



European Maritime Safety Agency

Pollution Preparedness
and Response Activities

January 2013

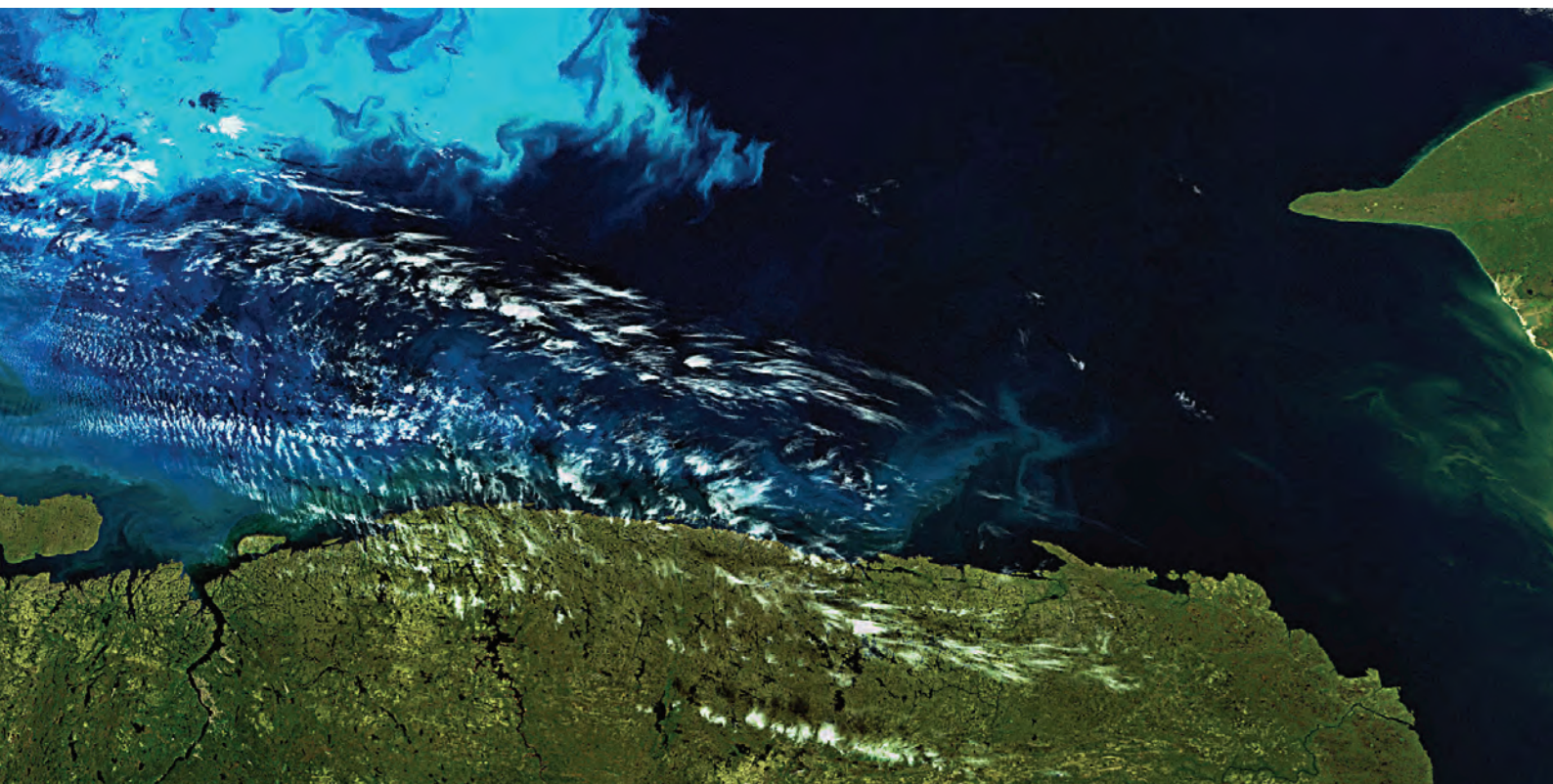
EMSA's 2012 Report to the European Commission and the Administrative Board regarding Regulation (EC) No 2038/2006 on the multi-annual funding of the Agency's pollution preparedness and response activities





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1. REPORT OBJECTIVE

The European Maritime Safety Agency has been given a Multi-annual Funding envelope for its 'anti-pollution' activities. One of the conditions for receiving this is that the Agency submits 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 gives an update of the status of all actions funded under that plan (Regulation (EC) No 2038/2006¹, Article 7).

1.1 EXECUTIVE SUMMARY

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

- The Network of Stand-by Oil Spill Response Vessels distributed along the European coastline;
- CleanSeaNet, the satellite based oil spill and vessel detection and monitoring service covering European waters;
- The MAR-ICE (Marine-Intervention in Chemical Emergencies) Information Service in case of chemical spills at sea;
- Cooperation and coordination with the EU Commission, EU Member States, EFTA/EEA Coastal Countries, Candidate Countries, Acceding Countries, Regional Agreements and other relevant international organisations such as the International Maritime Organisation (IMO);
- The provision of information through publications and workshops.

At the end of 2011, four new contracts were awarded to enhance the response capacity for the Western Mediterranean and the Black Sea and to replace existing capacity in the Southern Baltic and Central Mediterranean Sea. Following a Preparatory Phase, four vessels became operational in 2012:

- The tanker *Monte Anaga*, based in Algeciras, Spain, providing new capacity in the Western Mediterranean Sea;

- The supply tug *Enterprise*, based in Varna, Bulgaria, providing new capacity in the Black Sea;
- The tanker *OW Copenhagen*, based in Copenhagen, Denmark, providing replacement capacity in the Southern Baltic Sea;
- The tanker *Balluta Bay*, based in Malta, providing replacement capacity in the Central Mediterranean Sea.

At the end of 2012, following the established public procurement process, three new contracts were awarded. Two were to replace existing capacity along the Southern Atlantic coast (*Bahia Tres* based in Sines, Portugal) and in the Central Mediterranean (*Santa Maria* based in Malta). The third (*Urania Mella* contracted from Ibaizabal) enhances the response capacity in the Bay of Biscay. These ships will undergo a preparatory period of modifications, which is expected to be completed by mid-2013.

The Stand-by Oil Spill Response Vessel Network continues to cover all the regional seas of Europe. 2012 also saw the renewal of one contract awarded in 2009 to DC Industrial to provide response capacity in the North Sea area.

Following a technical assessment of operational needs and opportunities to upgrade the response capacity of the Network, four new improvement projects were launched. In order to accomplish these projects, the framework contracts concluded with different companies in 2011 for the purchase of oil pollution response equipment were implemented.

In order to maintain a high level of preparedness across the service network, 65 drills were conducted on board EMSA contracted vessels in 2012. In addition, 13 Notification Exercises were conducted with Member States. To further strengthen the operational cooperation with Member States, 13 EMSA contracted vessels participated in 12 Operational Exercises covering all European seas.

CleanSeaNet, the Agency's satellite oil pollution and vessel detection monitoring service, has been operational since 2007. In 2012 the CleanSeaNet service was enhanced by the introduction of Cosmo Skymed images, and service performance was improved. In April, the Agency had to adapt to the loss of the Envisat satellite; Envisat's mission ended on 08 April 2012, following the unexpected loss of contact with the satellite. The operational impact on

¹ Regulation (EC) No 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 (EC) No 1406/2002 published on 18 December 2006.

end users was mitigated by an increase in the number of other satellite images acquired, mainly from RADARSAT. In addition to providing images to Coordinated Extended Pollution Control Operations (CEPCO), EMSA, in cooperation with the Bonn Agreement, provided support to the 'Tour d'Horizon'² aerial operations for platform monitoring in the North Sea.

The Consultative Technical Group for Marine Pollution Preparedness and Response (CTG MPPR), established in 2007, continued its work in 2012 with its annual meeting, updating the Rolling Work Programme activities, continuing the EMPOLLEX expert exchange programme and organising a training workshop on claims management following a pollution incident.

The MAR-ICE (Marine-Intervention in Chemical Emergencies) Network continued to provide information during actual hazardous and noxious substance (HNS) spills and to support 'table top' pollution exercises. The most complex risk assessments provided by MAR-ICE to date were prepared following the fire and explosions on board of the *MSC Flaminia*. The risk assessments were requested by Belgium and distributed to the United Kingdom, France, the Netherlands, and, at a later stage, to Germany.

FUNDING OF ACTIONS

The Budgetary Authorities provided EMSA with €20.52 million in commitment and €21.03 million in payment appropriations for its pollution preparedness and response task for 2012³. In terms of budget execution, 96% was achieved for commitments and 89% for payments.

Whilst the overall execution in commitment appropriations was nearly 100%, the execution in payment credits was lower (89%). The latter can be explained by the fact that in some cases companies did not deliver services in line with the time limits indicated in their contracts and therefore payments were reduced accordingly.

² The Bonn Agreement Contracting Parties have adopted a plan for all coastal states to conduct periodic and random surveillance flights for the detection of spillages in the offshore oil and gas industry areas in the North Sea. Irrespective of the main aim, all other suspected polluters are also to be identified and reported. These surveillance flights are entitled 'Tour de Horizon Flights'.

³ In addition to budget allocated in 2012, €12,463 were assigned as C4 funds in CA and PA and €226,021.04 were assigned as C5 funds in CA and €225,100 in PA. The C4 and C5 funds were utilised. They are not included in the tables above.

The table below provides an overall summary of commitments and payments.

	COMMITMENTS	%	PAYMENTS	%
TOTAL allocation	20,520,000.00	100	21,033,000.00	100
TOTAL utilised	19,741,431.90	96.21	18,806,902.90	89.42

The vast majority of appropriations (97.59%) are spent on contracted operational pollution response services provided by EMSA in support of Member States. Actions in the fields of cooperation and coordination and information, in spite of the broad range of activities, are mostly provided through EMSA staff and have a significantly lower impact on external expenditures.

	COMMITMENTS	%	PAYMENTS	%
Operational assistance	19,264,996.04	97.59	18,442,041.75	98.06
Cooperation and coordination	102,454.76	0.52	135,100.95	0.72
Information	202,981.10	1.03	116,674.84	0.62
Related missions of EMSA staff	171,000.00	0.87	113,085.36	0.60

2. INTRODUCTION

The European Maritime Safety Agency (EMSA) was established⁴ to address a broad range of maritime issues with the overall purpose of ensuring a high, uniform and effective level of maritime safety, maritime security, and prevention of pollution by ships within the European Union. Following the sinking of the oil tanker *Prestige*, the Agency was given additional tasks in the field of marine pollution preparedness and response in 2004.

The initial framework for such activities was described in the Action Plan for Oil Pollution Preparedness and Response⁵. The activities identified in the Action Plan are updated annually and approved by EMSA's Administrative Board as part of the annual Work Programme.

With the adoption of Directive 2005/35/EC as amended on ship-sourced pollution⁶, the task of monitoring spills was elaborated and incorporated into the Action Plan.

⁴ See Founding Regulation (EC) No 1406/2002, 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 2009/123/EC of 21 October 2009 amending Directive 2005/35/EC on ship-source pollution and on the introduction of penalties for infringements (OJ L280, 27/10/09).

The Agency's activities build upon existing cooperation frameworks and the mandate of Regional Agreements⁷.

On the basis of a Commission proposal, the European Parliament and the Council adopted Regulation (EC) No 2038/2006, which reserves a financial envelope for the implementation of these tasks for the duration of the current 2007-2013 Financial Perspectives⁸. As part of the provisions of this Multi-annual Funding framework, the Agency is obliged to present annually the financial execution of its plan and the status of all funded actions. This is the sixth annual report and covers the year 2012. EMSA's activities under the umbrella of the Multi-annual Funding Regulation are presented, and described in more detail in these three categories:

- Operational Assistance;
- Cooperation and Coordination; and
- Information.

In the event of an oil or chemical spill from any type of source, various socio-economic and environmental resources will be put at risk of contamination. The individual importance of such resources and the associated prioritisation for their defence during an incident is clearly within the competence of the affected Member State and may be detailed in their national contingency plan.

3. OPERATIONAL ASSISTANCE

EMSA provides three main operational assistance services to coastal States with regard to marine pollution preparedness and response:

- The Network of Stand-by Oil Spill Response Vessels distributed along the European coastline and tasked to recover oil from the sea surface;
- CleanSeaNet: the satellite based oil spill and vessel monitoring and detection service covering European waters; and
- Pollution response expertise to provide operational and technical assistance for oil and HNS incidents.

⁷ 'Regional Agreements' refer to the agreements signed by countries around a particular sea area to plan for pollution preparedness and coordinate responses in case of a large-scale marine pollution incident. The EU has an official role in some, but not all, of these. Regional Agreements have been developed for all the sea areas along the European coastline: the North Sea (Bonn Agreement), the Baltic Sea (HELCOM), the Mediterranean (the Barcelona Convention), the Black Sea (Bucharest Convention for which EMSA has observer status), and the North East Atlantic (Lisbon Agreement, not yet in force).

⁸ A financial perspective is a seven-year spending framework of the European Union.

3.1 NETWORK OF STAND-BY OIL SPILL RESPONSE VESSELS

Since 2004, the Agency has been making available additional at-sea oil recovery resources to assist Member States in responding to large scale incidents such as the *Erika* (1999, France) and *Prestige* (2002, Spain). The Network of Stand-by Oil Spill Response Vessels, which provides an at-sea oil recovery service, has been built up and maintained through annual procurement procedures starting in 2005. Accordingly, 2012 saw three main activities in relation to the Network namely:

- Bringing into operation the four vessels contracted at the end of 2011 to establish new capacity for the West Mediterranean and Black Sea areas and replacement of existing capacity in the Southern Baltic and Central Mediterranean;
- Securing replacement capacity for expiring contracts in the Southern Atlantic coast and Central Mediterranean and establishing new capacity for the Bay of Biscay area through a public procurement procedure;
- Determining if the contracts established in 2008, one for the Atlantic Coast, one for the Black Sea and one for the North Sea, should be renewed for an additional (and final) 3-year period.

