

EMSA

European Maritime Safety Agency



EMSA

1. Why?
2. Which tasks?
3. Operational tools and traffic monitoring



Why EMSA?



- 12 December 1999 off the coast of Brittany

Erika sinks



Decision to reinforce the EU maritime legislation

- Erika I safety package
- Erika II safety package

- EMSA established

Reg EC 1406/2002

Which tasks?

To support the EU Commission and Member States
(Technical, operational and scientific)



Maritime
safety

Response to
pollution caused
by ships



Maritime
security



Prevention
of pollution
caused by
ships



Response to
pollution
caused by
oil and gas
platforms

Facilitate
co-operation



SafeSeaNet

EU LRIT Data Centre

LRIT IDE

CleanSeaNet

IMDatE

Facilitate
co-operation

SAFESEANET



Collective electronic means through which the EU MSs exchange data on ships' positions, cargoes and incidents

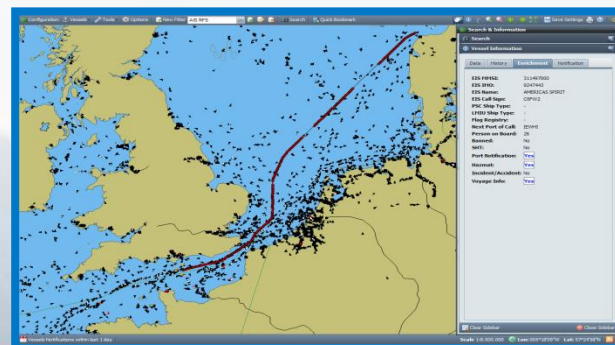
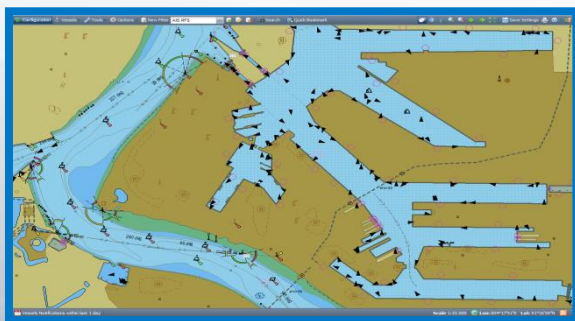
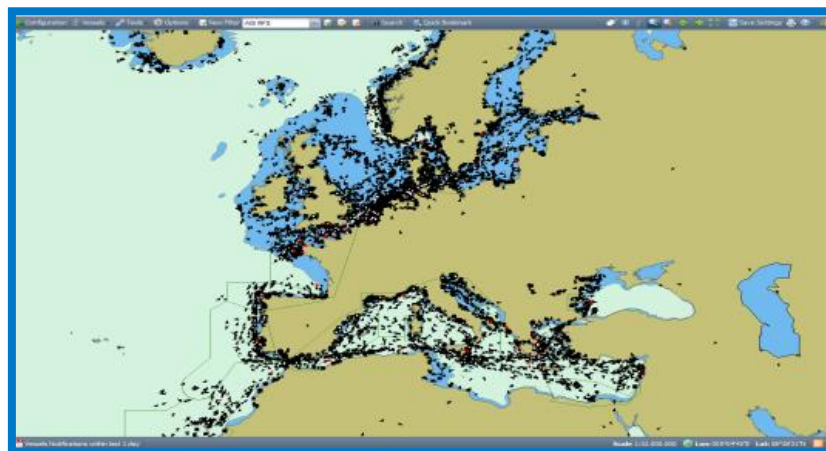
Legal basis in the Directive 2002/59/EC

- AIS – LRIT – others
- Graphical and textual interfaces

SafeSeaNet in Action

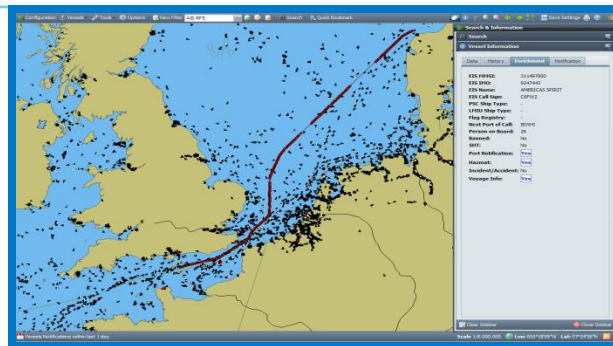
It can:

- Show the current positions of all ships in and around EU waters in a single picture.
- Zoom in and out to show the situation at all levels, from the full EU picture to individual quays in ports



SafeSeaNet in Action

It can:



- Display selected types of ships (e.g. tankers, banned vessels, single hulled tankers, ships carrying hazardous goods, etc.).
- Select other map data (e.g. depths/positions of AIS stations).
- Show the historical positions of ships and track the full positional details of their voyages.
- Find a specific ship using the name or IMO number

Legal basis and basic information

Information to be exchanged:

- Port notification art. 4 and Annex I Dir. 2002/59/EC
- Hazmat notification art. 12-13 and Annex I Dir. 2002/59/EC
- AIS data art. 6-9 Dir. 2002/59/EC
- Incident reports (Sitrep, Polrep) art. 16-17 Dir. 2002/59/EC

Waste notification (directive on PRF and FAL directive by 1 June 2015)

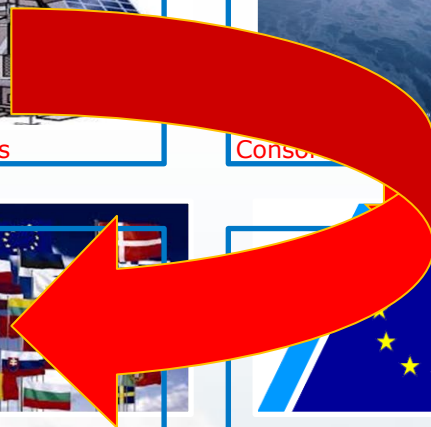
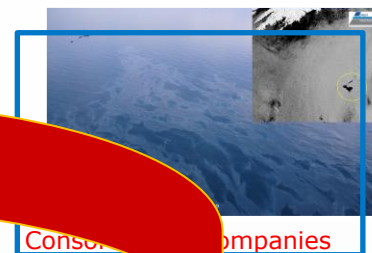
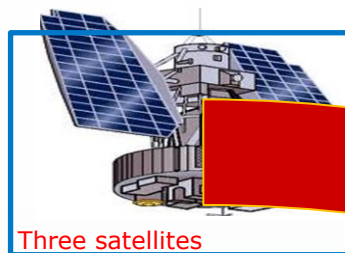
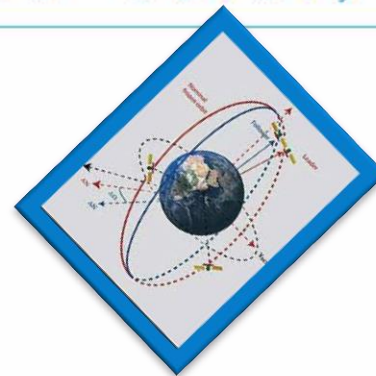
Security notification (EU reg on ISPS Code and FAL directive by 1 June 2015)

CleanSeaNet

CleanSeaNet is a European satellite-based oil spill and vessel detection service. It offers assistance to participating States for the following activities:

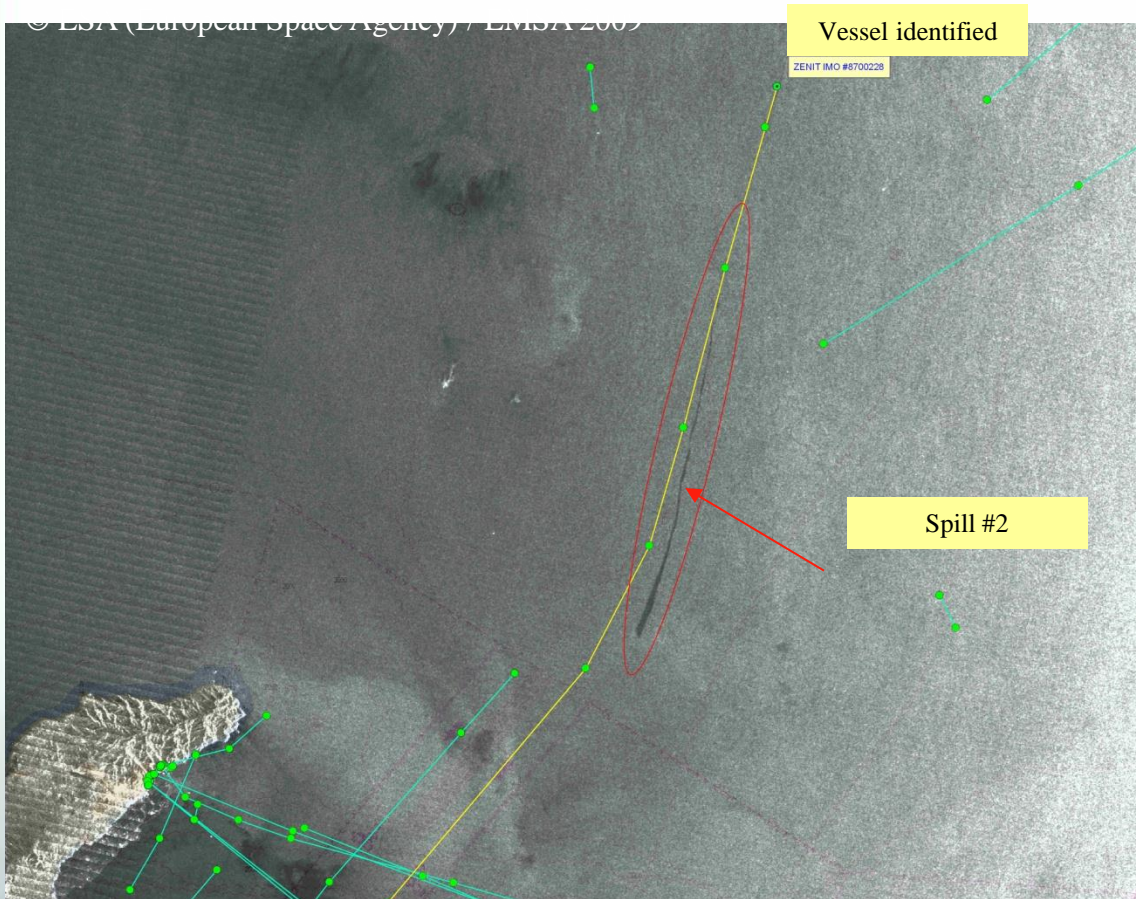
- identifying and tracing oil pollution on the sea surface
- monitoring accidental pollution during emergencies
- contributing to the identification of polluters

CleanSeaNet has the capacity to acquire image segments from 200 km long up to 1400 km.



30 minutes

Catching polluters by combining SSN and CSN information



ENVISAT image acquired over the Canary Islands on 15 September 2009 by the Azores ground station

3 possible spills reported confirmed by aircraft as being mineral oil:

1. 154 km long
2. 42 km long
3. 14 km long

2 polluters identified using AIS information

One polluter caught in the act (154 km long spill)

Facilitate co-operation

Integrated maritime data environment - IMDatE

Technical framework aiming to combine and process data from EMSA's maritime applications and other external sources to provide more comprehensive and configurable services to users

- More options for data visualisation
- Single sign-on process
- New machine-to-machine interfaces and automated vessel behaviour monitoring

Pilot projects

- Vessel Monitoring Systems (VMS)
- Satellite AIS





SSN and IMDatE Fisheries



Can SSN data and IMDatE be used to monitor fishing vessels

Fishing vessels position



AIS if 15 metres in length or above (Dir 2002/59/EC)

VMS if 12 metres in length or above (Reg EC/1224/29)

AIS data regularly part of SSN

VMS not in SSN on regular basis

VMS versus AIS - Functionalities

VMS

AIS

| | VMS | AIS |
|----------------------------|--|---|
| Purpose | Monitoring of fishing vessels in compliance with EU legal obligations | Main functions related to ship safety and traffic guidance |
| Transmission | F/V>Flag FMC. In the EU this information is automatically forwarded to the Coastal FMC | Information broadcasted from the ship to the other vessels or land station in short range |
| Coverage | Almost Global (satellite based system) | Approximately 35 NM (VHF coverage range) |
| Anti-tampering | Some equipment is anti-tampering designed | N/A |
| Technical standard | Not global (EU or regional agreement) | Global (IMO – ITU provisions) |
| Data transmission standard | NAF (North Atlantic Format) | Recommendation ITU – R M.1371-4 |
| Rate of data transmission | Every 2Hrs (polling FMC>F/V must be possible) | Dynamic data from 2 sec up to 3 min (AIS Class A) |



SSN-VMS Synergies pilot project



Purpose



To investigate synergies between the SafeSeaNet (SSN) vessel traffic monitoring system and the fisheries Vessel Monitoring System (VMS)

Countries involved in the Pilot project:

Italy, Latvia, Malta and Spain



Operational concept



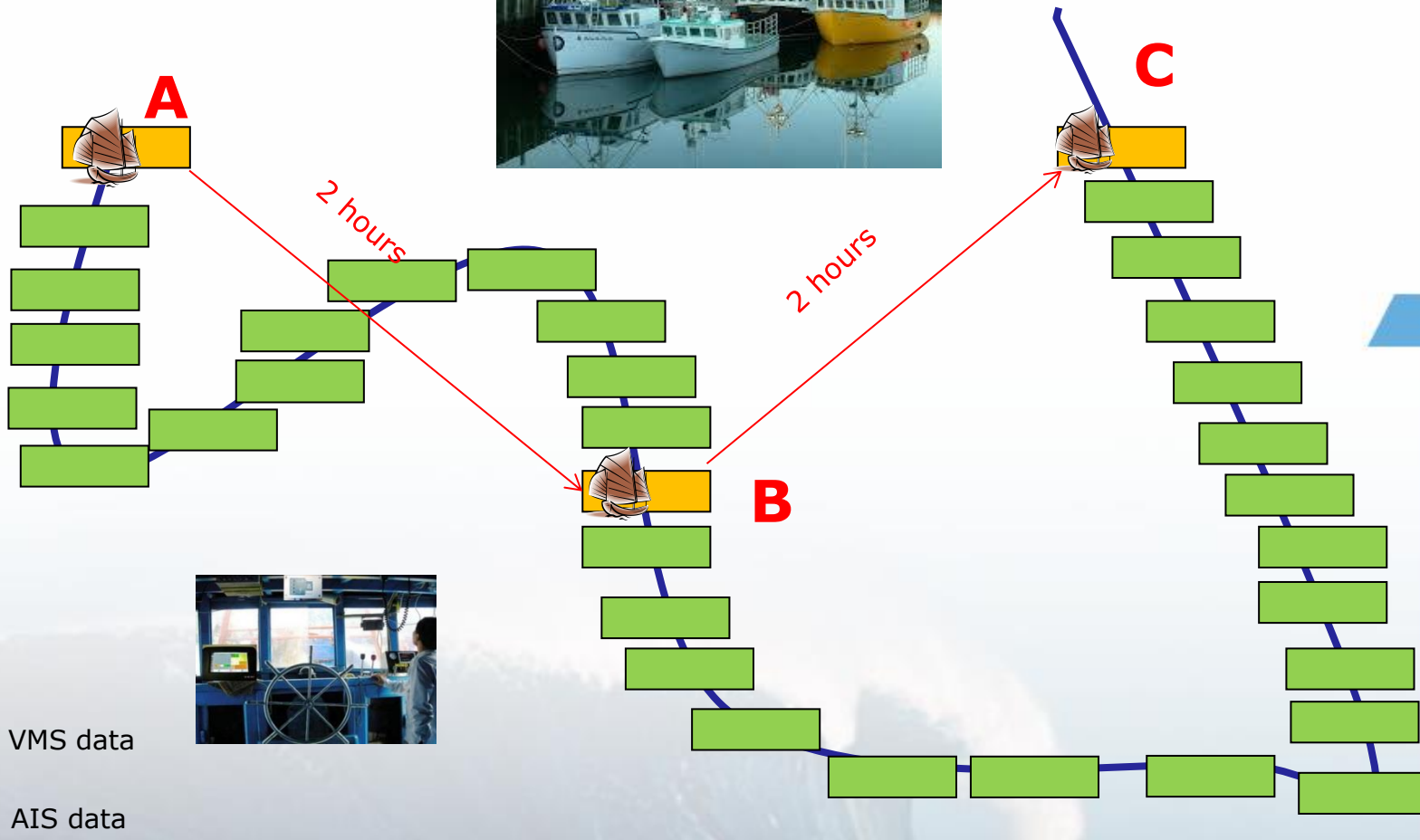
VMS data from participating FMCs is provided to central SSN (software developed to make NAF format made compatible with SSN)

The AIS position of fishing vessels are presented on the same layer with the objective of developing an integrated traffic image

VMS messages are provided every two hours AIS is available every six minutes



Result



Benefits for exchanging VMS/SSN data

- **Better monitoring of the fishing activity**
 - SSN/AIS messages more comprehensive than VMS,
 - high update rate (6min/2h)
 - free of charge (provided to the FMC via SSN without additional communication costs)
- **Cross-checking purposes**
 - identity positions of a fishing vessel can be fully verified through two different 'sensors'
 - A fishing vessel monitoring capability will be maintained even without VMS transmissions
- **More benefits/ synergies should be further analyzed**



