



European
Maritime
Safety
Agency



**The Pollution Preparedness
and Response activities of the
European Maritime Safety Agency**

Report 2007

31 January 2008

**2007 Report
to the European Commission
and the Administrative Board
regarding Regulation
N° 2038/2006/(EC) on multi-annual
funding for the Agency's
pollution preparedness
and response activities**

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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/EC¹, Article 7).

1.1 EXECUTIVE SUMMARY

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

- The network of stand-by oil recovery vessels around Europe;
- The European satellite oil spill monitoring and detection service CleanSeaNet.

Following a successful procurement procedure in 2007, the at-sea oil recovery service network has been strengthened through the establishment of contracts for stand-by oil spill response vessels along the Atlantic coast, in the west Mediterranean and in the Aegean Sea.

The Agency managed to establish in a very short time the CleanSeaNet service which has already become in its first year of existence an important activity serving all EU Member States with almost 1,500 satellite images. Another (more modest) upcoming activity of the Agency in 2007 is the provision of technical expertise by EMSA staff to Member States and the European Commission.

New in 2007, in the area of co-operation and co-ordination, is the setting-up of the Consultative Technical Group for Marine Pollution Preparedness and Response. This activity has been taken over from the European Commission at its request. Together with experts from Member States and Regional Agreements, activities are being defined and implemented to strengthen the overall response chain in Europe dealing with accidental and deliberate spills.

Broadening the scope of pollution response, EMSA's Administrative Board adopted an Action Plan for HNS (Hazardous and Noxious Substances) Pollution Preparedness and Response which will be implemented in the coming years. As highlighted throughout the Action Plan, more knowledge is needed on how to deal with HNS marine pollution.

From a budgetary point of view, there will always be a substantial difference between commitments and payments in the field of pollution preparedness and response. In order to be cost effective, multi-annual contracts with an average length of three years have and will be concluded with industry for providing for example stand-by oil recovery services and satellite detection services. Consequently, in the year when contracts are

¹ Published on 18 December 2006 as: 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.

concluded the total value of the contracts should be available as commitment appropriations. Payment appropriations are only calculated on an annual basis.

Towards the end of 2007, the budget structure for "Anti-Pollution Measures" was restructured to improve transparency and the reporting capabilities of the Agency in this field for the coming years.

It is clear from the table below that the majority of appropriations are being spent on the operational pollution response activities of the Agency. The many activities in the fields of co-operation and co-ordination and information have a modest impact on external expenditures.

For 2007, the Budgetary Authorities gave the Agency 25 million Euros in commitment and payment appropriations for its pollution preparedness and response task. In terms of budget execution, 96.4% was achieved for commitments and 61.8% for payments.²

	Commitments	%	Payments	%
Operational assistance	23,680,105.89	98.24	15,197,965.15	98.45
Co-ordination & co-operation	186,361.78	0.77	91,064.51	0.59
Information	79,595.80	0.33	30,365.23	0.20
Related missions of EMSA staff	158,802.61	0.66	118,439.77	0.77
Total	24,104,866.08	100.00	15,437,834.66	100.00

2. INTRODUCTION

In general, the European Maritime Safety Agency has been given a broad mandate³. It has been established for the purpose of ensuring a high, uniform and effective level of maritime safety, maritime security and prevention and response of pollution by ships within the European Community.

As a reaction to the Prestige accident, the Agency has been entrusted with tasks in the field of pollution response⁴. To implement this task, the Agency has developed a framework as presented in the Action Plan for Oil Pollution Preparedness and Response⁵. This plan was approved by Member States and the Commission at the Agency's Administrative Board meeting in October 2004. This Action Plan described the existing structures and activities in Europe for pollution response at Member State level and in the context of regional co-operation by means of the Regional Agreements. In addition, it outlined the marine pollution risk in European waters by looking at the main tanker routes and the growing density of seaborne traffic. Proposed activities of the Agency were presented in three categories: operational assistance, co-operation and co-ordination, and information.

² The figures in this report are based on preliminary figures available for 2007. These figures 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.

³ See Founding Regulation 1406/2002/EC, Article 1 (Objectives).

⁴ With the adoption of Regulation 724/2004/EC of 31 March 2004, amending the founding Regulation of the Agency.

⁵ This Action Plan can be downloaded from the EMSA website: www.emsa.europa.eu

The main assumptions for starting operational activities at an EU level were presented under the heading "top-up philosophy", highlighting the need for added value. It is worthwhile repeating the underlying principles⁶:

- The operational task should be a 'logical part' of the oil pollution response mechanism of coastal states requesting support and should 'top-up' the efforts of coastal states by primarily focussing on spills beyond the national response capacity of individual Member States;
- EMSA should not undermine the prime responsibility of Member States for operational control of pollution incidents. The Agency should not replace existing capacities of coastal states. The Agency feels strongly that Member States have their own responsibilities regarding response to incidents;
- EMSA's equipment should be channelled to requesting states through the existing Community mechanism in the field of civil protection;
- The requesting state will have the equipment at its disposal under its command and control;
- EMSA's operational role should be conducted in a cost-efficient way;
- EMSA'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.

Pollution preparedness and response activities of the Agency are aimed to cover large accidental spills. However, as from the very beginning the Agency also has a task providing assistance addressing illegal or deliberate discharges:

"The Agency will also assist the Commission and the Member States in their activities to improve the identification and pursuit of ships making unlawful discharges⁷".

With the adoption of Directive 2005/35/EC on ship-source pollution⁸ this task was enhanced and technical assistance "such as tracing discharges by satellite monitoring and surveillance" were explicitly added. The Action Plan is annually updated by the Administrative Board of the Agency. Updates are part of the annual Work Programme (because both documents follow the same procedure).

Already in the early days of implementing its legal task in the field of ship-sourced pollution and the execution of the Action Plan, the Agency for setting-up its operational assistance was confronted with limitations of budget and budget structure. The "annuality" of the budget was difficult to reconcile with the need to conclude multi-annual contracts with industry (for arranging stand-by oil recovery vessels increasing the oil recovery capacity at the disposal of Member States and later on for organising the European satellite oil spill monitoring service CleanSeaNet).

⁶ EMSA Action Plan for Oil Pollution Preparedness and Response, October 2004, p.55-56.

⁷ Regulation 1406/2002/EC, Article 2(f).

⁸ Directive 2005/35/EC

The European Commission recognised that the Agency should be able to enter into long term financial commitments in order to be able to offer adequate and sustainable operational support to Commission and Member States using services provided by industry. Therefore, the Commission proposed in 2005 the creation of a multi-annual financial framework for the pollution response activities of the Agency⁹: “the development and extension of anti-pollution activities will require long-term investments and adequate financial security”.

On the basis of the 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 Financial Perspectives (2007-2013). 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 first report presented in the framework of Regulation 2038/2006/EC and covers the year 2007.

Activities of the Agency are presented in the three original categories distinguished in the Action Plan:

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

3. OPERATIONAL ASSISTANCE FOR OIL POLLUTION RESPONSE

3.1 INTRODUCTION

A key element of the original Agency's Action Plan for Oil Pollution preparedness and response was 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).

By adopting a phase-in approach to securing appropriate at-sea oil recovery services, the network of stand-by pollution response vessels has been built up through procurement procedures in 2005, 2006 and 2007. Accordingly, 2007 saw two main activities in relation to the at-sea oil recovery service namely:

- Bringing into operation those vessels contracted at the end of 2006 and;
- Strengthening the existing network service in 2007 along the Atlantic coast, in the Mediterranean Sea, the Aegean Sea and the Black Sea through a public procurement procedure.

Associated activities included:

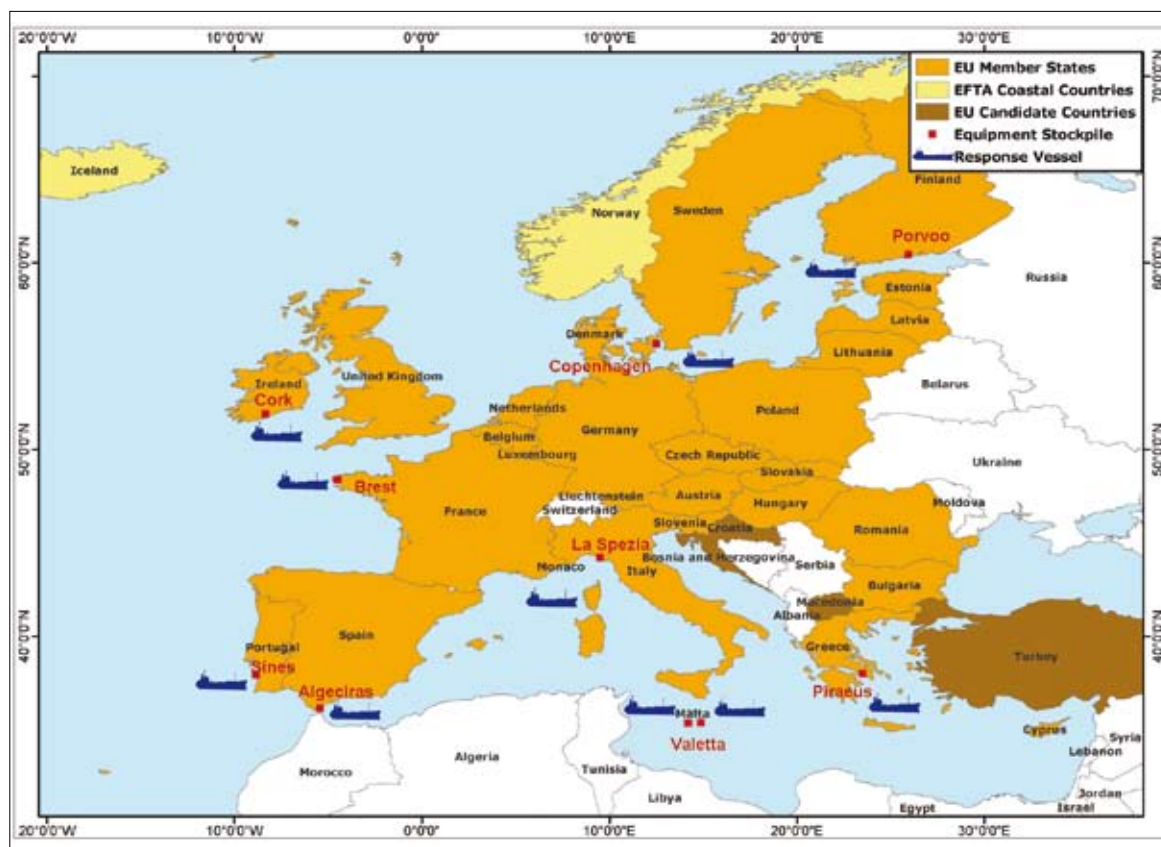
- Maintaining the service level for vessels already available for at-sea oil recovery operations namely those vessels contracted at the end of 2005 and;
- Identifying and implementing appropriate improvements to the service .