Associated activities included:

- Maintaining the service level for operational contracts primarily through:
 - Monitoring and evaluating vessel/crew performance during quarterly drills;
 - Participation of the contracted vessels in operational at-sea exercises organised in cooperation with EU Member States and/or Regional Agreements;
- Identifying and implementing appropriate technical improvements to the Network, and developing projects to upgrade the management of 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. It is clear that Member States have the prime

responsibility regarding response to pollution incidents in their waters. Consequently, the State requesting assistance will have the EMSA resources at its disposal under its operational control. Importantly, the Network of pollution response vessels is provided in a cost-efficient manner and will be channelled to requesting states through the Monitoring and Information Centre (MIC) of the European Commission in Brussels⁹.

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

- A 'reserve for disasters' to assist Member States responding to an incident beyond national capabilities;
- Under the operational command of the affected Member State;
- Provided in a cost efficient manner;
- Utilise 'state of the art' large scale 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 Organisations in accordance with Directive 94/57/EC¹⁰ as amended). Following a spill, and the associated request for assistance from an affected Member State, a vessel ceases its normal commercial activities and is transformed rapidly into a fully operational spill response vessel.

⁹ The Monitoring and Information Centre (MIC) is the heart of the Community Mechanism for Civil Protection. It is operated by DG Humanitarian Aid & Civil Protection (DG ECHO) of the European Commission and accessible 24 hours a day. It plays key coordination role during emergencies.

¹⁰ Council Directive 94/57/EC as amended of 22 November 1994 on common rules and standards for ship inspection and survey organisations and for the relevant activities of maritime administrations, OJ L 319, 12.12.1994, p. 20.

3.1.1 Network of Stand-by Oil Spill Response Vessels

EMSA currently maintains contracts for 17 fully equipped Stand-by Oil Spill Response Vessels, which are available, upon request, to assist coastal States in oil spill recovery operations. One additional contracted vessel is currently in the Preparatory Phase and is expected to be operational by mid-2013.

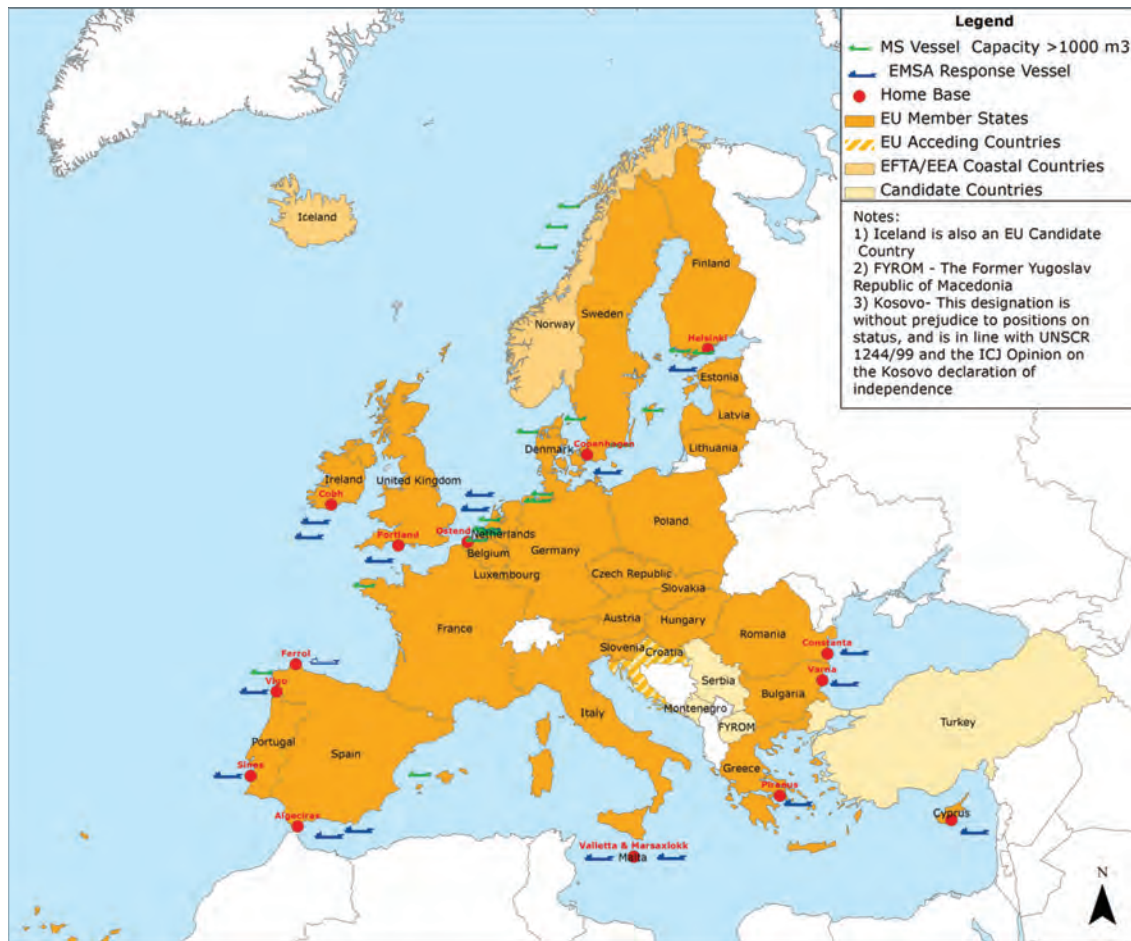
Two vessels already operating for EMSA under contracts that will expire at the beginning of 2013 have been re-contracted and the Stand-by Phase is expected to be completed in mid-2013 at the latest. These will replace two other contracts, bringing the total number of available vessels to 18. The average storage capacity for recovered oil of the EMSA contracted vessels is 3,600 m³.

The current Network provides at-sea oil recovery services from vessels based in all the regional seas of Europe. It should be noted that all vessels are at the disposal of all Member States regardless of their actual area of operation. The map in the following page shows the distribution of vessels and equipment stockpiles around Europe. More technical and operational specifications of all the contracted services are available on the Agency website www.emsa.europa.eu.

Within the framework of the Agency's annual Work Programme, 2012 saw a further procurement procedure to maintain the service network. A Negotiated Procedure following publication of a Contract Notice in the Official Journal of the European Union (OJEU) was launched covering the following geographical areas:

- Bay of Biscay;
- Southern Atlantic coast; and
- Central Mediterranean Sea.

As in previous years, the Negotiated Procedure had two different phases and is effectively a yearlong project in itself. Following the procurement procedure, contracts for response capacity were awarded for all geographical areas.



The EMSA Network of Stand-by Oil Spill Response and Member States vessels at the beginning of 2013

In parallel, four vessels contracted at the end of 2011 successfully completed the Preparatory Phase and became fully operational in 2012:

- The tanker *Monte Anaga*, based in Algeciras, Spain, providing new capacity in the Western Mediterranean;
- The supply vessel *Enterprise*, based in Varna, Bulgaria, providing new capacity in the Black Sea;
- The tanker *OW Copenhagen*, based in Copenhagen, Denmark, providing replacement capacity in the Southern Baltic;
- The tanker *Balluta Bay*, based in Malta, providing replacement capacity in the Central Mediterranean.

Successful completion of this phase means that the vessels were modified, equipped and the crew trained for their pollution response task. Following certification of the vessel for oil recovery operations by an appropriate Classification Society (Recognised Organisation in accordance with Directive 94/57/EC as amended), the vessels were accepted

into the Stand-by Phase of the contract and are now available to respond to a request from a coastal State for assistance.

In 2012, the contract established with the Maltese company Tankship Management Ltd for the provision of Stand-by Oil Spill Response Services by the vessel *Salina Bay* for the area of the north-western Mediterranean Sea was terminated. A new procurement procedure for the replacement of this capacity was launched at the end of 2012.

BALTIC SEA

At the end of 2011, a new contract was signed with O.W. Tankers regarding the bunker vessel *OW Copenhagen*. Following a sale of some exploited oil recovery equipment (flexible sweeping arms), the remaining equipment from the expiring contract was handed over to O.W. Tankers in February 2012.

After a preparatory period (including purchase of new rigid sweeping arms), the vessel entered into the Stand-by Phase of the contract, i.e. ready to recover oil, in mid-2012. *OW Copenhagen* has a total net storage capacity of 4,450 m³.

The Baltic Sea is also served by the ice-breaker *Kontio* which entered into the Operational Phase in 2010. It was built in 1987, has a speed of 18.5 knots and a recovered oil capacity of 2,033 m³. During the ice-breaking season, approximately 140 days a year, the vessel operates in the Gulf of Bothnia with the equipment stockpile based in the port of Oulu, Finland. For the remaining part of the year the equipment and vessel are located in Helsinki, Finland.

The total contracted on board storage capacity for oil recovery during response operations for the Baltic Sea is now almost 6,500 m³.

NORTH SEA

The North Sea is one of the sea areas with the highest tanker traffic density. During 2012 the existing 3-year contract for two hopper dredgers trading sand along the Belgian and Dutch coastlines, the *Interballast III* (storage capacity 1,886 m³) and *DC Vlaanderen 3000* (storage capacity 2,744 m³), was renewed following a performance assessment. The two ships provide a combined recovered oil storage capacity of more than 4,500 m³.

ATLANTIC COAST

The Western Approach of the English Channel, an area well known for its vessel traffic density, is served by the *Sara*, based in Portland, UK, and the arrangement based in Cobh, Ireland, through the Contractor James Fisher Everard composed of three vessels (two product tankers and an oil tanker, with a total combined storage capacity of 14,536 m³). These vessels are complemented by the arrangements in place in Spain and Portugal. The supply ship *Ria de Vigo*, which has an on board storage capacity of 1,522 m³ and operates out of Vigo, Spain, had her contract renewed for three years from 1 January 2012. Finally, the *Bahia Tres*, built in 2007 and based in Sines, Portugal, has 7,413 m³ of on board recovered oil storage capacity.

The total recovered oil storage capacity under contract is therefore in excess of 20,000 m³ for the Atlantic coast from the English Channel to Europa Point.

MEDITERRANEAN SEA

Following a successful procurement procedure, at the end of 2012 a new 4-year contract was awarded to the Maltese company SL Ship Management Company Ltd, a subsidiary of the Falzon Group, for the replacement of existing response capacity in Central Mediterranean Sea due to the expiration, without possibility of further renewal, of the contract signed in 2006.

The tanker *Santa Maria*, already operating for EMSA under the current contract, will be re-contracted under the new contract, ensuring the availability of a total net storage capacity of 2,800 m³. As part of the Preparation Phase, the *Santa Maria* will undergo an ambitious plan of improvements to the vessel's on board systems and oil pollution response equipment. The Stand-by Phase is expected to begin in mid-2013 at the latest.

The *Monte Anaga*, for which a 4-year contract was awarded for the provision of at-sea oil recovery services at the end of 2011, entered into the Stand-by Phase of the contract in June 2012.

With regard to this regional sea basin, the following arrangements are also in place:

- *Bahia Uno*, based in Algeciras, Spain;
- *Balluta Bay*, based in Malta;
- *Akea OSRV*, supported by the back-up vessel *Aegis I*, based in Piraeus, Greece; and
- *Alexandria*, based in Limassol, Cyprus.

By mid-2013 the total net storage capacity under contract for the Mediterranean Sea will be approximately 26,000 m³.

BLACK SEA

At the end of 2011 a 4-year contract was awarded to the Bulgarian company BM Gust. The vessel providing the oil recovery services, offshore supply vessel *Enterprise*, which services the Varna oilfield area about 12 nautical miles offshore, completed the Preparation Phase in 2012. She has a storage capacity of 1,374 m³.

The vessel *GSP Orion*, operating out of Constanta, Romania, is also under contract with the Agency for the Black Sea area.



Participants of the 2nd Vessel User Group meeting at EMSA

With the aforementioned new contractual arrangement in place, at the end of 2012 the total contracted on board storage capacity for oil recovery for the Black Sea was more than 2,700 m³.

3.1.2 Vessel Network User Group

Following the successful initial meeting in 2011, the 2nd Vessel User Group meeting was held on 23 October 2012 at EMSA's premises. Delegates from 25 different Member States, two EFTA/EEA Member States, three Candidate Countries and EMSA participated in the meeting.

The aim of this User Group is to provide a platform to discuss operational issues related to at-sea oil response using vessels from either the EMSA Network or Member States. Topics discussed at the meeting included technical

issues related to oil recovery equipment, requirements of Classification Societies regarding the "Oil Recovery Vessel" notation and onshore discharging facilities for oil recovered at sea.

3.1.3 Maintaining the Service: Drills and Exercises

3.1.3.1 Drills

In order to maintain the appropriate level of readiness during the Stand-by Phase of the contracts, the companies and vessels concerned carry out different types of activities. The primary activity is the vessel/crew drills, which take place on a quarterly basis. Each drill verifies that the capability of the vessel and specialised equipment, and the skill of the crew, is at an appropriate level.

Financial overview: vessel contracts

	COMMITMENTS	PAYMENTS
Contracts 2005 (Baltic Sea, Atlantic and Channel, Mediterranean Sea)	0.00	146,966.56
Contracts 2006 (Atlantic Coast, Mediterranean East)	0.00	937,324.28
Contracts 2007 (Aegean Sea, Atlantic Coast, Mediterranean West)	0.00	2,815,326.76
Contracts 2008 (Black Sea, North Sea, Bay of Biscay)	1,271,832	1,527,174.40
Contracts 2009 (North Baltic, Atlantic/Channel)	0.00	1,177,439.76
Contracts 2010 (Mediterranean East)	0.00	708,461.20
Contracts 2011 (Southern Baltic, Mediterranean Central, Mediterranean West and Black Sea)	0.00	1,329,911.14
Contracts 2012 (Southern Atlantic coast, Central Med Sea and Bay of Biscay)	9,608,007.50	2,471,055.90
Associated activities (Tender Clarification Meetings)	8,993.26	8,993.26
Sub-total 3.1.1	10,888,832.76	11,122,653.26

These drills are primarily an internal event between the Agency and contractors, however Member State representatives and journalists have taken part in drills and the Agency encourages such participation.

In 2012, a total of 57 Quarterly Drills were performed by the vessels under contract to the Agency. Additionally, eight Acceptance Drills were conducted in 2012. The Acceptance Drills are of particular importance as they are the major milestone for new vessels to enter into the Stand-by Phase of a contract.

