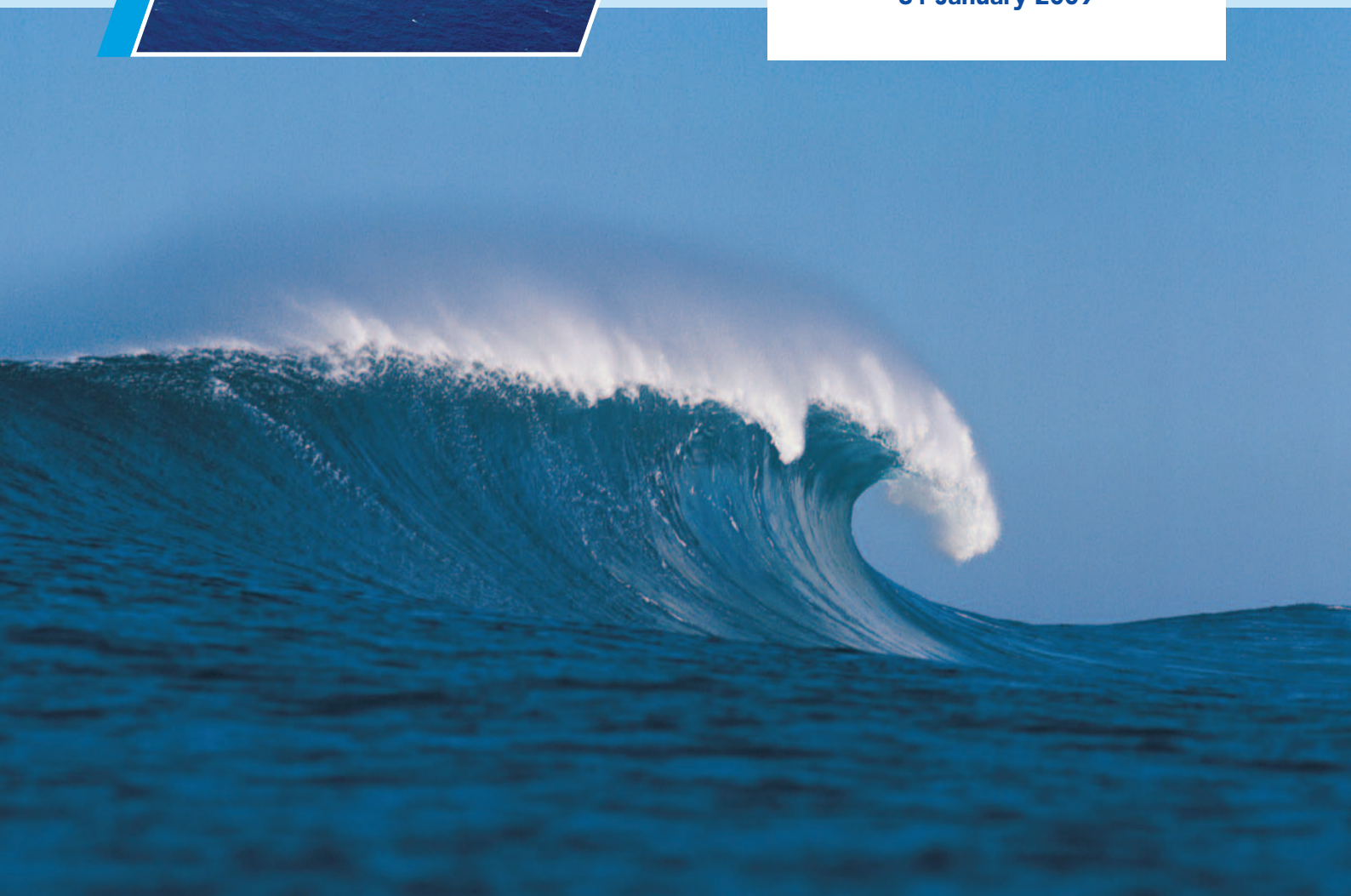
EMSA

European Maritime Safety Agency

The Pollution Preparedness and Response Activities of the European Maritime Safety Agency

Report 2008

31 January 2009



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2008 Report to the European Commission and the Administrative Board regarding Regulation 2038/2006/EC on the multi-annual funding of the Agency's pollution preparedness and response activities.

Table of Contents 3

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[1], 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 to Member States. The two main service pillars are:

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

Following successful procurement procedures in 2008, the stand-by oil spill response service network covers all the regional seas of Europe. 2008 saw contracts awarded for new response capacity in the Black and North Seas as well as replacement capacity along the Atlantic coast. Of particular note is the contracting of a supply vessel based out of Vigo, Spain, in the vicinity of the last major spill in Europe, the *Prestige*. The service network has now reached a sustainable level of assistance coverage for all Member States across the European Union.

The Agency's satellite oil pollution monitoring service (CleanSeaNet) has been operational since April 2007 and is widely used throughout Europe, with 2008 seeing Croatia becoming the 24th coastal state to take advantage of the service. This growth in service use is also reflected in the 2,335 satellite images covering all European waters that were delivered by CleanSeaNet in 2008 at the request of coastal states. When compared to the same period in 2007, the number of images acquired for the period April to December 2008 increased 46%. With the entry into operation of RADARSAT 2, CleanSeaNet has access to three radar satellites. This greatly improves the flexibility of the service to the Member States in support of their illegal discharge response chains, as well as the capacity to provide assistance with respect to accidental pollution incidents.

With regard to responding to "chemical" spills[2], the MAR-ICE Network (Marine-Intervention in Chemical Emergencies Network) was established through a three party Memorandum of Understanding between the European Chemical Industry Council (CEFIC), the Centre de Documentation, de Recherche et d'Expérimentations sur les Pollutions Accidentelles des Eaux (Cedre) and the Agency on 17 October 2008.

Funding of Actions

For 2008, the Budgetary Authorities provided the Agency with € 18 million in commitment and € 20.250 million in payment appropriations for its pollution preparedness and response task. In terms of budget execution, 95% was achieved for commitments and 76% for payments[3].

1) Regulation 2038/2006/EC of the European Parliament and of the Council of 18 December 2006 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.

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*.

3) The figures in this report are based on preliminary figures available for 2008. 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.

With regard to implementing the Multi-Annual Funding Regulation, a difference between 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 only calculated and implemented on an annual basis. Additionally, 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	16,627,733.39	97.6	15,173,205.93	98.2
Co-operation and co-ordination	201,851.56	1.2	102,552.41	0.7
Information	51,635.52	0.3	43,230.15	0.3
Related missions of EMSA staff	153,500.00	0.9	133,989.95	0.8
TOTAL	**17,034,718.47**	**100.0**	**15,452,977.44**	**100.0**

As can be expected, the vast majority of appropriations are spent on the operational pollution response services provided by the Agency in support of Member States. Actions in the fields of co-operation & co-ordination and information, in spite of the broad range of activities, have a significantly more modest impact on external expenditures

2. INTRODUCTION

The European Maritime Safety Agency (EMSA) has been established[4] to address a wide range of maritime issues with the overall purpose of ensuring a high, uniform and effective level of maritime safety, maritime security (limited role), prevention of pollution and response to pollution by ships within the European Community.

In 2004, the Agency was given tasks in the field of marine pollution preparedness and response. The initial framework for such activities was described in the Action Plan for Oil Pollution Preparedness and Response[5]. 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-source pollution[6], 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 and should create coherence 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 Perspective. As part of the provisions of this multi-annual financing

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

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: *www.emsa.europa.eu*.

6) 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).

framework, the Agency is requested to present annually the financial execution of its plan and the status of all funded actions. This is the second such report and covers the year 2008. Activities of the Agency are presented, and described in more detail, in the three categories identified in the Action Plan, namely:

- Operational assistance;
- Co-operation and co-ordination, and;
- Information.

3. OPERATIONAL ASSISTANCE

Under the umbrella of operational assistance to coastal States, the Agency presently provides two main services with regard to marine pollution 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, 2008 saw two main activities in relation to the at-sea oil recovery service namely:

- Bringing into operation those vessels contracted at the end of 2007 and;
- Adding or replacing response capacity of the existing network service in the Black and North Seas and along the Atlantic coast through public procurement procedures.