⁹ COM (2005) 210 final/2

3.2. NETWORK OF STAND-BY OIL RECOVERY VESSELS

3.2.1. Current network

The current network provides at-sea oil recovery services from vessels based in the Baltic Sea, along the Atlantic coast and in Mediterranean (see map). It should be noted that the vessels are at the disposal of all Member States regardless of the actual geographical base of the individual vessels.



EMSA at-sea oil recovery service network: Vessels and equipment stockpiles

In 2007, all the vessels contracted at the end of 2006 were successfully equipped for their pollution response task and the crews trained. Following appropriate acceptance drills, two vessels entered into the Stand-by period and were available to provide the contracted at-sea oil recovery service. In order to bring the vessels "online" for operations, the contractors were required to modify and "pre-fit", the vessels to the Agency's technical standard for oil pollution response. This pre-fitting allows for the rapid installation of the specialised response equipment as well as increasing the efficiency of a range of technical functions, e.g. heating, that are required when combating a major oil spill incident. In addition, the vessel crews were trained appropriately for at-sea oil recovery operations e.g. the correct deployment and use of the specialised equipment.

EMSA assistance in this field, as with others, is offered on the basis of co-operation and of complementing the resources and arrangements that have already been set up at national and regional levels. This "tiered

response" approach reflects the spirit of the International Convention on Oil Pollution Preparedness, Response and Co-Operation, 1990 (OPRC 1990), as ratified by 19 out of 22 coastal Member States. Both advocate a "tiered response" system founded on co-operation/mutual support.

The Agency's operational support should be a logical part of the oil pollution response mechanisms of Member States and should primarily "top-up" the resources of Member States when responding to incidents. Accordingly, EMSA resources can be seen as a "European tier" to provide assistance to coastal states on the basis that the 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;
- Tailored to spills of heavy grades of oil.

Using the experience acquired from previous major oil spills, the most appropriate approach at the European level is to remove the spilled oil from the marine environment using mechanical at-sea oil recovery techniques. With this in mind, EMSA has been undertaking the necessary steps to ensure the availability of stand-by oil recovery vessels to carry out such operations. Given the general framework for EMSA to support the Member States during large scale incidents and the important consideration of cost efficiency, the Agency has applied a public-private partnership approach in co-operation with the shipping and spill response industries. Such an innovative approach had never before been undertaken at the European level.

The main concept is to ensure the availability of commercial vessels to carry out at-sea oil recovery services following a request for assistance from a Member 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/EC¹⁰ 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.

Given the number of complex issues that needed to be addressed from the operational, technical and financial framework perspectives, making available, in a short period of time and with relatively limited resources, a high specification operational service has been a major challenge for the Agency. Within the framework of the rules governing the Agency's procurement procedures, each tender process launched to establish these contracts was in reality a year long project involving staff from across the Agency.

Each vessel arrangement has the following main common characteristics:

- The vessel will operate as an oil recovery vessel on the basis of a pre-agreed incident response contract with fixed fees and conditions as developed by the Agency, in consultation with the Member States, for this purpose;

¹⁰ 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 contractor is obliged to respond positively to all requests for assistance to respond to an oil spill, regardless of the spill location;
- They will be able to provide the service on a 24 hour per day basis;
- The primary oil recovery system is based around the "sweeping arm" concept with an alternative "ocean going boom and skimmer" system also available. The requesting Member State can select which system to use in accordance with the incident characteristics;
- All the specialised oil spill response and associated equipment is containerised in order to facilitate rapid installation onboard the vessels;
- Each vessel has a speed over 12 knots for prompt arrival on site;
- Each vessel is equipped with an onboard radar based oil slick detection system;
- Each vessel has a high degree of manoeuvrability required to carry out oil recovery operations;
- Each vessel is able to decant excess water so maximising the utilisation of the onboard storage capacity;
- Each vessel has the ability to heat the recovered cargo and utilise high capacity screw pumps in order to facilitate the discharging of heavy viscous oil;
- The crew have been trained regarding the appropriate use of the specialised equipment and carrying out operations under an international command and control structure.
- Each vessel is available for participation in at-sea spill response exercises (minimum one per year).

More technical and operational specifications of the contracted services are available from the Agency website www.emsa.europa.eu.

	Commitments ¹¹	Payments
Contracts 2005 (Baltic sea, Atlantic and Channel, Mediterranean Sea)		2,742,776.33
Contracts 2006 (Atlantic Coast, Mediterranean East)		345,333.46
Costs related to the tender process (Committees tender 2006 contracts paid in 2007)		2,567.15
Sub total 3.2.1		3,090,676.94

3.2.2 Maintaining the Service: Drills and Exercises

In order to maintain the level of service during the Stand-by Period of the contract, the vessels carry out regular quarterly drills (16 in total during 2007) and participate in a range of incident response exercises. Accordingly, a number of notification, desktop and at-sea operational exercises were conducted. These types of exercise are a useful method of maintaining pollution response skills as well as being 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.

¹¹ When no commitments are presented, those amounts were committed in previous years. For this table committed amounts were part of the 2005 and 2006 budget.

With regard to at-sea exercises (see table next page), one of the objectives this year was to arrange the participation of each of the contractors in at least one international event. This is not an easy task as many coastal states and/or some Regional Agreements do not hold regular at-sea exercises. Despite this inherent challenge, each of the contracted arrangements participated in at least one international exercise in 2007 as summarised in the table below, six in total.



EMSA staff planning for an international at-sea oil recovery exercise

Exercise Name and Location	Month	Participating	Number of Participating	EMSA Vessel
Malta / EMSA, Malta	May	Malta	6	Mistra Bay, Tankship Management
Gascogne 2007, France	June	France and Spain	8	Ile de Bréhat, Louis Dreyfus Armateurs
Balex Delta 2007, Estonia	Sept	8 countries from Helsinki Convention in the Baltic Sea	21	Otilia and Tinka, Lamor
Ramoge Delta 2007, Italy	Sept	Italy	14	Santa Maria, Falzon Service Station
Greece / EMSA, Greece	Nov	Greece	9	Santa Maria, Falzon Service Station
Blue Waters, Portugal	Nov	Portugal	3	Galp Marine, Lamor

Exercise: Malta/EMSA

On 11 May 2007, the EMSA contracted oil recovery vessel Mistra Bay participated in a joint exercise with Maltese Authorities. Co-operating with all the major state entities concerned with oil pollution of the Go-

vernment of Malta under the overall command of Maltese Maritime Authority, the exercise involved a range of maritime units including tugs, patrol boats and helicopters. The exercise was considered a success, particularly in identifying potential improvements to communication arrangements between the various participants, and a very good learning experience for all involved.



Mistra Bay deploying a rigid sweeping arm whilst on exercise in Malta

Exercise: Gascogne 2007

On 21 June 2007, the EMSA contracted oil recovery vessel Ile de Bréhat participated in an equipment exercise within the Biscay Plan in Bayonne, France. This full scale exercise involved all the key French and Spanish Authorities and addressed a range of operational elements including search and rescue (SAR) pollution response as well as contingency lightering. Given the nature of the EMSA oil recovery service, Ile de Bréhat participated in the pollution response and contingency lightering aspects only.

The co-operation of the vessels when working in a joint formation during the exercise Gascogne 2007 was very good. The preparation of Ile de Bréhat and her crew for pollution response operations and for the co-operation with the units of other nations (MS) was proved successfully. Whilst the EMSA vessel performed satisfactorily within the framework of the scenario, the contingency lightering element was cancelled due to poor weather conditions and related high sea swells.



