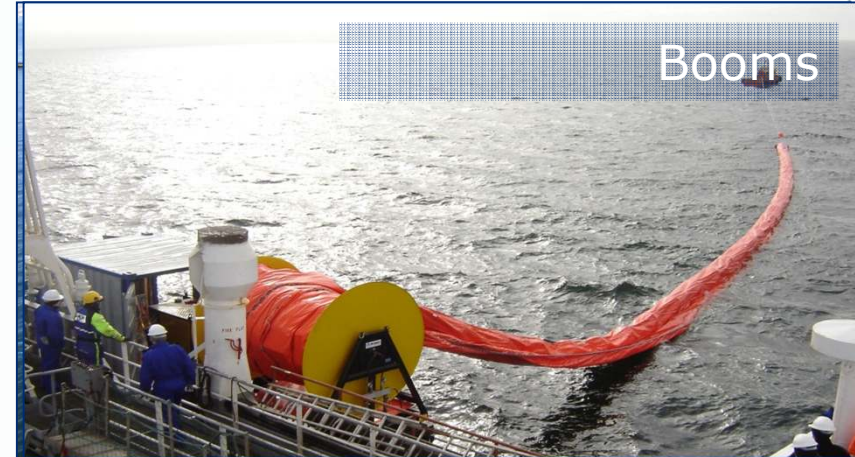
Types of vessels

Supply vessels

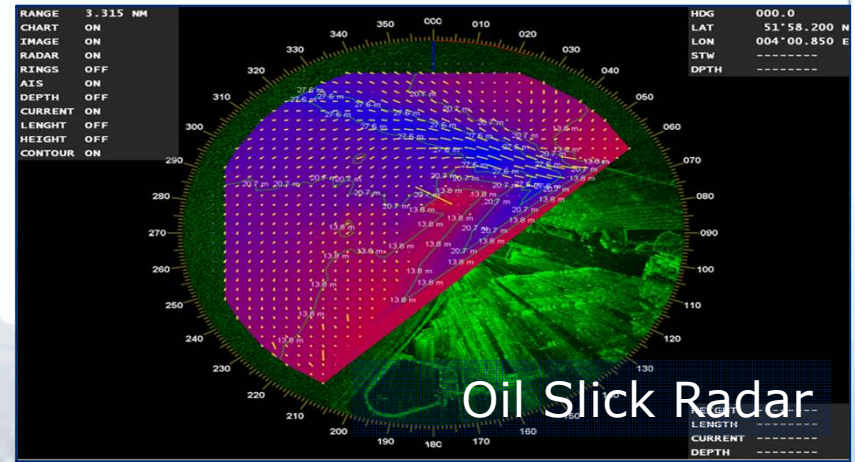


Dredgers





Oil Pollution Response equipment



EMSA Network of Stand-by Oil Spill Response Vessels

Legend

- Equipment Stockpile
- ➔ Response Vessel (fully eq.)
- ➔ Response Vessel (prep. phase)
- EU Member States
- EFTA Coastal Countries
- Candidate Countries

As of May 2011



EMSA Network in the Mediterranean Sea

Name	Type	Area of Economic Operation and Equipment Depot	Tank Capacity (m ³)
Bahia Uno	Product Tanker	Mediterranean West Algeciras, Spain	3800
Salina Bay	Oil Tanker	Mediterranean West La Spezia, Italy	2800
Mistra Bay	Oil Tanker	Mediterranean Central Valletta, Malta	1805
Santa Maria	Oil Tanker	Mediterranean Central Valletta, Malta	2421
Aktea OSRV	Oil Tanker	Mediterranean East Piraeus, Greece	3000
Aegis*	Supply Vessel		950
Alexandria**	Oil Tanker	Mediterranean East Limassol, Cyprus	7458

Note:

* Aegis is a back-up vessel equipped with boom and skimmer systems.

