



# European Maritime Safety Agency

## Pollution Preparedness and Response Activities 2009

The pollution preparedness and  
response activities of the European  
Maritime Safety Agency - Report 2009

29 January 2010

2009 Report to the European Commission  
and the Administrative Board regarding  
Regulation No. 2038/2006/(EC)  
on the multi-annual funding of the  
Agency's pollution preparedness and  
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TABLE OF CONTENTS

1.	REPORT OBJECTIVE	1
1.1.	EXECUTIVE SUMMARY	1
2.	INTRODUCTION	2
3.	OPERATIONAL ASSISTANCE	3
3.1.	NETWORK OF STAND-BY OIL SPILL RESPONSE VESSELS	3
3.1.1.	Network of Stand-by Oil Spill Response Vessels	4
3.1.2.	Maintaining the Service: Drills and Exercises	8
3.1.3.	Improvements to the Network Service	13
3.1.4.	Internal audit of the EMSA Stand-by Oil Spill Response Vessel Network	14
3.2.	CLEANSEANET SATELLITE SERVICE FOR OIL SPILL MONITORING	14
3.2.1.	Introduction	14
3.2.2.	The Operational Use of CleanSeaNet	16
3.2.3.	Support to CleanSeaNet Users	19
3.2.4.	Service Implementation, Improvements, and Developments	20
3.2.5.	Co-operation with External Organisations	22
3.3.	SUPPORT TO COASTAL STATES AND THE COMMISSION FOR ACCIDENTAL SPILLS	23
3.3.1.	Introduction	23
3.3.2.	Topaz A, Norway	23
3.3.3.	Incident involving the Russian aircraft carrier Admiral Kuznetsov, Ireland	23
3.4.	OVERVIEW OF ANNUAL COST/EXPENDITURE FOR OPERATIONAL ASSISTANCE	24
4.	CO-OPERATION AND CO-ORDINATION	25
4.1.	INTRODUCTION	25
4.2.	CONSULTATIVE TECHNICAL GROUP FOR MARINE POLLUTION PREPAREDNESS AND RESPONSE	25
4.3.	ACTIVITIES IN THE FIELD OF OIL SPILL DISPERSANT USE	27
4.4.	REGIONAL AGREEMENTS AND IMO	28
4.5.	ANNUAL COST/EXPENDITURE FOR CO-OPERATION AND CO-ORDINATION	28
5.	INFORMATION	29
5.1.	INTRODUCTION	29
5.2.	ESTABLISHMENT OF THE MAR-ICE NETWORK	29
5.3.	INVENTORIES OF MEMBER STATES POLICIES AND OPERATIONAL RESPONSE CAPACITIES	30
5.5.	ANNUAL COST/EXPENDITURE FOR INFORMATION	32
6.	TOTAL EXPENDITURES FOR POLLUTION PREPAREDNESS AND RESPONSE ACTIVITIES	33



## 1. REPORT OBJECTIVE

The European Maritime Safety Agency (EMSA) shall submit a report to the Commission and the Administrative Board, by 31 January each year, concerning the financial execution of the detailed plan (Action Plan) for the Agency's pollution preparedness and response activities and give an update of the status of all actions funded under that plan (Regulation 2038/2006/EC<sup>1</sup>, Article 7).

### 1.1. EXECUTIVE SUMMARY

The activities of the Agency in the field of marine pollution preparedness and response are focussed on providing operational assistance and information to Member States. The main service pillars are:

- The network of stand-by oil spill response vessels distributed along the European coastline;
- CleanSeaNet; the satellite based oil spill monitoring and detection service covering European waters.
- The MAR-ICE Service for chemical spills.
- Co-operation and co-ordination with Member States, Regional Agreements and the IMO.
- The provision of information through publications.

Following successful procurement procedures in 2009, the stand-by oil spill response service network continues to cover all the regional seas of Europe. 2009 saw the replacement of expired contracts awarded for response capacity in the Atlantic/Channel area and the Northern Baltic. Regarding the latter area, an icebreaker, a first for the Agency, has been contracted to provide at-sea oil recovery services. During the 'ice breaking' season, the *Kontio* will operate in the Gulf of Bothnia and will relocate its base of operations as well as the specialised oil spill response equipment stockpile, to Helsinki, Finland for the remainder of the year. The service network provides a sustainable level of assistance coverage for all coastal Member States across the European Union.

The Agency's satellite oil pollution monitoring service (CleanSeaNet) is part of the national response chain of 24 Coastal States to address ship-sourced pollution. With the entry into operation in 2009 of the Azores ground station, CleanSeaNet to date covers all European waters including the Canary Islands. Feedback from the Member States is important to evaluate the service's performance and thus have a better view of the level of pollution caused by vessels. Analysis of the service operational results demonstrates significant variations between regions where aerial surveillance is intensively used and regions where verification activities are carried out by other means. Based on the lessons learnt from the current CleanSeaNet contracts, the Agency published in 2009 the first call for tender for the continuation of the service after 2010.

The Consultative Technical Group for Marine Pollution Preparedness and Response (CTG-MPPR), established in 2007 continued its work in 2009 with its annual meeting, updating the Rolling Work Programme, continuing EMPOLLEX and organising three workshops on dedicated topics.

With regard to responding to "chemical" spills<sup>2</sup>, the MAR-ICE Network (Marine-Intervention in Chemical Emergencies Network), established in 2008 through a three party Memorandum of Understanding between the European Chemical Industry Council (CEFIC), the Centre de Documentation de Recherche et d'expérimentation sur les pollutions accidentelles des Eaux (Cedre) became fully operational on 1 January 2009.

1. Regulation 2038/2006 of the European Parliament and the Council on multi-annual funding for the action of the European Maritime Safety Agency in the field of response to pollution caused by ships and amending Regulation 1406/2002 published on 18th December 2006.

2. Action Plan for HNS (Hazardous and Noxious Substances) Pollution Preparedness and Response as adopted by EMSA's Administrative Board in June 2007. It can be downloaded from the EMSA website: [www.emsa.europa.eu](http://www.emsa.europa.eu).

## Funding of Actions

For 2009, the Budgetary Authorities provided the Agency with € 18.9 million in commitment and € 22.1 million in payment appropriations for its pollution preparedness and response task. In terms of budget execution, 99% was achieved for commitments and 78% for payments<sup>3</sup>.

With regard to implementing the Multi-Annual Funding Regulation, a difference between annual commitments and payments can be expected. The main factor is that, in order to be cost efficient, a number of multi-annual contracts (normally three years) have been concluded with industry on a rolling basis for the provision of services to Member States. Examples include those contracts related to the Stand-by Oil Spill Response Vessel Network. Consequently, in the year when contracts are concluded their total value should be available as commitment appropriations. In contrast, the associated payment appropriations are executed against the existing contracts on an annual basis. This may lead to payment appropriations exceeding the amount of commitment appropriations for the same year or vice versa. For example, even if no new commitment appropriations were made for certain actions, previous contractual obligations can result in use of payment appropriations for the same year and beyond.

While the overall execution in commitment appropriations was nearly 100%, the execution in payment credits was lower (78%). The latter can be explained by the fact that in some cases companies did not deliver services in line with the time limits indicated in their contracts and therefore payments were reduced accordingly.

The table below provides an overall summary of commitments, payments and implementation:

	COMMITMENTS	%	PAYMENTS	%
Operational assistance	18,429,878.46	98.20	16,997,253.30	98.23
Co-operation & co-ordination	171,061.80	0.91	148,643.72	0.86
Information	3,109.28	0.02	30,292.30	0.18
Related missions of EMSA staff	162,750.09	0.87	127,068.38	0.73
<b>TOTAL</b>	<b>18,766,799.63</b>	<b>100.00</b>	<b>17,303,257.70</b>	<b>100.00</b>

The vast majority of appropriations are spent on contracted operational pollution response services provided by EMSA in support of Member States. Actions in the fields of co-operation & co-ordination and information, in spite of the broad range of activities, are mostly provided through EMSA staff and have a significantly lower impact on external expenditures.

## 2. INTRODUCTION

The European Maritime Safety Agency (EMSA) was established<sup>4</sup> to address a broad range of maritime issues with the overall purpose of ensuring a high, uniform and effective level of maritime safety, maritime security, prevention of pollution and response to pollution by ships within the European Community. The Agency also provides technical and scientific assistance to the European Commission and Member States in the proper development and implementation of EU legislation on maritime safety, pollution by ships and security on board ships. To do this, one of EMSA's most important supporting tasks is to improve cooperation with, and between, Member States in all key areas.

3. The figures in this report are based on preliminary figures available at the end of 2009. They are subject to verification and confirmation as part of the final accounts of the Agency, which will be checked by the Court of Auditors. Therefore, the final figures may deviate from the figures presented in this report.

4. See Founding Regulation 1406/2002/EC, Article 1 (Objectives).



Following the sinking of the oil tanker *Prestige*, the Agency was given additional tasks in the field of marine pollution preparedness and response in 2004. The initial framework for such activities was described in the Action Plan for Oil Pollution Preparedness and Response<sup>5</sup>. The Action Plan is updated annually by the EMSA Administrative Board as part of the annual Work Programme given that both documents follow the same procedure. With the adoption of Directive 2005/35/EC on ship-sourced pollution<sup>6</sup>, the task of monitoring spills was elaborated and incorporated into the Action Plan. The Agency's activities should respect and build upon existing co-operation frameworks and regional agreements. In addition, EMSA should strengthen existing arrangements within the European Union.

On the basis of a Commission proposal, the European Parliament and the Council adopted Regulation 2038/2006/EC, which reserves a financial envelope for the implementation of these tasks for the duration of the current 2007-2013 Financial Perspectives. As part of the provisions of this multi-annual financing framework, the Agency is requested to present annually the financial execution of its plan and the status of all funded actions. This is the third annual report and covers the year 2009. EMSA's activities under the umbrella of the Multi-Annual Funding Regulation are presented, and described in more detail in these three categories:

- Operational Assistance;
- Co-operation and Co-ordination;
- and Information.

### 3. OPERATIONAL ASSISTANCE

Under the umbrella of operational assistance to coastal States, EMSA presently provides two main services with regard to marine pollution preparedness and response activities:

- The network of stand-by oil spill response vessels distributed along the European coastline;
- CleanSeaNet; the satellite based oil spill monitoring and detection service covering European waters.

#### 3.1. NETWORK OF STAND-BY OIL SPILL RESPONSE VESSELS

A key task for the Agency is to make available additional at-sea oil recovery resources to assist Member States responding to large scale incidents such as the *Erika* (1999, France) and *Prestige* (2002, Spain). The network of stand-by oil spill response vessels has been built up and maintained through annual procurement procedures starting in 2005. Accordingly, 2009 saw three main activities in relation to the at-sea oil recovery service namely:

- Bringing into operation those vessels contracted at the end of 2008;
- Adding or replacing response capacity of the existing network service in the Northern Baltic Sea and along the Atlantic coast through public procurement procedures;
- Determining if existing contracts for the Atlantic and Mediterranean should be renewed for an additional (and final) 3 year period.

5. EMSA Action Plan for Oil Pollution Preparedness and Response as adopted by the Agency's Administrative Board in October 2004. It can be downloaded from the EMSA website: <http://www.emsa.europa.eu>.

6. Directive 2005/35/EC of the European Parliament and of the Council of 7 September 2005 on ship-sourced pollution and on the introduction of penalties for infringements (OJ L 255, 30.09.2005, p. 11).

Associated activities included:

- Maintaining the service level for vessels already under contract primarily through vessel quarterly drills as well as their participation in international at-sea exercises;
- Identifying and implementing appropriate (small scale) technical improvements to the service as a whole.

It is worth reviewing the key considerations behind this particular service to coastal States. Mindful of the principle of “subsidiarity” and the roles and responsibilities of Member States, this operational service should be a “logical part” of the marine pollution response mechanisms of coastal states requesting support i.e. it should “top-up” the national response capacity of the affected Member State. EMSA should not undermine the prime responsibility of Member States for operational control of pollution incidents. It is clear that Member States have their own responsibilities regarding response to incidents. Consequently, the state requesting assistance will have the EMSA resources at its disposal under its operational control. Importantly, the network of pollution response vessels should be provided in a cost-efficient manner and should be channelled to requesting states through the existing Community mechanism in the field of civil protection.