Ile de Bréhat during Exercise "Gascogne 2007" in co-operation with France and Spain

Exercise: Balex Delta 2007

On 6 September 2007, EMSA contracted oil recovery vessels M/T Otilia and M/T Tinka participated in the Balex Delta 2007 Exercise in Tallinn, Estonia. Balex Delta is the annual Helsinki Convention Operational Exercise. The purpose of the exercise was to test the Baltic joint pollution operation, especially to test and rehearse the command chain and the communication between the participating units.

The exercise showed some advantages of the EMSA contracted oil recovery vessels Tinka and Otilia over specialised but much smaller oil recovery vessels of the Baltic Sea States. In rough weather conditions EMSA vessels were able to deploy the sweeping arm on the lee side of the vessel and perform oil recovery in an effective manner. During the debriefing after the exercise EMSA vessels' performance was evaluated very positively.

Exercise: Ramoge Delta 2007

On 17 September 2007, the EMSA contracted oil recovery vessel Santa Maria participated in the first Delta exercise of Ramoge, a sub-regional agreement for mutual assistance between France, Italy and Monaco. The full scale exercise included in addition to the standard recovery operation simulated contingency lightering of the Italian vessel San Giacomo by the Santa Maria. It should be noted that during a real spill, the Santa Maria would be the lightering vessel berthing to another base vessel; however the procedure is very similar and comparable. The Santa Maria successfully deployed sweeping arms for the recovery of the oil slick, in this case simulated by the rice hulls. The preparation of Santa Maria and her crew for pollution response operations including co-operation with MS resources was demonstrated successfully.

Exercise: Greece/ EMSA

On 8 November 2007, the EMSA contracted oil recovery vessel Santa Maria participated in the first joint exercise with the Hellenic Coast Guard. This exercise was initially scheduled to be conducted in September 2007 but due to actual maritime emergencies in Greece involving the Hellenic Coast Guard it was rescheduled.

The exercise and the performance of the equipment were evaluated as satisfactory with the Santa Maria crew demonstrating appropriate motivation.

Exercise: Blue Waters 2007

On 15 November 2006, EMSA contracted oil recovery vessel Galp Marine participated in the "Blue Waters 2007" exercise, a joint EMSA exercise with the Portuguese Authorities. On this occasion, the Agency's Executive Director, Mr Willem de Ruiter, accompanied the usual EMSA observers.

Overall the exercise performance was satisfactory. The Captain and the crew worked well with the result that the Galp Marine fulfilled the role assigned for the exercise in a timely and efficient manner. Furthermore, the on-scene co-ordination among the combating units (M/T Galp Marine, Portuguese tugs Monte da Luz and Mitrena, Portuguese Navy Patrol Cassiopeia) was conducted by the Galp Marine.

	Commitments	Payments
Exercises 2006		376,820.51
Exercises 2007		372,828.21
Sub total 3.2.2		749,648.72

3.2.3 Improvements to the Service

Based on the experience gathered during the first two years of implementing the oil recovery service, the Agency explored options to achieve a higher level of service 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.

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 to appropriate port facilities. Following this, the vessel would then return to the spill location to continue oil recovery operations. Clearly, this takes the response vessels out of clean-up operations during part of the crucial "window of opportunity". The impact of this could be reduced by providing lightering capacity at or near the spill site.

Against this background, the Agency has initiated a project aiming at introducing contingency lightering arrangements into the existing response framework. Exercises have been organised to test lightering operations at sea. Following the outcome of those exercises (i.e. Gascogne 2007 and Ramoge Delta 2007), progress has been made regarding co-operation with existing contractors and it is expected that arrangements will be finalised in the first half of 2008.

	Commitments	Payments
Sub total 3.2.3.1	107,500.00	107,500.00

Technical Improvements

As a result of the 2005 and 2006 procurement procedures, the Agency concluded five contracts for at-sea oil recovery services in the Baltic Sea, Atlantic Coast and Mediterranean Sea with different contractors. As identified in the Work Programme 2007, EMSA undertook to explore, based on the financial means available, the possibility of further optimising existing arrangements. After a number of preparatory actions, the Agency determined appropriate improvements to the network covering such technical issues as:

- Oil recovery, decanting and discharging systems;
- Safety conditions on the contracted vessels.

After exploring, in close co-operation with the contractors, the feasibility for the different EMSA's technical proposals, a range of actions were implemented as summarised in the table below:

EMSA Contractor and Vessel	Improvement Modification
Lamor Corporation Ab. Baltic "pool" of vessels	-Increasing by more than 100% on 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 by more than 100% on both the oil recovery and discharging pumping capacities. Piping modifications. - Modification on the decanting system
Lamor Corporation Ab. Vessel: "Galp Marine"	-Increasing by more than 100% on the oil recovery pumping capacity. - Modification of the decanting system. Installation of drop lines -loading on top- and additional Oil in Water Monitors.
Tankship Management Ltd.: Vessel: "Mistra Bay"	- Additional self-inflatable boom to improve crew's safety conditions during booms operation. - Modification of the decanting system. Installation of drop lines - loading on top - and additional Oil in Water Monitors.
Falzon Service Station Ltd. Vessel: "Santa Maria"	- Additional remotely operated multi-skimmer (brush & weir). - Modification of the decanting system. Installation of drop lines - loading on top - and additional Oil in Water Monitors.

The completion of the equipment purchases and modification works on the vessels is expected to be completed in the first and second quarters of 2008.

	Commitments	Payments
Sub total 3.2.3.2	2,267,945.50	461,659.50

3.2.4 Network completion and new regions

Within the framework of the Agency's annual Work Programme, 2007 saw the most ambitious and complex procurement procedure to date for at-sea oil recovery services with the objective of completing the service network. Accordingly, the Agency launched a Negotiated Procedure following publication of a Contract Notice in the Official Journal of the European Union (OJEU) to contract additional oil recovery capacity in three different geographical lots: Atlantic Coast, West Mediterranean Sea and Aegean Sea/Black Sea with a total budget of 18,75 million Euros. The Negotiated Procedure had three different phases:

- Invitation to Apply Phase (open to any interested party);
- A (Restricted) Invitation to Tender Phase for those applicants that satisfied the minimum requirements and;
- A Negotiation Phase in which a series of negotiations were held with the companies associated with the offers of most potential to get the best value for money.

Following the results of the successful procurement procedure, additional response capacity has been established as intended in the Atlantic, Aegean Sea and West Mediterranean to fill a gap in the network coverage. The equipment stockpiles for the four contracts awarded include rigid sweeping arms, weir or brush skimmers, booms and slick detection systems.



The Executive Director awarding a service contract for stand-by oil recovery vessels

The contract for the Atlantic Coast was awarded to James Fisher Everard, a British shipowner/operator, which offered a pool of three product tankers with capacities ranging from 4,754 m³ to 5,028 m³. The vessels which were built in 1997 and 1998, are double-hulled and usually trade with oil from the UK to Ireland. From this pool, two vessels can be mobilised simultaneously. The equipment kit will be located in Cork, a port in which the vessels call regularly. One fully equipped vessel can be mobilised with rigid sweeping arms.

For the West Mediterranean, a vessel has been contracted with the Maltese shipowner Tankship Management. The vessel will be located in La Spezia, Italy, where it will work as a bunker tanker with occasional trading in close vicinity to this port. The equipment will be permanently installed onboard which will significantly decrease the mobilisation time. The vessel is currently being converted to double hull and has a capacity of 2,800 m³.

Concerning the Aegean Sea, the successful company was a Greek firm, Environmental Protection and Engineering (EPE). The company is already a pollution response company dedicated mainly to near-coast or onshore clean-up activities. The contract will make available in that region a product tanker with 3,000 m³ and double hull. The vessel, which will be working in the vicinity of Piraeus, will have the equipment permanently onboard.

Due to the fact that no suitable bid was submitted for the Black Sea and that an attractive offer with two new tankers was offered for the high-density tanker traffic area of the Gibraltar Strait, it was decided to award the remaining contract to Mureloil. The vessels operate out of Algeciras, which is also the location of the response equipment stockpile, providing bunkers on behalf of Repsol, a Spanish oil company. The capacity of the two tankers is 3,800 m³ and 7,413 m³ respectively. One fully equipped vessel can be mobilised with rigid sweeping arms for spill response operations.

	Commitments	Payments
Contracts 2007 (Atlantic coast, Med West, Aegean Sea)	18,434,499.00	9,322,442.60 ¹²
Operational fund for exercises 2007	2,280,454.00 ¹³	0.00
Experts, rating report, clarification meetings	19,043.79	19,043.79
Sub total 3.2.4	20,733,996.79	9,341,486.39

3.2.5 Priorities for At-sea Oil Recovery Service in 2008

As no appropriate arrangement was identified with respect to the Black Sea during the 2007 procurement procedure, this area will be a priority for 2008.

With respect to other 2008 priority areas, the Agency's Administrative Board concluded at its meeting in November 2007 that the feasibility of establishing an arrangement in the North Sea should be explored with the Member States concerned. Any subsequent implementation activities would then most likely occur in 2009. No other priority areas or gaps in the network coverage were identified for follow-up actions.

On the other hand, 2008 will see the first cycle of assessment regarding those at-sea oil recovery contracts established at the end of 2005 which will complete the operational phase of their initial contract at the end of the year. The arrangements and contractors under review are:

- Lamor Corporation Ab and the Baltic Sea "pool" of vessels;
- Louis Dreyfus Armateurs arrangement with the "Ile de Bréhat" stationed in Brest, France and;
- Tankship Management Ltd. arrangement with the "Mistra Bay" stationed in Valetta, Malta.