** Alexandria is expected to enter into the Stand-by phase of the Contract in mid 2011.

Once the vessel Alexandria enters into operation the combined net storage capacity for the Mediterranean Sea will reach 22,000 m³

Bahia Uno

Contractor: Mureloil SA



Salina Bay

Contractor: Tankship Management



Santa Maria

Contractor: Falzon Group Holdings



Mistra Bay

Contractor: Tankship Management



Aktea OSRV

**Contractor: Environmental
Protection Engineering**



14

Aegis
(back-up of Aktea)



Alexandria*

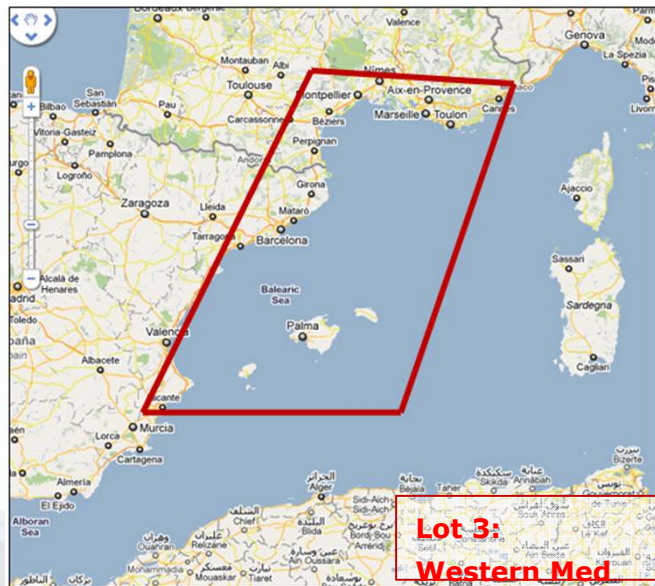
Contractor: Petronav Ship Management



15

*** Alexandria is expected to enter into Stand-by phase of the Contract in mid 2011**

Tender round 2011: Reinforcing the Mediterranean, 2 geographical lots



New Contract



**Replacement of
*Mistra Bay***

EMSA contracted vessels are fully integrated

In 2010 the vessels carried out:

- 59 quarterly drills and acceptance tests;
- 14 multinational exercises with EU Member States.