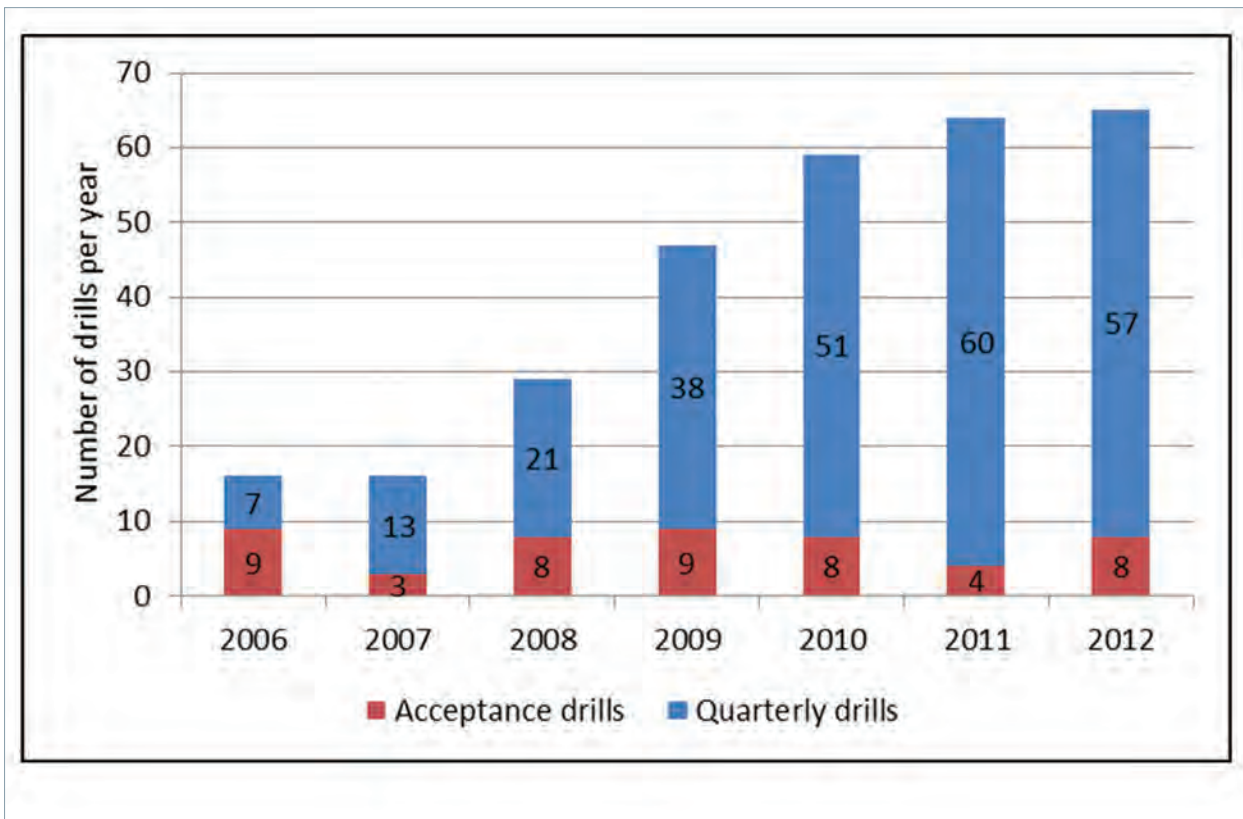
Acceptance Drills conducted by the Agency in 2012

ACCEPTANCE DRILL	REMARKS
Newly contracted vessel: Monte Anaga Enterprise	New capacity Entry into Stand-by Phase of the Contract for the Western Mediterranean and the Black Sea
Re-contracted vessels: OW Copenhagen Balluta Bay	Replacement capacity Entry into Stand-by Phase of the Contract for the Southern Baltic and Central Mediterranean Sea

Acceptance Drills are also used in order for any technical improvements to the Network to be recognised as operational. In 2012, three technical improvement projects were subject to acceptance tests:

- Improvement of the pollution response capacity of the Aktea OSRV for the Aegean Sea. A high capacity skimmer was added to the equipment.
- Upgrade of the existing pollution response capacity of the pool of the 3 vessels contracted through James Fisher Everard for the Atlantic Coast. One set of 15 m rigid sweeping arms was added to the Contractor’s stock pile arrangement in Cobh, Ireland.
- Improvement of the pollution response capacity of the Sara for the Atlantic and Channel. A high capacity skimmer was added to the equipment.

The total number of drills (Quarterly and Acceptance Drills) was 65. The summary of all drills performed by EMSA contracted vessels during the period 2006-2012 is shown in the chart below.



Number of drills per year

3.1.3.2 Exercises

In addition to the abovementioned drills, a range of exercises were conducted. These types of event are, in addition to being a useful method of maintaining pollution response skills, an important tool for identifying potential areas that could be improved. At-sea operational exercises in particular greatly assist the integration of EMSA's resources within the response mechanisms of Member States, improving the necessary coordination and cooperation of the EMSA vessels with the coastal State response units. In the course of 2012, 13 EMSA Stand-by Oil Spill Response Vessels participated in 12 at-sea operational exercises, organised in cooperation with EU member states and/or Regional Agreements, in the Baltic Sea, North Sea, Bay of Biscay, Atlantic Coast, Mediterranean Sea, Aegean Sea and Black Sea.

Operational exercises usually involve the release of simulated oil (often popcorn), the deployment of pollution response vessels from the participants, and the establishment of a unified command structure and lines of communication. In addition, full-scale oil recovery operations at the site of the

accident, including actual deployment of oil containment booms and skimming equipment, may be undertaken. In 2012 the total number of Exercise Days with the participation of EMSA contracted vessels was 16.

In connection with the operational exercises, 13 Notification Exercises involving 14 different EMSA contracted vessels, aiming to evaluate the agreed emergency and notification procedures between EMSA, Member States, EMSA contractors and the MIC¹¹, were organised by the Agency.

As a result of the notification exercises, 15 exercise Incident Response Contracts were signed between different coastal States and EMSA Contractors. This figure is a considerable improvement on the seven signed in 2011.

During the 1st Vessel User Group meeting, held on 25 October 2011, it was agreed with the Member States that there was a need to develop guidelines in order to facilitate the mobilisation procedure of the EMSA contracted vessels.

¹¹ The Monitoring and Information Centre (MIC) is the heart of the Community Mechanism for Civil Protection. It is operated by DG Humanitarian Aid & Civil Protection (DG ECHO) of the European Commission and accessible 24 hours a day. It plays key coordination role during emergencies.

At-sea operational exercises in chronological order in 2012

EXERCISE NAME	DATE, LOCATION	PARTICIPATING PARTIES	EMSA VESSELS
XÁVEGA 2012	09/05/12 Sesimbra, Portugal	Portugal, EMSA	Bahia Tres
SAR-POL 2012	24/05/2012 Constanta, Romania	Romania, EMSA	GSP Orion
BONNEX 2012	31/05/12 Helgoland, Germany	Denmark, France, Germany, Netherlands, Sweden, EMSA	Sara
ORSEC 44 2012	20/06/12 Saint Nazaire, France	France, EMSA	Mersey Fisher
NIREAS 2012	06/07/12 Athens, Greece	Greece, EMSA	Aktea OSRV and Aegis I
POLEX 2012	28/07/12 Ostend, Belgium	Belgium, Netherlands, EMSA	DC Vlaaderen and Interballast III
BALEX DELTA 2012	29/08/12 Gulf of Finland	Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Sweden, EMSA	Kontio
COPENHAGEN AGREEMENT 2012	12/09/12 Frederikshavn, Denmark	Denmark, Sweden, EMSA	OW Copenhagen
MALTEX 2012	14/09/12 La Valetta, Malta	Malta, EMSA	Santa Maria Balluta Bay
POLGER 2012	20/09/12 Swinoujscie, Poland	Germany, Poland, EMSA	OW Copenhagen
NIRIS 2012	25/09/12 Limassol, Cyprus	Cyprus, EMSA	Aktea OSRV Alexandria
ORSEC LNG 2012	18/10/12 Cherbourg, France	France, EMSA	Sara
12 Operational Exercises	16 Exercise Days	16 EMSA counterparts	13 different EMSA vessels

In order to address this issue, in 2012 the Agency developed the “EMSA Network of Stand-by Oil Spill Response Vessels – User Guide” for the Member States. The Guide includes detailed and user-friendly step-by-step procedures on the mobilisation of EMSA contracted vessels by the Member States. During the Notification Exercises conducted in 2012 the Guide was used by Member States, who provided feedback stating that it was a useful tool.

It is important to reinforce the need for Member States, even in an exercise scenario, to conclude the notification procedure with the signature of the Incident Response Contract as this is a vital legal element in requesting assistance from EMSA in the event of an actual incident.

The CECIS system operated by the MIC of the European Commission should be used by Member States for the mobilisation of vessels; however, in practice this does not always occur. EMSA is working closely with DG ECHO in order to improve the functionality and use of the CECIS system¹².

More details can be found in the Drills and Exercises Annual Report available on EMSA’s website emsa.europa.eu/opr-documents/opr-reports/228-opr-reports/713-drills-report.html.

¹² The Common Emergency Communication and Information System (CECIS) is a web-based alert and notification application created to facilitate emergency communication. It provides a platform to send and receive alerts and details of assistance requested and offered.

EXERCISE XÁVEGA 2012 (ATLANTIC COAST)

On 9 May 2012, the at-sea pollution response exercise “XÁVEGA 2012” was held off Sesimbra, Portugal. The exercise was organised by the Portuguese National Maritime Authority (*Autoridade Marítima Nacional*, DGAM) with 22 different participating entities including EMSA. The aims of this operational exercise were to test and to improve the cooperation of the Portuguese Navy and DGAM with other entities, particularly local authorities and port administrations, as well as to strengthen the integration at the operational level of the Agency’s contracted vessel *Bahia Tres* based in Sines, Portugal, with the Portuguese vessels.

In conjunction with the operational exercise, a Notification Exercise involving the requesting Member State (Portugal) and EMSA was also carried out on 8 May for the mobilisation of the EMSA contracted vessel. The Incident Response Contract was signed by the Contractor and the Member State in less than four and half hours from the formal request for assistance.

The exercise scenario simulated the collision between two merchant ships in the vicinity of the Port of Sesimbra. As a result of the accident, one of the vessels was adrift, with significant damage to her hull. A spillage of about 900 tonnes of intermediate fuel oil (IFO) 180 and 20 tonnes of lubricants occurred. Following the activation



EMSA Executive Director, Markku Mylly, at the presentation of the NIIRIS exercise in Cyprus

of the relevant Portuguese Contingency Plan and request for assistance to MIC/EMSA, appropriate oil recovery operations were undertaken as well as shoreline clean-up.

The “XÁVEGA 2012” exercise was a positive experience for all the participants. The exercise scenario was considered to be very realistic and the role of the *Bahia Tres* as an oil recovery vessel was successfully demonstrated. The ‘oil recovery operations’ were well executed and the crew of the EMSA contracted vessel showed a high level of motivation. *Bahia Tres* fulfilled the role assigned by the Member State for this exercise and the Agency was also satisfied by its performance.

EXERCISE SAR-POL 2012 (BLACK SEA)

The Romanian annual at-sea pollution response exercise “SAR-POL 2012” was organised and conducted by the Romanian Naval Authority (RNA) on 24 May in the vicinity of Constanta, Romania. The purpose of the exercise was to test the national capacities and international assistance for responding to oil spills. EMSA participated in this exercise with the contracted vessel *GSP Orion* based in Constanta.

The scenario included an oil spill of Ural crude caused by a cracked pipeline from the Midia Marine Terminal. The role assigned to the EMSA vessel in the exercise was to simulate mechanical oil recovery using the secondary system, offshore boom and high-capacity skimmer.

The objectives of the exercise were achieved. EMSA’s participation fulfilled the anticipated objectives in terms of both efficiency and coordination, and demonstrated a high level of professionalism. It was also a good opportunity to practise the operational capabilities of the contracted vessel *GSP Orion* and to reinforce the cooperation with the Romanian national response units.

EXERCISE BONNEX 2012 (NORTH SEA)

On 31 May 2012 the international at-sea marine pollution response exercise “BONNEX 2012” was held in the vicinity of the Island of Helgoland, Germany. The exercise was carried out within the framework of Bonn Agreement (Belgium, Denmark, France, Germany, Ireland, Netherlands, Norway, Sweden and the United Kingdom).

The exercise was organised by the Central Command for Maritime Emergencies, CCME (*Havariekommando: Gemeinsame Einrichtung des Bundes und der Küstenländer*), Germany.

The aim and objectives of this exercise were to test the alarm procedures, the response time and capability of the Bonn Agreement Contracting Parties to deal with oil pollution at sea.



Knechtsand and Sara following the open “U” formation

EMSA participated with the *Sara*, contracted from Aegean Bunkers at Sea, based in Portland, UK. Vessels from Germany, France, Denmark, Netherlands and Sweden also took part in the exercise.

The objectives for this exercise related to the participation of the *Sara* were:

- a. Testing the established mobilisation procedures between MIC, Germany, EMSA and Aegean Bunkers at Sea to request the assistance by EMSA contracted vessels;
- b. Actual oil recovery exercise at sea deploying response equipment.

The exercise scenario simulated a collision between the outbound container vessel *MS Tivoli* and inbound trawler *MS Seehecht* in the vicinity of the island of Helgoland. *MS Tivoli* reported to the Vessel Traffic Services, German Bight Traffic, a leakage from the starboard storage tank with a capacity of 2,500 m³ heavy fuel oil (HFO). The CCME was in charge of the counter pollution operation and the Bonn Plan was activated.

Following the request for assistance from Germany (via MIC, using fax), the Agency contracted vessel *Sara*, operating in the Atlantic/Channel, was mobilised.

Participating units:

EMSA

- *Sara*

Germany

- *Neuwerk; Westensee; Leyhörn; Knechtsand; Lüttmoor; Gustav Meier; Eversand; Luneplate; Nordic; Nordsee*

Netherlands

- *Arca; Terschelling*

Sweden

- *KBV 001*

France

- *Argonaute*

Denmark

- *Gunnar Thorson*

The "BONNEX 2012" exercise was a positive experience for all the participants. The coordination between the different units was positively tested. The communication between all participating units ran smoothly. *Sara* fulfilled the role assigned by the Member State (Germany) organising this exercise and also met the expectations of the Agency.