In the field of marine pollution response, the “tiered response” approach founded on co-operation / mutual support reflects the spirit of the International Convention on Oil Pollution Preparedness, Response and Co-Operation, 1990 (OPRC 1990), as ratified by the majority of coastal Member States. Accordingly, EMSA pollution response vessels can be seen as a “European tier” to provide assistance to coastal states on the basis that these Agency resources are:

- A “reserve for disasters” to assist Member States responding to an incident beyond national capabilities;
- Under the operational command of the affected Member State;
- Provided in a cost efficient manner;
- Utilise “state of the art” at-sea oil recovery technology.

Using the experience acquired from previous major oil spills, the most appropriate approach at the European level is to remove the spilt pollutant from the marine environment using mechanical at-sea oil recovery techniques. The main concept of the service, provided through the Agency, is to ensure the availability of commercial vessels (for example bunker and product tankers) to carry out at-sea oil recovery services following a request for assistance from a coastal State.

Such vessels are “pre-fitted” and certified for oil recovery operations by an appropriate Classification Society (Recognised Organisation in accordance with Directive 94/57/EC<sup>7</sup> as amended). Following a spill, and the associated request for assistance from an affected Member State, the vessel ceases its normal commercial activities and is transformed rapidly into a fully operational spill response vessel.

### 3.1.1. Network of Stand-by Oil Spill Response Vessels

Within the framework of the Agency’s annual Work Programme, 2009 saw further procurement procedures to maintain the service network. A “Negotiated Procedure following publication of a Contract Notice in the Official Journal of the European Union (OJEU)” was launched covering two different geographical areas (lots):

- The Northern Baltic Sea;
- The Atlantic Coast - Channel.

7. Council Directive 94/57/EC of 22 November 1994 on common rules and standards for ship inspection and survey organizations and for the relevant activities of maritime administrations, OJ L 319, 12.12.1994, p. 20.



Participants in the signing ceremony between Aegean Bunkers at Sea, Finstaship and EMSA for the vessels *Sara* and *Kontio*

As with previous years, the Negotiated Procedure had three different phases and is effectively a year long project in itself. Following the results of the successful procurement procedure, contracts for response capacity have been established in both geographical areas.

In parallel, three companies contracted at the end of 2008 completed successfully the preparatory phase of their contracts with the Agency. Specifically, this meant that three vessels were modified, equipped and crews trained for their pollution response task. Following certification of the vessels for oil recovery operations by an appropriate Classification Society (Recognised Organisation in accordance with Directive 94/57/EC as amended), the vessels were accepted into the Stand-by Phase of the contract and are available to respond to a request from a coastal State for assistance.



The current network provides at-sea oil recovery services from vessels based in all the regional seas of Europe. It should be noted that the vessels are at the disposal of all Member States regardless of their actual area of operation. The map on previous page shows the distribution vessel and stockpiles around Europe. Short descriptions of recent developments in the network are presented below on a regional sea basis. More technical and operational specifications of all the contracted services are available on the Agency website: <http://www.emsa.europa.eu>.

EMSA currently maintains contracts for thirteen fully equipped oil recovery vessels (ORV), which are available, upon request, to assist coastal states in oil spill operations (see map below). Two additional contracted vessels are currently in the pre-fitting phase and are expected to be operational by mid 2010, which will bring the total number of available vessels to fifteen. The average storage capacity for recovered oil of the EMSA contracted vessels is 3,500 mt, which is significantly higher than typical ORV's operated by national governments.

### Atlantic Coast

Following a successful procurement procedure, a 3 year contact has been awarded to Aegean Bunkers at Sea for the provision of at-sea oil recovery services. The arrangement utilises the bunker tanker *Sara*, with an equipment stockpile situated on the Southern coast of UK. The ship is a double hulled Maltese flagged tanker built in 1988 with a speed of 13 knots and capacity for recovered oil of 6,658 m<sup>3</sup>, one of the largest with the Agency. The equipment stockpile, based in Portland, UK, is well placed to boost existing spill response capacity in the Western Approach of the Channel, an area well known for its vessel traffic density.

The *Sara* complements those vessel arrangements already in place along the Atlantic coast. Specifically, the *Ria de Vigo*, following a period for pre-fitting works to adapt the vessel to use oil recovery equipment on-board, entered into operational service in 2009. The supply ship has an onboard storage capacity 1,522 m<sup>3</sup> and operates out of Vigo, Spain, providing fishing monitoring services on a commercial basis to the regional government of Galicia.



*Sara*, based in Portland, UK

Along the Atlantic coast, the *GALP Marine* operating from Sines, Portugal has had its contract renewed for a further final 3 year period. The above mentioned vessels combined with those based in Cobh, Ireland brings the total recovered oil storage capacity under contract in excess of 20,000 m<sup>3</sup> for this area.

### The Black Sea

Oil transportation through the Black Sea and the East Mediterranean, where important pipelines feed out of Russia and the Caspian area, pose a serious risk. The EMSA contracted vessel *GSP Orion*, operating out of Constanta, Romania, completed successfully its first year of the three year contract. It is an offshore supply vessel with a recovered oil capacity of 1,334 m<sup>3</sup> and services the Constanta oilfield area about 30–50 nautical miles offshore.

### The North Sea

The North Sea is one of the sea areas with the highest tanker traffic density. Following a 2008 procurement procedure, a 3 year contract was awarded for an arrangement covering two hopper dredgers trading sand along the Belgian and Dutch coastlines. The *Interballast III* (storage capacity 1,886 m<sup>3</sup>) and *DC Vlaanderen 3000* (storage capacity 2,744 m<sup>3</sup>) entered in service towards the end of 2009 and provide a total recovered oil storage capacity of more than 4,500m<sup>3</sup>.

### The Baltic Sea

Following the reconfiguration of the existing contract with Lamor for services across the Baltic Sea, it was apparent that coverage for the Northern Baltic zone was not adequate. A 3 year contract was awarded to provide response capacity. The vessel to be used is the ice-breaker *Kontio* and is the first of its type contracted by the Agency for at-sea oil recovery services. It was built in 1987, has a speed of 18.5 knots and a recovered oil capacity of 2,033 m<sup>3</sup>. During the ice-breaking season, approx. 140 days a year, the vessel will operate in the Gulf of Bothnia with the equipment stockpile based in the port of Oulo, Finland. For the remaining part of the year the equipment and vessel will be located in Helsinki, Finland.



The newly contracted oil recovery vessel *Kontio*, capable of operating in ice

The additional capacity of this vessel brings the total contracted onboard storage capacity for oil recovered during response operations for the Baltic Sea to more than 10,500 m3.

### Mediterranean Sea

The contract established in 2006 for the vessel *Santa Maria* has been renewed for a further 3 years until 2 March 2013. Other contracts are in place with regard to this regional sea basin for vessels operating out of Malta, Spain, Italy and Greece providing in excess of 17,000 m3 of additional recovered oil storage capacity.

	COMMITMENTS	PAYMENTS
Contracts 2005 (Baltic Sea, Atlantic and Channel, Mediterranean Sea)	0.00	218,316.23
Contracts 2006 (Atlantic Coast, Mediterranean East)	0.00	902,793.32
Contracts 2007 (Aegean Sea, Atlantic Coast, Mediterranean West)	0.00	3,061,403.52
Contracts 2008 (Black Sea, North Sea, Bay of Biscay)	0.00	2,518,390.71
Contracts 2009 (North Baltic, Atlantic/Channel)	7,999,952.00	4,116,143.00
Renewal Contracts 2006	2,760,000.00	0.00
Associated activities (Tender Clarification Meetings, rating reports, experts, protective clothing)	11,928.81	11,573.16
<b>SUB-TOTAL 3.1.1.</b>	<b>10,771,880.81</b>	<b>10,828,619.94</b>

### 3.1.2. Maintaining the Service: Drills and Exercises

In order to maintain the appropriate level of service during the Stand-by Period of the contracts, the companies and vessels concerned carry out a range of different types of activities. The primary tool is the vessel/crew drills which take place on a quarterly basis. In 2009, a total of 47 drills (including 5 Acceptance Drills) were undertaken by vessels under contract to the Agency. Each drill verifies that the basic capability of the vessel, specialised equipment and crew is at an appropriate level.

International exercises in 2009:

EXERCISE / LOCATION	MONTH	PARTICIPATING COUNTRIES	N° OF PARTICIPATING VESSELS	EMSA VESSEL AND CONTRACTOR
Euronyme 2009, France	May	France, Spain, Italy	15	<i>Bahía Tres</i> and <i>Salina Bay</i>
Rodelta 2009, Romania	Aug	Black sea	10	<i>Aktea OSRV</i> and <i>GSP Orion</i>
Maltex 2009, Malta	Nov	Malta	8	<i>Mistra Bay</i> , <i>Santa Maria</i> and <i>Aktea Osr</i>
Mero 2009, Portugal (Madeira)	Jun	Portugal	3	<i>Galp Marine</i>
Polmar Atlantique 2009, France	Jun	France, Spain	8	<i>Mersey Fisher</i> and <i>Ria De Vigo</i>
Balex Delta 2009, Latvia	Aug	Baltic Sea	10	<i>OW Copenhagen</i>
Espadarte 2009, Portugal	Oct	Portugal, Spain	3	<i>Galp Marine</i>

In addition a range of notification, desktop and at-sea operational exercises were conducted. These types of exercise are, aside from being a useful method of maintaining pollution response skills, an important tool for identifying potential areas that could be improved. International exercises in particular greatly assist the integration of EMSA's resources with the response mechanisms of Member States, improving the necessary coordination and cooperation of the "EMSA" vessels with the Member State response units.

### Exercise: Euronyme 2009

The international exercise Euronyme 2009 was organized within the framework of RAMOGEPOL and LION plans and was conducted by the Prefecture Maritime de la Méditerranée. The Exercise scenario simulated a collision between oil and chemical tankers on 27th May off La Ciotat bay. The EMSA contracted vessels *Bahia Tres* and *Salina Bay* participated in the Euronyme 2009 exercise and both successfully reached the objectives of the exercise. The specialised OSR equipment onboard the vessels was operated smoothly and well. The vessels followed accurately and timely all the instructions coming from the OSC in accordance with what was expected from them in the event of an actual oil spill.

An "open ship" tour was organised onboard *Bahia Tres* for the VIP observers, journalists and reporters as well as the interested public. Around two hundred people visited the vessel and a great interest was shown to the state-of-the-art oil spill response equipment. As a result, there was a wide reflection of the exercise activities in the media and especially in the local newspapers and TV news channels.



*Salina Bay* (left) and *Bahia Tres* simulating oil recovery with sweeping arms deployed

### Exercise: Rodelta 2009

The 2009 Black Sea regional oil spill preparedness, search and rescue exercise Rodelta 2009 was hosted and organized by the Romanian Naval Authority. The exercise was conducted on 25-27 August 2009 off the coast of Romania. Two EMSA vessels participated in the Rodelta 2009 exercise; the *Aktea OSRV* which operates from Piraeus and *GSP Orion* which operates from Constanta. The oil pollution response (operational) activities were carried out on 26 August 2009. In total 10 ships (oil pollution response and ancillary ships) participated during the Rodelta exercise, the participating fleet was made up of Romanian response ships, supporting ships from the Black Sea coastal States and the two EMSA ships.

The designated (offshore) zone within which the exercise was conducted was organised in 2 areas i.e. the area within which the hypothetical incident took place and the exercise/operational area. The exercise/operational area was divided into 6 sectors. EMSA ships were assigned to one of the sectors whilst the Romanian response ships operated within a different sector.

The role for EMSA's ships within the exercise was that of simulating mechanical oil recovery process. The process was carried out together with the assistance of two towing ships provided by the Romanian Oil pollution response company. Both assisting ships towed two sections of 250m boom in "U" formation.

Both EMSA ships operated behind the "U" formation with deployed sweeping arms. The *GSP Orion* manoeuvred directly behind the "U" formation followed by the *Aktea OSRV*.

An “open ship” activity was organised on 27 August 2009 onboard both the *Aktea OSRV* and *GSP Orion*. EMSA's open ship activities are mainly intended to educate and provide awareness of the Agency's activities in terms of pollution preparedness and response. Observers participating in the exercise and the public attended onboard both ships a comprehensive tour including a detailed explanation of the onboard equipment.