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' 90), 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 spilled 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[7] 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 Completion of Network of Stand-by Oil Spill Response Vessels

Within the framework of the Agency's annual Work Programme, 2008 saw further procurement procedures to reinforce the service network. Two "Negotiated Procedures following publication of a Contract Notice in the Official Journal of the European Union (OJEU)" were launched covering three different geographical lots:

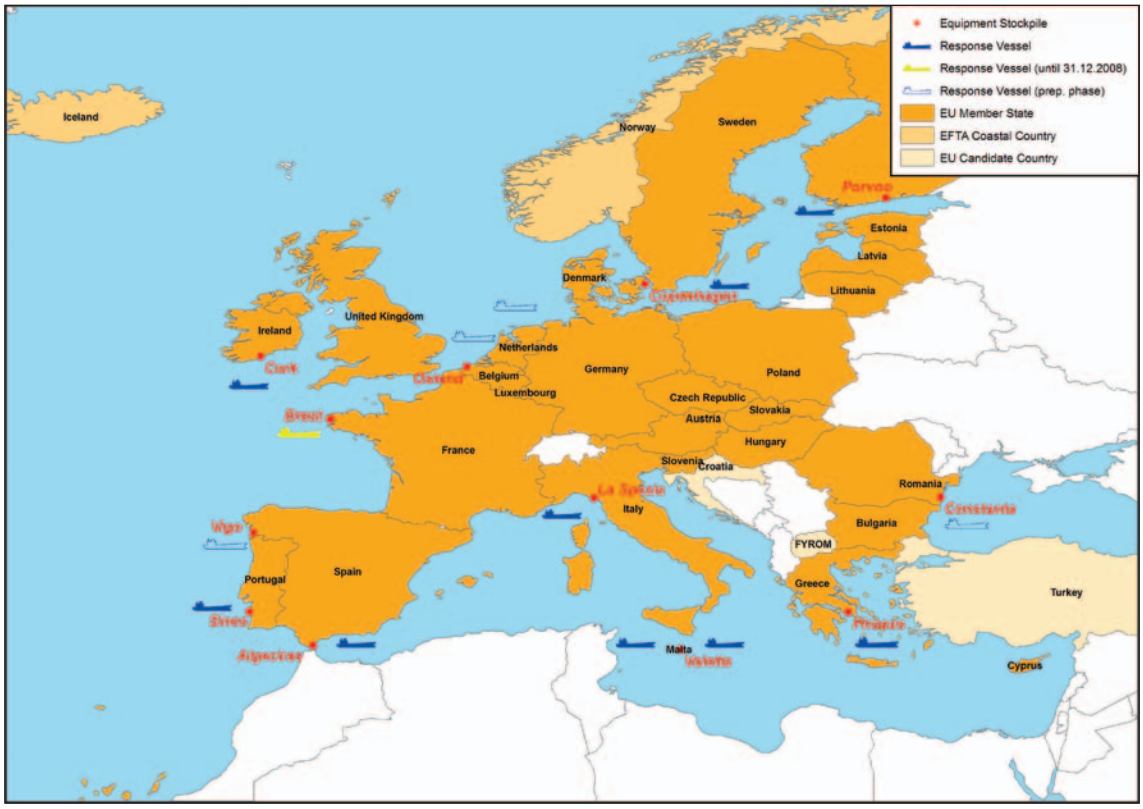
- The Black and North Seas and;
- The Atlantic coast (Bay of Biscay).

These Negotiated Procedures had three different phases and are effectively year long projects in themselves. Following the results of the successful procurement procedure, additional response capacity has been established in all three geographical areas.

In parallel, three companies contracted at the end of 2007 completed successfully the preparatory phase of their contracts with the Agency. Specifically, this meant that six 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 for the Stand-by Phase of the contract and available to respond to a request from a coastal State for assistance. Unfortunately, the entry into operational service of one vessel was delayed due to a combination of a required heating system upgrade and supplier lead time issues. Nevertheless the vessel concerned is expected to be ready in January 2009.

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.

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 below shows the distribution of vessels 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 *www.emsa.europa.eu*.



The EMSA Stand-by Oil Spill Response Vessel Service Network in 2008

Atlantic Coast

The contract with a cable laying vessel with 4,000 m^3 recovered oil storage capacity stationed in Brest, France, expired at the end of 2008. Due to great demand in the cable laying market, it was expected that the vessel would be relocated outside of European waters and consequently the Agency was not in a position to renew the contract for this arrangement. Keeping in mind the resources already under contract to the Agency along the Atlantic coast, a procurement procedure, in principle to replace the previous arrangement, was launched in mid 2008 in order to identify new response capacity in the area between Porto, Portugal and Brest, France.

Following a successful tender, a new contract has been awarded for a vessel (*Ria de Vigo*) with onboard storage capacity of 1,522 m^3 operating out of Vigo, Spain. It will provide fishing monitoring services on a commercial basis to the regional government of Galicia. After three previous procurement procedures were unsuccessful, this is an important milestone for the development of the network. Following a period for pre-fitting works to adapt the vessel to use oil recovery equipment on-board, the service will enter into its operational phase in 2009. This will be in addition to the three other vessels, with total recovered oil storage capacity in excess of 12,500 m^3, that are also available along the Atlantic coast.

Emilio Perez Touriño, President of Xunta de Galicia, hosting the contract handover ceremony in Vigo, Spain for the vessel Ria de Vigo.

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. Accordingly, a second attempt was made with a procurement procedure launched in early 2008. Following a successful outcome, a three year contract has been established for the *GSP Orion* based out of Constanta, Romania. It is an offshore supply vessel with a recovered oil capacity of 1,334 m^3 and services the Constanta oilfield area about 30–50 nautical miles offshore and is expected to enter into operational service in 2009.

The North Sea

The North Sea is one of the sea areas with the highest tanker traffic density. Following a 2008 procurement procedure, a three-year contract has been awarded for an arrangement covering two hopper dredgers trading sand along the Belgian and Dutch coastlines. The *Interballast III* (storage capacity 1,886 m^3) and *DC Vlaanderen 3000* (storage capacity 2,744 m^3) will enter into operational service in 2009.

The Baltic Sea

In 2005, a three-year contract was established for a pool of five tankers to provide at-sea oil recovery services with Lamor Corporation Ab. as lead contractor. Each vessel was adapted to allow the rapid installation of specialised oil pollution response equipment from either a stockpile located in Porvoo, Finland or from Copenhagen, Denmark. This contract expired at the end of 2008 and, based on the experience of implementing the original contract, the format of renewal for an additional and final 3 year period was determined. Consequently, the service mobilisation time has been improved by basing both equipment

stockpiles in Denmark in combination with a more robust arrangement regarding vessel availability. In addition the contracted onboard storage capacity for oil recovered during response operations has been substantially increased from 1,800 m^3 to 8,974 m^3.

The Mediterranean Sea

The contract established in 2005 for the *Mistra Bay* (capacity 1,805 m^3) has been renewed for a further three years until end of 2011. Other contracts are in place with regard to this regional sea basin for vessels operating out of Malta, Spain, Italy and Greece proving in excess of 17,000 m^3 of additional recovered oil storage capacity.

	Commitments	Payments
Contracts 2005 (Baltic Sea, Atlantic and Channel, Mediterranean Sea)	0.00	2,539,991.95
Contracts 2006 (Atlantic Coast, Mediterranean East)	0.00	773,717.22
Contracts 2007 (Aegean Sea, Atlantic Coast, Mediterranean West)	0.00	1,009,224.02
Contracts 2008 (Black Sea, North Sea, Bay of Biscay)	10,996,410.00	6,202,269.00
Renewal Contracts 2005	3,831,880.00	0.00
Associated activities (Tender Clarification Meetings, rating reports, experts)	29,486.82	23,664.68
Subtotal 3.1.1	**14,857,776.82**	**10,548,866.87**