EXERCISE ORSEC 44 2012 (BAY OF BISCAY)

On 20 June 2012 the at-sea marine pollution response exercise "ORSEC 44 2012" was held off Saint-Nazaire, France. The operational exercise was organised by the Prefecture *Maritime de l'Atlantique*, France. The objective of the exercise was to test the National/Prefecture emergency response procedures and to test/train their staff, as well as to improve the cooperation between response units including EMSA vessels. EMSA participated with the *Mersey Fisher*, contracted from James Fisher Everard and based in Cobh, Ireland.

The objectives for this exercise related to the participation of the *Mersey Fisher* were:

- a. Testing the established mobilisation procedures between MIC, France, EMSA and James Fisher Everard to request the assistance by EMSA contracted vessels;
- b. Actual oil recovery exercise at sea deploying response equipment.

The following exercise scenario was executed:

On 19 June, a simulated collision between *MVCiudad de Cadiz* and another vessel occurred in the waiting area of Saint-Nazaire harbour. The crisis response management centre sent the evaluation and intervention team on board to help the crew to deal with the crisis (a water leak near the engine room). The Prefecture Maritime contacted CECIS to start a procedure with EMSA to mobilise an at-sea response vessel. The disabled vessel was towed by a private tug to the Saint-Nazaire harbour. During this operation, aircraft detected marine pollution. The at-sea exercise was carried out off the Port of Saint-Nazaire, France.

Participating vessels: *Mersey Fisher* (EMSA), *BSAD Alcyon*, one tug, four fishing vessels and a large number of fishing boats (France).

The main benefit of the exercise for the Agency was strengthening the integration of EMSA vessels at the operational level with French ships and the command structure. *Mersey Fisher* fulfilled the role assigned by the Member State organising this exercise (France) and also met the expectations of the Agency.

The rice husks, used to simulate oil spills, were noted to be more appropriate and suitable (compared with popcorn, used for the same purpose) due to their colour and visibility even after several hours floating on the sea surface.



The Aktea OSRV with the sweeping arms deployed during Nireas 2012 exercise

EXERCISE NIREAS 2012 (AEGEAN SEA)

The joint EMSA – Greece antipollution Exercise “NIREAS 2012” was organised within the context of cooperation in the field of pollution response between the Hellenic Coast Guard and the Agency. This exercise is conducted every two years by the Greek authorities.

The exercise, conducted on 6 June in the vicinity of Athens, aimed at testing the National Oil Spill Contingency Plan and in particular the procedure for requesting/receiving international assistance in case of a large oil spill. The purpose of the exercise was also to verify the level of cooperation and functionality of the existing contingency planning arrangements.

Two EMSA contracted vessels – the tanker *Aktea OSRV* and her back-up, the offshore supply vessel *Aegis I*, both based in Piraeus – took part in the exercise.

The exercise was a good occasion to practise the operational capabilities of the EMSA contracted vessels in the Aegean Sea and to strengthen the cooperation with the national response units.

EXERCISE POLEX 2012 (NORTH SEA)

The exercise “POLEX 2012”, hosted by Belgium, was carried out on 28 June 2012 in the waters of Gootebank near Ostend.

The aim of the exercise was to strengthen the integration at the operational level of EMSA contracted vessels with the Belgian and Dutch marine pollution response mechanisms.

The following assets participated in the exercise:

- Two of EMSA's contracted vessels (dredgers): *DC Vlaanderen 3000* and *Interballast III*;
- Dutch Coast Guard vessels: *Frans Naerebout* and *Arca*;
- Tender boat: *Geo Surveyor*;
- Belgian tugs: *Zeehond* and *Zeetijger*;
- Belgian surveillance aircrafts.

In general, the exercise programme included testing the “U” formation of the boom towed by the Belgian tugs, and followed by the *DC Vlaanderen*, *Interballast III* and *Arca* skimming oil with their sweeping arms. The exercise was coordinated by the Belgian On-Scene Commander. The exercise programme was completed successfully.

During the exercise, EMSA contracted vessels fulfilled the role assigned by the Member State (Belgium) in charge of this event and also met the expectations of the Agency.



DC Vlaanderen 3000 and Interballast III following the "U" formation

EXERCISE BALEX DELTA 2012

On 29 August 2012, the international at-sea oil spill response exercise "BALEX DELTA 2012" was held in the Gulf of Finland. The exercise was carried out within the framework of the Helsinki Convention (Contracting parties are: Denmark, Estonia, EU, Finland, Germany, Latvia, Lithuania, Poland, Sweden and Russia). EMSA participated with the icebreaker *Kontio*, contracted from Arctia Icebreaking Oy, based in Helsinki, Finland. The exercise was organised by the Finnish Environment Institute (SYKE) and included the financial support of the EU Commission (DG ECHO).

The aim and objectives of the exercise were to test the alarm procedures, the response time and capability of the HELCOM Contracting Parties and participating units to deal with oil pollution at sea. The Exercise was conducted in accordance with the following scenario:

On 27 August 2012, two vessels collided in the Gulf of Finland. The accident happened in Finnish response zone at the open sea at location N59°48'; E024°47'. The collision resulted with leakage of oil from one of the cargo tanks containing approximately 15,000 tonnes of REBCO crude oil.

Vessels participating in the BALEX DELTA 2012 Exercise were:

EMSA

- *Kontio*

Finland

- *Halli; Hylje; Louhi; Merikarhu; Oili 1; Oili 3; Seili; Sectors; Uisko; Linja*

Germany

- *Arkona*

Sweden

- *KBV 302*

Latvia

- *LVNS "A-90 VARONIS"*

Lithuania

- *Sakiai*

Estonia

- *PVL 202-Kati*

Denmark

- *MHV 903 Hjorto; MHV 908 Asko*

Within the framework of the exercise, the Monitoring and Information Centre (MIC) sent an EU Civil Protection Team (EU CP). There was also a Balex Delta Exercise Evaluation Team (EET). Accordingly, there was one EMSA Liaison Officer on-board the *Kontio* regarding the EU CP and one EMSA Officer was a member of the Exercise Evaluation Team. This was the first occasion where EMSA had been invited to be a member of the EET.



Kontio with sweeping arms deployed during BALEX DELTA 2012

The Supreme On-Scene Commander established a number of strike teams. The *Kontio* was the lead ship for strike team “Foxtrot” in cooperation with four Finnish oil recovery vessels (*Oili 1*, *Oili 3*, *Seili* and *Linja*) in formation. Strike team “Foxtrot” was instructed to deploy their sweeping arms and to simulate oil recovery in a designated area located between the boom formation and Isosaari Island. The formation was tasked to recover oil in this (relatively large) area utilising the information obtained from *Kontio*’s Oil Slick Detection System and that received from the air surveillance.

The “BALEX DELTA 2012” exercise was very well organised and the scenario was realistic taking in to account the present and expected vessel traffic in the Gulf of Finland, in particular the increasing trade in Russian crude oil.

The exercise was a positive experience for all the participants. The EMSA contracted vessel *Kontio* fulfilled the assigned role and also met the expectations of the Agency. The coordination between the different participating countries and response units was positively tested.

EXERCISE COPENHAGEN AGREEMENT 2012 (BALTIC SEA)

The Admiral Danish Fleet hosted the “COPENHAGEN AGREEMENT 2012” exercise. The exercise took place on 12 September 2012 in waters of Frederikshavn. EMSA participated in this exercise with *OW Copenhagen* stationed in Copenhagen. EMSA did not send an observer to this exercise. The exercise was attended by the vessels from Denmark, Norway and Sweden.

The scenario of the exercise was an accident between two large tankers engaged in a ship-to-ship operation. The accident resulted in an oil spill of approximately 6,000 tonnes. The accident occurred on 10 September. The request for assistance was transmitted as a POLREP message and via CECIS.

The EMSA contracted vessel *OW Copenhagen* fulfilled all tasks ordered by the On-Scene Commander. The main task of the vessel was to collect oil with the sweeping arm system at the assigned location.

The exercise was a great opportunity to strengthen the integration of EMSA Network of Stand-by Oil Spill Response Vessels with the Copenhagen Agreement response system. The exercise was completed successfully.

EXERCISE MALTEX 2012 (CENTRAL MEDITERRANEAN)

On 12 September, the "MALTEX 2012" oil spill response exercise, organised by Transport Malta, was conducted off La Valletta, Malta. The *Balluta Bay* and the *Santa Maria*, contracted from Tankship and Falzon respectively, both based in Malta, took part in this exercise.

The exercise scenario simulated a collision of the tankers *MT Tanker* and *MV Cargo* at 1030 UTC at a location 1.5 miles east of Malta. *MT Tanker's* No 3 and 4 Starboard Wing Cargo Tanks ruptured, and began leaking oil. Some 250 m³ of oil spilled into the sea immediately, with more oil leaking out gradually. *MT Tanker's* main engine broke down and the vessel requested immediate tug assistance. *MV Cargo* had severe bow damage in the fore peak area. As the vessel was not in immediate danger, it proceeded to a safe place for further assessment of damage.

The *Spinola* and the *Felica* (two Maltese tugboats) deployed 250 m of containment booms in "J" formation, and the *Spinola's* skimmer was deployed.

The *Balluta Bay* and the *Santa Maria* were ordered to deploy their sweeping arms and simulate oil recovery in coordination with the other units.

EMSA's vessels performed well during the exercise. The coordination with other units was very good. Overall, the exercise was a good opportunity for the participating units to improve coordination during oil pollution response operations.

EXERCISE POLGER 2012 (BALTIC SEA)

The EMSA contracted vessel *OW Copenhagen* participated in the annual "POLGER 2012" pollution response exercise at the invitation of the Polish Search and Rescue Service.

The exercise was carried out on 19-20 September in the vicinity of the Port of Swinoujscie.

The aim of the exercise was to strengthen the integration at the operational level of the EMSA contracted vessel with the Polish and German marine pollution response mechanisms.

The following vessels participated in the exercise:

Germany

- *Scharhörn* (storage capacity: 430 m³)
- *Kiel* (storage capacity: 350 m³)

Poland

- *Kapitan Poinc* (Search and Rescue [SAR] vessel) (storage capacity: 512 m³);
- *Czeslaw II* (SAR) (storage capacity: 20 m³);
- *Orkan* (SAR) (storage capacity: n/a);
- *Cyklon* (SAR) (storage capacity: n/a);
- *Planeta* (Polish Maritime Administration) (storage capacity: n/a);
- *SG* (Polish Coast Guard) (storage capacity: n/a);
- *Aircraft Bryza* (Polish Coast Guard).



The *Santa Maria* and *Balluta Bay* took part in MALTEX 2012

EMSA

- *OW Copenhagen* (storage capacity: 4,487 m³).

The exercise programme tested the two “U” formations of the oil boom towed by:

1. Vessels *Orkan* and *Planeta*, followed by the *Kapitan Poinc*, *Scharhörn* and *OW Copenhagen* skimming oil with their sweeping arms.
2. Vessels *Cyklon* and *SG*, followed by the *Kiel* and *Czeslaw II* with their skimming systems operating.

At the end of the exercise *OW Copenhagen* was given a task to leave the open “U” formation and to deploy her own oil boom in “J” formation together with the brush skimmer. The task was fulfilled as requested.

The exercise was coordinated by the Polish On-Scene Commander on board *Kapitan Poinc*.

The exercise scenario was realistic and the manoeuvring of the *OW Copenhagen* with sweeping arms deployed behind the Open “U” boom configuration was successfully conducted.

EXERCISE NIRIIS 2012 (EASTERN MEDITERRANEAN)

On 25 October EMSA participated in the oil pollution response exercise “NIRIIS 2012”. This exercise was organised by the Cyprus Department of Merchant Shipping and conducted off Limassol (Cyprus).

The scenario developed by the organisers included an oil spill incident with instantaneous release of approximately 2,000 tonnes of heavy fuel oil caused after a collision between an oil tanker and a bulk carrier.

The main purpose of the exercise was to train the Member State command and communication system for pollution response operations, practical use of recovery equipment and cooperation of participating units. This is the second operational exercise organised by Cyprus with the participation of the Agency.

Two EMSA contracted vessels took part in this exercise: the *Alexandria*, contracted from Petronav, based in Limassol, and the *Aktea OSRV*, contracted from Environmental Protection Engineering, based in Piraeus, Greece.

The exercise was a good opportunity for the participating units to improve the cooperation during oil pollution response operations in Cyprus. The *Alexandria* and *Aktea OSRV* performed all the tasks assigned by the On-Scene Commander in efficient and timely manner.



Exercise POLGER 2012 - Open “U” formation followed by *OW Copenhagen*, *Scharhörn* and *Kapitan Poinc*



Alexandria following an open "U" formation with sweeping arms deployed



The Aktea OSRV deploying the high-capacity skimmer during the Acceptance Test

EXERCISE ORSEC LNG 2012 (ENGLISH CHANNEL)

The French Maritime Authority for the English Channel arranged an oil pollution response exercise "ORSEC LNG 2012". The exercise took place off Cherbourg in the English Channel on 18 October 2012. The purpose of this exercise was to test the French national pollution response plan.

EMSA, upon invitation, sent the contracted oil pollution response vessel *Sara* stationed in Portland. No EMSA observer participated in this exercise.

Vessels participating in the exercise:

France

- *Argonaute; Abeille Liberte; Cormoran; Heaume*

EMSA

- *Sara*

The exercise scenario was a damaged vessel leaking oil in waters of Cherbourg. During the exercise, oil was simulated with popcorn. The main task for the *Sara* was to deploy the sweeping arm system and collect oil following the boom formation towed by *Argonaute*. The EMSA vessel fulfilled all assigned tasks successfully.

The aim of the exercise, to strengthen the integration of EMSA vessels at the operational level with French ships and the command structure, was achieved.