Overall it was noted that considering the extent of this quite ambitious exercise (which included search and rescue and shore side oil pollution clean-up), the scope of the exercise was achieved. Overall EMSA's participation fulfilled the anticipated objectives in terms of both efficacy and co-ordination and demonstrated a high level of professionalism amongst the participants.

### Exercise: Maltex 2009

Maltex 2009, the Maltese national oil spill response exercise, was hosted and organized by the Malta Maritime Authority as the national authority responsible for pollution response. The exercise was conducted on 4 November 2009 off the coast of Malta. In total 8 ships (oil pollution response and ancillary ships) participated during the exercise, the participating fleet was made up of Maltese response ships, supporting ships from the private sector, one patrol boat provided by the Armed Forces of Malta and three EMSA ships i.e. the *Aktea OSRV*, the *Santa Maria* and the *Mistra Bay*.

The role for EMSA's ships within the exercise was that of simulating mechanical oil recovery process. The process was carried out together with the assistance of one tug boat. The response formation was organised in a way that the *Aktea OSRV* (nominated as the leading ship) deployed its boom maintaining it in a “J” formation with the assistance of the tug boat. The other two EMSA ships had to follow suit with deployed sweeping arms. During the exercise, in addition to the simulation of mechanical oil recovery lightering operations were also carried out. Primarily the scope of the exercise was to ensure that an effective mechanism exist to transfer and dispose the recovered oil. The exercise generated comprehensive media attention and resulted in a very positive coverage of the exercise.

### Exercise: Mero 2009

On 5 June 2009, the *GALP Marine* participated in the “Mero 2009” exercise off Madeira Island, Portugal. This was an event arranged by the Portuguese Maritime Authority and was preceded by a notification exercise to validate the procedures for activating the vessel and signing the associated Incident Response Contract by the relevant parties.

Of particular note for the Agency was the deployment of a so called “Open-U” boom configuration by the *GALP Marine*. Overall, the vessel fulfilled the role assigned by the Portuguese Navy/National Maritime Authority and met the expectations of the Agency.



The *GALP Marine* simulating the collection of oil (pop corn) with the port sweeping arm during the exercise



#### Exercise: Polmar Atlantique 2009

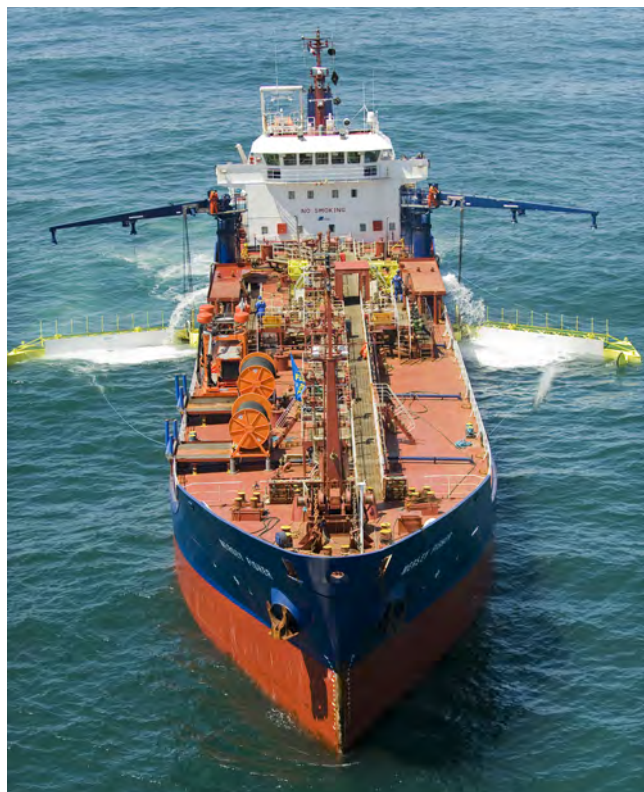
On 10-11 June 2009, the *Ria de Vigo* and *Mersey Fisher* participated in POLMAR ATLANTIQUE 2009. This antipollution exercise was organized by the Prefecture Maritime de l'Atlantique and conducted off Les Sables d'Olonne (French western coast).

The exercise scenario simulated the collision between a container ship and an oil tanker on 10 June in position 10 nm off Les Sables d'Olonne. The oil tanker, loaded with 15,000 tonnes of Aquitaine crude, suffered significant damages in her hull and started to leak oil into the sea.

Within the framework of the exercise scenario, the EMSA vessels demonstrated appropriate co-ordination with units from the French Navy and satisfactory performance.

Right: The *Mersey Fisher* with the sweeping arms deployed during exercise Polmar Atlantique 2009.

Below: The *Ria de Vigo* simulating the recovery of oil with boom and skimmer in "J" configuration.



#### Exercise: Balex Delta 2009

On 25-27 August 2009, the *OW Copenhagen* participated in the international oil spill response exercise BALEX DELTA 2009, organised by the Latvian Coast Guard Service under the umbrella of the Helsinki Convention. The exercise was performed as joint operation of the HELCOM Baltic fleet units in response to oil pollution at sea for practical testing of the pollution recovery equipment.

The following parties to the Helsinki Convention took part in the exercise: Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Sweden and EC (EMSA). In total 10 vessels from 7 different countries plus the *OW Copenhagen* were involved in the exercise.



*OW Copenhagen* with its sweeping arms deployed during Balex Delta 2009

The performance of the EMSA vessel and the specialised pollution response equipment was good. All instructions given by the On-Scene Commander (OSC) were followed by the *OW Copenhagen* in an efficient and timely manner. It should be noted that BALEX DELTA 2009 was the first international exercise for this vessel after its acceptance for oil spill recovery services in March 2009 following the reconfiguration of Lamor Baltic arrangement.

#### Exercise: Espadarte 2009

On 8 October 2009, the *GALP Marine* participated in the Espadarte 2009 Exercise off Sines, Portugal. This was an event arranged between the Portuguese Maritime Authority and the Agency and was preceded by a notification exercise to validate the procedures for activating the vessel and signing the associated Incident Response Contract by the relevant parties.

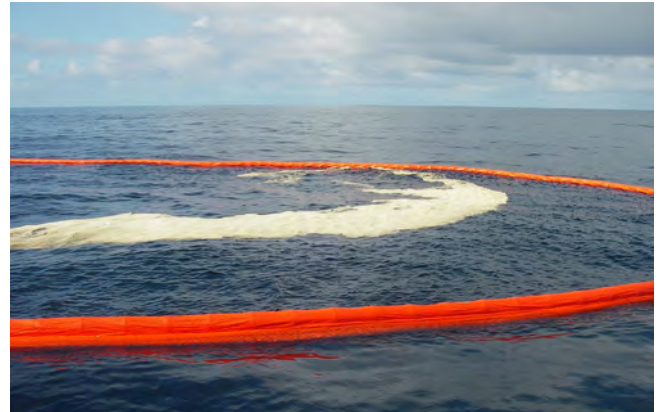
*GALP Marine*, assisted by one tugboat, deployed a boom (1x250 m) in a "J" formation. Then *GALP Marine* deployed one brush skimmer to recover the "oil spill", simulated by popcorns spread by one of the Navy ships. Overall, the *GALP Marine* fulfilled the role assigned by the Portuguese Navy/National Maritime Authority in charge for MERO 2009 and met the expectations of the Agency.

In parallel, the Agency participated in, or initiated, a number of Notification Exercises. These are tabletop events, which are similar to Alarm/Bravo Exercises held by Regional Agreements, aimed at testing the agreed procedures and lines of communication for reporting, requesting and providing assistance. For EMSA one of the targets is to monitor the signing of the Incident Response Contract for stand-by oil spill response vessel mobilisation by the requesting coastal state and the contractor concerned. In total the Agency was involved in 10 Notification Exercises in 2009.

Notification exercises are important tools to assure the speedy contracting of EMSA vessels in cases of emergencies. They can serve in the verification of readiness and for training purposes.



Deployment of booms from the *GALP Marine*



Booms simulating collection of oil during the exercise

	COMMITMENTS	PAYMENTS
Exercises 2008 (carry over payments)	0.00	30,861.04
Exercises 2009	0.00	579,119.33
<b>SUB-TOTAL 3.1.2.</b>	<b>0.00</b>	<b>609,980.37</b>

### 3.1.3. Improvements to the Network Service

Based on the experience gathered during the first years of running the stand-by oil spill response vessel service, options were explored to achieve a higher level of performance in terms of oil recovery capacity and cost efficiency. With this in mind, the Agency undertook a specific improvement action regarding the technical capacity of the *Ria de Vigo* (Atlantic Coast) and *GSP Orion* (Black Sea).

After exploring, in close co-operation with the contractors, the technical feasibility of different options, the procurement of two Transrec 150 multi-skimmers was initiated. The purpose of the project was to double the oil recovery rate of the vessels' secondary response systems. The current pumping capacity (Name Plate capacity) of the skimmers fitted onboard ranges from 125m<sup>3</sup>/h to 140m<sup>3</sup>/h. After installing a "transrec" type skimmer, the oil recovery rate will be upgraded up to 300m<sup>3</sup>/h (single skimmer) or even 400m<sup>3</sup>/h if both skimmers ("old" and "new") are used simultaneously. The "transrec" type skimmers are independent units specifically designed for use on supply vessels with a large deck space available such as *Ria de Vigo* and *GSP Orion*.

Keeping in mind the fact that the areas where the above mentioned vessels operate are considered as busy trading routes and the associated high potential of oil pollution incidents, the installation of the proposed equipment would considerably improve the vessels' operational capabilities.

The procurement process including pre-financing was completed in 2009. The equipment will enter into operational service in mid 2010.

	COMMITMENTS	PAYMENTS
Improvements 2007 to the existing arrangements (carry over of payments)	0	60,000.00
Improvements 2009 to the existing arrangements	3,056,785.36	2,289,448.00
<b>SUB-TOTAL 3.1.3.</b>	<b>3,056,786.36</b>	<b>2,346,448.00</b>



Transrec Skimmer

#### 3.1.4. Internal audit of the EMSA Stand-by Oil Spill Response Vessel Network

In 2009, the Internal Audit Service (IAS) of the European Commission undertook an audit of the EMSA Stand-by Oil Spill Response Vessel Network. The overall objective was to provide the Agency's Executive Director and Administrative Board with an independent assurance on the adequacy and effectiveness of the internal control system regarding the network of contracted vessels. The overall finding of the IAS is that the internal control system in place provides *reasonable assurance*<sup>8</sup> regarding the achievement of the business objectives set-up for the vessel network.