Following the review process, the Agency will determine if it is appropriate to extend the relevant contract or to establish arrangements with alternative at-sea oil recovery service providers.

¹² Further payments are expected in 2008 after finalisation of pre-fitting works and purchase/installation of pollution response equipment.

¹³ The appropriations for this Operational Fund have been transferred to the 2008 budget.

3.3 CLEANSEANET SATELLITE SERVICE FOR OIL SPILL MONITORING

3.3.1 Introduction

Directive 2005/35/EC¹⁴, 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".

Accordingly, the Agency has set up a high-performance satellite monitoring system for marine oil spill detection and surveillance in European waters, in support of the response chain of Member States to locate illegal discharges and to mitigate the impact of accidental spills. Satellite surveillance for oil spill monitoring is primarily based on active Synthetic Aperture Radar (SAR) sensors detecting the presence of oil. SAR "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 SAR sensors to detect oil slicks. There are limitations to this process as sea roughness is driven by the local wind speed and direction. Wind speeds below 2-3 m/s mask the dampening effect whereas speeds above 15 m/s also reduce detection capability. Despite these limitations, satellite SAR imagery has proven to be an effective tool to detect oil spills at sea as it has the capacity to cover large areas (up to 400 km wide swaths) day and night and is almost unaffected by cloud cover.

The system works on the basis of near real time analysis of ENVISAT and RADARSAT SAR images downloaded to ground stations in Norway, Italy and the Azores (the latter as of 2008). Oil spill alerts and clean sea reports are delivered to competent authorities in the Member States and to EMSA in less than 30 minutes following the satellite overpass. The short delay between detection and alert is essential for a rapid response by the Member States and to catch a polluter in the act. Images and results of oil spill analysis are available through a customer tailored web-browser. All data are available in the Agency database for further analysis and production of statistics for EMSA and the Member States.

The service itself, called CleanSeaNet, started operations on 16 April 2007 with 15 EU coastal states. Since then other countries have joined the service and by December 2007, all EU coastal states and Norway were using CleanSeaNet for combating illegal discharges and/or monitoring accidental spills.

Most European waters are already covered by CleanSeaNet. With the entry into service of the Azores ground station in 2008, the service area will cover all European waters including the Canary Islands, Madeira and the Azores.

Through CleanSeaNet, EMSA provides a state-of-the-art oil spill monitoring service. It may be considered as the first operational element within the "Marine Core Service" of the European "Global Monitoring for Environment and Security (GMES)" initiative and responds to the needs of public authorities in Europe to access reliable information on the status of their environment to the benefit of their citizens.

¹⁴ 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

3.3.2 Service Implementation

The service was developed following consultation meetings with industry and Member States in January and February 2006. Following the generally positive response from the coastal states, and taking their comments into account as well as those of other relevant organisations such as the European Space Agency, the Agency in April 2006, proceeded to issue an Open Tender for the provision of satellite image licences and service elements for a total value of 6 million Euros over a three year period. Following a successful procurement process, contracts were awarded to two satellite image distributors for RADARSAT and ENVISAT ASAR image licences, and to a consortium of European service providers for the provision of the telecommunications network and the service chain including satellite image acquisition, processing, and analysis and information dissemination:

- One contract for the acquisition of ERS/ASAR ENVISAT satellite data licences signed on 18 December 2006 between EMSA and Eurimage S.p.A.;
- One contract for RADARSAT-1 and RADARSAT-2 licences signed on 2 February 2007 between EMSA and MDA Geospatial Services Inc and;
- One contract for the provision of "Services for oil spill monitoring" signed on 18 December 2006 between EMSA and a consortium of three companies: Kongsberg Satellite Services AS, Telespazio S.p.A and Edisoft;
- Each three year contract can be extended once for a period of one year.

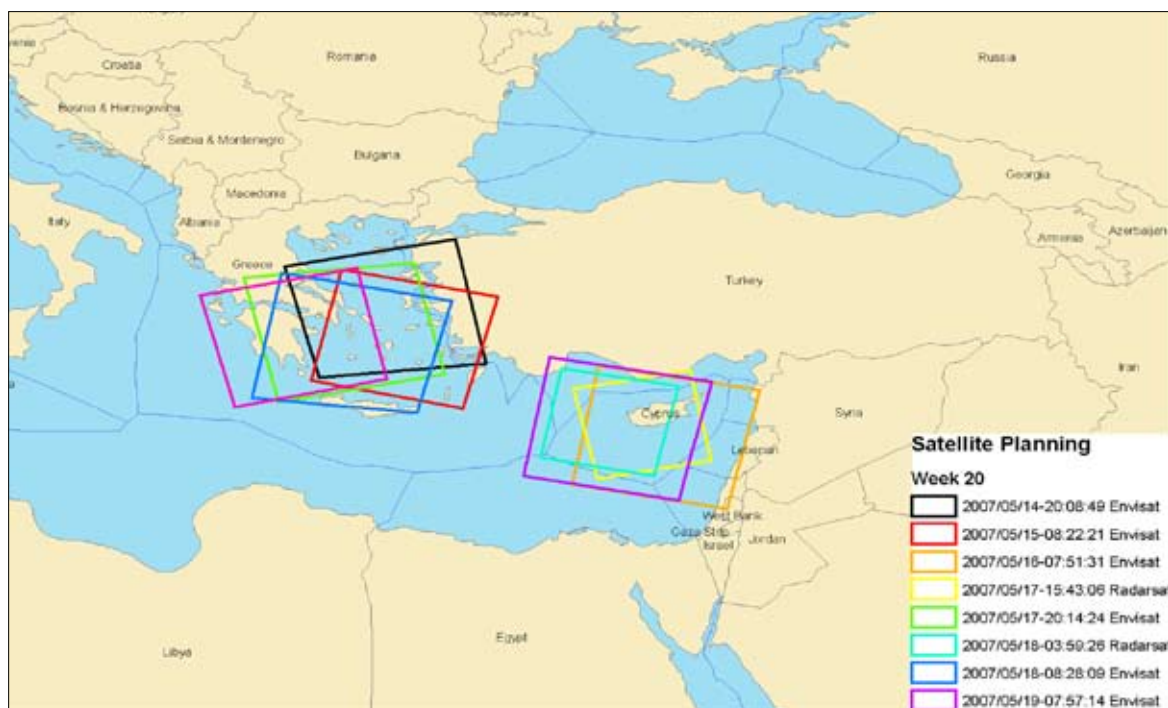
EMSA visited the national oil pollution control authorities in 20 coastal states and EFTA States in October and November 2006. The purpose of the visits was to collect information on coastal states operational requirements for oil pollution monitoring and to answer questions concerning the service in general. Information was also collected on the available operational resources for verification activities and training needs. A summary report was produced and provided to all Member States in early 2007. In January 2007, three new staff were recruited to manage the operational elements of the service. One of the main day-to-day tasks of the group is to plan the satellite images acquisition for the service in co-ordination with the participating States and to set-up a fully co-ordinated monthly acquisition plan combining requests of Member States and defining the most cost-effective planning. Planning at the European level allows utilisation of the same scene for a number of countries and thus optimising the use of satellite resources. On average each scene serves the surveillance needs of 1.79 States.



Satellite image planning, ordering and invoicing for the service is an on-going activity at the Agency and detailed procedures have been established to ensure the process runs smoothly. In parallel a series of Quality Management procedures have been developed to measure the service performance and to manage the on-going process of service improvement. The procedures take into account regular product quality checks and non-conformance reporting. A full set of documentation describing all elements of the service, such as technical specifications and data exchange formats have been produced.

As well as managing the implementation of the contracted system, a number of technical elements had to be put in place by the Agency in the early months of 2007. An in-house Oracle database was developed by the Agency to store all data and information products and associated metadata generated by the service. The Agency also developed the CleanSeaNet web portal which serves as an access point for information on the EMSA service and includes the secure log-on function to the CleanSeaNet web browser. The web-browser is developed and hosted by the service provider according to the Agency specifications. The browser is the interface used by the coastal states to access the service and allows the user to see detailed information on all the satellite images planned and already acquired. All data products can be viewed and downloaded from the browser and an interactive map viewer can be used to locate the image on a GIS map and view additional data such as wind, wave and vessel information.

Prior to CleanSeaNet start up, all elements of the service underwent extensive acceptance testing by the staff at the Agency. Testing of the service continued during 2007, as new elements of the service were implemented or if improved versions of the web browser became available.