3.1.2 Maintaining the Service: Drills and Exercises

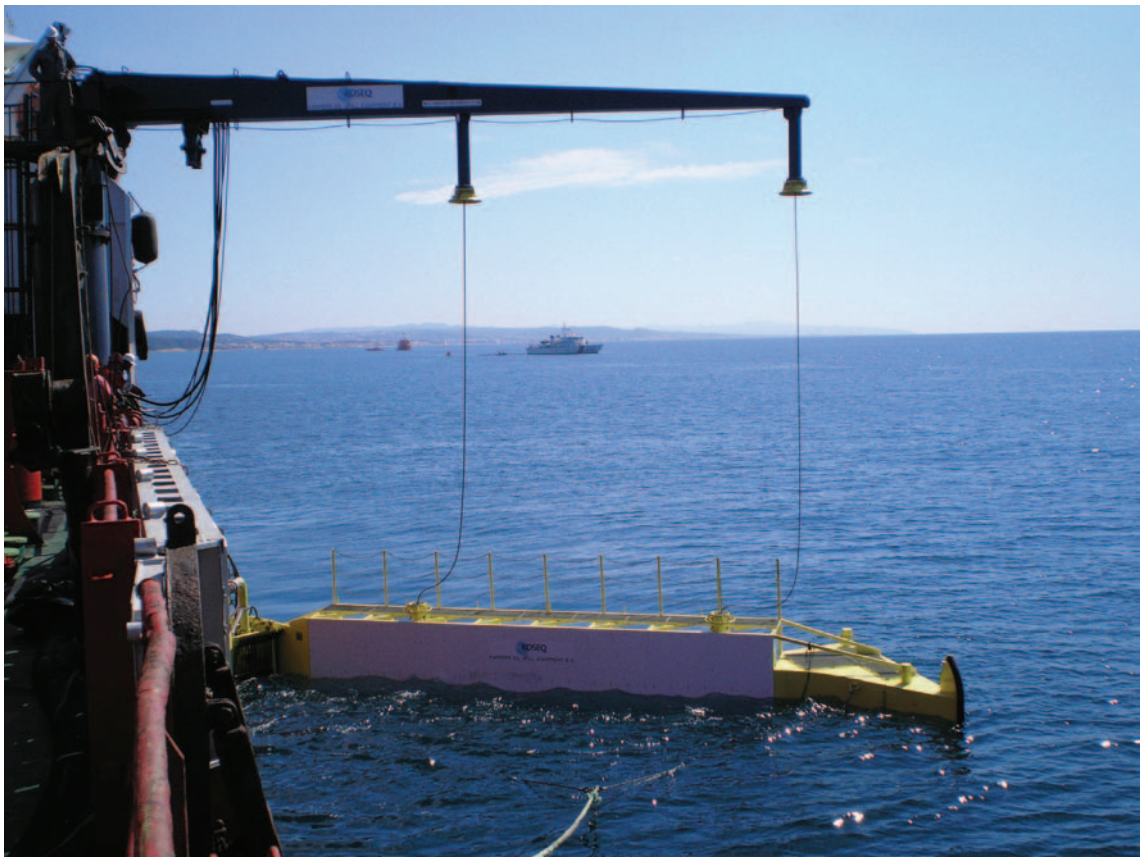
In order to maintain the appropriate level of service during the Stand-by Period of the contracts, the companies and vessels concerned carry out a range of different types of activities. The primary tool is the vessel/crew drills which take place on a quarterly basis. In 2008, a total of 22 drills were 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.

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 co-ordination and co-operation of the "EMSA" vessels among themselves and with the Member State response units. The international exercises carried out in 2008 are summarised in the table (next page) and followed by a short description.

Exercise / Location	Month	Participating Countries	No. of Participating Vessels	EMSA Vessel and Contractor
Mediterraneo 2008, Spain	Jun	France, Italy and Spain	13	*Santa Maria*, Falzon Service Station
Polmar Manche 2008, France	Jun	France	5	*Ile de Bréhat*, Louis Dreyfus Armateurs
Balex Delta 2008, Russia	Aug	Denmark, Estonia, Finland, Lithuania, Poland, Russia Sweden,	14	*Otilia*, Lamor
Darque 2008, Portugal	Sep	Portugal	6	*Galp Marine*, Lamor
Malta 2008, Malta	Oct	Malta	10	*Mistra Bay*, Tankship Management *Santa Maria*, Falzon Service Station *Aktea OSRV*, Environmental Protection Engineering
AUSTRAL 2008, Portugal	Nov	Portugal	4	*Galp Marine*, Lamor
CCA 08	Sep	European Commission (DG RELEX)	Major "table top" exercise	

Exercise: Mediterraneo 2008

On 12 June 2008, the *Santa Maria* participated in "Mediterraneo 2008" exercise off Tarragona, Spain. This exercise was organised by SASEMAR and the Spanish Merchant Marine General Directorate within the framework of the "Lion Plan" and "Ramogepol" pollution response co-operation agreements. Twelve response ships from France, Italy and Spain (plus the EMSA contracted vessel *Santa Maria*) participated in the at-sea exercise. In addition three aircraft from Spain and France were involved in surveillance and monitoring of the simulated oil spill. A desk-top exercise simulating the mobilisation of the *Santa Maria* was also conducted between SASEMAR, the Contractor (Falzon Service Station) and the Agency's Pollution Preparedness and Response Unit.



Santa Maria deploying the portside rigid sweeping arm during "Mediterraneo 2008"

Exercise: Polmar Manche 2008

On 17 June 2008, the EMSA contracted vessel *Ile de Bréhat* participated in the "Polmar Manche 2008" exercise as organised by the French Navy. Within the framework of the exercise scenario, the EMSA vessel demonstrated appropriate co-ordination with units from the French Navy.

Exercise: Balex Delta 2008

On 26 August 2008, the EMSA contracted vessel *Otilia* participated in the BALEX DELTA 2008 exercise off Kaliningrad and organised by Russian authorities under the umbrella of the Helsinki Convention. 13 vessels from seven different countries plus the *Otilia* were involved in the exercise. The event was held in difficult weather conditions (Beaufort 5 +).

The performance of the EMSA contracted vessel during the exercise was notable as it was one of the few vessels which were able, in the difficult weather conditions, to deploy its equipment appropriately.

Exercise: Darque 2008

On 17 September 2008, EMSA contracted the vessel *Galp Marine* participated in the "Darque 2008" exercise off Viana do Castelo, Portugal. This was an event arranged between the Portuguese maritime authorities 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.

Of particular note for the Agency was the deployment of a so called "Open-U" boom configuration by the *Galp Marine*. Following the AUSTRAL 2007 exercise, EMSA identified this as a potential technical improvement for this vessel arrangement, and following appropriate modification to the boom system, the contractor met this operational objective. The positive result demonstrated that even with a self-inflatable boom such a configuration is possible.

Galp Marine during exercise "Darque 2008" in cooperation with the Portuguese Navy

Exercise: Malta 2008

On 21 October 2008, three EMSA contracted vessels based in the Mediterranean (*Mistra Bay, Santa Maria* and *Aktea OSRV)* participated in the anti-pollution exercise organised and hosted by Maltese Maritime Authorities. The exercise involved a range of maritime resources including tugs, patrol boats and a helicopter. In this exercise the three contracted vessels performed an "Open U" configuration in a joint formation. The response team sailed with the both sweeping arms deployed simulating the collection of oil behind the U boom. Despite the fact that this was the first occasion that these three vessels were involved in a joint exercise, a high level of operational coordination was demonstrated.

Mistra Bay, Aktea OSRV and Santa Maria simulating the collection of oil behind the "Open U" boom configuration during Exercise Malta 2008

Exercise: Austral 2008

On 18 November 2008, the EMSA contracted vessel *Galp Marine* participated in the "AUSTRAL 2008" exercise off the Algarve coast in southern Portugal as organised by the Portuguese Maritime Authorities within the framework of the Portuguese National Contingency Plan for dealing with marine oil spills (*Plano Mar Limpo*). It 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. The scenario simulated a tanker explosion 15 miles off the coast resulting in 2,000 m^3 of IFO 380 being spilt. The *Galp Marine* was tasked to tackle two simulated (by popcorn) slicks three miles off Salema coast.

Exercise: Crisis Co-ordination Arrangements 2008 – CCA 08

Since June 2006, the Commission has been developing an internal co-ordination mechanism (known as ARGUS) to help it respond effectively to multidimensional disasters and crises within its remit and also to make an active contribution as part of EU Crisis Co-ordination Arrangements (CCA).

On 23 September 2008, and within the framework of the "CCA-08 Exercise", the RELEX Crisis Platform (DG RELEX) requested EMSA Stand-by Oil Spill Recovery Vessels to render pollution response assistance to Morocco. Details on the theoretical availability of EMSA contracted vessels, mobilisation time and chartering costs were provided in a timely manner to the RELEX Crisis Platform. This platform contributes to the political co-ordination between the Commission and Member States during external crisis situations.