### 3.2. CLEANSEANET SATELLITE SERVICE FOR OIL SPILL MONITORING

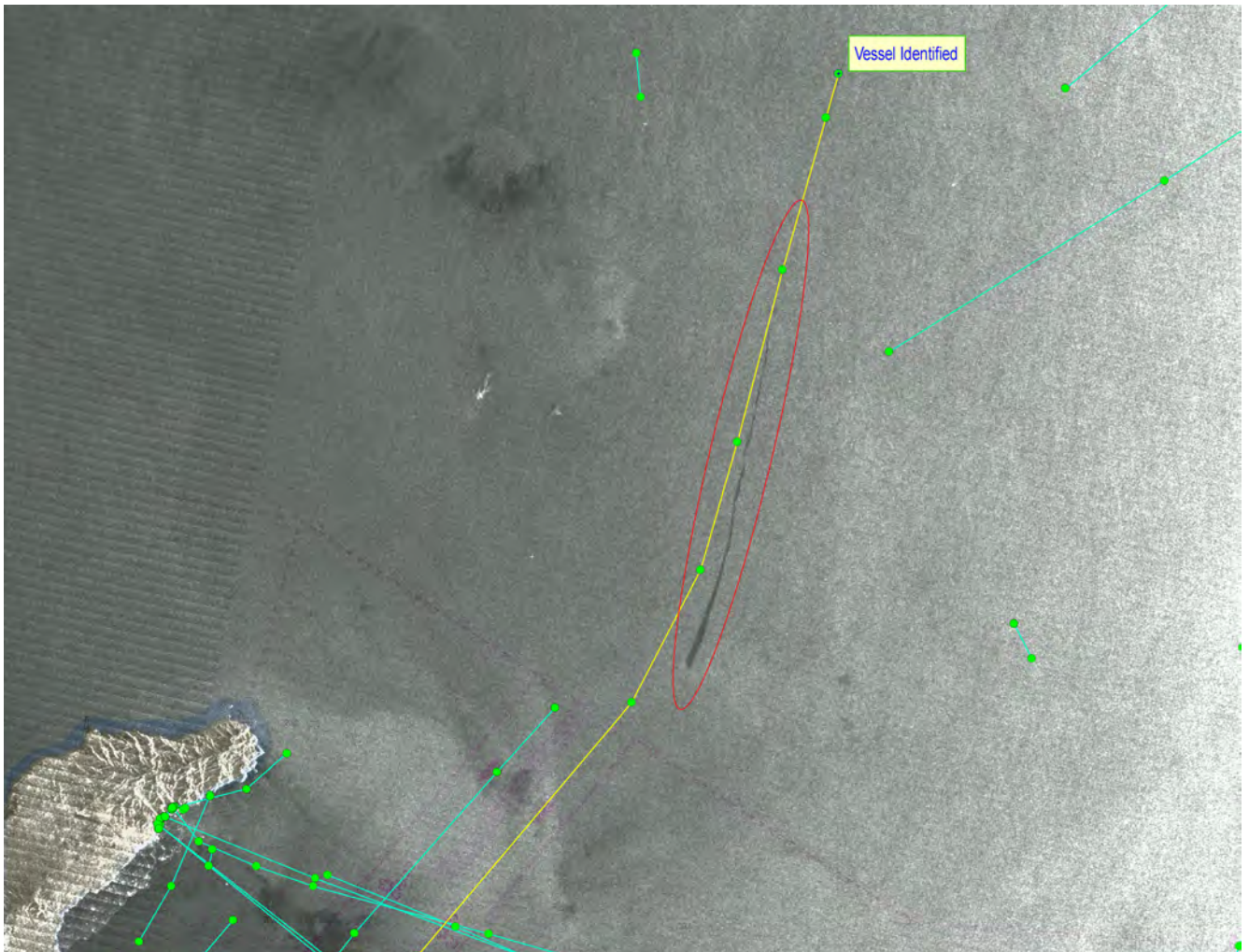
#### 3.2.1. Introduction

Following the Prestige accident, the mandate of the Agency was extended to include tasks in the field of accidental or deliberate pollution from ships. The initial framework for such activities was described in the Action Plan for Oil Pollution Preparedness and Response. With the adoption of Directive 2005/35/EC on ship-source pollution<sup>9</sup>, the task of monitoring spills was elaborated and incorporated into the Action Plan. The Directive details in Article 10-2 the following:

*"...the Agency shall 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."*

8. IAS Explanation: "Even an effective internal control system, no matter how well designed and operated, has inherent limitations - including the possibility of circumventing or overriding of controls - and therefore can provide only *reasonable assurance* to management regarding the achievement of business objectives and not *absolute assurance*."

9. Directive 2005/35/EC of the European Parliament and of the Council of 7 September 2005 on ship-source pollution and on the introduction of penalties for infringements (OJ L 255, 30.09.2005, p. 11).



ENVISAT image acquired over the Canary Islands on 15 September 2009 by the Azores ground station.  
An ongoing spill is visible. The source can be identified from AIS data.

Accordingly, the Agency has set-up and operates CleanSeaNet, the European satellite oil pollution monitoring service as of April 2007. CleanSeaNet is based on near-real-time analysis of ENVISAT, RADARSAT-1 and RADARSAT-2 satellite Synthetic Aperture Radar (SAR) images. Even very thin oil films are visible from space but identifying the type and thickness of pollution, requires on-site verification. As time is critical for confirming a possible spill and catching polluters in the act, the shortest possible delay between satellite detection and alert is essential for a rapid response by coastal states. CleanSeaNet detection results are reported to the affected country less than 30 minutes after satellite acquisition. The alert includes information on the possible source of the spill.

24 coastal states are using CleanSeaNet. All states have integrated the service, not as a stand-alone system, but as a strengthening element of national operational response chains to deliberate and accidental pollution.

In 2009, the Azores ground station has entered into operations. EMSA now provides an oil spill monitoring service tailored to the needs of public authorities covering all European waters including the Canary Islands.

3.2.2. The Operational Use of CleanSeaNet

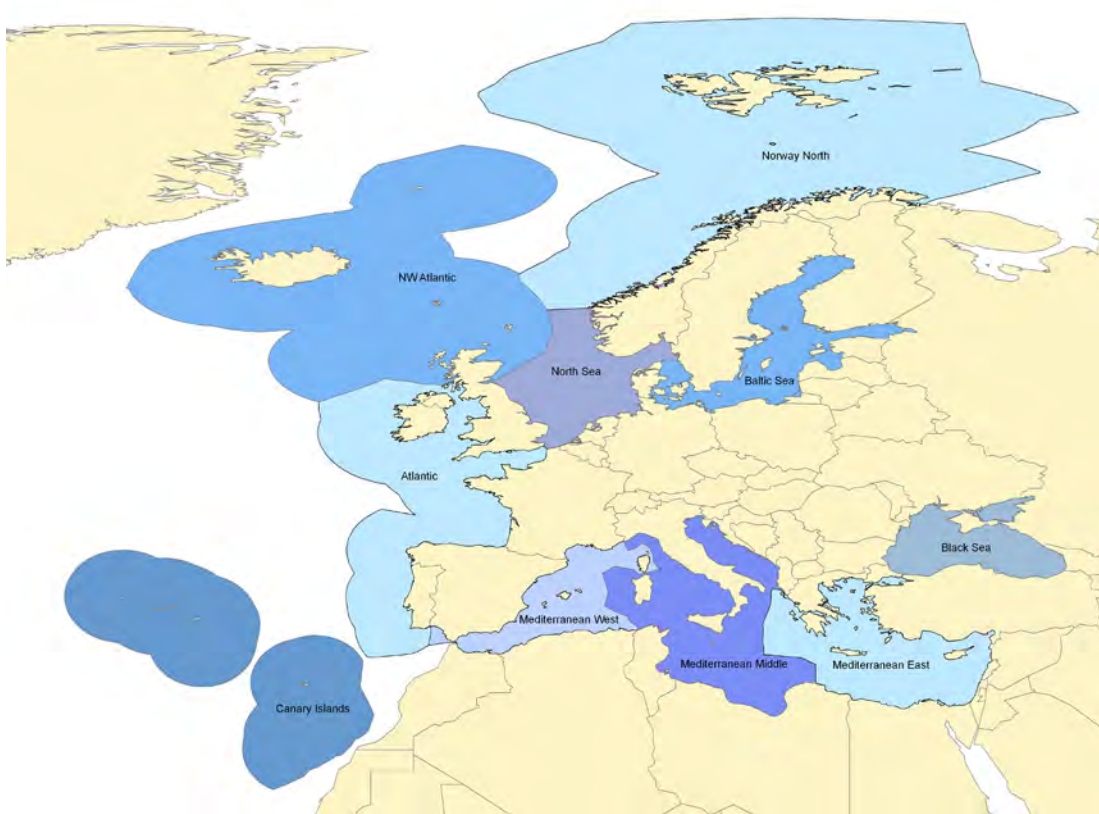
Routine Surveillance for Illegal Oil Spill Discharges

In 2009, the Agency received from the Member States, 4852 requests for SAR images. To fulfil these requirements, the Agency ordered 2275 satellite scenes of which 2113 have been successfully delivered. When compared to 2008, the number of images acquired has slightly decreased due to reduced coverage requirements mainly in the Eastern Mediterranean Sea.

The table below presents the 2009 orders by satellite:

SATELLITE	IMAGES	YEAR: 2009	
ENVISAT	Ordered	1347	
	Delivered	1239	92%
RADARSAT-1	Ordered	512	
	Delivered	476	93%
RADARSAT-2	Ordered	416	
	Delivered	398	96%
TOTAL ORDERED IMAGES		2275	
TOTAL DELIVERED IMAGES		2213	93%

Planning and ordering of scenes is done by planning region. European waters have been divided in 10 planning regions.

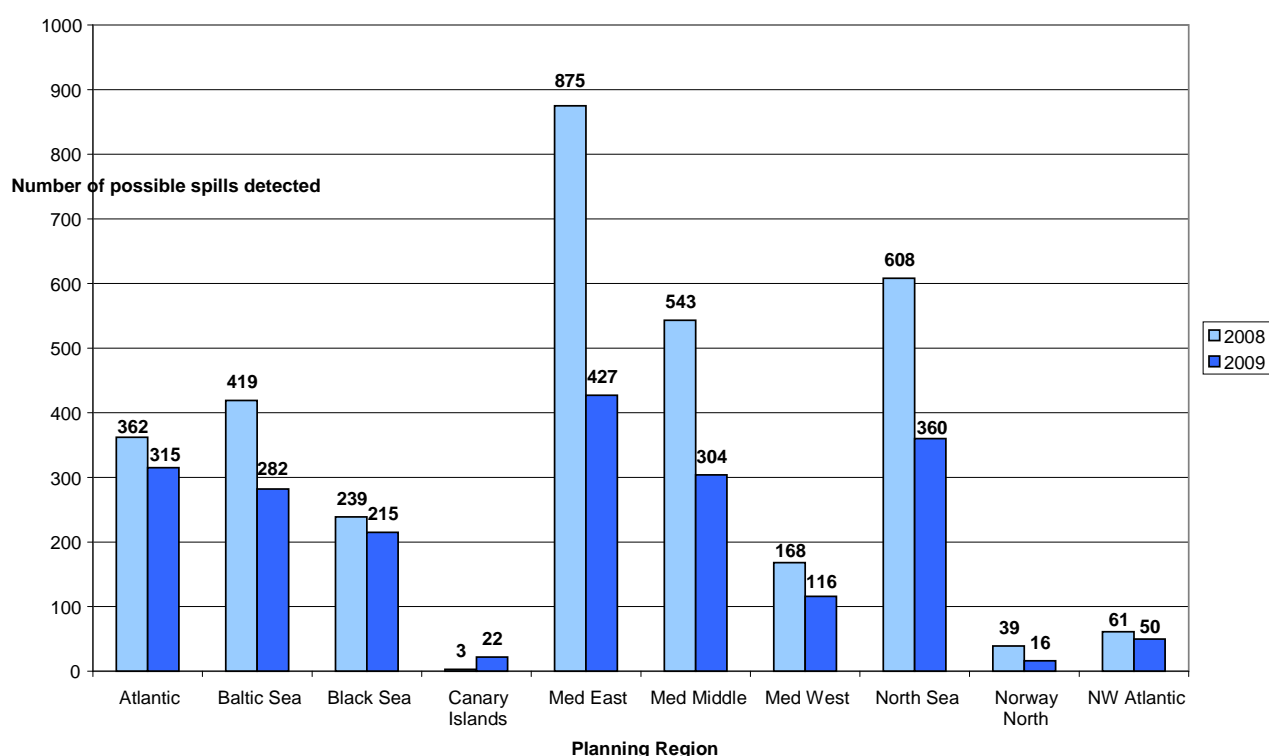


Map of CleanSeaNet planning regions

A total of 2107 possible oil slicks were detected on the 2113 delivered satellite scenes. Compared to 2008, the number of possible spills detected per image has decreased from 1.4 to 1.0. There are multiple reasons to explain this evolution:

- In some areas, intensive surveillance activity both by satellite and by aircraft has a strong deterrent effect. The Agency's oil pollution monitoring service should not be considered separately but as one element that strengthens national operational response chains.
- In addition, EMSA and the CleanSeaNet service providers have worked together at improving the methods to discriminate between oil spills and look-alikes and reducing the number of false alarms. This is one of the outcomes of the regional workshops organised by the Agency in 2008 and 2009.