3.3.3 The Operational Use of CleanSeaNet

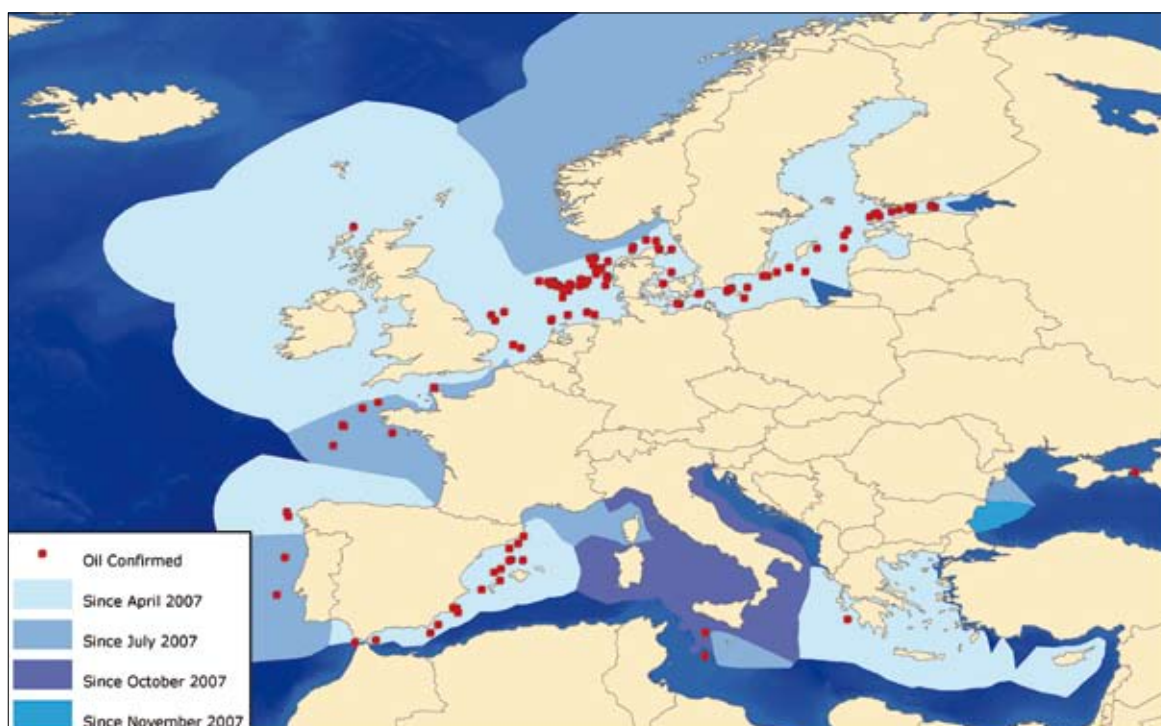
Routine Surveillance for Illegal Oil Spill Discharges

From 16 April until 31 December 2007 a total number of 1,513 SAR satellite scenes (2,728 country allocations) were ordered for participating EU Member States and Norway. The orders included 857 Envisat ASAR scenes and 656 Radarsat scenes. A total of 1,344 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 92%.

	Ordered	Cancelled	Non Delivered	Delivered	% Delivery
Envisat Scenes	857	22	79	756	91%
Radarsat Scenes	656	25	43	588	93%
Total	1,513	47	122	1,344	92%

A total of 1,731 possible oil slicks were detected in the delivered satellite scenes. In average 1.3 oil spills were detected in each scene.

How CleanSeaNet is implemented in a national operational chain may differ between coastal states. Some plan aerial or vessel support each time a scene covers their waters, 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 taken independently from EMSA.



The different sea areas displayed in blue show when the coastal states joined CleanSeaNet. By the end of 2007, most European waters were covered. The red dots indicate each time a CleanSeaNet detection has been checked by national authorities and confirmed as being oil.

Support to Aerial Surveillance Operations of MS and Regional Agreements

In 2007, CleanSeaNet provided support to three aerial surveillance operations that had specific coverage requirements and therefore entailed special satellite planning. The Super CEPSCO¹⁵ was a 10 day continuous operation which took place between 17 and 26 April 2007 in the quadripartite Zone of Joint Responsibility between Netherlands, United Kingdom, Belgium and France. This operation involved using aerial resources from seven countries. CleanSeaNet provided the SAR images that were used operationally and contributed to the overall success of the operation. On a smaller scale CleanSeaNet supported the HELCOM CEPSCO North and the HELCOM CEPSCO South operations that involved Baltic Sea states and last 24 hours each. Overall CleanSeaNet supported aerial surveillance operations with 29 satellite images, 21 images for Super CEPSCO and eight images for both HELCOM CEPSCO North and South Operations.

	Commitments	Payments
External contracts	0.00	1,161,330.00
IT facilities	108,119.11	108,119.11
Sub total 3.3.2 and 3.3.3	108,119.11	1,269,449.11

3.3.4 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.

With the purpose of establishing a strong link with the users' community in the coastal states, EMSA established the CleanSeaNet User Group. The objectives include: performance assessment of the service, identification of elements for improvement and drafting of medium and long term goals. User group meetings are organised every six months back to back with EGEMP meetings either at the European Commission's Joint Research Centre in Ispra or at the EMSA's headquarters in Lisbon. Oil pollution monitoring and surveillance experts from the coastal states and Candidate Countries are invited. The first meeting took place in Ispra, Italy on 13 June 2007 and the second in Lisbon on 12 November 2007.

Coastal States Training

A series of three regional training courses on CleanSeaNet for coastal states and EFTA States took place at the Agency in June 2007. The objective of this first training series was to provide a broad introduction to

¹⁵ CEPSCO means Co-ordinated Extended Pollution Control Operation

the technical and practical aspects of CleanSeaNet which would enable participants to use the service within their day-to-day operations in national command and control centres (NCCs). The course participants were typically duty officers already using, or about to start using CleanSeaNet to support decision making for deployment of aircraft and vessels for spill verification and identification of polluters. The training described the basic principles needed for accurate interpretation of satellite images and alert information with a practical demonstration of the CleanSeaNet browser. Training activities with coastal states will continue in 2008.



EMSA training for CSN Users - Baltic Sea Training 4 June 2007

	Commitments	Payments
CleanSeaNet User Group meetings, User trainings and Meetings	100,544.49	61,055.00
Sub total 3.3.4	100,544.49	61,055.00

3.3.5 Future developments

The next major technical development for CleanSeaNet is the integration of data on possible oil spills with ship detection and vessel traffic information for polluter identification. This has been partially achieved in 2007 and implementation will continue in 2008. In the context of further integration of maritime data at the Agency, including the establishment of the European LRIT (long range identification and tracking of vessels) data centre and the development of SafeSeaNet, this will provide EU level operational support activities which will bring significant added-value over time. Evaluation of numerical drift models to help locate the source of the spills detected by CleanSeaNet also began in 2007.

3.3.6 Co-operation with external organisations

Strategic co-operation with external organisations allows EMSA to draw on the best available new technologies in Europe for the development of improved information products in CleanSeaNet.

In 2007, EMSA signed a Memorandum of Understanding with the Institute for Protection and Security of the Citizen (IPSC) of the European Commission Joint Research Centre (EC-JRC). On 13 February and 13 March 2007 respectively, the first collaborative project was agreed between the two parties, and comprises of three work packages to be completed in a two year time frame starting in November 2007. The JRC will con-

duct research and development on new methods and technologies in support of the future development of CleanSeaNet. Work includes the development of an automatic oil spill detection algorithm; a feasibility study on the operational use of the MODIS optical satellite images for oil spill detection; and the development of main maritime traffic routes and maps of ancillary marine data maps for the European Seas.

Sustainable and affordable long-term access to satellite radar data is vital for the future of CleanSeaNet. On 2 March 2007, EMSA signed an agreement with the European Space Agency (ESA) for joint co-operation in the field of maritime monitoring and surveillance. Under this arrangement, EMSA will be supported by ESA on issues relating to the development of space technologies for maritime monitoring and surveillance. In the light of its role as a long term operational European user of satellite technology, EMSA will advise ESA on user requirements for new space systems and infrastructure.

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 2007, the Agency has been active in promoting CleanSeaNet as one of the first GMES services. Ongoing dialog 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. In June 2007, EMSA published a paper describing its position in relation to GMES and this paper was updated in December 2007.

MarCoast is an ESA funded project (November 2005 - November 2008) focusing on development and qualification of added-value services for oil spill monitoring and polluter identification. Member States had specifically requested co-operation between the MarCoast project and CleanSeaNet, and in late 2007 an agreement was put in place which will avoid possible conflicts in service delivery to end users and enhance co-operation on development of new CleanSeaNet products.

	Commitments	Payments
Service Level Agreement	350,000.00	105,000.00
Sub total 3.3.6	350,000.00	105,000.00

3.4 SUPPORT TO COASTAL STATES AND THE COMMISSION FOR ACCIDENTAL SPILLS

3.4.1 Introduction

In accordance with the EMSA Regulation as amended, following requests from the Member States and the Commission, the Agency provided operational spill response assistance for a number of 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 informally directly from the Agency. In addition, in April 2007, working arrangements for close co-operation between the Agency, the MIC, and the Secretariat of the International Charter for Space and Major Disasters were established. Accordingly, in the event of a major spill in European waters and/or adjacent high seas, EMSA will be appointed as a Project Manager under the Charter 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 then supplement coverage with additional images.

3.4.2 Don Pedro, Spain

Following the sinking of the ro-ro cargo ship Don Pedro off Ibiza, Spain, on 11 July with around 220 tonnes of fuel and other oils on board, oil polluted the nearby coastline including two tourist beaches and the harbour at Ibiza. The vessel was carrying two lorries, 98 pallets and five cars when it hit the offshore rocky islet, following which harbour tugs tried to tow it away from the port entrance, but because of the volume of water entering, it sank 30 minutes after the accident only 300 metres away. Mobilisation of response vessels, dispersant spraying operations and shoreline clean-up activities were co-ordinated by the relevant Spanish authority (SASEMAR). EMSA provided SASEMAR with two satellite scenes of the area acquired on 11 July and on 17 July to monitor the spill and any possible further leakages from the damaged vessel.