	Commitments	Payments
Exercises 2007 (carry over of payments)	0	19,675.00
Exercises 2008	1,050,000.00	345,400.00
Subtotal 3.1.2	**1,050,000.00**	**365,075.00**

3.1.3 Improvements to the Network Service

Based on the experience gathered during the first two 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 two specific improvement actions. Firstly with respect to the technical capacity of the contracted vessels for oil recovery and secondly to address issues associated with the at-sea oil recovery response chain, namely contingency lightering.

Service Technical Improvements

After exploring, in close co-operation with the contractors, the technical feasibility of different options, a range of actions were completed for those contracts established in 2005 and 2006. The table below summarises the improvements implemented which were finalised in 2008.

EMSA Contractor and Vessel	Improvement Modification
Lamor Corporation Ab. Baltic "pool" of Vessels	- Increasing the oil recovery pumping capacity. - Modification of the decanting system and installation of additional Oil in Water Monitors.
Louis Dreyfus Armateurs Vessel: *Ile de Bréhat*	- Increasing the oil recovery and discharging pumping capacities. Piping modifications. - Modification of the decanting system.
Lamor Corporation Ab. Vessel: *Galp Marine*	- Increasing the oil recovery pumping capacity. - Modification of the decanting system. Installation of drop lines and additional Oil in Water Monitors.
Tankship Management Ltd. Vessel: *Mistra Bay*	- Additional self-inflatable boom to improve crew safety conditions during boom operation. - Modification of the decanting system.
Falzon Service Station Ltd. Vessel: *Santa Maria*	- Additional remotely operated multi-skimmer (brush and weir). - Modification of the decanting system.

Contingency Lightering Arrangements

One potential bottleneck when carrying out oil recovery operations during an incident could arise where pollution response vessels, having filled their tanks with recovered oil, then sail back to port to discharge the "dirty" cargo at appropriate port facilities. Following this, the vessel would then have to return to the spill location to continue oil recovery operations. Clearly, this takes the response vessels out of clean-up operations during the crucial "window of opportunity". This period could be reduced by providing lightering capacity at or near the spill site.

Therefore, the Agency has developed a *Contingency Lightering Services Clause*. This clause directly involves the contractors in the sourcing of an appropriate additional vessel to provide lightering capacity if required. Concerning those contracts signed before 2008, one contractor has agreed to adopt the clause whilst negotiations are ongoing with regard to the remaining contracts.

	Commitments	Payments
Improvements 2007 to the existing arrangements (carry over of payments)	0	1,739,523.00
Subtotal 3.1.3	**0**	**1,739,523.00**

3.2 CleanSeaNet Satellite Service for Oil Spill Monitoring

3.2.1 Introduction

Directive 2005/35/EC[8], *Article 10 – 2*, requires that EMSA:

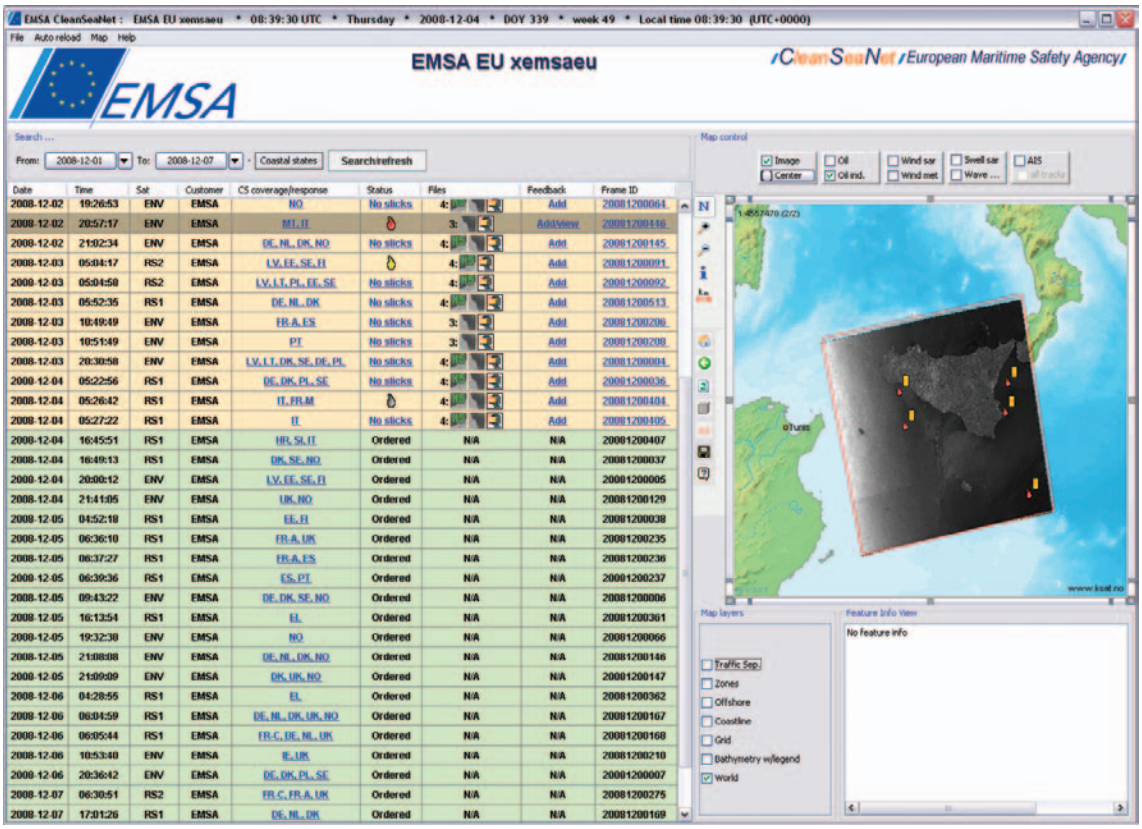
"…shall work with the Member States in developing technical solutions and providing technical assistance in relation to the implementation of this directive, in actions such as tracing discharges by satellite monitoring and surveillance".

CleanSeaNet, the European satellite oil pollution monitoring service is operational since April 2007. This service strengthens Member States response to illegal discharges and supports response operations to accidental spills.

CleanSeaNet supplies Synthetic Aperture Radar (SAR) analysed images from data provided by the European Space Agency's ENVISAT and Canada Space Agency's RADARSAT satellites. The downloading, processing and analysis of the data is carried out by a consortium of European companies.

Images are planned and ordered according to European coastal States coverage requirements. Satellite data are acquired via a network of receiving stations in Norway, Italy and in the near future the Azores, processed and analysed in near-real-time – less than 30 minutes. Operators assess the images, together with supporting meteorological, oceanographic and ancillary information (AIS, vessel detection) where available, to identify possible pollutions, to determine the likelihood of the presence of oil on the sea surface and to assist in identifying the source of the pollution. If a potential spill is detected, the affected coastal State is immediately alerted. A short delay between detection and alert is essential for a rapid response by the coastal State and to catch a polluter in the act. SAR images, results of oil spill analysis and ancillary information are made available to coastal States through a customer tailored web browser and they are simultaneously delivered to EMSA. All data are available in the Agency database for further analysis and production of statistics.

8) 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.



CleanSeaNet Web Browser

With Croatia becoming an official user of CleanSeaNet in May 2008, 24 coastal states have now access to the service. 2,603 SAR scenes have been ordered in 2008, with a successful delivery rate of approximately 90%.

Most European waters are already covered by CleanSeaNet. The entry into service of the Azores ground station scheduled in 2008 has been delayed. It should become operational early 2009. The service area will then cover all European waters.

EMSA provides with CleanSeaNet an oil spill monitoring service tailored to the needs of public authorities in Europe. This state-of-the-art service allows these authorities to access information on illicit discharges but also on emergencies and therefore on the status of the marine environment to the benefit of the European citizens.

3.2.2 Service Implementation and Improvements

The CleanSeaNet service is provided through three framework contracts for an initial total value of € 6 millions 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[9] signed on 18 December 2006 between EMSA and a consortium of three companies: Kongsberg Satellite Services AS, Telespazio S.p.A and Edisoft.

Due to intensive use of CleanSeaNet by Member States, additional commitments and payments were made in 2008 to fulfil operational demand.