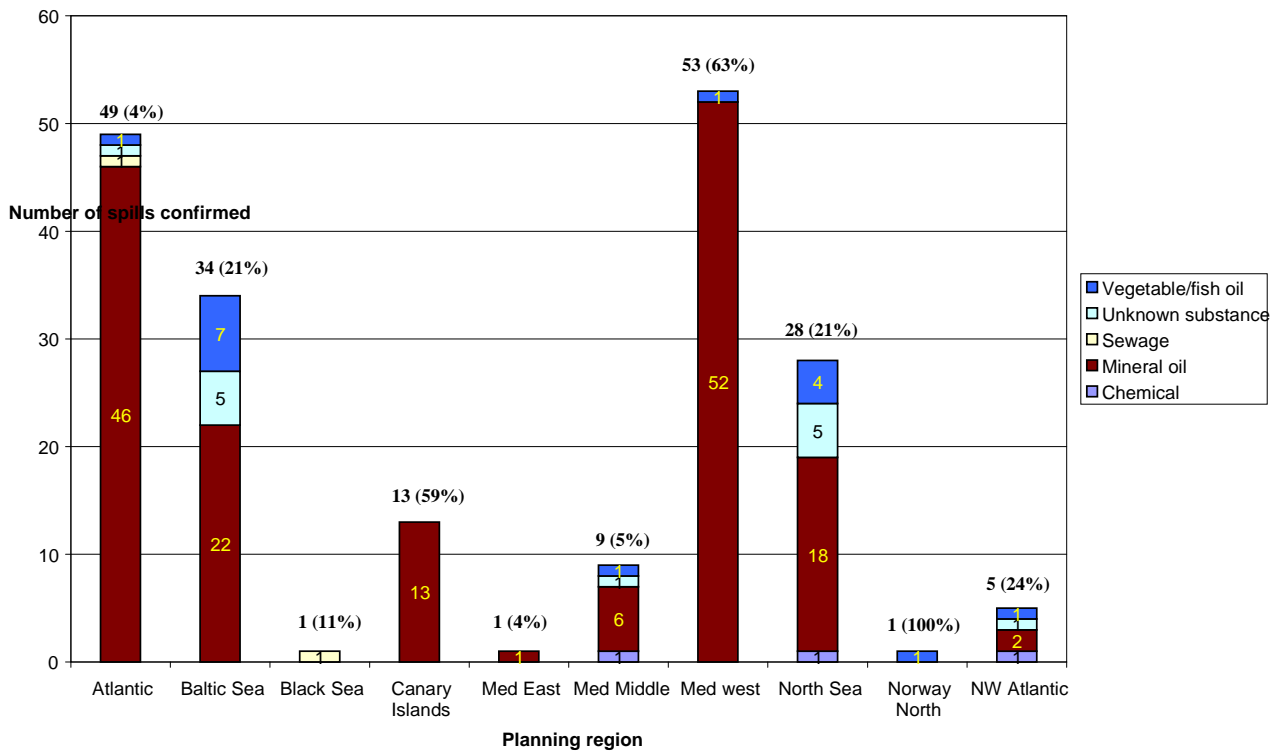
The bar chart below indicates the number of possible spills detected in 2008 and in 2009 per planning region.



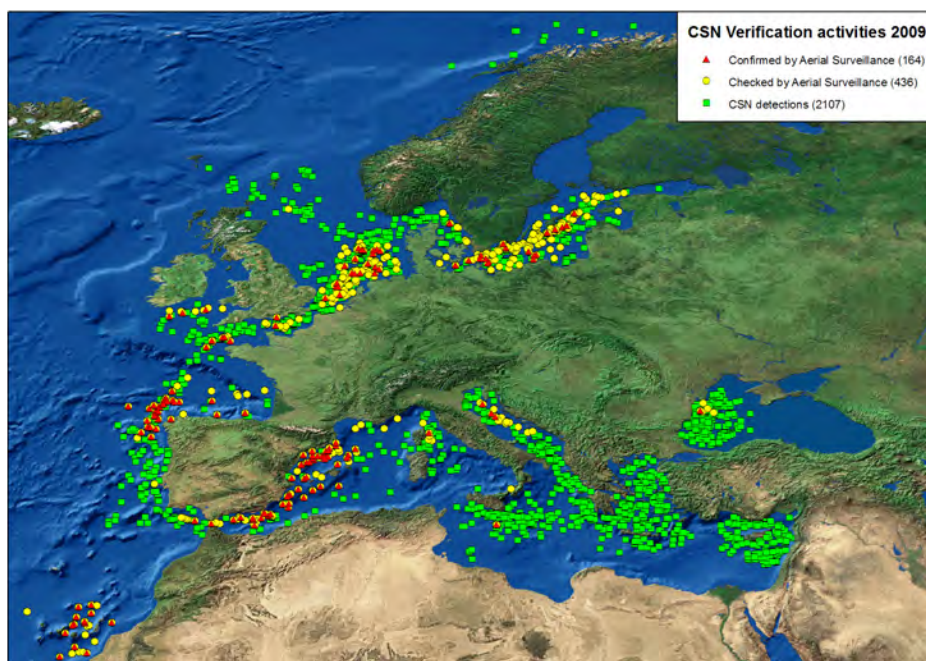
Verification by the Member States and follow up to CleanSeaNet detections are key elements to monitor the performance of the service and to be able to assess the level of ship sourced pollution in European waters. In 2009, the Member States have checked on site 759 of the 2107 possible spills reported by the service. The rate of confirmation, i.e. the number of spills confirmed against the number of possible spills checked on site, has remained steady in 2009 at 26 %. With a rate of confirmation reaching 38%, fixed wing aircraft are the most suitable assets to observe oil spills at sea. This rate falls to 5% for verifications by passing vessels.

Furthermore, the overall confirmation rate hides significant variations between the planning regions where aerial surveillance is important and other regions.

The next bar chart presents the number of possible spills detected by CleanSeaNet and confirmed by the Member States per planning region and per type of product. The rate of confirmation is indicated on top of each bar.



The map below displays the results of verification activities carried out by the Member States:



CleanSeaNet verifications – Year 2009



**Routine surveillance and detection of accidental spills**

After three years of operations, it is possible to conclude that under normal meteorological conditions, a significant spill will always be visible on a satellite SAR image.

In areas regularly covered by CleanSeaNet, significant pollution is not likely to go unnoticed. Consequently it becomes more and more risky for ship masters not to report accidental spills that they may have caused. The first alert given by CleanSeaNet regarding an important pollution incident off Ireland in February 2009 is a good example (see 3.3.3).

**Support to Aerial Surveillance Operations of Member States and Regional Agreements**

The Agency supports dedicated surveillance operations organized by Member States and Regional Agreements in European Waters. Examples include CEPCO (Coordinated Extended Pollution Control Operations) and SuperCEPCOs. During 2009 the agency supported 2 SuperCEPCO operations, one in the Baltic Sea in September (Organized by Sweden and Finland) and the first SuperCEPCO operation in the Mediterranean Sea in October (organized by REMPEC). Both operations received direct support from CleanSeaNet. A total of 25 images were delivered to support the continuous verification activities that resulted in several spill detections and confirmations. In the Mediterranean Sea Operation at least one vessel was caught “red handed” after a CleanSeaNet detection of a possible oil slick.

**Administrative or judicial follow-up**

Feedback provided by the Member States to EMSA demonstrates the efficiency of the CleanSeaNet service to detect oil and identify possible polluters. Nevertheless, Directive 2005/35 on ship source pollution does not establish any legal reporting obligation on administrative or judicial follow-up. Therefore, figures on Port State Control inspection and/or prosecution of identified polluters as a result of CleanSeaNet detection are not available.

	COMMITMENTS	PAYMENTS
Satellite image licences	740,000.00	812,713.09
Satellite image processing	1,650,000.00	1,435,204.62
<b>SUB-TOTAL 3.2.2.</b>	<b>2,390,000.00</b>	<b>2,247,917.71</b>

**3.2.3. Support to CleanSeaNet Users**

**The CleanSeaNet User Group**

The fifth CleanSeaNet User Group meeting took place at the European Commission’s Joint Research Centre in Ispra, Italy on 3 June 2009 and the sixth in Lisbon at EMSA on 25 November 2009. These meetings are held back to back with the European Group of Experts on Satellite Monitoring of Sea-based Oil Pollution (EGEMP). Their aim is twofold:

- Establishing a strong link with the experts and the operational users in the Coastal States;
- Fostering cooperation between the Member States, sharing of experience and disseminating best practices.

At CleanSeaNet User Group meetings, EMSA and the Member States have the unique opportunity to define jointly, based on the recommendations from the experts, the future improvements and developments of the CleanSeaNet service.

Priority in 2009 was put in refining the users’ requirements for CleanSeaNet after 2010. Improving definitions regarding the classification of possible spill detections and parameters that CleanSeaNet should provide to alerting systems in Member States were important outcomes of the sixth User Group.

**Coastal States Training**

Following positive feedback from the participants on trainings organised by EMSA on CleanSeaNet, the training plan set-up in 2008 has been continued in 2009 with the same modules.

Two sessions of the "Introduction to CleanSeaNet" course were organised in 2009 for 33 duty officers from the Member States who had no previous knowledge or experience using the CSN service. Participants are typically officers who receive CleanSeaNet alert reports; who use the CleanSeaNet web browser and/or who provide feedback on verification activities to EMSA. These two sessions were held at EMSA on 18 and 24 June 2009.

Two workshops on "Image Analysis and Ancillary Data for Improved Spill Detection" were held in 2009. Atlantic and North Sea Coastal States gathered at EMSA on 31 March 2009. Baltic Coastal States were invited to meet in Copenhagen at the European Environment Agency on 5 May 2009.

The workshops addressed the following main objectives:

- Collect regional maritime information from Coastal States to better identify the potential source of the CleanSeaNet possible oil spills indications;
- Collect information on the marine environment and how regional and local conditions (e.g.: algae blooms or natural oil seeps); Share this information with operators performing image analysis for CleanSeaNet;
- Clarify Coastal States requirements for ancillary information within CleanSeaNet; Identify priority areas for improvement for CleanSeaNet after 2010.

Outcomes of these 2 workshops together with the results of the workshop organised in 2008 for the Mediterranean Sea and the Black Sea, have been presented in a report published on the Agency website. During the workshops Coastal States provided maritime and marine information, including Traffic Separation Schemes, areas of ship to ship operations, oil platforms, locations of potentially polluting wrecks, frequently occurring false positives and pollution hotspots for their regional sea areas. Coastal States recommendations for ancillary information have been integrated in the tender specifications for CleanSeaNet 2nd Generation. Furthermore a catalogue of CSN oil spill detection examples was created and shall be used as a reference data set for end user training.

	COMMITMENTS	PAYMENTS
CleanSeaNet User Group Meetings	60,695.30	68,420.83
CleanSeaNet User Trainings and Workshops	54,000.00	21,297.26
<b>SUB-TOTAL 3.2.3.</b>	<b>114,695.30</b>	<b>89,718.09</b>

**3.2.4. Service Implementation, Improvements, and Developments**

The CleanSeaNet service is provided through three framework contracts over a three year period.

- ERS/ASAR ENVISAT licences contract signed on 18 December 2006 between EMSA and Eurimage S.p.A.;
- RADARSAT-1 and RADARSAT-2 licences contract signed on 2 February 2007 between EMSA and MDA Geospatial Services Inc.;
- Provision of "Services for oil spill monitoring" contract signed on 18 December 2006 between EMSA and a consortium of 3 companies: Kongsberg Satellite Services AS, Telespazio S.p.A (now eGEOS S.p.A) and Edisoft.

The contracts with MDA and the CleanSeaNet Consortium have been extended for one year and will end in December 2010.

Since end of September 2009, EMSA orders ENVISAT images directly from ESA as commercial licences are not required anymore for Near Real Time ENVISAT satellite data. Therefore, the contract with Eurimage S.p.A was not renewed.

In 2009, priorities for CleanSeaNet were threefold:

### a) Reinforcing the capacity to identify possible polluters

- Since July 2009, all users have access to AIS data within CleanSeaNet. This was initially achieved through a direct connection of the CleanSeaNet service providers to AIS regional servers. Since 1 December 2009, AIS data are provided by the Agency via SafeSeaNet;
- The possibility to correlate AIS data with ship detection information derived from CSN SAR images for the purpose of identifying the polluting ship is available on request since November 2009;
- In 2009, an automatic data exchange procedure has been set-up between CleanSeaNet and 3 oil spill models: MEDSLIK, OPTOS-FLOAT, and SEATRACKWEB. The display of the model results on the CleanSeaNet browser will be implemented early in 2010, allowing CleanSeaNet users to have a fast and easy access to a first spill drift model in support of polluter identification or pollution response.