3.4.3 New Flame, Gibraltar

Following the head-on collision between the double hulled oil products tanker Torm Gertrud and the bulk carrier New Flame off Gibraltar on 12 August, and the subsequent weather damage to the partially submerged hull of the latter, on 31 August Spanish authorities (SASEMAR) requested EMSA to provide operational spill response assistance specifically at-sea oil recovery vessels and satellite imagery. EMSA was asked to acquire any available satellite image via CleanSeaNet for monitoring of a possible oil leakage from the damaged vessel. 11 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 and DG TREN.

With regard to provision of an at-sea oil recovery vessel, the nearest EMSA contracted resource, the Mistra Bay, was mobilised from Malta on 31 August. The initial estimated time of arrival (ETA) of the vessel to Algeciras was initially Tuesday, 4 September. However, poor weather conditions on the route to Spain caused a two day delay. Mistra Bay was stationed at the Getares anchorage area in Algeciras Bay and monitored the area using its on-board slick detection system. In parallel, EMSA sent one liaison officer to the Spanish Response Co-ordination Centre and one EMSA pollution response officer onboard the vessel in order to facilitate communication and operations. Having arrived onsite and given that there was no immediate requirement for at-sea oil recovery operations, the vessel and crew carried out an onsite drill to ensure that the vessel was ready for an eventual response operation.

Continuing concerns of Spanish authorities regarding any potential pollution from the ongoing salvage operations have led to the repeated extension of the EMSA pollution response vessel to stay onsite and to actively monitor the wreck. Accordingly, at the time of writing, the *Mistra Bay* is currently stationed at the Getares anchorage area in Algeciras Bay and is on stand-by for further instructions from Spanish authorities.



The New Flame wreck with Gibraltar in the background

3.4.4 Numerous vessels, Kerch Strait, Azov/Black Sea

A strong storm with wind velocities up to 32 m/s and rough seas with five metres waves affected the Black Sea area of the Kerch Strait (between Ukraine and Russian Federation) on 11 November 2007. As a result, four ships sunk, six grounded and two tankers and a barge split releasing approximately 1,300 tonnes of oil and 6,800 tonnes industrial sulphur into the sea. In support of the work of the MIC, EMSA acquired and processed a number of satellite images via CleanSeaNet for monitoring of oil slicks from the damaged vessels. 11 satellite scenes (together with the equivalent Quick Look Reports), and two CleanSeaNet Briefing documents assessing the area affected by the accident between 16 November and 9 December, were delivered to the MIC, DG TREN, DG JRC and the Black Sea Commission.



Copyright ESA/EMSA 2007; ENVISAT ASAR Image Mode, 16 November 2007

Red drops with yellow numbers represent oil spills with high probability as indicated by the analysts of the satellite image. It is a good illustration of the seriousness of the spill in the Kerch Strait.

3.4.5 Hebei Spirit, South Korea

Following the collision of a crane barge with the M/T Hebei Spirit on 7 December approximately 11,500 tonnes of crude oil were spilled into the sea. The amount of oil spilled was roughly one third of the Exxon Valdez spill and less than 20% of the Prestige spill. The oil spill happened approximately 150 km south-southeast of Seoul in the close vicinity of the harbour approach of the Port of Daeson. However, up to 320 km of the coastline nearby Mallipo, Taean, South Chungcheong Province and especially the Taeanhaean National Park were seriously polluted.

Following a request for assistance from the South Korea authorities, the European Commission and the United Nations Environmental Programme/Office for the Co-ordination of Humanitarian Affairs (OCHA) deployed a so-called Joint Rapid Assessment Team (JRAT). The Monitoring and Information Centre (MIC) of the Commission invited EMSA to participate in the mission and to provide the necessary at-sea oil spill response expertise.

As part of its role of providing on-site advice and assistance to the South Korean authorities, the JRAT visited various sites, carried out surveillance trips by boat and helicopter, evaluated a number of documents such as equipment overviews, satellite images and prediction model print-outs and held a number of meetings with key personnel co-ordinating the response. The overall impression of all team members was that the Korean Authorities responded in an appropriate manner. The team was particularly impressed with the large number of volunteers (more than 200,000) and their enthusiasm as well as the professional co-ordination and support provided by nearly all parties.



Beach cleaning by South Korean volunteers following the Hebei Spirit spill

3.4.6 Statfjord A oil platform, Norway

On 12 December 2007, approximately 3,850 tonnes of Brent crude oil leaked during loading from the Statfjord Alpha platform (operated by StatoilHydro) to the tank ship Navion Britannica. The leak occurred in a pipe between the platform and a nearby loading buoy where tankers dock to load up. The accident area (61°17,6 N - 001°54,6'E) was located in the Norwegian EEZ, 200 km West of Bergen near the UK boundary line in the North Sea. At the time of the accident wind speeds were 45 knots and waves approximately seven metres. The MIC activated the International Charter: Space and Major Disasters and appointed EMSA as Pro-

ject Manager. EMSA proceeded to co-ordinate the analysis and delivery of emergency satellite images made available under the Charter. CleanSeaNet images were also ordered to supplement the Charter images. Five scenes (together with the associated Quick Look Reports) were delivered to the MIC and to the Norwegian Coastal Administration, the national regulatory authority with responsibility to survey the situation between 14 - 20 December 2007. Optical satellite images were also acquired over the area and analysed by EMSA but were not usable due to extensive cloud cover and polar night conditions. The Brent crude oil had dispersed in the strong wind and wave conditions and following confirmation from the Norwegian Coastal Authority that the spill had dispersed, satellite images due for delivery after the 20 December were cancelled as they were no longer required.

	Commitments	Payments
Emergency acquisition of (optical) satellite images not covered by the Charter or CleanSeaNet	12,000.00	0.00
Sub total 3.3.6	12,000.00	0.00

3.5 ANNUAL COST/EXPENDITURE FOR OPERATIONAL ASSISTANCE

	Commitments	Payments
Network of stand-by oil recovery vessels	0.00	3,090,676.94
Maintaining the Service: Drill and Exercises	0.00	749,648.72
Improvements to the Service	2,267,945.50	461,659.50
Network completion and new regions	20,733,996.79	9,341,486.39
Lightering at sea	107,500.00	107,500.00
CleanSeaNet service implementation and use	108,119.11	1,269,449.11
Support to CleanSeaNet users	100,544.49	72,544.49
CleanSeaNet development	350,000.00	105,000.00
Support to Commission (MIC) and MS for accidental spills	12,000.00	0.00
Sub total for Operational Assistance	23,680,105.89	15,197,965.15

4. CO-OPERATION AND CO-ORDINATION

4.1 INTRODUCTION

Under the heading of co-operation and co-ordination the Agency has developed its relations with the pollution response experts of Member States and its relations with the Regional Agreements (Bonn Agreement, HELCOM, REMPEC, Black Sea Commission and Lisbon Agreement). In 2007 the Agency took over at the request of the European Commission part of the activities of "The Community framework for co-operation in the field of accidental or deliberate marine pollution"¹⁶. Furthermore the Agency started its general assistance in the field of illegal discharges by organising workshops with experts to analyse various aspects related to the illegal discharges' response chain.

4.2 CONSULTATIVE TECHNICAL GROUP FOR MARINE POLLUTION PREPAREDNESS AND RESPONSE

4.2.1. Five projects/priority activities for 2007

The Consultative Technical Group (CTG) for Marine Pollution Preparedness and Response was set-up recently by the Agency in 2007 to provide a European platform for Member State experts following the ending of the Community framework for co-operation in the field of accidental or deliberate marine pollution. The CTG is composed of pollution response experts from all 27 Member States, Candidate Countries, the Regional Agreements and the 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. At its first meeting on 30 May 2007, the rules of procedure and the Rolling Work Programme were adopted and it was agreed to undertake five priority actions in 2007. At its second meeting on 3 December 2007, an update on the status of these five activities was provided and the 2008 Rolling Work Programme agreed. New projects are identified by the group at each meeting and can include various workshops, reports, studies and trainings. A summary of each of the five agreed priority actions of 2007 is provided below:

A workshop on "Communications during a Tier 3 marine pollution incident"

This workshop took place on 18 October and included the participation of European Member States, oil and shipping industry associations, European Commission communications specialists, the International Maritime Organisation and representatives from the media. The workshop presented the government, industry and media/public perspectives and included working group sessions. The main outcomes of the workshop were a variety of conclusions on best practice for good communications during a large marine pollution incident. It was also suggested that follow-up to the workshop could include EMSA developing a short guidance document on good practice for communications during accidental marine pollution in Europe which would include the public, media, NGO's, industry and government perspectives as well as case studies to illustrate general principles.

A workshop on "Mastering Marine Pollution Response - exercise planning, implementing and evaluating"

Taking place on 19 October, it included European Member States participants as well as guest speakers from an oil industry association for the Mediterranean (MOIG) and a private company involved in supporting the organisation of exercises in various countries. The workshop was structured into five sessions: exercise planning, conducting exercises, the role of industry in oil pollution response exercises, exercise evaluation, and a working group session. Main conclusions centred on future work in this field including encouraging observers to participate in exercises being conducted in other countries and regions and participate as much

¹⁶ 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.

as possible in exercise evaluation teams. Furthermore that co-operation is enhanced between the Regional Agreements and EMSA in terms of circulation of exercise reports where feasible.