Two extensions of the service were scheduled in 2008, the delivery of RADARSAT 2 images launched on 14 December 2007 and the entry into service of the Azores ground station:

- Provision for RADARSAT 2 licenses was included since the beginning in the contract between EMSA and MDA. In 2008, the Consortium's ground stations covering the northern part of European waters were certified and test delivery of RADARSAT 2 images to CleanSeaNet started in August 2008. A commissioning phase is still ongoing testing quality and procedures of RADARSAT 2 images;

- The entry into service of the Azores ground station and Edisoft set up as the third service provider for the Atlantic area was planned in 2008. Due to delays on the industry side, the acceptance procedure has been postponed to early 2009.

In 2008 priorities were put on strengthening the service, and monitoring and improving its quality. A quality system and associated procedures were agreed between the Agency and the Consortium to capture all quality issues in a consistent manner, enabling measurement and tracking of product quality and overall service performance. Incomplete deliveries and lack of quality result in reduction of payments.

The current contracts have been concluded for a period of three years. They can be extended once for an additional year. Nevertheless the definition of the next generation of CleanSeaNet has to be prepared in 2009. Consequently, it was necessary to review the "operational user needs" in order to improve the efficiency of the service as an element of the illegal discharges response chain as well as its capacity to support Member States response to accidental spills.

3.2.3 The Operational Use of CleanSeaNet

Routine Surveillance for Illegal Oil Spill Discharges

From 1 January until 31 December 2008 a total number of 2,603 SAR satellite scenes were ordered for the coastal states users of CleanSeaNet. This number of images corresponds with 4,306 country allocations. This means that 2,603 images cover 4,306 requests illustrating the economy of scale of a service at European level. The orders included 1,394 ENVISAT ASAR scenes, 1,042 RADARSAT 1 scenes and 167 RADARSAT 2 scenes. A total of 2,335 scenes were delivered to the users of the CleanSeaNet service. Some of the ordered but not delivered scenes were cancelled due to conflicts with other orders and some were not delivered due to technical problems with the satellite, data downloading or data processing. The percentage of successfully delivered scenes has reached 90%.

9) Provision of the telecommunications network and of the service chain including satellite image acquisition, processing, oil detection analysis and information dissemination.

Satellite	Images	Year: 2008	
ENV	Ordered	1,394	
	Delivered	1,275	91%
RS1	Ordered	1,042	
	Delivered	942	90%
RS2	Ordered	167	
	Delivered	118	71%
Total ordered images		2,603	
Total delivered images		2,335	90%

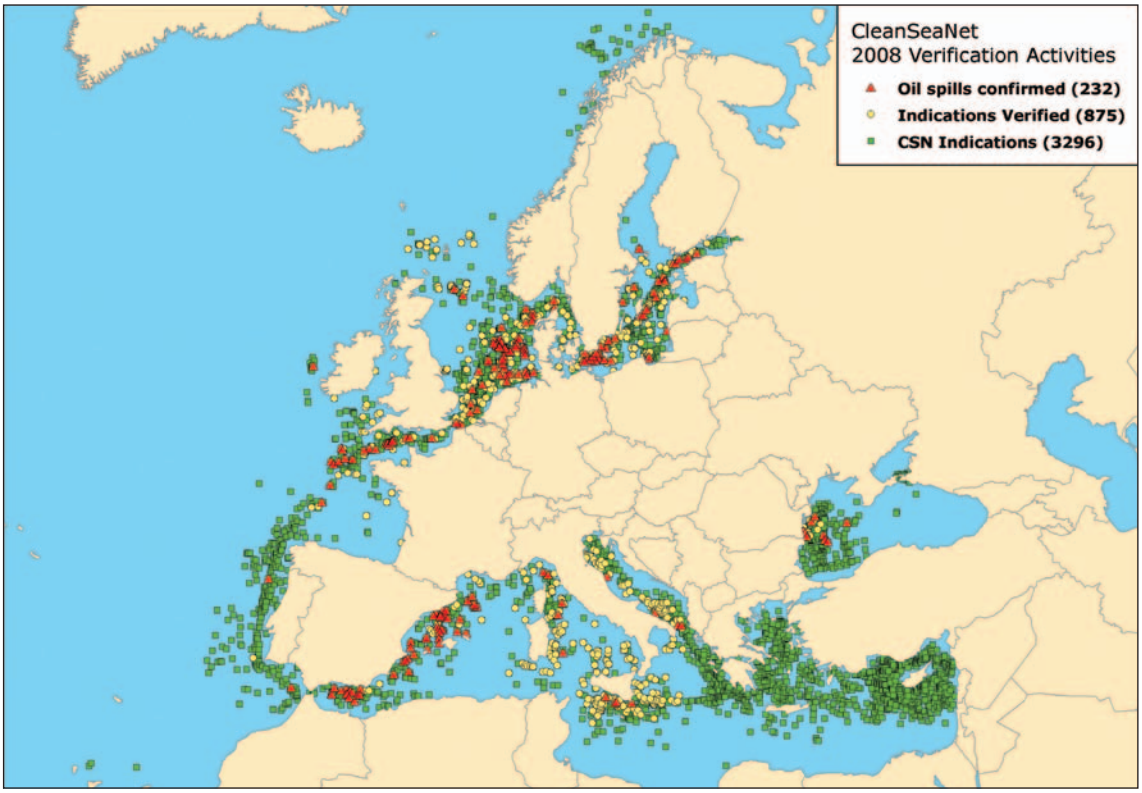
A total of 3,296 possible oil slicks were detected on the delivered satellite scenes. On average 1.4 possible oil spills were detected on each SAR image. However, it must be taken into account that CleanSeaNet detections are not "oil spills" but "possible oil spills"[10]. Discrimination between oil spills and look-alikes requires more information and most often on site verification. Therefore the oil pollution monitoring service should not be considered separately but as one element that strengthens national operational response chains. On-site verification by the Member States is a key element. The way CleanSeaNet is implemented in each national operational chain may differ. Some plan aerial or vessel support each time a scene covers their waters, while some make a case-by-case evaluation of the need to send resources on site. Planning aerial or vessel support for ordered scenes is part of the national response chain and is undertaken independently from EMSA.

On this 3 November 2008 ENVISAT image, a 20 km long oil slick in Romanian waters was reported by CleanSeaNet. The potential polluter was identified by Romanian authorities by using vessel traffic information system and fined as the result of a Port State Control inspection in Galati.

10) A SAR sensor "illuminates" the ocean surface and processes the back scatter signal. This signal contains information on the level of roughness of the sea surface. The dampening effect of floating oil films enables to detect oil slicks. Other products or natural phenomena like very low wind speeds are detected as well.

Nevertheless, when a clear and linear potential spill is connected to a vessel and when AIS information or vessel traffic monitoring systems allow a clear identification of the source, there are sufficient grounds to trigger a Port State Control inspection. It is worth noting that some Member States have successfully fined the polluters based on evidence collected during such an inspection.

The map below displays possible spills reported by CleanSeaNet in 2008 and verifications carried out by Member States. Spills confirmed as being mineral oil are represented by red dots[11].



CleanSeaNet detections, verifications and confirmations – year 2008

The average rate of confirmation for all European areas is around 27%. Yet, verification results very much depend on the means used for verification and on the delay between detection and verification. As a result, there is no doubt that the real performance of the service for detecting oil is significantly higher than 30%. In some areas, more than 80% of checked detections were confirmed as being mineral oil.

Despite limitations inherent to SAR imagery, CleanSeaNet is proving to be an effective tool to detect oil spills at sea as it has the capacity to cover large areas day and night and is unaffected by cloud cover.

Support to Aerial Surveillance Operations of Member States and Regional Agreements

The Agency supports special oil spill monitoring campaigns organised by Member States and/or Regional Agreements in the seas surrounding Europe. Examples include the Co-ordinated Extended Pollution Control Operations (CEPCO) held under the umbrella of the Bonn Agreement. CEPCO is a continuous operation of aerial surveillance flights over a given area of the sea with dense traffic.

11) It is important to note that the presence of oil not always originates from vessels but also from other sources like oil rigs, wrecks or natural seepage.

Denmark hosted the SUPERCEPCO operation in the North Sea from 21 to 30 April 2008. EMSA supported the 10 days continuous pollution surveillance operation with the provision of 22 satellite scenes and the presence at the operational centre in Aalborg of an expert from the CleanSeaNet team. The performance of the service regarding near real time delivery and analysis of a high number of scenes was very much appreciated. 28 potential spills were detected on satellite images.