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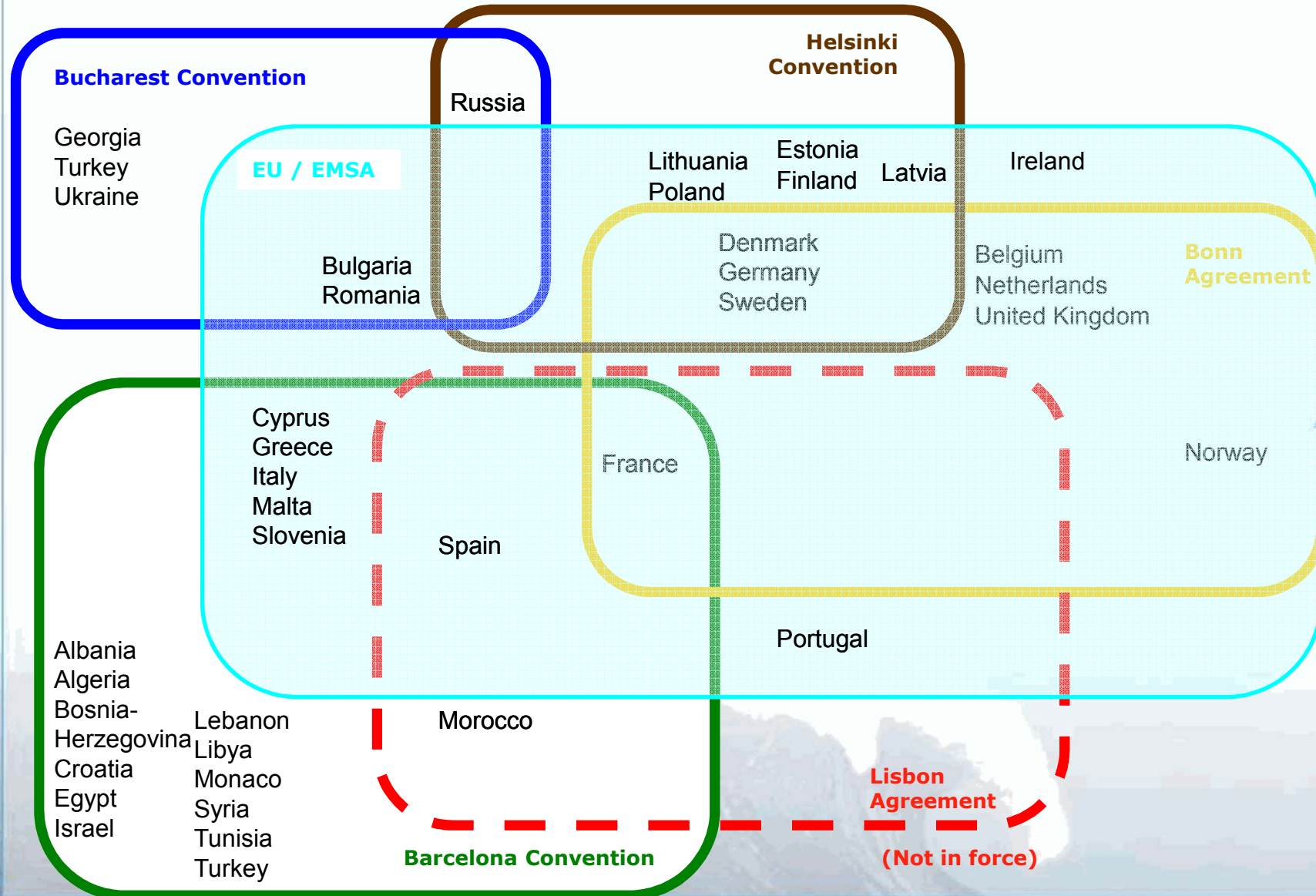
In 2011 it is expected that the vessels will conduct:

- 62 quarterly drills and acceptance tests;
- 12 multinational exercises with EU Member States.



EMSA Co-operation with MS/RA

EUROPEAN MARITIME SAFETY AGENCY
QUALITY SHIPPING, SAFER SEAS, CLEANER OCEANS



International Exercises with MS/RA



**NETHERLANDS
2010**



MALTA 2008

CleanSeaNet Services

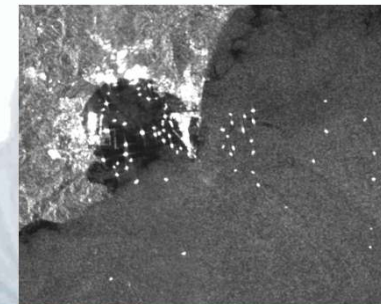
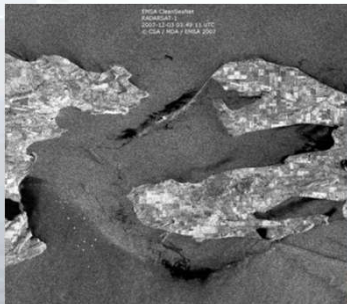
EMSA provides support in the case of oil spill emergency upon request of:

- National Maritime Administrations
- Monitoring and Information Centre (MIC) in DG ECHO

Satellite images are provided via:

- CleanSeaNet emergency ordering
- International Charter for Space and Major Disasters

In case the Charter is activated by the MIC, EMSA acts as Project Manager co-ordinating the provision of satellite images to National Administrations