A summary report on the status of response to heavy fuel oil

A status or state of the art report on response to heavy fuel oil was developed. The "synthesis" or summary report was produced based on MS answers to questionnaires as well as an in depth literature review. With respect to the issue of heavy fuel oil/high viscosity oil spills, the report summarised the state of the art and concluded that a large amount of work has already been undertaken both in Europe and internationally. The report is currently being reviewed by the CTG prior to finalisation and determination of the appropriate follow-up.

A summary report on the status of occupational health and safety during at sea response operations

A status or state of the art report on occupational health and safety during response operations at sea was developed. The "synthesis" or summary report was produced based on MS answers to questionnaires as well as an in depth literature review. The report outlined the state of the art and past work in this field and concluded that much work has been done on health and safety for response on land however little as been done in this field in terms of response operations at sea. The report is currently being reviewed by the CTG prior to finalisation and determination of the appropriate follow-up.

Development of an EMSA Expert Exchange Programme

The last action for the CTG in 2007 was the development of an EMSA Expert Exchange Programme. EMSA has assessed the internal resources and budget needs to continue a programme which is under a broadly similar framework to the previous EUMAREX (Exchange of Experts in the field of marine pollution) programme which was co-ordinated by the European Commission. The EMSA Marine Pollution Exchange Programme (EMPOL-LEX) is envisaged to begin in June 2008 to coincide with a reduction of the marine pollution component in the current Civil Protection Exchange of Experts programme which will focus more on shoreline response.

	Commitments	Payments
First CTG meeting	27,000.00	14,242.67
Second CTG meeting		0.00
First CTG workshop on communication	26,126.35	16,126.35
Second CTG workshop on pollution response exercises	23,059.81	7,059.81
Sub total 4.2	110,894.20	37,428.83

4.3 Workshops on illegal discharges

Co-operation between Member States and the Commission in close relation with the Agency is one of the accompanying measures set out in Article 10, paragraph 1 of Directive 2005/35/EC¹⁷ to ensure its proper enforcement.

¹⁷ 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

At the request of the Commission, EMSA organised a first workshop in March 2007 on the practical implementation of the Directive. As a follow-up, the Agency, at the request of the Administrative Board organised a second workshop in October 2007 to exchange experiences on the gathering of evidence.

Workshop on the implementation of Directive 2005/35 on sanctions for ship-source pollution (22-23 March 2007):

The first part of this workshop consisted of an overview of the existing national or regional good practices in response to illegal discharges. In a second part, EMSA presented the accompanying measures developed at EU level for the effective implementation of the Directive such as vessel traffic monitoring systems, satellite surveillance (CleanSeaNet service), computer modelling, AIS and sampling techniques.

It was concluded that, vessel traffic monitoring systems enabling the electronic shore based tracking of potential polluters were important basic elements for providing evidence during a spill. The importance of port inspections regarding cargo, fuel and waste delivery and effective use of port reception facilities was also fully recognised. Member States expressed their interest in future training and in sharing of best practices throughout the EU.

Workshop on the exchange of best practice in dealing with illegal discharges and the gathering of evidence (8-9 October 2007):

The main objective of the workshop was to exchange best practice relating to illegal discharges, focusing on evidence in order to ascertain a link between a slick and a vessel. The first part of the workshop included presentations by national governments. The second part consisted of practical case studies. The third and last part included presentations from non-EU countries that are known to have well developed policies in the area of combating and penalising illegal discharges such as the United States, Canada, and Australia.

The workshop resulted in an interesting exchange of best practice on the technical and legislative solutions in combating and penalising illegal discharges especially in relation to the tools used and the evidence collected.

	Commitments	Payments
Workshop on the implementation of Directive 2005/35 on sanctions for ship-source pollution	16,357.48	16,357.48
Workshop on the exchange of best practice in dealing with illegal discharges and the gathering of evidence	50,000.00	32,968.10
Sub total 4.3	66,357.48	49,325.58

4.4 TECHNICAL ASSISTANCE IN THE FIELD OF OIL SPILL SURVEILLANCE TO MEMBER STATES

Article 10 paragraph 2 of Directive 2005/35/EC¹⁸ provides EMSA with the task of working with Member States in developing technical solutions and providing technical assistance in relation to the implementation

¹⁸ 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

of the Directive in actions such as tracing discharges by satellite monitoring and surveillance. In 2007, two Member States requested EMSA's technical assistance: Cyprus and Bulgaria.

In July 2007, the Republic of Cyprus - Ministry of Communications and Works - Department of Merchant Shipping (DMS) requested technical assistance from EMSA in setting up the required infrastructure and response chain for combating illegal discharges from ships. The scope of the DMS' request included all technical aspects from detection to enforcement including organisational aspects, the need for specific equipment, training requirements, and guidelines on best practice.

A meeting took place on the 4 October 2007 to improve the understanding of the state of affairs in the Republic of Cyprus. Additional information was gathered from a questionnaire prepared by EMSA and from direct co-operation with the DMS. EMSA gave its recommendations in a report issued in January 2008. It must be emphasised that these recommendations were only aimed at answering technical questions raised by the Republic of Cyprus in its request and are in no way an assessment or audit of Cyprus's activities in this field.

In October 2007, the Bulgarian Maritime Administration requested EMSA's technical assistance mainly focusing on the implementation of EMSA's CleanSeaNet satellite monitoring service in its national illegal discharge response chain. EMSA has agreed to assist Bulgaria and the actual work will begin in early 2008.

4.5 REGIONAL AGREEMENTS

4.5.1 Contributions to the activities of the Regional Agreements

The Agency provides technical support to the European Commission, as part of the Community delegation, during the relevant Regional Agreement meetings e.g. Helsinki Convention, Bonn Agreement and Barcelona Convention. Here the Agency participates by submitting various papers, participating in discussion and also being involved in the operational exercises. Following a request from the Commission, this year also saw the Agency host in Lisbon one of the rotating HELCOM Response Group meetings. In 2008, it can be expected that the Agency will also participate in the relevant Black Sea Commission meetings.

In terms of operational co-operation in 2007, the Agency was invited to participate in the Bonn Agreement Co-ordinated Extended Pollution Control Operation (CEPCO) which was a 10 day continuous sequence of aerial surveillance flights over a given area with dense traffic. The Bonn Agreement countries: Netherlands, UK, France and Belgium participated and EMSA supported the operation with satellite images through its CleanSeaNet service.

As described earlier, EMSA participated in a number of at-sea oil recovery exercises in 2007 including those organised under the umbrella of a Regional Agreement i.e. HELCOM Balex Delta exercise which took place in Tallinn, Estonia. Further details are provided in the relevant section.

4.5.2 Regional Agreement Inter-secretariat meeting

EMSA also continued its initiative of holding informal meetings between the Secretariats of the various Regional Agreements, EMSA and the European Commission. With the addition of Bulgaria and Romania to the European Union, this year included the participation of the Black Sea Commission which is the Regional Agreement for the Black Sea region.

	Commitments	Payments
Inter-secretariat meeting	9,110.10	4,310.10
Sub total 4.5.2	9,110.10	4,310.10

4.6 ANNUAL COST/EXPENDITURE FOR CO-OPERATION AND CO-ORDINATION

	Commitments	Payments
Consultative Technical Group	110,894.20	37,428.83
Workshops on illegal discharges	66,357.48	49,325.58
Regional Agreements	9,110.10	4,310.10
Sub total for co-operation and co-ordination	186,361.78	91,064.51

5. INFORMATION

5.1 INTRODUCTION

The third main activity of the Agency in the field of pollution preparedness and response is to collect and disseminate information. A lot of valuable information is available through finalised and ongoing research projects and work undertaken by the various Regional Agreements. The Agency assists in analysing and ordering information and making it available to all EU Member States. In 2007, EMSA's information activities covered the following fields:

- Marine pollution involving hazardous and noxious substances (HNS);
- The usage of oil spill dispersants;
- Inventories, reports and FAQs;
- EMSA's specialised pollution preparedness and response website.

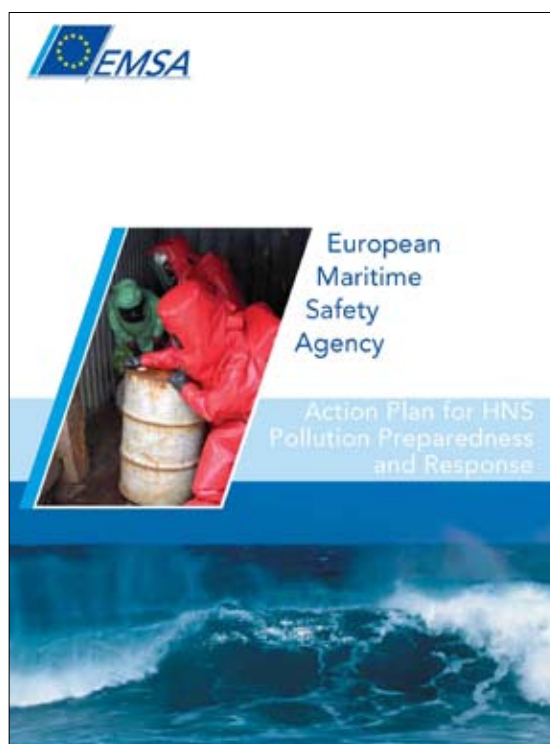
5.2 HNS ACTION PLAN

EMSA's Oil Action Plan, as adopted by the Administrative Board in October 2004, identified the need to phase in HNS activities by the Agency. The subsequently prepared Action Plan for HNS (Hazardous and Noxious Substances) Pollution Preparedness and Response was adopted by EMSA's Administrative Board during their meeting on 12 June 2007. The Agency has now intensified its work to implement the Plan. As highlighted throughout the Action Plan, more knowledge is needed with respect to preparedness and response aspects of HNS marine pollution.