Furthermore, EMSA supported the one day HELCOM CEPCO South 2008 operation organised by Germany on 19 June 2008 with one image. Out of the four potential spills reported, three were confirmed as mineral oil. For the HELCOM CEPCO North 2008 operation conducted on 16-17 September over the north-eastern parts of the Baltic Sea, four satellite scenes were provided and the only spill detected was also confirmed as mineral oil.

	Commitments	Payments
Satellite image licences	136,000.00	892,400.00
Satellite image processing and service maintenance	280,000.00	1,489,467.43
IT facilities and software	41,946.40	41,946.00
Subtotal 3.2.2 and 3.2.3	**457,946.40**	**2,423,813.43**

3.2.4 Support to CleanSeaNet Users

The CleanSeaNet User Group

CleanSeaNet aims to be a system that is linked to national and regional response chains strengthening operational pollution response. For keeping a strong link with the users' community in the coastal States, CleanSeaNet User Group meetings are organised twice a year by EMSA back to back with European Group of Experts on Satellite Monitoring of Sea-based Oil Pollution (EGEMP) meetings. The third meeting took place at the European Commission's Joint Research Centre in Ispra, Italy on 6 June 2008 and the fourth in Lisbon at EMSA, on 4 December 2008.

The CleanSeaNet training plan, the definition of statistics for the Member States, the improvement of the feedback form used by the coastal States to report follow up of CleanSeaNet detections and user needs identification for the next generation of CleanSeaNet are among the main issues covered by the Clean-SeaNet User Group in 2008.

Coastal States Training

Member States training is of fundamental importance to ensure the effective integration of CleanSeaNet into national pollution response chains. Training events are an opportunity for the Agency to foster better communication with operational users at Member States and to obtain feedback on the weaknesses and strengths of the service from their perspective. The modular training plan set up by the Agency allows Member States to select the modules that suit their needs. In 2008, EMSA organised an introductory course for duty officers and a workshop on "Image Analysis for Improved Spill Detection".

The "Introduction to CleanSeaNet" course is provided by EMSA staff and is targeted at Member States duty officers who have no previous knowledge or experience using the CleanSeaNet service. The aim is to provide a basic introduction to CleanSeaNet to assist officers to begin using the service quickly and competently. Participants are typically officers who receive CleanSeaNet alert reports; officers who use the CleanSeaNet web browser and/or who provide feedback on verification activities to EMSA.

Introduction to CleanSeaNet for Duty Officers – EMSA, 30 September 2008

This one day course mainly involves practical guided exercises on the CleanSeaNet browser and real case studies supported by short lectures which give an overview of the service.

Two sessions were organised at EMSA on 29 and 30 September 2008 and were attended by 33 participants from 24 Member States. Following positive feedback from the participants on the course format and content, it is the intention of the Agency to run this training course on an annual or bi-annual basis depending on the number of participants.

Croatia joined the service in 2008. Therefore, a dedicated session was provided in Zagreb on 8 and 9 September 2008 to 23 staff of Croatian operational authorities.

The aim of "Image Analysis for Improved Spill Detection" workshops is to improve the reliability of CleanSeaNet satellite image analysis for oil spill detection for Member States and EMSA. Member States participants are requested to contribute their regional knowledge of the marine environment and vessel traffic and installations such as pipelines and location of oil platforms. This information is supplemented by contributions from invited experts providing their knowledge of the marine environment and explaining how these conditions may influence the analysis of satellite SAR images. Image analysts responsible for performing oil spill analysis for CleanSeaNet perform a review of the constraints of oil spill detection and the occurrence of false positives and negatives for regional sea areas.

A workshop on image analysis for improved oil spill detection was held at EMSA on 4 December 2008. This workshop focussed on the sharing of regional maritime and marine information for the Mediterranean and Black Sea waters. Further workshops for the Baltic and North Sea/NW Atlantic Shelf seas are planned for early 2009.

	Commitments	Payments
CleanSeaNet User Group meetings	56,500.00	26,117.93
CleanSeaNet User training and workshops	86,530.74	35,614.99
Subtotal 3.2.4	**143,030.74**	**61,732.92**

3.2.5 Service Developments

The next major technical development for CleanSeaNet is the structural integration of data on possible oil spills with vessel traffic information and oil spill models for polluter identification.

CleanSeaNet will have a direct access to European AIS data through STIRES (SafeSeaNet Information, Relay and Exchange System). Contracts for the development of STIRES were awarded by EMSA in 2008. They include a data exchange interface between the two systems.

In November 2008, the Agency published a non-paper to present its view on the development of oil spill modelling capability within the CleanSeaNet service to support polluter identification and response. The approach is to link CleanSeaNet to high resolution local or regional drift models operated by third parties in Member States. To prepare these activities a pilot project began with the Cyprus Oceanography Centre, University of Cyprus to investigate potential data exchange interfaces and formats between EMSA and the Cyprus Coastal Ocean Forecasting and Observing System (CYCOFOS) model called MEDSLICK. A similar pilot project is being defined with the Swedish Meteorological and Hydrological Institute (SMHI) for the SeaTrackWeb drift model.

	Commitments	Payments
CleanSeaNet service developments	118,979.43	34,193.71
Subtotal 3.2.5	**118,979.43**	**34,193.71**

3.2.6 Co-operation with External Organisations

EMSA's co-operation with external organisations facilitates identification and appropriate integration of state-of-the-art technologies for the development of CleanSeaNet information products.

In 2007, EMSA and the European Space Agency (ESA) signed an agreement to support each other in the field of exploitation of satellite data for maritime safety and security. Within this framework, in 2008 ESA, via its GMES projects, provided services for satellite based vessel detection and further elements to improve the CleanSeaNet oil spill detection service such as oil transport modelling, AIS integration and studies to increase the reliability of the spill analysis. Further to this, ESA provided support in case of emergencies via fast programming of satellites to enable the Agency to rapidly deliver satellite information to Member States. This co-operation underlines the value of support provided by ESA for access to space data when responding to pollution of the marine environment.

In 2008, the Institute for Protection and Security of the Citizen (IPSC) of the European Commission Joint Research Centre (EC-JRC) delivered its first results to the Agency under a Joint Service Level Agreement for the development of new methods and technologies in support of oil spill monitoring. The JRC delivered a report and first beta installation of the automatic oil spill detection algorithm, a review on the potential capabilities of satellite medium-resolution optical sensors for oil spill monitoring, an evaluation

of the benefits of environmental and non-environmental ancillary probability maps, and the statistical model for the development of the probability maps.

In 2008 CleanSeaNet data were provided to the partners of the ESA GSE (GMES Service Element) project 'MarCoast'. The MarCoast project, taking EMSA requirements into account, was directed towards the development and demonstration of 'advanced' products including polluter identification services through combination of SAR and AIS, oil slick drift backtracking and forecasting, integration of new techniques (e.g. ocean colour data for reduction of false alarm rate) to support reliable methodologies for generating oil spill statistics and preparation for the use of future mission data. The results of this work will be evaluated by the Agency in early 2009.

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 the Agency will have guaranteed long term access to appropriate satellite observations. The new SENTINEL 1 satellite in particular (due for launch in 2011), will ensure the continuity of the ENVISAT radar observations, a primary source of CleanSeaNet satellite scenes.

In September 2008, the Agency was invited to demonstrate CleanSeaNet at the GMES Forum in Lille as one of the first fully operational GMES services. On-going dialogue has been maintained with DG Enterprise and the GMES Bureau, the Commission body responsible for the implementation of GMES. The Agency is also an active member of the Marine Core Service Implementation Group. The Marine Core Service will provide relevant oceanographic data to CleanSeaNet and will provide major input for the models to be linked with CleanSeaNet, as described in the non-paper on "EMSA's view on the development of oil spill modelling capability within the CleanSeaNet service (November 2008)".

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, and through prior agreement, 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 *Fedra*, Gibraltar

The bulk carrier *Fedra* (54,695 DTW, built 1984, IMO 8208713, Liberia) grounded in heavy weather on the evening of 10 October 2008 near Europa Point, Gibraltar. At the time the vessel was in ballast and carrying some 300 tons of IFO 380 and 60 tons of MDO in her bunker tanks. Evacuation and rescue of the crew was completed on the morning of 11 October by using Gibraltar shore resources. As a result of the grounding, the ship broke into three and around 150 tons of IFO 380 were spilled from her bunker tanks.