Financial overview: exercises

	COMMITMENTS	PAYMENTS
Exercises 2012	512,596.23	512,596.23
Sub-total 3.1.3	512,596.23	512,596.23

3.1.4 Improvements to the Network Service

3.1.4.1 Acceptance of improvement projects launched in 2011

Two technical improvement projects launched in 2011 were successfully completed in 2012:

- In order to enhance the response capacity of the of the Aktea OSRV for the Aegean Sea, the Agency concluded an improvement project with the contractor Environmental Protection Engineering (EPE) by installing on board the vessel Aktea OSRV (based in Piraeus, Greece) a high-capacity skimmer. This project was accepted by the Agency on 24 September 2012.
- To upgrade the existing pollution response capacity of the pool of the 3 vessels contracted through James Fisher Everard for the Atlantic Coast, one set of 15 m rigid sweeping arms was be added to the Contractor's stock pile arrangement in Cobh, Ireland. With this improvement, two of the three vessels of the pool are now fully equipped for stand-by oil recovery services.



Popcorn simulating oil



Sara with sweeping arm deployed

3.1.4.2 Technical improvement projects launched in 2012

Following a technical assessment on operational needs and opportunities to upgrade the response capacity of the Network, four new improvement projects were launched in 2012:

- Upgrade of the response capacity of the *Sara*, contracted from Aegean Bunkers at Sea, for the area of the Atlantic and Channel. Following an Acceptance Test, a NorMar 250TI¹³ high-capacity skimmer was added to the equipment arrangement in 2012.
- Upgrade of the response capacity of the *Alexandria*, contracted from Petronav, for the area of the East Mediterranean Sea. A NorMar 250TI high-capacity skimmer will be added to the equipment arrangement, and it is expected that the Acceptance Test will take place in mid-2013.
- Upgrade of the response capacity of the *Monte Anaga*, contracted from Naviera Altube,

¹³ The NorMar 250TI high-capacity skimmer is a self-contained system equipped with two different skimmer heads (weir and brush) in order to ensure optimal operation under different oil viscosity and weather conditions. The main advantages of this skimmer in relation to the "traditional" offshore skimmers are increased recovery capacity, integrated telescoping crane, extended length of the floating umbilical, and the one-man operation.

for the area of the West Mediterranean Sea. A NorMar 250TI high-capacity skimmer will be added to the equipment arrangement, and it is expected that the Acceptance Test will take place in mid-2013.

- Upgrade of the response capacity of the *Kontio*, contracted from Arctia, for the area of the Northern Baltic. Following an Acceptance Test, an ice (brush) skimmer was added to the equipment arrangement in 2012.

In order to accomplish these projects, the framework contracts concluded in 2011 with different companies were implemented. Accordingly, specific contracts for the supply of oil pollution response equipment have been signed between EMSA and the equipment suppliers.

Financial overview: equipment improvement 2012

	COMMITMENTS	PAYMENTS
Improvements made in 2011 to the pre-existing arrangements (carry-over of payments)	0.00	1,325,134.50
Improvements made in 2012 to the pre-existing arrangements	4,096,621.41	2,015,796.13
Sub-total 3.1.4	4,096,621.41	3,340,930.63

3.2 CLEANSEANET SATELLITE SERVICE FOR OIL SPILL MONITORING

3.2.1 Introduction

CleanSeaNet, the European satellite based oil spill monitoring and vessel detection service, was launched in 2007. The service was set up to support Member States' actions to combat deliberate or accidental pollution in the marine environment in the framework of Directive 2005/35/EC (amended by Directive 2009/123/EC) "on ship-source pollution and on the introduction of penalties, including criminal penalties, for pollution offences" and in particular Article 10¹⁴.

The service is available to 26 coastal States, including all European Union coastal States, Croatia, Turkey, Iceland, and Norway. Users have access to the CleanSeaNet service via a web portal hosted at EMSA. The service is based on the near real time¹⁵ analysis of Synthetic Aperture Radar (SAR) satellite images for oil pollution and vessel detection. The acquisition and analysis of satellite images is contracted to four European companies, which deliver the images and the results of the analysis to EMSA. As soon as these are received, the CleanSeaNet data centre automatically generates alerts which are sent to authorities in the coastal States. The alert report contains all the necessary information for coastal States to instigate follow-up (e.g. sending aerial surveillance to confirm possible spills reported, requesting inspection of suspected vessel in the next port of call).

3.2.2 The Operational Use of CleanSeaNet

CleanSeaNet uses satellite SAR images to undertake routine monitoring of all European waters looking for illegal discharges. The service detects spills and vessels possibly linked to spills, and supports the identification of polluters by combining the CleanSeaNet images with vessel traffic information available through SafeSeaNet.

¹⁴ Article 10 tasked EMSA to '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.'

¹⁵ For satellite images covering 400 km by 400 km, the analysis is provided in maximum of 30 minutes. For images of different dimensions the time varies slightly. CleanSeaNet data centre has the capacity to acquire satellite images of up to 1400 km long.

Satellite acquisitions for routine monitoring

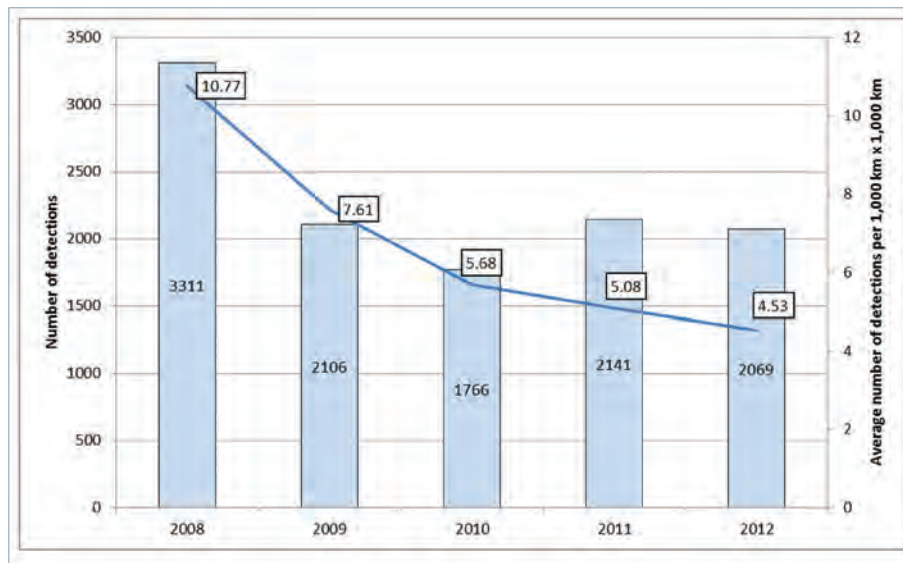
From 2007 until April 2012, CleanSeaNet used three polar orbiting SAR satellites: Envisat, Radarsat-1 and Radarsat-2. Since May 2012, Envisat images are no longer available, as the satellite mission ended when contact was lost with the satellite. However, regular services continued to be provided by the other two satellites, and there was limited operational impact on the fulfilment of coverage requirements of the coastal States. The European Space Agency's new SAR satellite Sentinel-1, is expected to launch in October 2013. The satellite will be extremely important to ensure the full capacity of the service on a sustainable basis.

The number of satellite platforms available is a key element in the capacity of the service to deliver a wide range of products and extend the scope of surveillance geographically and temporally. In 2012, EMSA signed a contract for the provision of Cosmo Skymed (CSK) images. The CleanSeaNet data centre has been upgraded to enable it to process these products. However, CSK image acquisitions are only cancelled or confirmed the day before, as priority is given to providing images for defence purposes. As a result, it is difficult to integrate CSK images in routine monitoring, as coastal States have problems timing their aerial surveillance operations based on image acquisition. CSK can complement other satellites on an *ad hoc* basis for specific surveillance operations.

Delivery statistics are present below (breakdown per satellite) and on page 26 (monthly evolution).

Year: 2012			
Satellite	Status	No of images	Delivery rate
ENVISAT *	Ordered	530	72%
	Delivered	383	
RADARSAT-1	Ordered	683	86%
	Delivered	584	
RADARSAT-2	Ordered	1380	91%
	Delivered	1258	
COSMO-SKYMED	Ordered	14	89%
	Delivered	9	
TOTAL	Ordered	2607	86%
	Delivered	2234	

* When the ENVISAT satellite failed, images for April and May 2012 were already ordered, hence the low number delivered against the number ordered.



Number of detections per year from 2008 to 2012

Radars can take measurements during night and through cloud cover. The presence of oil changes the characteristics of the sea surface, and consequently the way radiation from satellite radar is scattered. It dampens down the wind-generated waves on the sea surface, reducing the reflected power measured by the radar: for this reason oil slicks, some of which are just micrometres thin, appear as dark areas on an otherwise brighter sea. This means that SAR satellites used by CleanSeaNet, including the upcoming Sentinel-1, are able to detect oil leaking from vessels or platforms even during the night or in bad weather conditions, thus ensuring enhanced monitoring frequency and early detection capabilities.

However, not all dark areas on images are necessarily oil, and so it is important to note that CleanSeaNet does not detect 'oil spills' but 'possible oil spills'. Other substances with a similar effect include, for example, fish or vegetable oil, ice, algae, or other look-alikes. Nonetheless, as the service continues to improve, the rate of 'mis-reporting' has reduced.

Spills reported by service providers are separated into 2 classes:

- Class A - the detected spill is most probably oil (mineral or vegetable/fish oil) or a chemical product;
- Class B - the detected spill is less probably oil (mineral/vegetable/fish oil) or a chemical product.

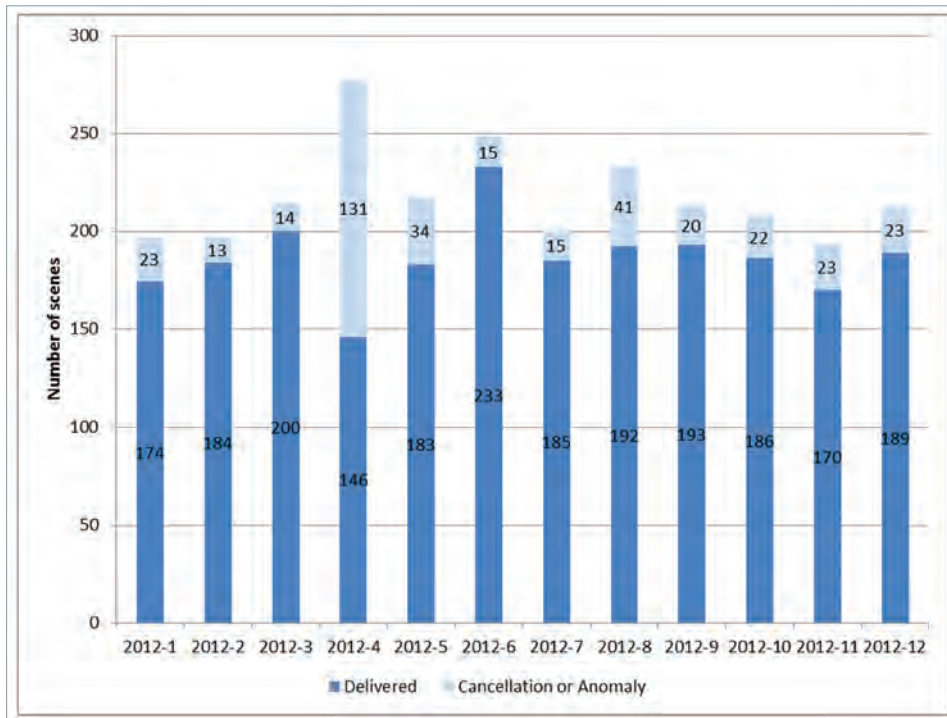
In 2012, on the 2,234 images delivered, a total of 2,069 possible oil spills were detected (951 Class A spills and 1,118 Class B spills). 4.53 possible spills have been detected per million km² (1,000 km x 1,000 km) monitored.

The overall trend has been a reduction in the number of possible spills detected. The decrease was sharp from 2008 to 2010. Over the last two years, the decrease has continued, but at a lower rate.

The role of CleanSeaNet in the law enforcement chain for combating illegal discharges

The CleanSeaNet service is one of the tools at the disposal of national enforcement authorities to detect pollution of the marine environment. In some countries, this is the only monitoring tool available. However, successful enforcement requires prompt follow-up actions by competent actors in coastal and/or port States.