### b) Gaining access to new Satellite products

Since 2009, CleanSeaNet is recognised as an operational GMES<sup>10</sup> service. This allows CSN to benefit from the GMES Space Component Data Access Grant (GSCDA) which provides to GMES services satellite data free of charge. EMSA will use this mechanism for emergency acquisitions to access a broad portfolio of SAR and optical satellite missions.

On 11 December 2009, EMSA signed a contract with the European Space Agency (ESA) for topping-up also routine monitoring satellite imagery with additional third party satellite products. This contract enables the Agency to access a large variety of satellite data without having to procure each sensor individually and thus together with ESA benefitting from competitive prices due to the economy of scale.

These two mechanisms allow the Agency to use high resolution radar data for routine operation in high ship density areas, in case of emergency and for maritime surveillance activities. In the same way radar data can be complemented by optical data to characterise the spills or the vessels in more detail and thus to enhance evidence.

In future the GMES family of radar satellites (Sentinel-1) will provide the Agency with a large coverage of European waters and is expected to replace ENVISAT, which is already well beyond its expected lifetime. Presently the Agency is active in ensuring the near real time availability of these sensor products over Europe.

### c) Ensuring the continuation of CleanSeaNet after December 2010

The next generation of the CleanSeaNet service will consist of:

- A network of receiving ground stations providing the "CleanSeaNet services";
- A "CleanSeaNet Data Centre" hosted at EMSA.

10. The EC and ESA are developing the GMES (Global Monitoring for Environment and Security) initiative. The objective of GMES is to provide Europe with reliable, timely information on environmental and security issues on a sustainable basis, in support of public policy-makers' needs. The development of the GMES Space Component co-ordinated by ESA will ensure that EMSA will have guaranteed long term access to appropriate satellite observations. The new Sentinel-1 satellite in particular should ensure the continuity of the Envisat radar observations, a primary source of CleanSeaNet satellite scenes.

In order to ensure a European wide near real time service, SAR sensor data have to be acquired and simultaneously downloaded to a network of receiving antennas providing a full coverage of European waters. Based on the acquisition plan received from the CleanSeaNet data centre, the contracted ground station operators will provide the "CleanSeaNet services", i.e. acquisition, processing and analysis of images for oil spill detection. All products will be transferred to the CleanSeaNet data centre.

The CleanSeaNet Data Centre (CSN DC) will be the core element of CleanSeaNet 2nd generation. The centre will receive from "CleanSeaNet Services" providers, near-real-time information on possible oil spills in European waters, associate this information with external environmental data, and link it with relevant internal and external data necessary for polluter identification<sup>11</sup>. The CleanSeaNet data centre will be responsible for sending alerts to the Member States and making the service available to the end user via a single web user interface. The data will be stored and managed by the CSN DC and distributed electronically to the CleanSeaNet users. It is also important to note that EMSA will take over satellite acquisition planning tasks that were previously contracted.

To ensure the continuity of the CleanSeaNet service, both the CleanSeaNet data centre and the CleanSeaNet services will have to be ready in September 2010 for parallel operations with the existing service.

In 2009, EMSA issued an open tender for the development, the implementation, and the maintenance of the CleanSeaNet data centre for a total value of 1,250,000.00 Euros. Following a successful procurement procedure, the contract was awarded to a consortium of European companies led by Advanced Computer Systems S.p.A..

### 3.2.5. Co-operation with External Organisations

In 2009, official recognition of CleanSeaNet as a GMES service can be seen as a successful outcome of EMSA's policy of cooperation with external organisations to ensure the continuation of a state of the art service.

Close cooperation between ESA and EMSA continued in 2009 under the framework of the joint agreement in the field of exploitation of satellite data for maritime safety and security. Operational procedures for the planning and ordering of ENVISAT products directly to ESA have been put in place. EMSA has provided ESA with CleanSeaNet requirements for the integration of Sentinel-1 as the successor of ENVISAT in its service. ESA provided technical support for the definition of CleanSeaNet Data Centre especially with regard to Multi Mission Earth Observation product standards. ESA has become the central actor for CleanSeaNet emergency acquisitions in the framework of the GMES Space Component Data Access Grant.

The service level agreement signed in November 2007 with the Institute for Protection and Security of the Citizen (IPSC) of the European Commission Joint Research Centre (JRC) has set up a framework for a collaborative approach for the development and support of satellite oil monitoring techniques. In 2009, the JRC has delivered an improved automatic oil spill detection algorithm. The work on radiometric and geometric improvement will bring significant improvement to SAR image quality in CleanSeaNet 2nd generation. Geographical Information Systems (GIS) were used to combine environmental and anthropogenic data to create maps displaying European sea areas at greater risks of ship source pollution and to improve the reliability of the oil spill detection process.

In March 2009, EMSA organised a one day workshop with the operators of oil spill models from Coastal States to gather technical information for the definition of a common data exchange interface in CleanSeaNet second generation. Any operator interested in linking its oil spill model with CleanSeaNet has been invited to participate in pilot projects. In 2009, two projects have been initiated with the Management Unit of the North Sea Mathematical Models (MUMM)<sup>12</sup> and the Swedish Meteorological and Hydrological Institute (SMHI).

11. SafeSeaNet is one of the EMSA application that will be connected to CleanSeaNet.

12. The Management Unit of the North Sea Mathematical Models and the Scheldt estuary, abbreviated to MUMM, is a department of the Royal Belgian Institute of Natural Sciences (RBINS)

	COMMITMENTS	PAYMENTS
CSN service set-up, maintenance and running costs	451,975.39	231,229.06
CSN service improvements	801,070.00	641,290.53
CSN 2nd generation: "CleanSeaNet Data Centre" set-up	843,471.60	2,049.60
CSN 2nd generation: "CleanSeaNet Services" set-up	0.00	0.00
<b>SUB-TOTAL 3.2.4. &amp; 3.2.5.</b>	<b>2,096,516.99</b>	<b>874,569.19</b>

### 3.3. SUPPORT TO COASTAL STATES AND THE COMMISSION FOR ACCIDENTAL SPILLS

#### 3.3.1. Introduction

In accordance with the EMSA Regulation as amended, the Agency can provide, following requests from a Member State or the Commission, operational spill response assistance for oil pollution accidents in terms of:

- At-sea oil recovery services mobilising the network of EMSA contracted pollution response vessels;
- Satellite imagery using the CleanSeaNet service and;
- Pollution response expertise available through Agency staff.

Such assistance can be requested through the Monitoring and Information Centre (MIC) of the European Commission or when just using CleanSeaNet to cover smaller accidents, directly from the Agency. Additionally, in the event of a major spill in European waters and/or adjacent high seas, EMSA will normally be appointed as a Project Manager under the International Charter for Space and Major Disasters with responsibility for the co-ordination of emergency delivery of satellite images to affected coastal state(s). Normally in such cases the Charter will be activated by the MIC. This co-operation ensures fast delivery of satellite images. CleanSeaNet can also supplement coverage with additional images. Costs for these emergency activities, aside from staff missions, are covered by existing running contracts. Short descriptions of incidents involving significant assistance from the Agency are provided below.

#### 3.3.2. Topaz A, Norway

The fish factory vessel *Topaz A* (1024 gt, built 1978, IMO 7704980, Russian flagged and owned) took on water and sank in the Barents Sea off Bear Island around 250 nautical miles north of northern Norway on 12th January 2009. The captain died and 18 crew members were rescued by lifeboats from other vessels. As many fishing vessels in the area are using heavy fuel oil, the Norwegian Coastal has requested satellite monitoring from EMSA until the cargo of the ship was confirmed.

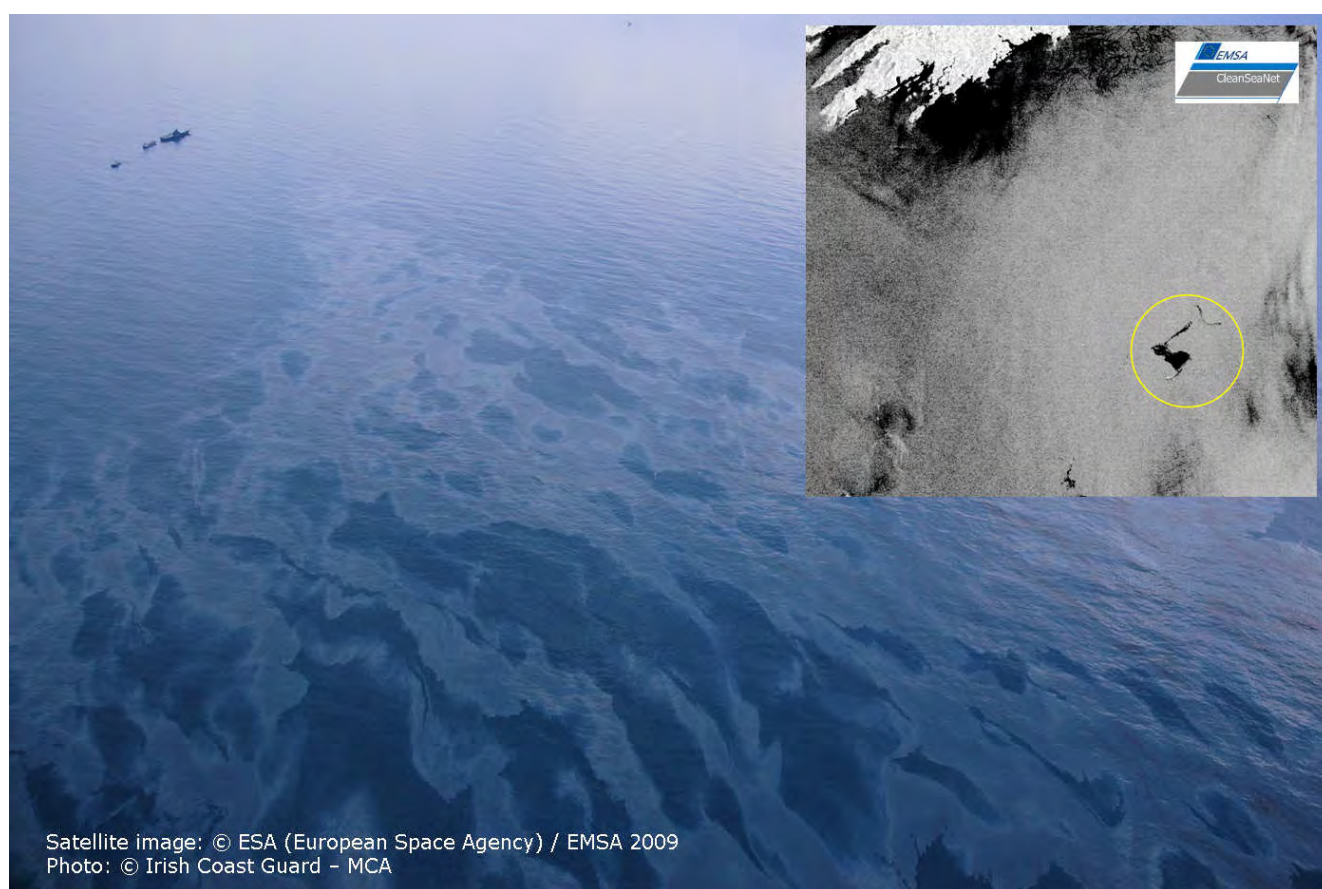
3 RADARSAT and 5 ENVISAT CleanSeaNet images were acquired over the area between 12 and 21 January 2009. No pollution was detected. This example illustrates the type of emergency support that the Agency oil pollution satellite monitoring system can provide to Coastal States. The same level of surveillance would have required to dispatch an aircraft to northern Norway for more than one week and to spend more than 20 flight hours.

#### 3.3.3. Incident involving the Russian aircraft carrier Admiral Kuznetsov, Ireland

On 14 February 2009, the Irish authorities received a CleanSeaNet alert reporting a spill 50 nautical miles (80 km) southeast of Fastnet Rock off the West Cork coast of Ireland. The alert was generated following one of the routine images acquired by CleanSeaNet for the Member States.

An Irish Coast Guard helicopter confirmed the spill and that it was probably due to a refuelling at sea incident involving the Russian aircraft carrier Admiral Kuznetsov. Initial estimates assessed the spill at around 1,000 tonnes but further aerial surveillance by the Irish and British maritime authorities concluded that it was in the region of 400-500 tonnes. On 17 February, a CleanSeaNet image showed the slick expanded to 8 x 1 km and to have drifted around 30 km East-North-East of the original position. At the request of Irish authorities, one of the EMSA contracted stand-by oil spill response vessels, specifically the *Galway Fisher*, was mobilised out of Cobh, Ireland. Following the evaluation of the situation and the circumstances of the spilled oil, the oil recovery vessel was subsequently demobilised.