Near Real Time Service

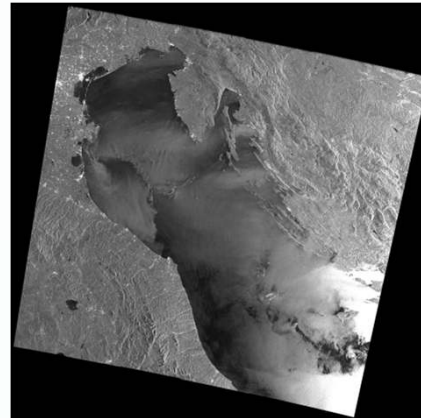
Emergency planning

12 hours before acquisition



Acquisition and Processing

T0 = End of scene acquisition



Oil Spill Analysis

Phone and email alert

Oil Service Report

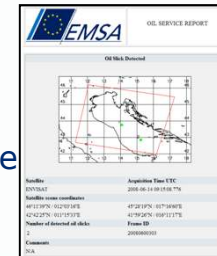
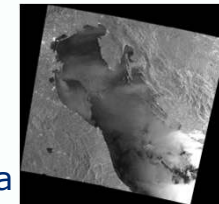


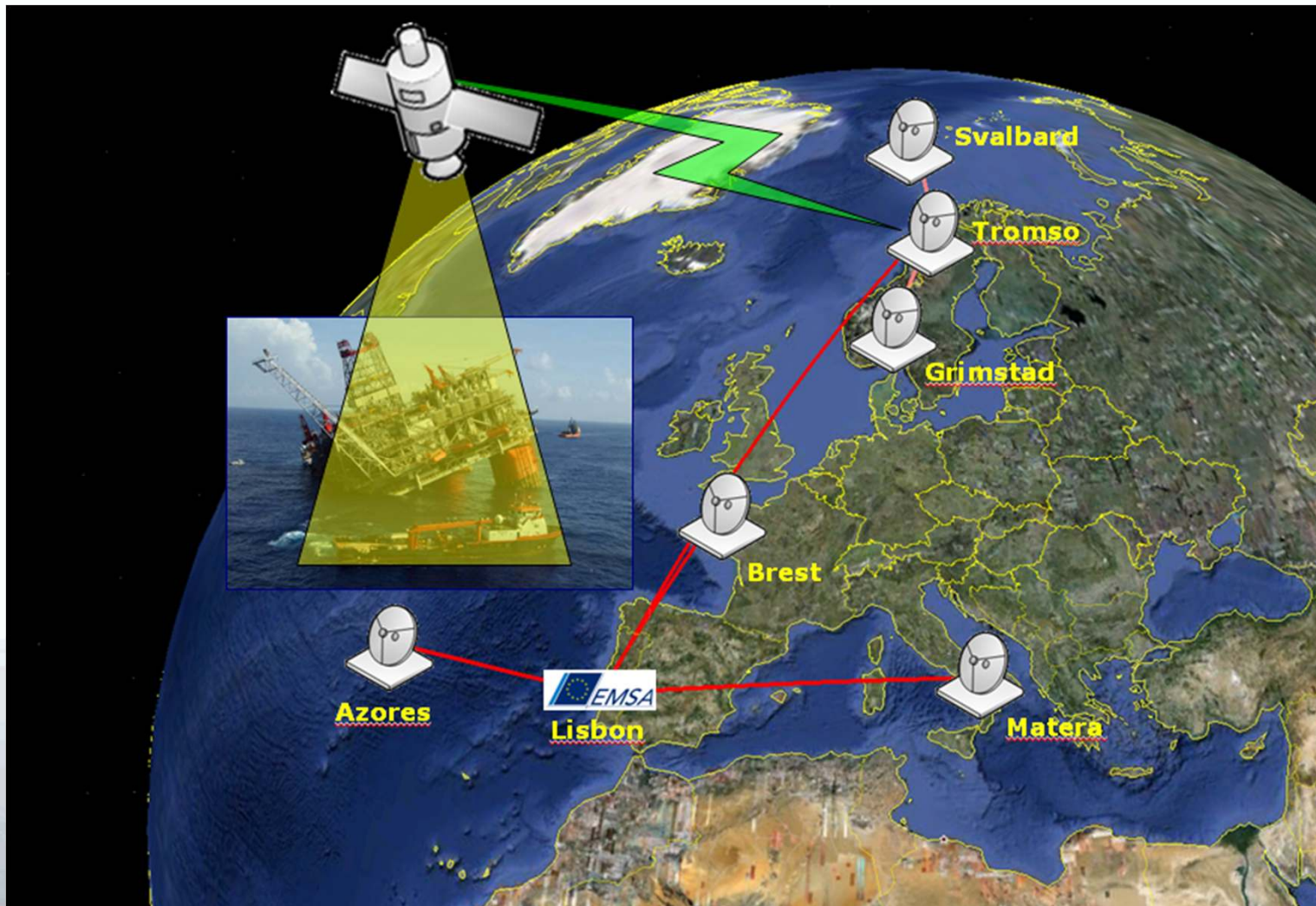
Image (LR, HR)
Ancillary data



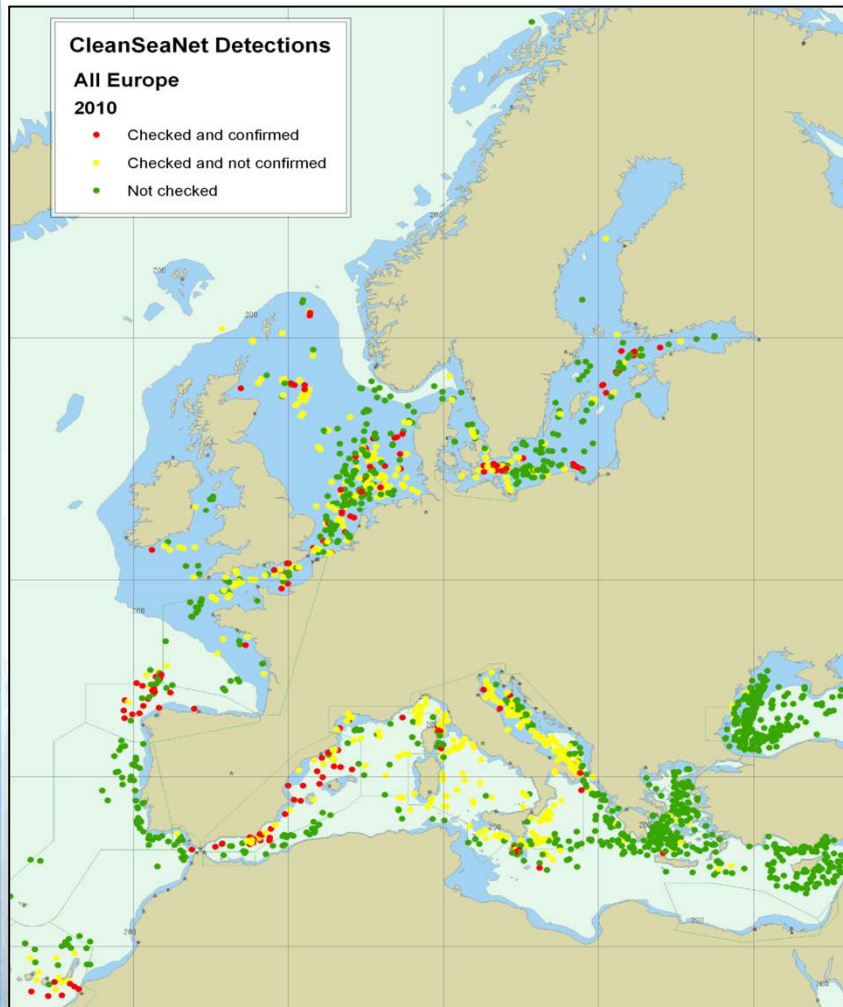
Alert & Product Delivery (Web Browser, EMSA)