At the end of 2011, a working group was established for drafting European guidelines to support enforcement efforts in combatting illegal discharges in the marine environment. The working group, comprising representatives from the Regional Agreements, international organisations (such as Interpol, the North Sea Network of Prosecutors, and the Network of Prosecutors



CleanSeaNet 2012: Number of monthly ordered images

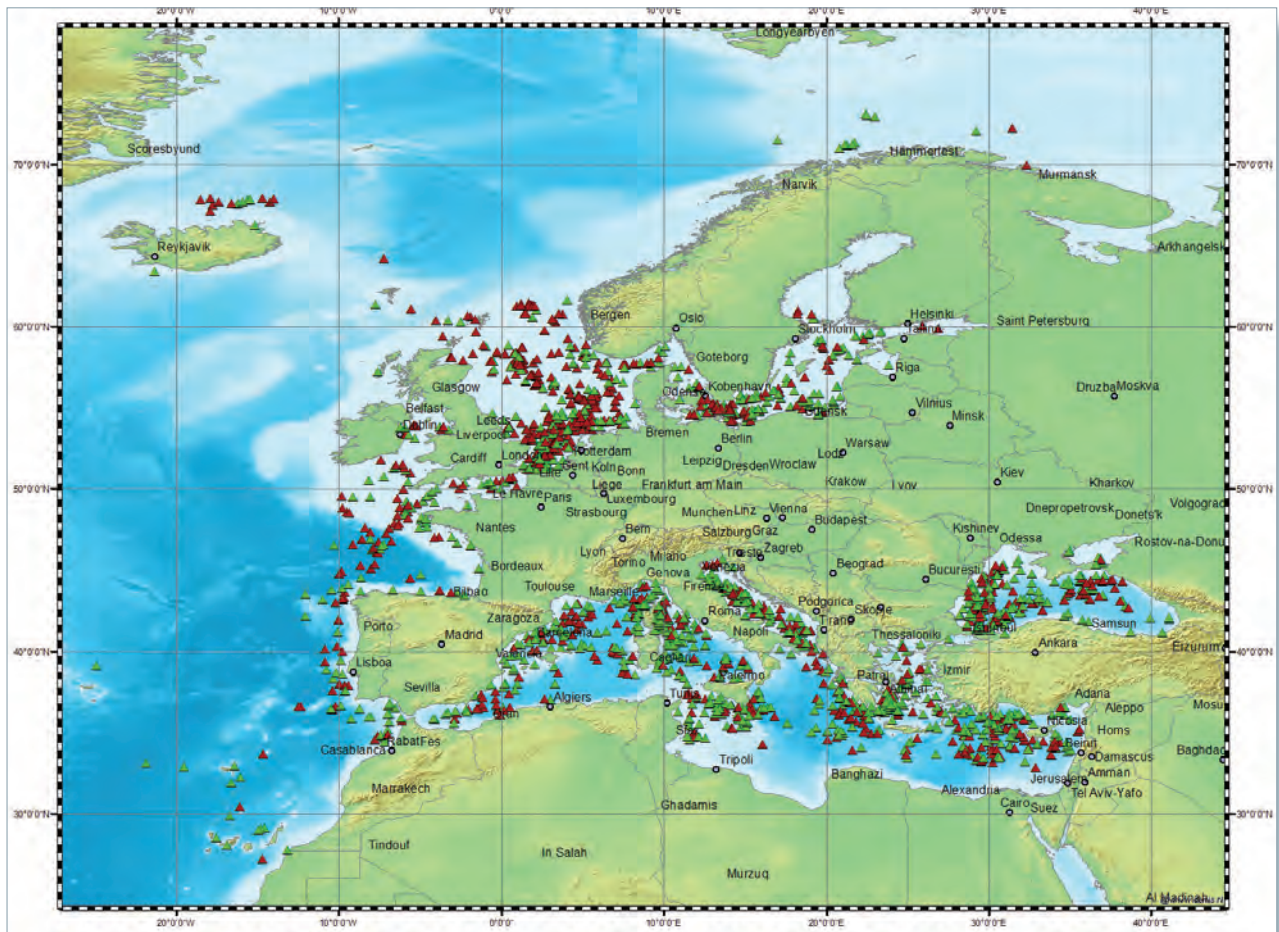
on Environmental Crime in the Baltic Sea Region - ENPRO), and Member State administrations, has met three times, and the process of drafting has continued throughout 2012. It is expected that the document will be finalised in the first quarter of 2013. It will be presented at a workshop which will bring together key stakeholders from operational authorities, vessel inspection authorities, and administrative and judicial enforcement authorities.

In conjunction with Interpol, EMSA organised a training course on "Illegal discharges and MARPOL violations" for the benefit of European Member States. The course focussed on improving investigations into shipping pollution violations (illegal discharges of oil, oil residues and oily mixtures) and on collecting appropriate evidence – including through tools such as CleanSeaNet and SafeSeaNet – to support successful prosecution.

Support to Aerial Surveillance operations

Countries that are members of the Bonn Agreement conduct aerial surveillance operations at regular intervals to monitor oil and gas platforms in the North Sea. In 2012, EMSA supported four of these "Tour d'Horizon" operations with 30 images. Bonn Agreement Contracting Parties appointed Belgium as the focal point for coordinating the support provided by EMSA through CleanSeaNet. During the OTSOPA 2012 meeting, participants discussed how to improve EMSA's support to Member States for platform monitoring.

In 2012, the Agency also provided satellite-monitoring support during two Coordinated Extended Pollution Control Operations (CEPCO); these are multilateral joint operations organised to monitor ship-source marine pollution in high density traffic areas. The first operation, organised by the Swedish Coast Guard, was conducted 7-9 May over the north-eastern part of the Baltic Sea proper and the western part of the Gulf of Finland. EMSA provided two Radarsat-1



CleanSeaNet detections from January until December 2012 (class A in red - class B in green)

satellite images over the area. CleanSeaNet did not detect any possible spills. The second operation supported by CleanSeaNet was a more extensive ‘SuperCEPCO’ operation. From 9-15 September 2012, EMSA provided nine satellite images (five Radarsat-2, two Radarsat-1, and two Cosmo Skymed) in support of the operation organised by France in the Gulf of Biscay. Twelve possible spills were reported by CleanSeaNet.

Financial overview: satellite image licenses and processing


	COMMITMENTS	PAYMENTS
Satellite image licences	1,250,000	1,567,005 *
Satellite image processing (V1)	1,875,000	1,598,228.31
Sub-total 3.2.2	3,125,000	3,165,233.31

* The contract concluded between ESA and EMSA for the provision of satellite images from GMES contributing missions was used to mitigate the loss of ENVISAT. Services were financed under this contract for a total amount of €400,000.

3.2.3 Support to CleanSeaNet Users


The CleanSeaNet User Group

In order to ensure that CleanSeaNet meets the operational needs of the users, EMSA has set up the CleanSeaNet User Group, which gathers together representatives from the participating States operationally involved in oil pollution monitoring and surveillance. The main objective of the meeting is to exchange views on the operational use of the service and to decide with the end users priorities for further improvements and evolution of the service. The CleanSeaNet User Group met on 7 June 2012.




CleanSeaNet Alert Report **NETHERLANDS** Acquisition: **2012-09-08 17:16:40 UTC**

Scene ID: **23973** **RADARSAT-1 - SAR1** [GIS Viewer](#)



Comments




List of possible spills

Spill # on map	Spill Identifier	Centre Position		Area (km ²)	Length (km)	Width (km)	Alert	Oil Spill Warning Issued	Possible Source	
		Latitude	Longitude						Detected	Identified
1	OS_23973_3	53° 16' 24" N	004° 07' 00" E	270.82	91.1348	11.1022	Red	NO	Yes	No
2	OS_23973_4	53° 38' 45" N	004° 22' 34" E	1.00	2.9056	0.6936	Red	NO	Yes	No

Note: Possible spills outside alert area are presented on map as . Additional spills may also have been reported outside the map - Please consult GIS Viewer

CleanSeaNet Alert Report - Situation map and list of possible spills detected

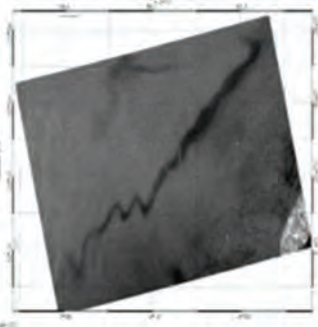


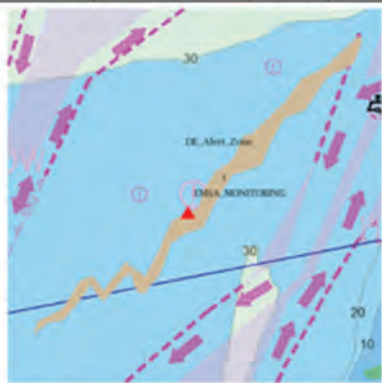
CleanSeaNet Alert Report **NETHERLANDS** Acquisition: **2012-09-08 17:16:40 UTC**

Scene ID: **23973** **RADARSAT-1 - SAR1** [List of Spills](#) [GIS Viewer](#)

Details of possible Spill n°1 - OS_23973_3

Centre Position		SAR Wind at Center		Area (km ²)	Length (km)	Width (km)	Class (A/B)	Alert Level	Number of slicks	Oilspill Warning Issued
Latitude	Longitude	Direction (From)	Speed (m/s)							
53° 16' 24" N	004° 07' 00" E	0	0	270.82	91.1348	11.1022	A	Red	1	NO





Meteorological and Ocean Data			
Sea State	N/A	Wave Height	0
Met.Wind	Direction (from)		0
	Speed (m/s)		0
Current	Direction (from)		N/A
	Speed (m/s)		N/A

Note: Grey fields are parameters set as "invisible" in the Print Parameters matrix or not available

Comments from Service Provider

Possible source information

N.	Detected	Dist.(Km)	Identified	Type	IMO	Name	MMSI	C/S	Latitude	Longitude	Time (UTC)	Track

CleanSeaNet Alert Report - Spill details and possible source information

COASTAL STATES TRAINING

In 2012, the following trainings on the CleanSeaNet service were provided:

- Regional training in Sweden, Karlskrona, January 2012, for 20 participants from Sweden and Denmark;
- 3 sessions of 1 ½ days between 26 and 30 March 2012 at EMSA, for 39 participants;
- Regional training in Denmark, Frederikshaven, April 2012, for 20 participants from Denmark, Sweden and Norway;
- 3 sessions of 1 ½ days between 8 and 12 October 2012 at EMSA, for 39 participants;
- Regional training in France, November 2012, for 20 participants from France and Belgium.

Financial overview: CleanSeaNet user meetings, training and workshops

	COMMITMENTS	PAYMENTS
CleanSeaNet User Group meetings	19,610.53	19,610.53
CleanSeaNet User trainings and workshops	63,421.58	63,421.58
Sub-total 3.2.3	83,032.11	83,032.11

3.2.4 CleanSeaNet service improvements

The two last releases of the CleanSeaNet data centre significantly improved the level of service in terms of reliability and near real time performance.

In 2012, the CleanSeaNet data centre was upgraded to integrate the new single sign-on and user management system shared between all EMSA maritime applications. These changes include the capacity to use the CleanSeaNet data centre for projects involving other communities of users, such as platform monitoring.

Optical satellite images have been tendered in order to complement CleanSeaNet radar detections with higher resolution optical images, and to support decision-making capabilities by coastal State users, particularly in case of emergencies. The optical images will be operationally available by mid-2013.

3.2.5 Cooperation with External Organisations

The good cooperation with the European Space Agency (ESA) enabled EMSA to access to all satellites managed by ESA in the framework of the Global Monitoring for Environment and Security (GMES) Data Warehouse agreement. This enabled EMSA to provide a continuous service even after the loss of Envisat.

EMSA will be a core user of the Sentinel-1 satellite, to be launched and operated by ESA. EMSA has been actively contributing to the definition of operational Sentinel-1 requirements for oil spill detection. Within this framework, EMSA will be one of the final users of a new ESA developed planning and ordering tool allowing EMSA to have a closer link to the satellite planning which will ensure the satellite service availability for the users.

Global Monitoring for Environment and Security (GMES) data provision was available in 2012, enabling EMSA to access a wide range of satellite resources, optical and radar, during emergency situations.

Together with the Swedish Meteorological and Hydrological Institute (SMHI) and model operators in the Mediterranean, EMSA is developing cooperation in the fields of oil spill modelling through the exchange of EMSA CleanSeaNet oil spill detection data and numerical modelling results of detected spills. All partners will benefit from this cooperation to improve the identification of vessels responsible for illegal discharge and the prediction of spill drift and fate in order to support decision-making processes for pollution response activities.

Financial overview: CleanSeaNet operation

	COMMITMENTS	PAYMENTS
CleanSeaNet Data Centre maintenance & running costs	20,350.00	90,350.00
CleanSeaNet Data Centre improvements	608,140.53	229,837.10
CleanSeaNet Services improvements	70,668.66	52,158.66
CleanSeaNet support tools	82,814.13	82,814.13
Sub-total 3.2.4 and 3.2.5	781,973.32	455,159.89



EMSA's pollution response vessel *Salina Bay* at the site of the *Costa Concordia* incident

3.3 SUPPORT TO COASTAL STATES AND THE COMMISSION FOR ACCIDENTAL SPILLS

3.3.1 EMSA's Oil Recovery Services support for accidental spills and emergencies

Costa Concordia accident

On 13 January 2012 the cruise ship *Costa Concordia* struck a rock near Isola del Giglio, Italy, about 100 km northwest of Rome. The ship subsequently ran aground and partially sank in shallow water, requiring the evacuation of the 4,252 people on board. 30 people are known to have died. The vessel contained a total of 2,300 m³ of bunkers (HFO) and grounded in an environmentally sensitive area, within one of the largest marine reserves in the Mediterranean Sea.

On 20 January, as part of the pollution response plan presented to the Italian authorities, the contractor Tankship was authorised by the Agency to enter into a contract to assist the lightering operations for off-loading the bunkers of the *Costa Concordia*. Due to the pollution threat posed by the bunkers on board the *Costa Concordia*, the EMSA

contracted oil response vessel *Salina Bay*, along with EMSA expertise was sent to the incident to assist SMIT salvage, the company authorised by the Italian authorities to perform the operation.

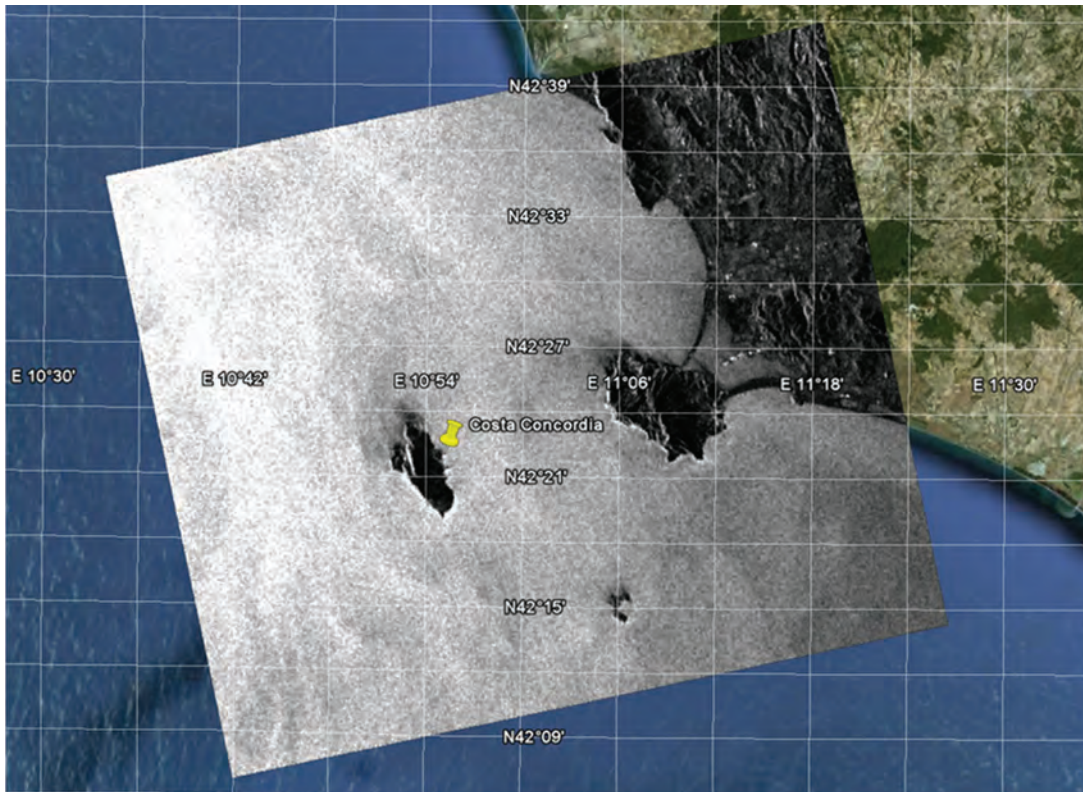
The role of the Agency in supporting all parties involved in the incidence during this difficult operation was fulfilled. The Italian Authorities expressed their gratitude.