Additional CleanSeaNet images were also ordered to monitor the situation. The spill was closely monitored until it naturally dispersed without hitting the coastline. 15 SAR images have been acquired between 14 February and 8 March 2009 to monitor the affected area.



A joint Irish Coast Guard – UK Maritime Coastguard Agency aerial mission confirms the oil pollution initially detected and reported by CleanSeaNet to the Irish authorities

### 3.4. OVERVIEW OF ANNUAL COST/EXPENDITURE FOR OPERATIONAL ASSISTANCE

	COMMITMENTS	PAYMENTS
Network of Stand-By Oil Spill Response Vessels	10,771,880.81	10,828,619.94
Maintaining the service: Exercises	0.00	609,980.37
Improvements to the existing arrangements	3,056,785.36	2,346,448.00
CleanSeaNet (CSN)	4,486,516.99	3,122,486.90
CSN meetings / workshops / trainings	114,695.30	89,718.09
<b>SUB-TOTAL FOR OPERATIONAL ASSISTANCE</b>	<b>18,429,878.46</b>	<b>16,997,253.30</b>

### 4. CO-OPERATION AND CO-ORDINATION

#### 4.1. INTRODUCTION

In 2009 the Agency continued its co-operation with the pollution response experts of Member States, with the Regional Agreements (Bonn Agreement, HELCOM, REMPEC, Black Sea Commission and Lisbon Agreement) and the International Maritime Organisation. The work of the Consultative Technical Group for Marine Pollution Preparedness and Response also continued as detailed below. Further activities were also carried out with regard to the use of dispersants in co-operation with Member States.

#### 4.2. CONSULTATIVE TECHNICAL GROUP FOR MARINE POLLUTION PREPAREDNESS AND RESPONSE

The Consultative Technical Group for Marine Pollution Preparedness and Response (CTG MPPR) was established by EMSA in 2007 and is composed of pollution response experts from all 27 Member States, Candidate Countries (Turkey and Croatia), EFTA Coastal States (Iceland and Norway), the Regional Agreements and the European Commission represented by DG Environment.

The main objective of the CTG-MPPR is to provide at Community level a platform for Member States, contributing to the improvement in preparedness for and response to accidental and deliberate pollution from ships. The forum is to exchange views and opinions and define the current and future priority actions, which may include workshops, reports, studies and training to be addressed by the CTG for 2009-2010 and beyond.



Participants of the 4th meeting of the Consultative Technical Group for Marine Pollution Preparedness and Response

At its 4th meeting in October 2009, the status of priority actions agreed for 2008-09 was reviewed and new projects were included in the CTG MPPR Rolling Work Programme for 2009/2010 after a comprehensive assessment.

A summary of the status of CTG MPPR priority actions for 2008-09 is provided below:

### Joint DG-EMSA workshop: "Co-ordinated at-sea and shoreline pollution response"

Following discussions during the 2nd and 3rd CTG meetings it was decided to organise a joint workshop between EMSA and DG Environment covering the topic of co-ordinated at-sea and shoreline pollution response, in which the whole marine pollution response chain would be considered. This joint workshop, entitled "Co-ordinated at-sea and shoreline pollution response" was held in Lisbon on 30 June 2009 with participants from the different national authorities involved in pollution response (marine pollution experts and civil protection experts) from the EU/EFTA Member States. The workshop format, bringing together civil protection and marine pollution actors, has been widely appreciated by participants as a valuable opportunity to learn from each other. There was a strong consensus among the participants to repeat this joint workshop on a regular basis.

### Inventory of Pollution Response Training Centres

In 2009, EMSA has produced an Inventory of all main pollution response training centres around Europe, for both oil and chemical spills as requested at the 2nd CTG meeting in 2007. The Inventory, published on EMSA's website, gives details of existing European training centres, the type and topics covered as well as the level of these courses.

### EMPOLLEX: EMSA Marine Pollution Expert Exchange Programme

An action agreed for 2007 under the umbrella of the CTG MPPR was the development of the EMSA Marine Pollution Expert Exchange Programme, which was subsequently launched in 2008. This EMPOLLEX Programme is similar to the previous EUMAREX (Exchange of Experts in the field of marine pollution) programme co-ordinated by the European Commission, which ended in August 2007.

The main objectives of EMPOLLEX are to promote exchange of best practice between the Member States and to enhance contacts, networking and cooperation between Member States in the field of marine pollution with a view to improve national preparedness and capabilities for response. Within the EMPOLLEX framework, national experts from participating States are given the opportunity to travel to other EMPOLLEX countries, in order to gain or share professional experience. The first 7 exchanges of experts under the new umbrella of EMPOLLEX took place in 2009.

### Claims Management and cost recovery: EU States Guidelines on Claims Management

On 8 and 9 December 2009, EMSA hosted an "EU States Claims Management" workshop organised within the framework of the CTG MPPR. The workshop brought together Member States authorities involved in claims management and cost recovery following maritime incidents with the aim of finalising the "EU States Guidelines on Claims Management". The Guidelines were initially developed by a Claims Management Working Group (CMWP) of six Member States, set-up following a dedicated workshop on Claims Management organised in the United Kingdom in 2007 within the Community framework for cooperation in the field of accidental or deliberate marine pollution. Latterly, under the umbrella of the CTG MPPR, the guidelines were further developed and the final draft had been sent for comment to the CTG and their feedback were collated by EMSA. Participants from 20 coastal EU countries screened the text of the guidelines, discussed comments and agreed on a final version to be published by EMSA in early 2010. The participants also concluded to update these guidelines at regular intervals and share experiences at future CTG workshops.

The guidelines will be the first document at the EU level to comprehensively describe the preparation of claims following maritime incidents from the operational point of view. This document can be used as a reference and guidance in the field of claims management at the Member States' discretion. It is expected to facilitate the claims management and subsequent discussions with the IOPC Fund, P&I Clubs and expert organisations significantly.



#### 4.3. ACTIVITIES IN THE FIELD OF OIL SPILL DISPERSANT USE

In accordance with the EMSA Action Plan for Oil Pollution Preparedness and Response, the Agency is to address the issue of the usage of oil spill dispersants and their implications. Once oil is spilled into the sea, the primary goal of any response action is to mitigate the socio-economic and environmental impact by removing the spilled oil from the water surface as fast as possible. The purpose of oil spill dispersants is to transfer the oil from the sea surface, in the form of very small droplets, into the water column where there is a significant dilution effect. When used in an appropriate and timely manner, dispersants can remove a significant amount of oil from the water surface with a consequent benefit of reducing the risk of oiling of sea birds and mammals as well as shorelines.

With regard to oil spill dispersants EMSA focuses on supporting Member States with relevant information and tools to allow for science based decisions as appropriate in the respective country or region. In 2007, the Agency distributed to the EU Member States and EFTA countries the Operational Manual on the Applicability of Oil Spill Dispersants. This software "tool" was well received and after a period of utilization, feedback was received from users in the Member States and from the Commission. This feedback was considered in a public procurement procedure to update and improve the "tool". The new software: EMSA Dispersant Usage Evaluation Tool (DUET) has been completed and dedicated training was provided to Member States and coastal EFTA country experts in early December 2009. Subsequently, the software tool was distributed to the Member States and EFTA coastal states Maritime Administrations.

A desire for standardisation and harmonisation among Member States with respect to dispersant testing and approval methods has been emphasised. EMSA, in close cooperation with experts from Cefas (UK), Sintef (Norway), Cedre (France) and an independent consultant, prepared a paper summarising in detail the current status of dispersant testing and approval procedures in the EU. These findings were discussed in detail at the 2nd EMSA workshop on Dispersants in 2008. The agreed way forward towards a more harmonised approach for dispersant testing and approval procedures was through setting-up a Technical Correspondence Group (TCG) facilitated by the Agency. Nomination of experts by the Member States to the TCG has been completed and the terms of reference were agreed upon. Work on this issue will continue in 2010.



Participants of the two DUET training session at EMSA's headquarter in Lisbon in December 2009

#### 4.4. REGIONAL AGREEMENTS AND IMO

With respect to the Regional Agreements e.g. Helsinki Convention, Bonn Agreement and Barcelona Convention, the Agency also provides technical support to the European Commission, as part of the Community delegation, during the relevant meetings. For example, in addition to participating in the HELCOM Response Group, EMSA is also a member of HELCOM IWGAS (Informal Working Group on Aerial Surveillance) which meets once a year. EMSA contributes to these meetings by submitting papers, participating in discussions and also being involved in the various operational exercises organised around Europe. Prior to the accession of the European Union to the Bucharest Convention, the Agency is also participating in the upcoming relevant Black Sea Commission meetings.

The initiative of holding informal meetings with the Secretariats of the various Regional Agreements and the European Commission is continuing. The 2009 INTERSEC meeting was held in Lisbon in January 2009, while the next meeting will be hosted by the Black Sea Commission in Istanbul, Turkey, in February 2010.

Within the framework of its HNS Action Plan, EMSA continued its co-operation with the International Maritime Organisation (IMO) on issues of common interest. The Agency regularly participates and contributes, as part of the European Commission delegation, to the OPRC/HNS Technical Group meetings, which are the main technical IMO forum on marine pollution preparedness and response. These meetings are held every 9 month at the IMO headquarters in London.

In 2009, only one meeting of the OPRC/HNS Technical Group was held in July. EMSA, on behalf and as representative of the Commission presented the new MAR-ICE Network as an information paper.

##### Agency participation in Regional Agreement Operational Activities

In terms of operational co-operation in 2009, the Agency was invited to participate in the Co-ordinated Extended Pollution Control Operations (CEPCO) of Regional Agreements. CEPCO is an operation of the continuous sequence of aerial surveillance flights over a given area of the sea with dense traffic. As described earlier, the Agency provided, through its Clean-SeaNet service, satellite images for the operations HELCOM CEPCO South 2008, HELCOM CEPCO North 2008 and Bonn Agreement SUPER CEPCO 2008. As mentioned earlier, EMSA participated in a number of at-sea oil recovery exercises in 2009 including those organised by Regional Agreements i.e. HELCOM Balex Delta which on this occasion was hosted by the Russian Federation and took place in Kaliningrad. Further details are provided in the relevant sections.

#### 4.5. ANNUAL COST/EXPENDITURE FOR CO-OPERATION AND CO-ORDINATION

	COMMITMENTS	PAYMENTS
2009 CTG Meeting	107,247.64	36,166.75
EMPOLLEX	0	5,304.32
Activities in the field of dispersants	59,264.00	102,622.19
IMO / Regional Agreements	4,550.16	4,550.16
<b>SUB-TOTAL FOR CO-OPERATION &amp; CO-ORDINATION</b>	<b>171,061.80</b>	<b>148,643.72</b>

### 5. INFORMATION

#### 5.1. INTRODUCTION

The Agency continues collecting and disseminating information in the field of marine pollution preparedness and response. In 2009, the MAR-ICE Network, providing upon request information on chemical spills at sea, became fully operational. Furthermore, the Agency continued to publish a range of public information media to disseminate its activities to a broader audience as well as supporting relevant international conferences and events.

#### 5.2. ESTABLISHMENT OF THE MAR-ICE NETWORK

When dealing with an HNS pollution incident, one of the priority requirements is the identification of the hazard and an assessment of the risk posed by a stricken vessel and its cargo to the public and responder safety, the environment and socioeconomic assets that a state or coastal community depend upon. The primary factors which determine the safety, environmental and socioeconomic impact of the released HNS material(s) relate to the chemical and physical properties of the material and its physical fate in the environment.

The MAR-ICE Network of experts in chemical spills was established in accordance with EMSA's HNS Action Plan in order to address this need for specific information, following a careful analysis of the best approach to set-up such a network.

The service became operational in January 2009, following the signing of the MoU by the *European Chemical Industry Council* (CEFIC), the *Centre de Documentation de Recherche et d'expérimentation sur les pollutions accidentelles des Eaux* (Cedre) and EMSA and the approval of the Implementation Plan, detailing operational aspects of this information service in late 2008.