On Friday 10 October, EMSA received, via the MIC, a request for assistance from the Spanish authorities (SASEMAR) to assist in responding to the pollution from the bulk carrier *Fedra*. Accordingly, the EMSA contractor Mureloil S.A. was informed and the *Bahia Tres* was mobilised. Mobilisation of the vessel and installation of the specialised oil pollution response equipment were conducted in a timely and efficient manner by the EMSA Contractor with the result that the vessel was fully equipped and ready to sail on Saturday 11 October. In order to facilitate the operation of the *Bahia Tres* and to support the Spanish Authorities, an EMSA liaison officer was also sent to Algeciras.

The EMSA contracted Stand-by Oil Spill Response Vessel Bahia Tres

From 12 to 15 October, the *Bahia Tres* was on-site and engaged in oil recovery operations. At all times, the vessel was actively detecting, using its onboard oil slick detection system, and recovering heavy viscous oil and oil emulsions using the specialised oil pollution response equipment. The total oil recovered by the *Bahia Tres* was approximately 50 m^3. From 16 to 24 October, the vessel was on stand-by monitoring for any further slicks suitable for recovery prior to demobilisation.

Oil being collected from the Fedra by the Bahia Tres

In parallel, EMSA monitored the accident area with six satellite scenes. CleanSeaNet Briefing documents assessing the area affected by the accident were delivered to SASEMAR and to the MIC.

3.3.3 *Ice Prince*, the Channel

The Greek registered freighter *Ice Prince* (6,467 GT, built 1990, IMO 8502054, Greek flagged and managed, Panamanian owned) sunk in rough weather conditions on 15 January 2008 in a traffic separation area within the international shipping lanes of the Channel. The ship was carrying 5,258 tonnes of timber and over 400 tonnes of fuel oil in her bunkers. The accident resulted in the loss of more than 2,000 tonnes of its cargo and the spillage of an unknown amount of oil. The UK Maritime and Coastguard Agency (MCA) requested EMSA's assistance in monitoring oils slicks originating from the wreck. From 15 January 2008 until the end of February, 13 satellite scenes covering the area were delivered via CleanSeaNet.

3.3.4 *New Flame*, Gibraltar

On 12 August 2007, the bulk carrier *New Flame* (26,824 GT, built 1994, IMO 9077393, Panamanian flagged and owned, Greek managed) collided with the tanker *Torm Gertrud* in vicinity of Gibraltar. As a result, the *New Flame* grounded with her bow partially submerged at a position 0.5 miles South of Europa Point. At the moment of the collision, the *New Flame* was carrying in her bunkers some 700 tons of IFO 380.

As the vessel sunk in the Gibraltar territorial waters, the salvage operations were conducted by Gibraltar, however, the threat of pollution concerned the Spanish coastline. Therefore, Spanish authorities (SASEMAR) decided to secure additional response capacity on site and in August 2007 requested, via the MIC, EMSA to provide operational spill response assistance; specifically at-sea oil recovery vessels and satellite imagery. With regard to provision of at-sea oil recovery services, the EMSA contracted vessel, the *Mistra Bay*, was mobilised while the CleanSeaNet Service provided Spanish authorities with the satellite images of the incident area. Eleven satellite scenes were acquired, processed and delivered to the Spanish authorities and two CleanSeaNet Briefing documents assessing the area affected by the accident were delivered to SASEMAR.

The *Mistra Bay* was instructed to remain stationed in Algeciras Bay to monitor the area using its on-board slick detection system. Delays in the salvage operation due to weather conditions and continuing concerns of the Spanish authorities regarding any potential pollution led the Spanish authorities to renew the original

Incident Response Contract (IRC) over a period of 10 months. The *Mistra Bay* remained in readiness for pollution response, occasionally reacting to potential slicks in the area. In July 2008, the IRC was formally terminated and the *Mistra Bay* returned to her base port in Malta. On 12 August 2008, the Agency received a request from MCA to intensify satellite surveillance of the *New Flame* area during dismantlement operations. Eight scenes were acquired over the area.

3.4 Annual Cost/Expenditure for Operational Assistance

	Commitments	Payments
Network of Stand-by Oil Spill Response Vessels	14,857,776.82	10,548,866.87
Maintaining the Service: Exercises	1,050,000.00	365,075.00
Improvements to the existing arrangements	0.00	1,739,523.00
CleanSeaNet (CSN) Contracts	457,946.40	2,423,813.43
CSN meetings / workshops / trainings	143,030.74	61,732.92
CSN service developments	118,979.43	34,193.71
Subtotal for Operational Assistance	**16,627,733.39**	**15,173,204.93**

4. CO-OPERATION AND CO-ORDINATION

4.1 Introduction

In 2008, the Agency continued its co-operation with the pollution response experts of Member States and with the Regional Agreements (Bonn Agreement, HELCOM, REMPEC, Black Sea Commission and Lisbon Agreement). At the request of the European Commission, the Agency took over part of the activities of "the Community framework for co-operation in the field of accidental or deliberate marine pollution"[12]. These are now carried out under the umbrella of the Consultative Technical Group for Marine Pollution Preparedness and Response 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 set-up by the Agency in 2007 and is composed of pollution response experts from all 27 Member States, Candidate Countries (Turkey and Croatia), EFTA Contracting Parties (Iceland and Norway), the Regional Agreements and the European Commission.

One of the main considerations of the group is to build upon the results of activities carried out in the preparedness and response field in the past. The CTG provides Member States with the opportunity to present initiatives for consideration by the group as well as making active contributions to issues most appropriately addressed at a European level. New projects can be identified by the group and can include workshops, reports, studies and training.

12) See: Communication from the Commission to the Council and the European Parliament, to the European Economic and Social Committee and to the Committee of the Regions "Co-operation in the field of accidental or deliberate marine pollution after 2007", 22 December 2006, COM(2006)863 final.

At its third meeting in September 2008, the status of priority actions agreed for 2008 was provided, with a view towards finalising the Rolling Work Programme for 2009/2010. A status summary of the priority actions for 2008 is provided below.

EMPOLLEX: Exchange of Experts Programme

A priority action agreed for 2007 was the development of an EMSA Expert Exchange Programme. In 2008, the Agency launched its expert programme (EMPOLLEX), which is broadly similar to the previous EUMAREX (Exchange of Experts in the field of marine pollution) programme co-ordinated by the European Commission. EMPOLLEX itself was launched to coincide with a reduction of the marine pollution component in the current Civil Protection exchange programme as this focuses more on shoreline response. Development of the EMPOLLEX programme is ongoing with a number of applications reviewed in 2008. The first exchanges will take place in early 2009.

Inventory of Pollution Response Training Centres

Training in this field has been identified as an important topic since the start-up of the CTG. EMSA has compiled an inventory of European training centres offering oil and/or HNS pollution preparedness and response courses. The inventory aims to distribute information between Member States on existing European training centres, the type and level of the courses and topics covered. In addition, it serves as a tool when considering further CTG activities in the area of marine pollution training. The inventory is currently under review by the CTG and will be published in early 2009.

Reporting on Major Pollution Incidents in Europe – Common Methodology

Several Member States had expressed interest in the CTG undertaking activities in 2008 in the field of "lessons learned" – evaluating the response to pollution incidents from the technical, legal and financial points of view. EMSA drew up an experimental model for a common methodology for analysing lessons learned which could be used across a range of incidents. This methodology is under review by CTG participants, in order to improve and develop it further, based on operational experience and different national response frameworks in Europe. It is hoped to test and refine the model during a workshop in 2009, through analysis of selected major pollution incidents.

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 to the sea, the primary goal of any response actions 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.

EMSA's activities in the field of oil spill dispersant use focus on supporting Member States with relevant information and tools to make science based decisions as appropriate in the respective country or region. To this effect, the Agency distributed to the EU Member States and EFTA countries the *Operational Manual on the Applicability of Oil Spill Dispersants* in 2007, which was developed in 2006. After a period of utilisa-

tion and following feedback from the Member States, a public procurement procedure was finalised in 2008 with the aim of updating and improving the Manual. It is expected to be available in the first half of 2009.

A desire for standardisation and harmonisation among Member States with respect to dispersant testing and approval methods has been emphasised. EMSA, in close co-operation 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. These findings were discussed in detail at the second EMSA workshop on Dispersants in May 2008. Recent developments in dispersant usage and current R&D were also presented. 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 was completed towards the end of 2008.