In 2007, the Agency addressed the need for more accurate statistical data regarding HNS seaborne transportation in EU waters, by initiating discussions with the Eurostat office and monitoring national and regional studies on this subject. Furthermore, in 2007 the Agency began to assess and analyse the existing information on seaborne traffic of HNS and will intensify this effort in 2008.

The Agency also collected data on the EU Member States policies and operational response capacities to marine HNS pollution, including private and industry resources in addition to those of government agencies. EMSA is preparing to publish this inventory in 2008.

The Action Plan furthermore specifically identified the need to establish and maintain a pool or network of HNS experts that can advise and support Member States with timely information on scientific, technical, and operational aspects of an HNS incident. In 2007, EMSA entered into discussions with the chemical and response industry associations to establish such a network. It is expected that first level of HNS incident support network will be available in the first half on 2008.



The Action Plan for HNS Pollution Preparedness and Response was adopted in 2007

Within the framework of its HNS Action Plan, EMSA initiated in 2007 closer co-operation with the International Maritime Organisation (IMO) on issues of common interest. This included the Agency's participation and contribution as part of the European Commission delegation to the OPRC/HNS technical group meeting as well as informal meetings between the two organisations.

The above mentioned topics as well as presentations by invited speakers and Member States' representatives were discussed during the second workshop on Preparedness and Response to Marine Pollution involving Hazardous and Noxious Substances (HNS) in November 2007 at EMSA in Lisbon. This workshop was designed to share and exchange information on marine HNS pollution response and to assist on the ways forward for EMSA's implementation of the actions identified in the HNS Action Plan.

5.3 ACTIVITIES IN THE FIELD OF OIL SPILL DISPERSANT USE

In early 2007, the Agency officially distributed to the EU Member States and EFTA countries its Operational Manual on the Applicability of Oil Spill Dispersants, which was developed in 2006 as part of the implementation of EMSA's Action Plan for Oil Pollution Preparedness and Response. Before distributing the manual, EMSA had

provided an interactive training session to the Member States' experts on the operational manual's functionalities (October 2006). The main goals of this operational manual are:

- To provide useful, up-to-date and concise information regarding the state of knowledge on dispersant use;
- To provide operational and technical support as well as guidance for decision-making regarding the use of dispersants in responding to an oil spill (via the manual's decision-support software tool).

Following the distribution of the dispersants manual to the Member States in early 2007, the Agency collected and reviewed the feedback from the national maritime administrations regarding their comments on the manual's use, with a view on EMSA's plans to update and further develop this manual in 2008.

In addition, EMSA updated in 2007 its Inventory of National Policies Regarding the Use of Oil Spill Dispersants in the EU Member States. This inventory contains information on the usage of oil spill dispersants, the testing and approval procedures and the available means and equipment for dispersant application in the EU coastal Member States, Iceland and Norway.

5.4 STUDY ON DISCHARGE FACILITIES TO RECEIVE OIL RECOVERED AT SEA

During major oil pollution incidents the availability of facilities for discharge of oil recovered at sea is one of the crucial elements of the response chain. However, in Europe this issue can currently be considered a weak spot of the response chain. This is an issue of vital importance for all oil recovery vessels during a pollution response action, including those contracted by EMSA.

EMSA is not in a position to invest in its own discharge facilities for oil recovered at sea in Europe. As part of the pollution response chain, dealing with recovered oil is the responsibility of each Member State as part of national or regional oil spill contingency plans. Therefore to assist coastal Member States in improving their preparedness for oil pollution response at sea, a project was carried out in 2007 and 2008 to develop an inventory of facilities capable of receiving oil recovered at sea. The aim of this study was to assist Member States through providing an information resource for use during a pollution incident, as well as being useful in allowing EMSA to define possible useful complementary actions in this field.

An inventory has been compiled and published of discharge facilities and contingency arrangements or dealing with recovered oil in each Member State. The results of this study indicated a variety in the level of preparedness (through national contingency plans) for dealing with oil recovered at sea. In addition, the inventory of facilities (based on questionnaires sent to facility operators) suggests that there is a lack of available discharge capacity in Europe, due to a range of technical, political, legal and financial reasons. The outcome of the report and any further actions on this topic will be discussed in 2008 within the framework of the Consultative Technical Group for Marine Pollution Preparedness & Response (CTG MPPR).

5.5 INFORMATION DISSEMINATION

5.5.1 Major International Conferences

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. In November

2007, EMSA signed a Memorandum of Understanding (MoU) between the main stakeholders who form the event's Steering Committee. This group determines, within a "not-for-profit" framework, the general structure, location and funding arrangements for the next Interspill in 2009 in Marseilles, France. The association of the Agency, as well as other organisations, with Interspill contributes to its profile and sustainability.

2008 will see the International Oil Spill Conference (IOSC), primarily based in the United States, hold its next exhibition and conference. The Agency has submitted a technical paper and will be a speaker at the conference presenting the EMSA at-sea oil recovery service and its development.

5.5.2 Supporting European Commission Events

As well as supporting specialised conferences, the Agency exhibited at two European Commission events in 2007 as described below.

Each year, the Directorate General for Energy and Transport (DG TREN) organises an information event for its staff. This year's event, held on 20 September in Brussels, focused on EU transport and energy agencies. As part of its participation in this event, EMSA took the opportunity to demonstrate the SafeSeaNet and CleanSeaNet monitoring systems at its exhibition booth. This complemented the platform speech by EMSA's Executive Director which included, as part of his presentation, a short video¹⁹ on the Agency's stand-by oil spill response vessel service.

On 22-23 November, EMSA participated in the second Civil Protection Forum in Brussels. The event was organised by Directorate General for the Environment (DG ENV), and provided forum for participants to discuss ways of improving EU emergency response capabilities. EMSA participated in the associated exhibition, taking the opportunity to present its overall role in the field of marine pollution response, and in particular, its network of contracted oil recovery vessels.

5.5.3 FAQs: Pollution Detection, Preparedness and Response

End of 2006, EMSA developed a Frequently Asked Questions document on "EMSA Marine Pollution Response Assistance". The FAQ is a synthesis of the recurring questions which the public as well as specialised stakeholders may have with respect to the operational pollution response services developed by the Agency. The FAQ answers provide general information on the Agency's mandate as well clear indication on the types and conditions of assistance which EMSA is able to provide in this field i.e. the stand-by response vessel service, the satellite monitoring and surveillance service (CleanSeaNet) and the in-house pollution response expertise. Following recent developments completed in 2007 i.e. the successful procurement procedure to strengthen the at-sea oil recovery service and developments related to CleanSeaNet, the FAQs will be updated in 2008.

5.5.4 Website

EMSA continued to develop and update the pollution preparedness and response section of its website with useful information, documents and links in this field. This included the timely publication of the HNS Action Plan, the report of the second EMSA workshop on HNS, and the presentations of the invited speakers. Also available

¹⁹ Video can be viewed on the EMSA website (www.emsa.europa.eu)

on the website is the updated Inventory of national policies regarding the use of oil spill dispersants in the EU Member States. The Agency has received positive feedback with regard to this section of the website and continue to refine it during 2008.

5.5.5 Annual cost/expenditure for Information

	Commitments	Payments
Workshop on Preparedness and Response to Marine Pollution involving HNS	52,000.00	4,685.58
Preparatory meeting on dispersants	5,184.81	5,184.81
Information Dissemination	22,410.99	20,494.84
Sub total for Information	79,595.80	30,365.23

6. TOTAL EXPENDITURES FOR POLLUTION PREPAREDNESS AND RESPONSE ACTIVITIES

	Commitments	Payments
Network of stand-by oil recovery vessels	0.00	3,090,676.94
Maintaining the Service: Drill and Exercises	0.00	749,648.72
Improvements to the Service	2,267,945.50	461,659.50
Network completion and new regions	20,733,996.79	9,341,486.39
Lightering at sea	107,500.00	107,500.00
CleanSeaNet service Implementation and use	108,119.11	1,269,449.11
Support to CleanSeaNet users	100,544.49	72,544.49
CleanSeaNet development	350,000.00	105,000.00
Support to Commission (MIC) and MS for accidental spills	12,000.00	0.00
Consultative Technical Group	110,894.20	37,428.83
Workshops on illegal discharges	66,357.48	49,325.58
Regional Agreements	9,110.10	4,310.10
Workshop on Preparedness and Response to Marine Pollution involving HNS	52,000.00	4,685.58
Preparatory meeting on dispersant	5,184.81	5,184.81
Information Dissemination	22,410.99	20,494.84
Missions	158,802.61	118,439.77
TOTAL	24,104,866.08	15,437,834.66

Credits

All pictures by EMSA except:

- Sasemar: 27

- European Space Agency: 28



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