This service can advise and support Member States in cases of chemical pollution to the marine environment with timely information on scientific, technical, and operational aspects of an HNS incident upon request. In 2009, the service was used successfully during spill exercises.

EMSA will evaluate the MAR-ICE service in collaboration with stakeholders the following the first full year of operation. This review will form the base for modifications of the service.

**MAR-ICE NETWORK**  
INFORMATION SERVICE FOR USE IN MARINE CHEMICAL EMERGENCIES

**HOW TO ACTIVATE THE MAR-ICE NETWORK**

**STEP ONE - INFO REQUEST**  
1. The maritime administration of EU/EFTA Member States, requests information (the 'MAR-ICE Requester') calls Cedre, on a dedicated phone number (see overleaf).  
1a. Cedre confirms contact details.  
1b. The Requester faxes, or e-mails a copy of the MAR-ICE Contact Form (see overleaf) to Cedre.  
1c. Cedre will call the Requester to confirm receipt of fax/e-mail (within 15 minutes) and that they are dealing with the request.

**STEP TWO - INFO COLLECTION**  
2. If appropriate, Cedre accesses the ICE database and contacts:  
2a. the National ICE Centre  
2b. the chemical company most knowledgeable about the substance involved.

**STEP THREE - INFO DELIVERY**  
3. Cedre faxes or e-mails response information to the Requester. In some cases, this information may be sent directly to the Requester by (1a) the National ICE Centre or (2b) the chemical company.  
- If the chemical can be identified in the ICE database, Cedre will respond within 1 hour (except in cases of force majeure) and provide response information (safety data on the substance concerned, etc.) to the Requester.

**STEP FOUR - POST-INCIDENT REPORTING**  
4. Once incident response is completed, Cedre prepares a report for EMSA on the information requested, the information sent, times of request and response.

**Figure 1. MAR-ICE information flow.**

- If available, additional incident-specific information - including information on the substance's behaviour in the marine environment, etc. - will be provided by Cedre to the Requester as soon as possible.  
- Cedre calls the Requester after approximately 15 minutes to verify that the fax or e-mail has been received.

**MAR-ICE CONTACT FORM** MAR-ICE: INFO SERVICE FOR USE IN MARINE CHEMICAL EMERGENCIES

**INSTRUCTIONS: PHOTOCOPIY THIS FORM, FILL IN YOUR COPY, AND FAX IT TO CEDRE.**  
For more info about MAR-ICE, see the Cedre website ([www.cedre.fr](http://www.cedre.fr)) and the EMSA website ([www.emsa.europa.eu](http://www.emsa.europa.eu)).  
Cedre fax: + 33 (0)2 98 44 91 38 - Cedre phone: + 33 (0)2 98 33 10 10 - Cedre email: [cedre-estrie@cedre.fr](mailto:cedre-estrie@cedre.fr)

Real incident / Exercise or Drill  
(circle appropriate item)

Date:  
Time:  
Reference:

**A. Information about caller: (Requester)**  
Name:  
Position/Title:  
National Authority / Organisation:  
Country:  
Phone:  
Fax:  
E-mail:

**B. Information about the transport accident**  
Name of vessel(s) and type(s):  
IMO number:  
Cause of pollution:  
Collision / Grounding / Structural failure / Mechanical failure / Fire or explosion (circle appropriate item)  
Location (Latitude/Longitude) (or description of incident location):  
Weather conditions:  
Sea state:  
Water depth (in m):  
Spill contained on ship / Spill/Release into water (circle appropriate item)  
Product name:  
Gas / Liquid / Solid (circle appropriate item)  
Bulk / Packages (tank/container/other) (circle appropriate item)  
UN number (4 digits):  
Quantity spilled: Potential spill quantity:  
Manufacturing company:  
Other information:

**C. Product-specific information requested**  
(circle/tick as many as necessary)  
1. Composition/ Information on ingredients  
2. Hazards identification  
3. First aid measures  
4. Fire fighting measures  
5. Accidental release measures  
6. Handling and storage  
7. Personal protection  
8. Physical and chemical properties  
9. Stability and reactivity  
10. Toxicological information  
11. Ecological information  
12. Disposal considerations  
13. Other  
(Numbers refer to sections of the safety data sheet)

**D. Information regarding the substance's behaviour in the marine environment**  
(If available, the following info should be provided - circle or add as many as necessary)  
Marine pollutant:  
Behaviour classes:  
Gases, Evaporators / Floaters / Dissolvers / Sinkers (circle appropriate item)  
Other:

**E. Language of reply**  
(local language is English, yet circle as many as acceptable)  
EN / DE / NL / ES / SE / FI / FR / IT / PL / DK / NO / other:  
Spelling alphabet:  
Alfa - Bravo - Charley - Delta - Echo - Foxtrot - Golf - Hotel - India - Juliet - Kilo - Lima - Mike - November - Oscar - Papa - Quebec - Romeo - Sierra - Tango - Uniform - Victor - Whiskey - X-ray - Yankee - Zulu

FOR MORE INFORMATION: [www.emsa.europa.eu](http://www.emsa.europa.eu)

MAR-ICE Information and Emergency Contact Form

5.3. INVENTORIES OF MEMBER STATES POLICIES AND OPERATIONAL RESPONSE CAPACITIES

The Agency is tasked to "draw up on a regular basis a list of the private and state pollution response mechanisms and response capabilities in the various regions of the European Union" in accordance with Regulation (EC) No 2038/2006. In 2009, EMSA published the revised "Inventory of EU Member States Oil Pollution Response Vessels", which was first compiled in 2004 and updated in 2006. This complements the existing inventory on Member State policies regarding the use of oil spill dispersants and the inventory of capacities for responding to pollution incidents involving hazardous and noxious substances (HNS) published in 2008. These inventories are intended to provide a general description of the status of preparedness and response capacities of all coastal EU Member States and EFTA Contracting Parties (Iceland and Norway) to marine spills of oil and HNS. They include descriptions of response equipment, the competent authorities, the policies, and the preparatory arrangements of each Member State.



EMSA's Executive Director Willem de Ruiter at INTERSPILL

#### 5.4. INFORMATION DISSEMINATION

The pollution preparedness and response section of the Agency website was developed and updated regularly with relevant documents and links in this field to assist experts and public alike.

The Agency continues to support the major marine pollution conference in Europe, namely INTERSPILL, as a member of the event's Steering<sup>13</sup> Committee, recognising the importance of sharing spill response experience and disseminating best practice. EMSA continued its active role in the Conference Programme Committee with the aim of ensuring EU and EFTA Member States' issues and representation were at an appropriate level at the conference, which was held in Marseille, France in May 2009.

In addition to providing information on the Agency's activities at a conference stand, the Agency presented five papers including a key note speech by EMSA's Executive Director at the opening ceremony.

The Agency also served on the panel debating the meeting's white paper: *Are HNS spills more dangerous than oil spills*, which EMSA co-authored as well as co-chairing the *Response at Sea session*.

In addition, the Agency participated at the World Fishing Exhibition (WFE). This is one of the most important exhibitions in the fishing sector and attracts tens of thousands of visitors from around the world. This year's event was organized by the Municipality of Vigo, Spain, from 16-19 September. EMSA shared an exhibition stand with the Community Fisheries Control Agency (CFCA) and the European Commission's DG-MARE. During a special Europe Day on 18 September, the Executive Director made a presentation on the Agency's activities and the fishing industry. In parallel, an "open ship" and VIP tour, was held onboard the EMSA chartered oil spill response vessel *Ria de Vigo*. Visitors were given the opportunity of guided tours of the vessel (from deck to the bridge) and a demonstration of oil spill response equipment (booms and sweeping arm).

The organisation of an "open ship" in conjunction with events such as the WFE are important tools for the Agency in the context of disseminating of information as well as facilitating the acceptance of the work of the Agency by the general public.

13. Since 2007, EMSA has been a party to the MoU between the event's Steering Committee members to organise the conference and exhibition on a "not-for-profit" basis.



VIPs, including the Executive Directors of EMSA and CFCA, following a demonstration of the oil spill response equipment onboard the Ria de Vega during the World Fishing Exhibition

5.5. ANNUAL COST/EXPENDITURE FOR INFORMATION

	COMMITMENTS	PAYMENTS
Information dissemination	3,109.28	30,292.30
<b>SUB-TOTAL FOR INFORMATION</b>	<b>3,109.28</b>	<b>30,292.30</b>

## 6. TOTAL EXPENDITURES FOR POLLUTION PREPAREDNESS AND RESPONSE ACTIVITIES

The table<sup>14</sup> below summarises the expenditures of the activities described in this report.

	COMMITMENTS	PAYMENTS
<b>NETWORK OF STAND-BY OIL SPILL RESPONSE VESSELS</b>	<b>10,771,880.81</b>	<b>10,828,619.94</b>
Contracts 2005 (Baltic Sea, Atlantic and Channel, Mediterranean Sea)	0.00	218,316.23
Contracts 2006 (Atlantic Coast, Mediterranean East)	0.00	902,793.32
Contracts 2007 (Aegean Sea, Atlantic Coast, Mediterranean West)	0.00	3,061,403.52
Contracts 2008 (Black Sea, North Sea, Bay of Biscay)	0.00	2,518,390.71
Contracts 2009 (North Baltic, Atlantic/Channel)	7,999,952.00	4,116,143.00
Renewal Contracts 2006	2,760,000.00	0.00
Associated activities (Tender Clarification Meetings, rating reports, experts, protective clothing)	11,928.81	11,573.16
<b>MAINTAINING THE SERVICE: DRILLS AND EXERCISES</b>	<b>0.00</b>	<b>609,980.37</b>
Exercises 2008	0.00	30,861.04
Exercises 2009	0.00	579,119.33
<b>IMPROVEMENTS TO THE NETWORK SERVICE</b>	<b>3,056,785.36</b>	<b>2,346,448.00</b>
Improvements 2007 to the existing arrangements	0.00	60,000.00
Improvements 2009 to the existing arrangements	3,056,785.36	2,286,448.00
<b>CLEANSEANET SERVICE IMPLEMENTATION AND USE</b>	<b>2,390,000.00</b>	<b>2,247,917.71</b>
Satellite image licences	740,000.00	812,713.09
Satellite image processing	1,650,000.00	1,435,204.62
<b>SUPPORT TO CLEANSEANET USERS</b>	<b>114,695.30</b>	<b>89,718.09</b>
CSN User Group meetings	60,695.30	68,420.83
CSN User trainings and Workshops	54,000.00	21,297.26
<b>CLEANSEANET SERVICE DEVELOPMENTS</b>	<b>2,096,516.99</b>	<b>874,569.19</b>
CSN service set-up, maintenance+running cost	451,975.39	231,229.06
CSN service improvements	801,070.00	641,290.53
CSN 2nd Generation: "CleanSeaNet Data Centre" set-up	843,471.60	2,049.60
CSN 2nd Generation: "CleanSeaNet Data services" set-up	0.00	0.00
<b>CO-OPERATION AND CO-ORDINATION</b>	<b>171,061.80</b>	<b>148,643.72</b>
2009 CTG Meeting	107,247.64	36,166.75
EMPOLLEX	0.00	5,304.32
Activities in the field of dispersants	59,264.00	102,622.19
IMO / Regional Agreements	4,550.16	4,550.16
<b>INFORMATION</b>	<b>3,109.28</b>	<b>30,292.30</b>
Information dissemination	3,109.28	30,292.30
<b>RELATED MISSIONS OF EMSA STAFF</b>	<b>162,750.09</b>	<b>127,068.38</b>
<b>TOTAL</b>	<b>18,766,799.63</b>	<b>17,303,257.70</b>

14. The figures in this report are based on preliminary figures available for 2009. They are subject to verification and confirmation as part of the final accounts of the Agency, which will be checked by the Court of Auditors. Therefore, the final figures may deviate from the figures presented in this report.

## About EMSA

The European Maritime Safety Agency is one of the European Union's decentralised agencies.

Based in Lisbon, the Agency provides technical assistance and support to the European Commission and Member States in the development and implementation of EU legislation on maritime safety. It has also been given operational tasks in the field of oil pollution response, vessel monitoring and in the long-range identification and tracking of vessels.



[www.emsa.europa.eu](http://www.emsa.europa.eu)



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