4.4 IMO and Regional Agreements

Within the framework of its HNS Action Plan, EMSA initiated closer co-operation with the International Maritime Organisation (IMO) on issues of common interest. This included the Agency's regular participation and contribution, as part of the European Commission delegation, to the main technical IMO forum on marine pollution preparedness and response, the OPRC/HNS Technical Group meetings.

In line with above mentioned activity, EMSA hosted the new IMO model course for responses to HNS spills. This course was offered to all EU and coastal EFTA Member States. The goal of this approach was twofold: offer useful training to Member States and to provide feedback to IMO. Therefore comments and suggestions by the participants and EMSA were collected and forwarded to IMO to further improve this important new training course.

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. Pending the accession of the European Union to the Bucharest Convention, it can be expected that the Agency will also participate in the near future in the 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, with the 2008 meeting being hosted by the HELCOM Secretariat in Helsinki. The next meeting will be held in Lisbon in January 2009.

Agency participation in Regional Agreement Operational Activities

In terms of operational co-operation in 2008, 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 CleanSeaNet service, satellite images for the operations HELCOM CEPCO South 2008, HELCOM CEPCO North 2008 and Bonn Agreement SUPER CEPCO 2008. As also mentioned, EMSA participated in a number of at-sea oil recovery exercises in 2008 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
2007 CTG meetings (carry over of payments)	0	29,813
2008 CTG meeting	40,000	25,736
EMPOLLEX	49,325	0
Activities in the field of dispersants	91,518	26,518
IMO/Regional Agreements	21,007	20,485
Subtotal for Co-operation & Co-ordination	**201,851**	**102,552**

5. INFORMATION

5.1 Introduction

The Agency also collects and disseminates information in the field of marine pollution preparedness and response. In 2008, the most notable activities addressed hazardous and noxious substances (HNS)[13], including the establishment of the MAR-ICE Network and the publication of an Inventory of EU Member States Policies and Operational Response Capacities for HNS Marine Pollution. 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

The HNS Action Plan identified the need to establish and maintain a network of HNS experts that could advise and support Member States with timely information on scientific, technical, and operational aspects of an HNS incident. EMSA began discussions with the chemical and response industry associations to establish such a network in 2007. A thorough evaluation of the available options to establish this network was conducted in 2008. The best approach was identified and a three party Memorandum of Understanding was signed between the European Chemical Industry Council (CEFIC), the Centre de Documentation, de Recherche et d'Expérimentations sur les Pollutions Accidentelles des Eaux (Cedre) and EMSA on 17 October 2008.

13) The Action Plan for HNS (Hazardous and Noxious Substances) Pollution Preparedness and Response was adopted by EMSA's Administrative Board in June 2007.

Signature of MAR-ICE MoU between CEFIC, Cedre and EMSA

The MAR-ICE Network (Marine-Intervention in Chemical Emergencies Network) will for the first time provide all EU Member States and coastal EFTA States with remote product-specific information in cases of HNS marine pollution incidents. This new service builds on the voluntary ICE emergency response network established for land transport of chemicals. The MAR-ICE service can provide, through the "first contact point", the requesting country with product-specific information and advice via telephone, fax or e-mail about the characteristics and intrinsic properties of the substance involved via contact with experts of the most knowledgeable company for the specific product of the chemical industry.

It is foreseen that Cedre, who will serve as the "first-contact point" when accessing the network, drawing on its experience with marine spills, may be able to provide additional information relevant to the specific incident. Chemical companies, which have the capability to provide additional information about the behaviour of a substance in the marine environment, are identified in the ICE database. Once the detailed Implementation Plan for the MAR-ICE Network is finalised, the service will become operational in January 2009.

5.3 Inventories of Member States Policies and Operational Response Capacities

In accordance with Regulation 2038/2006/EC, EMSA is given the task 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". Beginning already in 2004, the Agency compiled, in co-operation with Member States, an *Inventory of EU Member States Oil Pollution Response Capacity*, which was updated in 2006. An update was prepared in 2008 and is expected to be published early in 2009. This will complement the other existing inventories such as the one on Member State policies regarding the use of oil spill dispersants.

In 2008, a new inventory of existing capacities for responding to pollution incidents involving hazardous and noxious substances (HNS) was compiled in close co-operation with Member States. This inventory is intended to provide a general description of the status of preparedness and response capabilities to marine HNS incidents in coastal EU Member States and EFTA Contracting Parties (Iceland and Norway).

It includes a description of the competent authorities, the policies, and the preparatory arrangements of each Member State. Furthermore, it gives an indication on which types of government owned or contracted resources are available.

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.

Recognising the importance of sharing spill response experience and disseminating best practice, the Agency continues to support the major marine pollution conference in Europe, namely Interspill as a member of the event's Steering Committee[14]. The association of the Agency, as well as other organisations, with Interspill contributes to its profile and sustainability. EMSA also had an active role in the Conference Programme Committee with the aim of ensuring that coverage of Member States' issues and representation was at an appropriate level for the next event which will be held in Marseilles, France in 2009.

The other major international conference in this field is the International Oil Spill Conference which was held in the USA in 2008. The Agency presented a technical paper addressing the EMSA stand-by oil spill recovery vessel network as a model of private/public partnerships. The participants expressed a special interest in the financial issues and the management of the network.

14) 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.

Where appropriate the Agency also supported the European Commission at conferences, for example, the Brest 2008 Maritime Festival in July 2008. DG TREN together with the Galileo Agency, DG Mare, DG Research and EMSA shared an exhibition stand. Ministers for European Affairs and Commissioners Wallström and Borg, who were meeting within the framework of the French Presidency of the European Union, also visited the stand with, as can be expected, extensive press coverage.

5.5 Annual Cost/Expenditure for Information

	Commitments	Payments
Activities in the field of HNS response (including establishment of MAR-ICE)	27,100	32,879
Information dissemination	24,535	10,352
Subtotal for information	**51,635**	**43,230**

6. TOTAL EXPENDITURES FOR POLLUTION PREPAREDNESS AND RESPONSE ACTIVITIES

The table[15] below summarises the expenditures of the activities described in this report.

	Commitments	Payments
Network of Stand-by Oil Spill Response Vessels	**14,857,776.82**	**10,548,866.87**
Contracts 2005 (Baltic Sea, Atlantic and Channel, Mediterranean Sea)	0.00	2,539,991.95
Contracts 2006 (Atlantic Coast, Mediterranean East)	0.00	773,717.22
Contracts 2007 (Aegean Sea, Atlantic Coast, Mediterranean West)	0.00	1,009,224.02
Contracts 2008 (Black Sea, North Sea, Bay of Biscay)	10,996,410.00	6,202,269.00
Renewal Contracts 2005 (Baltic Sea and Mediterranean Sea)	3,831,880.00	0.00
Associated activities (Tender Clarification Meetings, rating reports, experts)	29,486.82	23,664.68
Maintaining the Service: Drills and Exercises	**1,050,000.00**	**365,075.00**
Exercises 2007	0.00	19,675.00
Exercises 2008	1,050,000.00	345,400.00
Improvements to the Network Service	**0.00**	**1,739,523.00**
Improvements 2007 to the existing arrangements	0.00	1,739,523.00
CleanSeaNet Service Implementation and Use	**457,946.40**	**2,423,813.43**
Satellite image licences	136,000.00	892,400.00
Satellite image processing & service maintenance	280,000.00	1,489,467.43
IT facilities and software	41,946.40	41,946.00
Support to CleanSeaNet Users	**143,030.74**	**61,732.92**
CSN User Group meetings	56,500.00	26,117.93
CSN User Training and Workshops	86,530.74	35,614.99
CleanSeaNet Service Developments	**118,979.43**	**34,193.71**
CSN service developments	118,979.43	34,193.71

15) The figures in this report are based on preliminary figures available for 2008. 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.

Co-operation and Co-ordination	**201,850.56**	**102,552.41**
2007 CTG meetings	0.00	29,813.16
2008 CTG meeting	40,000.00	25,735.82
EMPOLLEX	49,325.00	0.00
Activities in the field of dispersants	91,518.48	26,518.48
IMO/Regional Agreements	21,007.08	20,484.95
Information	**51,634.52**	**43,230.15**
Activities in the field of HNS response (including establishment of MAR-ICE)	27,100.00	32,878.65
Information dissemination	24,534.52	10,351.50
Related missions of EMSA Staff	**153,500.00**	**133,989.95**
TOTAL	17,034,718.47	15,452,977.44

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