T = T0 + 30 min

CleanSeaNet Network



CleanSeaNet deliveries in 2010



- 2366 images processed and analysed;
- 1686 potential oil spill identified, of which:
 - 129 have been checked within 3 hours;
 - 61 have been confirmed as oil spills;
- **the nominal rate of confirmation is 49%**

Products delivered by CleanSeaNet 2nd Generation fully operational in 2011

- Satellite images and image metadata such as acquisition date, geographic coordinates, etc...
- **Oil spill identification** - alert report
- **Vessel detection information**
- Modeling data
 - ✓ **Forward modeling (response operations)**
 - ✓ **Backward modeling (for polluter identification)**
- Electronic Nautical Charts
- AIS information via EMSA SafeSeaNet service
- Associated ancillary data:
 - ✓ meteorological wind and wave data
 - ✓ SAR derived wind and swell data
- Other ancillary data from external providers

Maritime Data Integration(2010), PIRASAT demo

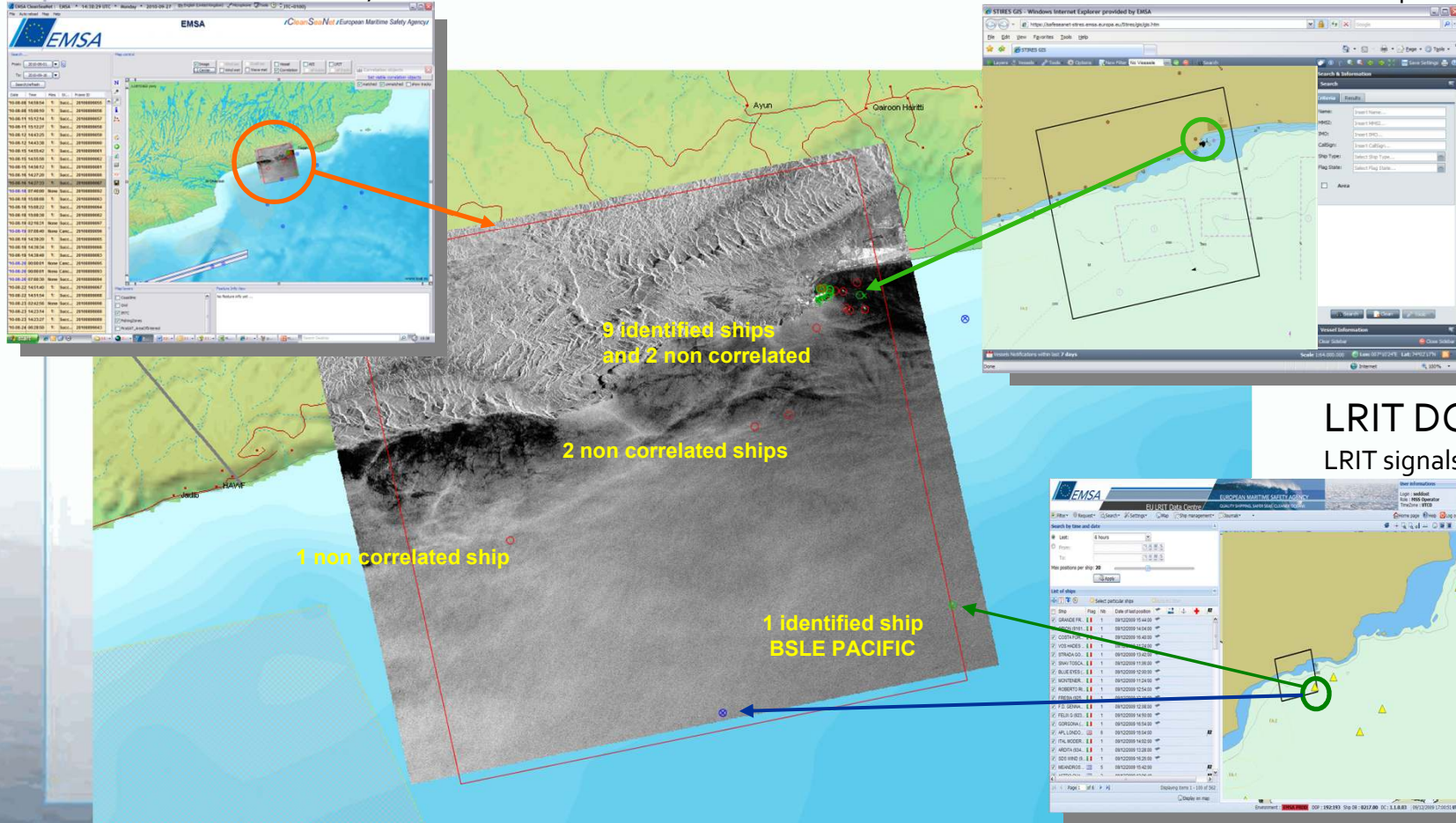
1. DETECTION

CleanSeaNet
Vessel Detection System

2. DATA FUSION

3. CORRELATION

SafeSeaNet
Sat-AIS + Ship AIS



Maritime Data Integration(2011) – MarSurv Service

EU Naval Force - EMSA TEST

Search Last Position by IMO or Name | Search 7 Days Ship Positions by IMO or Name | Search 6H Ship Track by IMO

Results

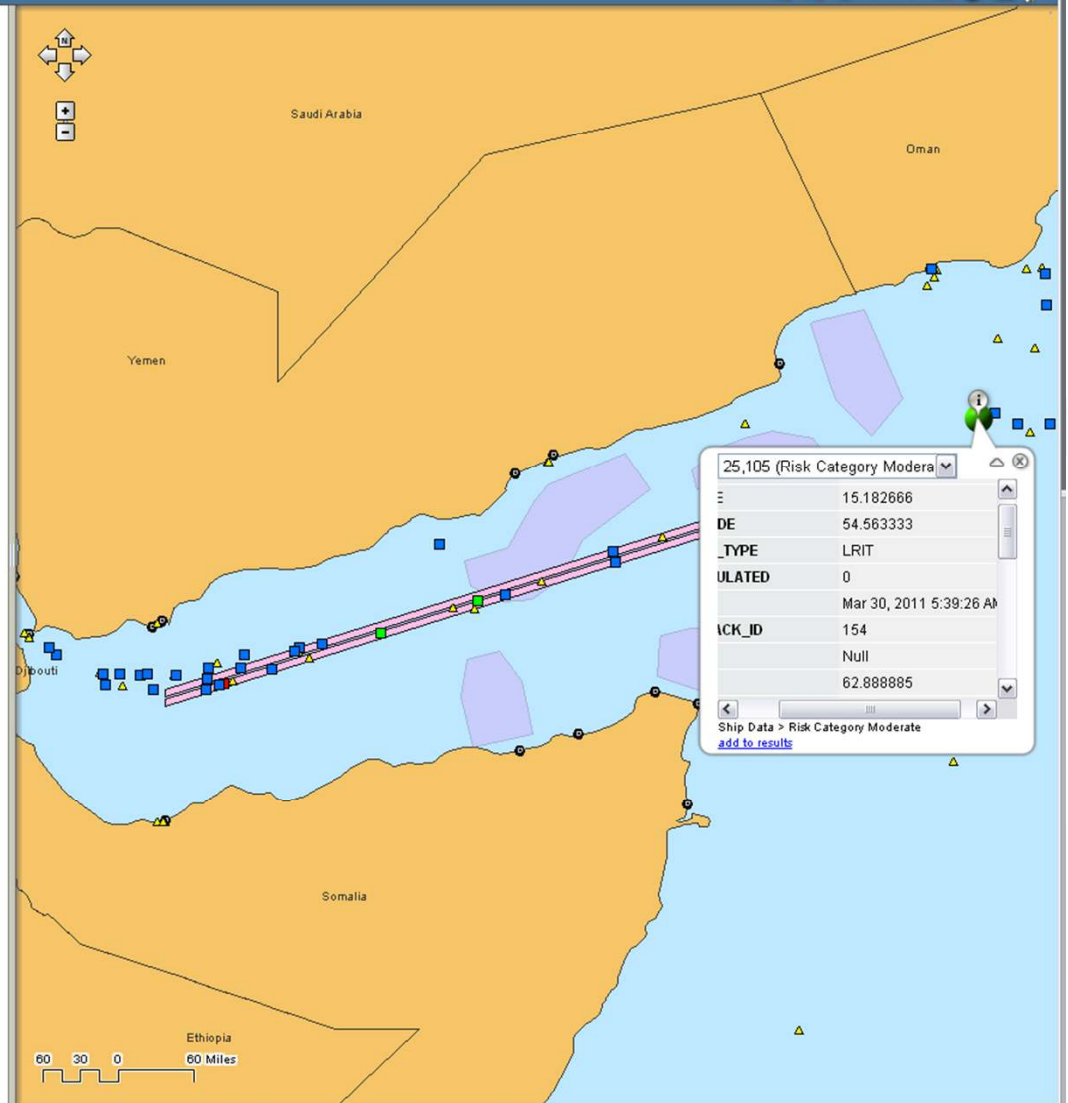
- Result (1)
 - Risk Category Moderate (1)
 - 25105