3.3.2 CleanSeaNet support for accidental spills and emergencies

Costa Concordia, Italy

Following the grounding of the *Costa Concordia*, the Italian Coast Guard contacted EMSA to request CleanSeaNet satellite images to monitor for potential oil leaks from the damaged ship. Approximately 40 CleanSeaNet satellite images were delivered to the Italian Coast Guard between 31 January and 14 March 2012. The GEST mechanism¹⁶ was activated and a high resolution optical image was also delivered by EMSA.

¹⁶ GEST is the GMES Emergency Satellite Tasking mechanism. Through GEST, EMSA has access to a wide range of satellite missions that can be used in case of oil spill related emergencies.



Detailed zoom, Costa Concordia can be seen as a bright signature in the SAR image. The position is highlighted by the yellow place marker

Gelso M, Southern Sicily, Italy

On March 10 2012 the un-laden double hulled chemical and oil tanker *Gelso M* (IMO 9367360) ran aground on rocks in high winds and up to 7 m waves off southern Sicily. The vessel sustained a 14 x 1.5 m hole in its bow and listed at around 45 degrees with 300 tonnes of fuel on board. The Italian Authorities requested satellite images to monitor possible oil slicks during salvage operations until 31 March 2012. Twelve CleanSeaNet satellite images were delivered during this period.

Unidentified pollution source, Puglia, Italy

On the 25 August 2012 oil pollution was detected along the coast north of Otranto, Puglia, Italy. Italian Coast Guard aerial surveillance detected iridescence on the sea 20 miles from Santa Maria di Leuca harbour. A total of five CleanSeaNet satellite images were planned over the area of interest for acquisition between 28 August and 2 September. However, due to technical reasons, only four CleanSeaNet satellite images were delivered. The satellite acquisition on 29 August detected a spill within the area of interest, which was subsequently confirmed as mineral oil by aerial surveillance. Using AIS, the vessel

European Voyager, Panama flagged, was identified as possible polluter. A MARPOL investigation was requested by the Albanian Authority and sample of the substances were taken. The spill with possible polluter was detected and confirmed. However, this spill was not considered by the Italian Coast Guard to be related to the emergency scenario.

Unidentified pollution source, North Sea, UK

Following reports of surface oil in an area of the North Sea on 29 August 2012, the UK's Maritime and Coastguard Agency (MCA) requested CleanSeaNet satellite images to monitor the area of interest to support aerial surveillance. Two CleanSeaNet images were ordered for acquisition on 30 August and 1 September. However due to a technical issue only one of these satellite images was successfully delivered to the MCA. Subsequent aerial surveillance did not detect any further surface oil.

4. COOPERATION AND COORDINATION

4.1 INTRODUCTION

The work of the Consultative Technical Group for Marine Pollution Preparedness and Response (CTG MPPR) continued in 2012 as detailed below. EMSA also continued its cooperation with the pollution response experts of EU Member States, EFTA/EEA coastal Countries, EU Candidate Countries, EU Acceding Countries, the Regional Agreements (Bonn Agreement, HELCOM, REMPEC, Black Sea Commission and Lisbon Agreement), the Commission (DG ECHO) and, on behalf of the Commission, with the International Maritime Organisation (IMO).

4.2 CONSULTATIVE TECHNICAL GROUP FOR MARINE POLLUTION PREPAREDNESS AND RESPONSE

The Consultative Technical Group for Marine Pollution Preparedness and Response (CTG MPPR) was established by EMSA in 2007. The CTG MPPR provides an EU level platform for Member States to contribute to the improvement of preparedness and response to accidental and deliberate pollution from ships. It is composed of marine pollution response experts from all 27 Member States, EFTA/EEA coastal States (Iceland¹⁷ and Norway), EU Candidate Countries (Turkey and Montenegro), the EU Acceding Country (Croatia), the Regional Agreements' Secretariats and the European Commission represented by DG ECHO. The CTG MPPR is intended to enable and strengthen the exchange of information, views and opinions, share best practice and define the current and future priority actions in this field among the national experts, as defined in its Rolling Work Programme. This is done through dedicated workshops, training, technical studies and reports.

4.2.1 7th Meeting of the CTG MPPR

The status of on-going priority actions and planned activities agreed for 2011-2012 was reviewed at the 7th meeting of the Group held on 24 October 2012 and new projects were included in the CTG MPPR Rolling Work Programme for 2012-2013 after a comprehensive discussion and assessment. A summary of the status of the main on-going and planned activities of the CTG MPPR for the coming year is provided below.

¹⁷ Iceland is also an EU Candidate Country.

4.2.2 EU States Claims Management Guidelines: Workshop and revised version 2

Within the framework of the CTG MPPR, a group of national experts from the Netherlands, the United Kingdom, Spain, Germany and Belgium developed a document aimed at improving the cost recovery rates following marine pollution incidents. The "EU States Claims Management Guidelines" were completed in 2009 and endorsed by the CTG MPPR at its 5th meeting in 2010. This is the first time this type of document has been developed at EU level. Subsequently these guidelines were published on the EMSA website, and relevant stakeholders (e.g. the International Oil Pollution Compensation Funds, International Tanker Owners Pollution Federation Limited, International Group of Protection and Indemnity insurance Clubs) were invited to provide feedback.

In 2012, necessary updates as well as the comments from the CTG MPPR members and stakeholders were incorporated as appropriate in the revised and enlarged 'version 2' of the Guidelines.

A workshop dedicated to the practical use of the Guidelines for the preparation of claims was held at EMSA in October 2012. The pooling of experiences from claim handlers at national level was considered as very fruitful and to be continued. One of the recommendations of the workshop was to organise similar events at regular intervals (every 2 years). The workshop participants also identified a list of issues of common interest to be addressed in the Guidelines in the future. The EU States Claims Management Guidelines is considered a living document to be reviewed at regular intervals based on legal developments and lessons learnt from incidents.

The revised Guidelines were presented at the 7th CTG MPPR meeting in October 2012 and have been endorsed for publication. The revised Guidelines are published on EMSA's website.

4.2.3 EMPOLLEX: EMSA Marine Pollution Expert Exchange Programme

The EMSA Marine Pollution Expert Exchange Programme (EMPOLLEX) was launched in 2008 under the CTG MPPR umbrella. The main objectives of EMPOLLEX are to promote the exchange of best practices between the Member States and to enhance contacts, networking and cooperation between Member States in the field of marine pollution with a view to improving national preparedness and capabilities for response. Within the EMPOLLEX framework, national experts from participating States are given the opportunity to travel to other EMPOLLEX countries in order to gain or share professional experience.

Although in 2011 the largest number of EMPOLLEX exchanges to date took place, only two expert exchanges were organised in 2012.

4.2.4 Technical Correspondence Group on Dispersants

As agreed at the last CTG MPPR meeting in 2011, a Technical Correspondence Group on Dispersants (TCG Dispersants), comprised of Member State and EMSA dispersants experts was established in 2012 under the CTG MPPR framework. This group is mandated to address two main objectives:

- To compile a list of and review dispersant studies related to the Deepwater Horizon spill and define in a report which output and lessons learned from these is of relevance for Europe; and
- To better understand the current status and possible way forward related to mutual acceptance of dispersant testing procedures in Europe and draft recommendations in this regard.

In 2012, the Group began implementing its first task and through correspondence identified and compiled a list of 50 Deepwater Horizon related studies relevant to dispersant usage. The Group reviewed most of these studies in 2012 on the basis of eight specific areas of interest identified in regard to the Deepwater Horizon spill. Preliminary conclusions of this review were presented at the EMSA Dispersants workshop held in late November (see paragraph 5.3.1).

The TCG Dispersants is expected to conclude its first task in 2013 and start implementing its second task.

4.3 COOPERATION WITH REGIONAL AGREEMENTS AND THE IMO

EMSA continued its cooperation with the International Maritime Organisation (IMO) on issues of common interest within the framework of its Oil and HNS Action Plans. The Agency regularly participates and contributes, as part of the European Commission delegation, to the MEPC OPRC/HNS Technical Group meetings, which are the main technical IMO forum on marine pollution preparedness and response.

Two meetings of the Technical Group were held in 2012 (March and September). Of particular interest was the work of a Correspondence Group developing Guidelines for International Offers of Assistance in case of catastrophic oil spills, in which EMSA actively participates. The need for such guidelines was recognised following the Deepwater Horizon incident in the Gulf of Mexico in 2010. The work on this subject is also of interest to DG ECHO; EMSA kept the Commission informed, and incorporated their comments.

4.3.1 Meeting of the Regional Agreements

With respect to the Regional Agreements, the Agency also provides technical support to the European Commission, as part of the European Union delegation, during 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 by involvement in the various operational exercises organised around Europe. In advance of the accession of the European Union to the Bucharest Convention, the Agency also participates in relevant Black Sea Commission meetings.



'EU States Claims Management Workshop' participants, EMSA, October 2012

4.3.2 8th Meeting of the Secretariats of the Regional Agreements

Representatives from the Bonn Agreement, HELCOM and Black Sea Commission Secretariats, REMPEC, the Lisbon Agreement, as well as the Chairpersons of the groups OTSOPA and HELCOM Response, along with DG ECHO and EMSA representatives met in Lisbon in late February 2012 for the 8th Inter-Secretariat meeting. These meetings are held annually, with the aim of exchanging information on marine pollution preparedness and response activities and projects undertaken within the various Regional Agreements, while promoting the dissemination of best practices in this field. Areas of common interest identified included the use of dispersants, risk assessment methodologies, oiled wildlife response, places of refuge, and research and development (R&D). As a result of the meeting, a list of on-going R&D projects undertaken within the various Regional Agreements in the field of marine pollution preparedness and response has been compiled.

4.4 FINANCIAL OVERVIEW: COOPERATION AND COORDINATION

	COMMITMENTS	PAYMENTS
2012 CTG Meeting & workshops; VUG meeting	94,454.76	57,624.08
EMPOLLEX	8,000.00	1,789.07
IMO / Regional Agreements	0.00	3,205.99
Sub-total for Cooperation & Coordination	102,454.76	62,619.14

5. INFORMATION

5.1 INTRODUCTION

The Agency continued collecting and disseminating information in the field of marine pollution preparedness and response in support of EU and EFTA/EEA Member States, EU Candidate Countries, EU Acceding Countries and the EU Commission. The Agency's information service for chemical emergencies was used several times, including during the *MSC Flaminia* incident.

Two tendered projects on 1) chemical response datasheets, which will further strengthen MAR-ICE, and 2) a report on discharge facilities for oil recovered at sea, were successfully completed this year. In addition, two new tenders were launched for 1) updating and enhancing the Dispersant Usage Evaluation Tool (DUET), and 2) for the procurement of specialised software to predict the fate and trajectory of spilled chemicals and oil.

Furthermore, and in line with Regulation (EC) No 2038/2006, EMSA collected updated data for the Inventory of EU Member States Policies and Operational Response Capacities for HNS Marine Pollution.

5.2 ACTIVITIES WITH REGARD TO HAZARDOUS AND NOXIOUS SUBSTANCES (HNS)

5.2.1 MAR-ICE Network¹⁸: Information Service for Chemical Emergencies

EMSA's HNS Action Plan outlines the establishment and maintenance of a network of experts, who can support and advise the Member States during the response to a chemical spill, as priority activity for the Agency. When dealing with an incident involving HNS, the identification of hazards and an assessment of the risks posed by a stricken vessel and its cargo to responders, the public, the environment, and to socioeconomic assets, is critically

important. The primary factors which determine these risks relate to the chemical and physical properties of the material spilled and its physical fate in the environment. EMSA, in close cooperation with the European Chemical Industry Council (CEFIC) and the Centre of Documentation, Research, and Experimentation on Accidental Water Pollution (Cedre), established the MAR-ICE network (MARine Intervention in Chemical Emergencies) in 2008.

Since its inception, the MAR-ICE service has been utilised in seven real incidents and six exercises. The most comprehensive Risk Assessment was prepared in August 2012 following the fire and explosions on the fully cellular containership *MSC Flaminia*. At the time, the vessel was en route from Savannah, USA to Antwerp, Belgium. Belgium, as the destination of the vessel, activated MAR-ICE on 31 July. On 1 August, the first Risk Assessment on the dangerous goods on board was delivered to the Belgian authorities. This was followed by additional assessments on the heat and smoke affected containers and the risk to the environment. The risk assessments were also provided to France, UK, the Netherlands and later Germany, where the vessel was eventually taken.

In 2012, EMSA began discussions with Cedre and the CEFIC members on the feasibility of extending the MAR-ICE service to the provision of experts on site. Initial comments from several large chemical companies in Europe are encouraging and EMSA will continue this effort to establish an Expert Group for on-site assessments in 2013.

In the meantime, the MAR-ICE service will continue to provide rapid information regarding chemical substances involved in marine pollution emergencies remotely by e-mail and or fax. To this effect, a revised MAR-ICE Contact Form and a new MAR-ICE leaflet describing the scope and benefits of the service were developed and distributed to the Member States' relevant authorities in late 2012.

¹⁸ MAR-ICE Network is an information service for use in marine chemical emergencies, established by EMSA with the support of CEFIC (European Chemical Industry Council) and Cedre (Centre of Documentation, Research and Experimentation on Accidental Water Pollution). The MAR-ICE Network provides EU Member States and coastal EFTA countries upon request, remote product-specific information and advice on chemicals involved in marine pollution incidents.