MARSUV-3 monitoring services



Benefits for exchanging VMS/SSN data

Service Level Agreement running from 17/12/2012 between:
European Fisheries Control Agency (EFCA), and
European Maritime Safety Agency (EMSA)

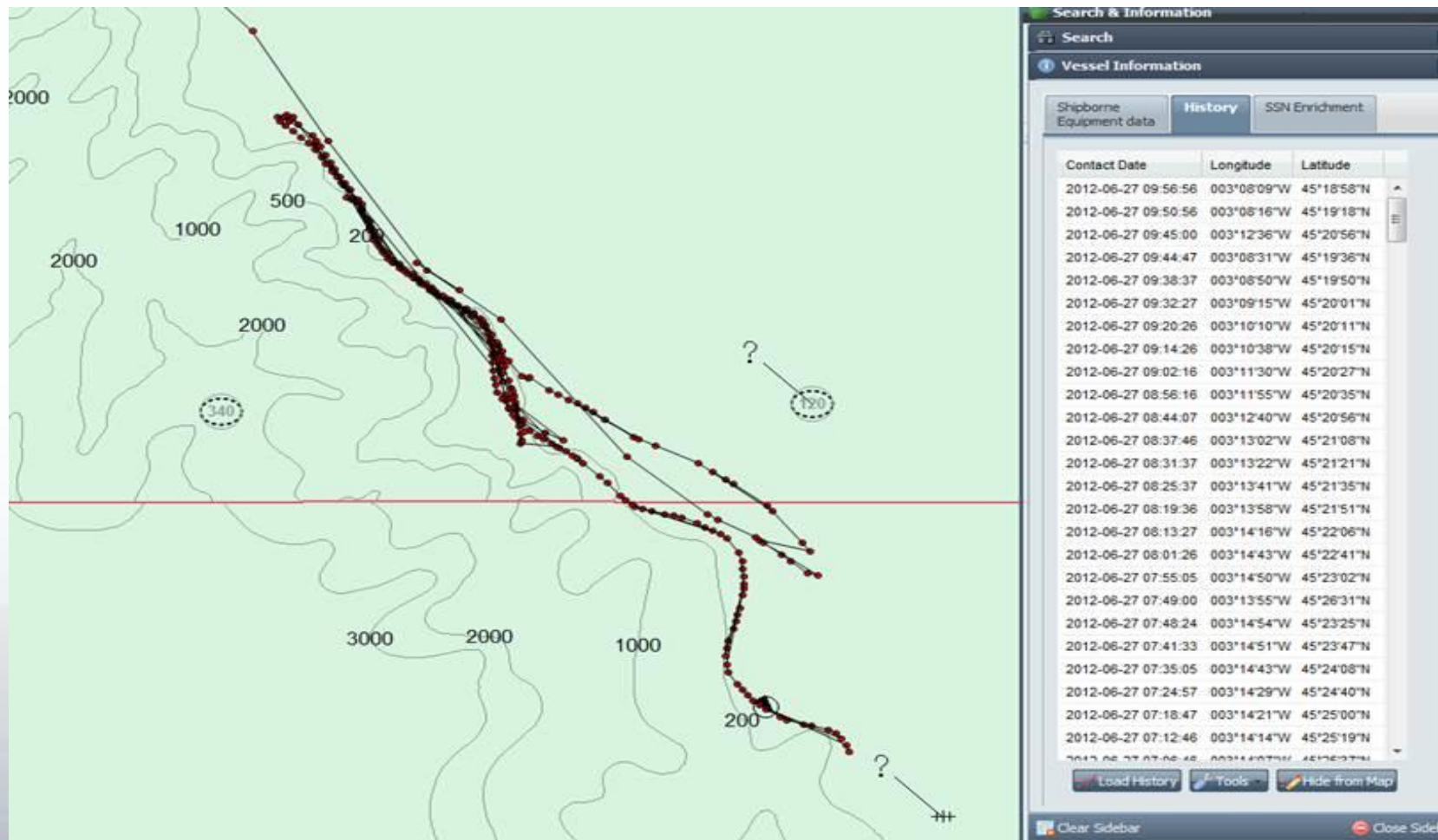
EFCA provides VMS data

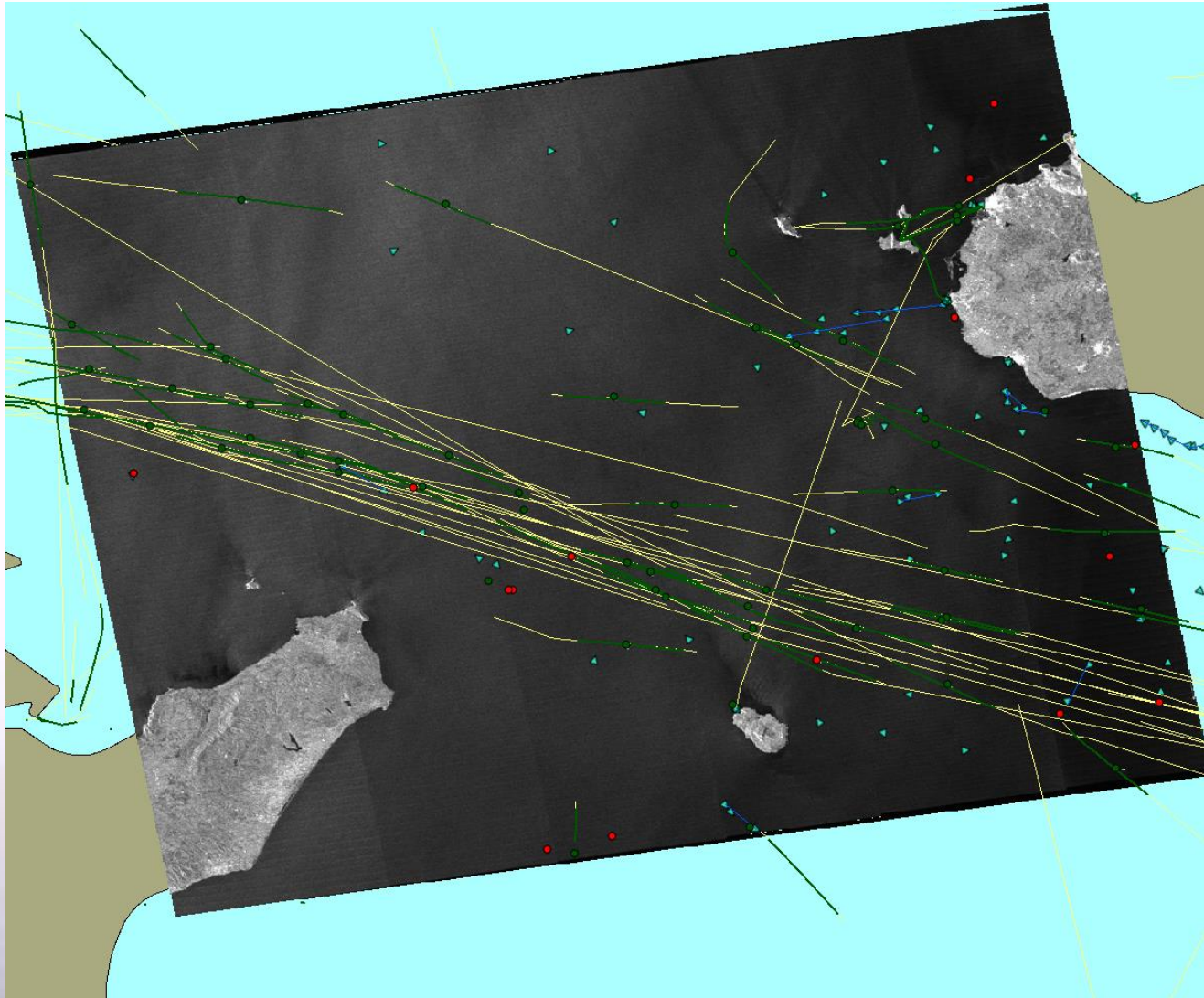
EMSA provides AIS, Sat-AIS, LRIT and/or other data as appropriate ,
and

AN INTEGRATED MARITIME PICTURE COMPOSED OF ALL THE ABOVE
MENTIONED DATA

Training and support to the end users provided by both the Agencies

Benefits for exchanging VMS/SSN data





SAR Image L1B
2009-07-15 05:16:14

Ship Detection Report

Satellite AIS

Terrestrial AIS

VMS

Not Correlated Ships

Thank you

Any Question?