OBJECTID	25,105
LATITUDE	15.182666
LONGITUDE	54.563333
SOURCE_TYPE	LRIT
IS_CALCULATED	0
TIME	Mar 30, 2011 5:39:26 AM
DFM_TRACK_ID	154
SHIP_ID	Null
HEADING	62.888885
IMO	8,913,980
NAME	ERISOS
SHIP_FLAG	PA
CALL_SIGN	Null
MMSI	356,698,000
SPEED	11.184823
DATA_PROVIDER	PAN
SHAPE	Point
RISK_LEVEL	MODERATE
SECURITY_MEASURES	Locked Doors, External Communication Plan, Unarmed Security, Citadel, Outboards Ladders Stowed, Group Crew Drills Completed, Firehoses Rigged, Extra Lookouts, Crew Briefing, Razor Wire, Firepump Ready, Manned Engine Room, Night Vision Optics



Map Contents

- Ship Data
 - Last Ship Positions
 - Dead Reckoned Positions
 - Ship Position (7 days)
 - Ship Track Lines (6 Hours)
- Additional Data
 - Nautical Charts
 - Port
 - Security Corridor
 - Fishing Zone
 - Background Satellite Image
 - Background Continent
- Nautical Charts
 - Maps 1:4000000
 - Djibouti 1:500000
 - Background Continent



25,105 (Risk Category Modera

LATITUDE	15.182666
DE	54.563333
_TYPE	LRIT
ULATED	0
TIME	Mar 30, 2011 5:39:26 AM
CK_ID	154
HEADING	Null
SPEED	62.888885

Ship Data > Risk Category Moderate
[add to results](#)

Additional Activities of EMSA regarding Marine Pollution Preparedness & Response*

- EMSA's Services (SOSRV's and CleanSeaNet) could also be utilised in case of an Offshore Installation Incident;
 - EMSA's Services (SOSRV's and CleanSeaNet) could also be utilised to support ENP countries (States that share a land or sea border with the EU);
 - Supporting the European Commission in R&D Issues related to our field of competence.
- * *proposed by the European Commission and in discussion with the Council and EP; no final decision available yet.*

Expert support provided by EMSA

- At request of a MS or the Commission
- Remotely or on site (case-by-case)
 - *Lebanon* oil spill 2006/REMPEC
 - *Hebei Spirit* oil spill 2007/South Korea
 - *New Flame* oil spill 2007/Spain
 - *Fedra* oil spill 2008/Gibraltar
 - *Deepwater Horizon* 2010/US





www.emsa.europa.eu