5.2.2 Development of Chemical Datasheets of chemical substances for marine pollution response

Information on the short term fate and behaviour of chemical substances once released to the sea is fundamental for a timely decision on the appropriate response options to the spill. This includes an evaluation of the risks for the health and safety of the responders, the public and potential adverse effects for the environment. Information on the behaviour of chemical substances in sea water is very limited and there is an internationally recognised “knowledge gap” in this field.

EMSA continued the development of datasheets for commonly shipped chemical substances. Fifty-four additional datasheets were completed in 2012 raising the total number to 79. These datasheets provide substance specific, concise, and relevant information for chemical spill response at sea, which can be used by the responders (national marine pollution response authorities) as a first source of information following the release of a chemical substance in the marine environment, or the threat thereof. The datasheets combine information from different sources such as MSDS¹⁹, GESAMP²⁰, IMDG²¹, IBC²², and REACH²³ dossiers.

The information in these datasheets for chemical substances will be made available primarily through EMSA’s MAR-ICE Network to the coastal EU/EFTA/EEA Member States’, EU Candidate Countries’ and EU Acceding Countries’ marine pollution response authorities.

A combination of factors was considered when defining the list of priority substances to be covered by this project, focusing on bulk liquid chemicals. The list includes the most transported substances in European waters, substances involved in past incidents, and substances with high toxicity.

5.2.3 Tender for fate and trajectory modelling for HNS and oil

Information on the potential trajectory and fate of oil and chemical spills at sea is a commonly used decision

¹⁹ MSDS: Material Safety Data Sheets.

²⁰ GESAMP: Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection.

²¹ IMDG: International Maritime Dangerous Goods code.

²² IBC: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk.

²³ REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals.

support tool applied during drills, exercises, training and contingency planning. It provides key information essential to mobilise and optimise the deployment of pollution response means.

In order to enhance in-house expertise on decision support tools for pollution response to oil and chemical spills, in 2012 EMSA tendered the provision of modelling software that calculates the potential trajectory and fate of the oil or chemicals spilled in the marine environment. As a first step, the modelling software is meant for internal use and to support the European Commission upon request for specific information on fate and dispersion of oil and chemical spills at sea.

5.2.4 Inventories of Member States Policies and Operational Response Capacities

The Agency is tasked by Regulation (EC) No 2038/2006 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”. These inventories are intended to provide a general description of the status of preparedness and response capacities of all coastal EU Member States and EFTA/EEA Contracting Parties (Iceland and Norway) to marine spills of oil and HNS. They also include contact information of the competent national authorities, the policies, and the preparatory arrangements of each Member State. In late 2012, EMSA updated its *Inventory of EU Member States Policies and Operational Response Capacities for HNS Marine Pollution*, which will be printed and distributed in early 2013.

5.3 ACTIVITIES WITH REGARD TO DISPERSANTS

5.3.1 Dispersant Workshop

The explosion and subsequent blowout of the *Deepwater Horizon* (DWH) offshore drilling rig in the Gulf of Mexico in 2010 resulted in the largest oil spill in the United States history. The use of dispersants on the sea surface and subsurface during the DWH spill response operations was unprecedented. Following this incident, the EU Member States had on several occasions expressed their interest and concerns with regard to dispersant use, highlighting the need for accurate information on the dispersant applications during the DWH spill and the ‘lessons learned’ from these.

Considering the above, and given EMSA's task to facilitate a common understanding of the use of oil spill dispersants and their implications, EMSA held a 'Workshop addressing the Use of Oil Spill Dispersants following the *Deepwater Horizon* incident' on 26 and 27 November 2012 at its premises in Lisbon.

The workshop addressed the DWH oil spill in order to present and discuss with coastal EU/EFTA/EEA Member States and industry experts actually involved in the DWH spill response the following topics:

- Operational aspects regarding sea surface and subsea dispersant use, including challenges and limitations linked to such large-scale dispersant applications;
- Scientific and logistical aspects of the dispersed oil data collection process;
- Preliminary findings of environmental impacts of the DWH dispersant use based on publically-released data and analyses;
- Relevant Research and Development projects;
- Regulatory developments regarding dispersant use following the DWH incident;
- Main 'lessons learned' from the DWH spill of relevance to Europe.

The workshop enabled productive discussions and exchange of experience between EU, US and industry experts, concluding that while a lot of data on the DWH spill environmental impacts are still being analysed, dispersant usage (and sub-sea dispersant application) is an important oil spill response tool, in particular for sub-sea oil releases. This should be properly regulated and considered in national contingency plans.

Furthermore, the DWH oil spill initiated a large amount of research and regulatory developments focusing on dispersant usage and dispersant testing. This momentum should be used by national administrations and industry to further explore dispersant application possibilities and the implications of dispersant use on the sea surface and sub-sea.

5.3.2 Tender for the update of DUET

The DUET (Dispersant Usage Evaluation Tool) software programme, developed for EMSA in 2008, is a numeric model that simulates oil spills and dispersant applications. The model estimates the trajectory and fate of the oil, including water concentrations of naturally and chemically dispersed oil and dissolved hydrocarbons, as well as the surface area impacted by floating oil. It allows the comparison of scenarios with and without dispersant use, which is fundamental for decision-makers.

In 2012, EMSA tendered an ICT Framework Contract for the update of the DUET software programme, which is needed in order to allow its use on current and future operating systems such as Windows 7 and 8. In addition, other upgrades (e.g. layout, pre-loaded databases) and further enhancements of the Tool will be carried out. The tender includes training of delegates of the EU and EFTA/EEA Member States, EU Candidate Countries and EU Acceding Countries on the use of this decision support tool.

5.4 STUDY ON DISCHARGE FACILITIES FOR OIL RECOVERED AT SEA

The discharge of oil recovered at sea can be a bottleneck in response operations following a large marine oil spill. The timely discharge of recovered oil from EMSA's vessels is critical in order to maximise the time spent in oil recovery operations. EMSA contracted a study on discharge facilities for oil recovered at sea, which analysed the geographical distribution and technical challenges related to the discharge of oil recovered at sea by specialised vessels, following a large oil spill in Europe. In addition to the inventory and geographic information system (GIS) analysis of existing facilities, technical solutions to overcome bottlenecks such as high water content or the presence of emulsions were addressed and discussed in detail.

Given the large storage capacity of EMSA's contracted vessels, a threshold of 1,000 m³ of immediate capacity was used in this study. A set of scenarios (i.e. oil spills of 1,000, 10,000, and 40,000 m³) was used to examine the regional availability of adequate discharge facilities. While the geographical coverage for smaller spills appears sufficient, large spills could easily overwhelm the available capacity.

5.5 INTERSPILL CONFERENCE AND EXHIBITION

The Agency continues to support the major marine pollution conference and exhibition event in Europe, INTERSPILL, as a member of the event’s Steering Committee, recognising the importance of sharing spill response experience and disseminating best practice. EMSA continued its active role in the Steering Committee²⁴ and in particular in the Conference Programme Committee with the aim of ensuring EU and EFTA/EEA Member States’ issues are represented at an appropriate level.

The 2012 INTERSPILL Conference and Exhibition was held in London in March 2012. In addition to providing information on the Agency’s activities at an exhibition stand, the Agency presented two papers, one at the *Monitoring and Remote Sensing Session* “European satellite-based and aerial oil spill surveillance and vessel detection services” and the other at the *HNS Session* “Are SDS/MSDS²⁵ relevant in case of chemical spills at sea?”. In addition, the Agency chaired the session: *Regional preparedness*. Furthermore, EMSA contributed with two presentations to the conference’s *Short Courses* and the *Spill Industry Seminar*.

²⁴ 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.

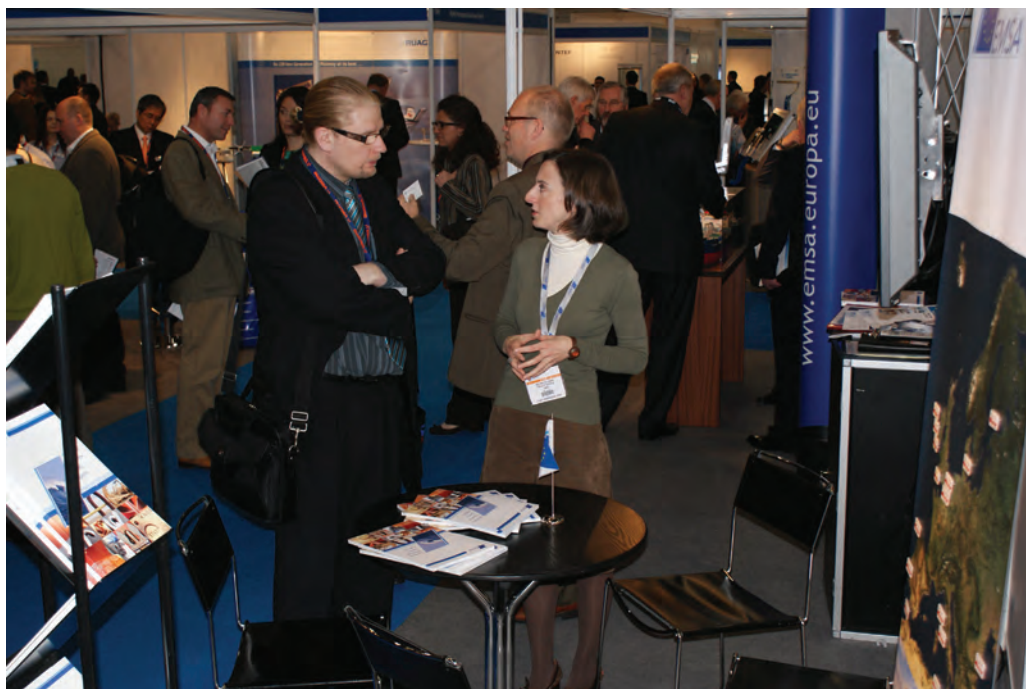
²⁵ Material safety data sheet (MSDS), and safety data sheet (SDS).

5.6 MULTI-ANNUAL FUNDING REGULATION 2014-2020

During 2012, the Agency provided extensive support to the European Commission with respect to developing a proposal to renew the Multi-annual Funding Regulation for EMSA’s pollution response activities. The current Regulation expires at the end of 2013.

5.7 FINANCIAL OVERVIEW: INFORMATION

	COMMITMENTS	PAYMENTS
Information dissemination	202,981.10	189,156.65
Sub-total for Information	202,981.10	189,156.65



EMSA staff participating in the Interspill 2012 event

6. TOTAL EXPENDITURES²⁶ FOR POLLUTION PREPAREDNESS AND RESPONSE ACTIVITIES

	COMMITMENTS	PAYMENTS
Network of Stand-by Oil Spill Response Vessels	10,888,832.76	11,122,653.26
Contracts 2005 (Baltic Sea, Atlantic and Channel, Mediterranean Sea)	0.00	146,966.56
Contracts 2006 (Atlantic Coast, Mediterranean East)	0.00	937,324.28
Contracts 2007 (Aegean Sea, Atlantic Coast, Mediterranean West)	0.00	2,815,326.76
Contracts 2008 (Black Sea, North Sea, Bay of Biscay)	1,271,832.00	1,527,174.40
Contracts 2009 (North Baltic, Atlantic/Channel)	0.00	1,177,439.76
Contract 2010 (Mediterranean East)	0.00	708,461.20
Contracts 2011 (Southern Baltic, Mediterranean Central, Mediterranean Central, Mediterranean West and Black Sea)	0.00	1,329,911.14
Contracts 2012 (Southern Atlantic coast, Central Med Sea and Bay of Biscay)	9,608,007.50	2,471,055.90
Associated activities (Tender Clarification Meetings, flags)	8,993.26	8,993.26
Maintaining the Service: Drills and Exercises	512,596.23	512,596.23
Exercises 2012	512,596.23	512,596.23
Improvements to the Network Service	4,096,621.41	3,340,930.63
Improvements 2011 to the existing arrangements	0.00	1,325,134.50
Improvements 2012 to the existing arrangements	4,096,621.41	2,015,796.13
Satellite image licenses and processing	3,125,000.00	3,165,233.31
Satellite image licences	1,250,000.00	1,567,005.00 *
Satellite image processing and oil detection services	1,875,000.00	1,598,228.31
Support to CleanSeaNet Users	83,032.11	83,032.11
CleanSeaNet User Group meetings	19,610.53	19,610.53
CleanSeaNet User trainings and workshops	63,421.58	63,421.58
CleanSeaNet Service Developments	781,973.32	455,159.89
CleanSeaNet Data Centre maintenance and running costs	20,350.00	90,350.00
CleanSeaNet Data Centre improvements	608,140.53	229,837.10
CleanSeaNet Services improvements	70,668.66	52,158.66
CleanSeaNet support tools	82,814.13	82,814.13
Cooperation and Coordination	102,454.76	62,619.14
CTG and VUG Meetings	94,454.76	57,624.08
EMPOLLEX	8,000.00	1,789.07
IMO / Regional Agreements	0.00	3,205.99
Information	202,981.10	189,156.65
Information dissemination	202,981.10	189,156.65
Related missions of EMSA Staff	171,000.00	113,085.36
TOTAL allocated	20,520,000.00	21,033,000.00
TOTAL utilised	19,964,491.69	19,044,466.58 **

* The contract concluded between ESA and EMSA for the provision of satellite images from GMES contributing missions was used to mitigate the loss of ENVISAT. Services were financed under this contract for a total amount of €400,000.

** The total utilised includes existing C4 and C5 funds.

²⁶ The figures in this report are based on preliminary figures available for 2012. They are subject to verification and confirmation as part of the final accounts of the Agency, which will be checked by the Court of Auditors. Therefore, the final figures may deviate from the figures presented in this report.

About EMSA

The European Maritime Safety Agency is one of the European Union's decentralised agencies. Based in Lisbon, the Agency provides technical assistance and support to the European Commission and Member States in the development and implementation of EU legislation on maritime safety, pollution by ships and maritime security. It has also been given operational tasks in the field of oil pollution response, vessel monitoring and in long-range identification and tracking of vessels.



<http://www.emsa.europa.eu>