

Title: The Role of the European Maritime Safety Agency

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Introduction

Following the accident of the oil tanker ERIKA in December 1999 and the ensuing proposal by the Commission, the European Parliament and the Council adopted Regulation 1406/2002, which established the European Maritime Safety Agency (EMSA).

In the aftermath of a new ecological catastrophe in European waters, caused in November 2002 by the accident of the oil tanker PRESTIGE, it became obvious that additional measures had to be taken on a pan European level with regard to the response to ship-sourced oil pollution. The newly established European Maritime Safety Agency provided the appropriate framework for developing concrete pollution response actions at the Community level. Accordingly, the European institutions gave EMSA a new task in the field of oil pollution response with the adoption (31st March 2004) and publication of the amended Regulation (724/2004) on 29th April 2004.

Pollution Response Task/Legal Basis

As of May 19th 2004, with the entering into force of Regulation 724/2004, EMSA has a legal obligation in the field of response to ship-sourced pollution within the European Community. The new objectives and tasks are described in the amended Regulation as follows:

Article 1 (Objectives); paragraph 1:

"1. This Regulation establishes a European Maritime Safety Agency (the "Agency") for the purpose of ensuring a high, uniform and effective level of... prevention of pollution and **response to pollution by ships within the Community.**"

Article 1 (Objectives); paragraph 3:

"3. **The Agency shall provide Member States and the Commission with technical and scientific assistance in the field of accidental or deliberate pollution by ships and support on request with additional means in a cost-efficient way the pollution response mechanisms of Member States, without prejudice to the responsibility of coastal States to have appropriate pollution response mechanisms in place and respecting existing co-operation between Member States in this field.** It shall act in support of the Community framework for co-operation in the field of accidental or deliberate marine pollution established by Decision 2850/2000/EC of the European Parliament and of the Council of 20 December 2000 setting up a

Community framework for co-operation in the field of accidental or deliberate marine pollution and of the Community mechanism in the field of civil protection assistance interventions established by Council Decision 2001/792/EC, Euratom of 23 October 2001 establishing a Community mechanism to facilitate reinforced co-operation in civil protection assistance interventions."

The new objectives as described in the regulation are consequently translated into corresponding new tasks. The most noteworthy new elements in the task description are the following:

Article 2 (Tasks); paragraph (c) iii):

"(c) It shall work with the Member States to:
(iii) **support with additional means in a cost-efficient way**, via the Community mechanism in the field of civil protection established by Council Decision 2001/792/EC, Euratom, **their pollution response actions in case of accidental or deliberate pollution caused by ships, when such a request has been presented**. In this respect, the Agency shall assist the affected Member State under which the cleaning operations are conducted;"

Article 2 (Tasks); paragraph (f):

"(f) It shall provide the Commission and the Member States with objective, reliable and comparable information and data on.....**pollution by ships** to enable them to take the necessary steps to improve their actions in these fields and to evaluate the effectiveness of existing measures. Such tasks shall include the collection, recording and evaluation of technical data...in the field of **marine pollution, both accidental and deliberate**, the systematic exploitation of existing databases, including their cross-fertilisation, and, where appropriate, the development of additional databases... The Agency will also assist the Commission and the Member States in their activities to improve the identification and pursuit of ships making unlawful discharges.

Monitoring and Surveillance Task

More recently, the Agency's task to provide additional means in the field of monitoring and surveillance of marine pollution has been further elaborated. In the recently published Directive 2005/35/EC of the European Parliament and of the Council on ship-source pollution and on the introduction of sanctions for infringements, EMSA has been given a task in relation to illegal discharges. Article 10 of the Directive specifically provides that:

Article 10 (Accompanying measures); paragraph 2, point (a):

"2. In accordance with its tasks as defined in Regulation (EC) No. 1406/2002, the European Maritime Safety Agency shall:
a) 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."

Action Plan for Oil Pollution Preparedness & Response

In order to implement these tasks the Agency's Administrative Board, which is composed of representatives on each Member State of the EU, the European Commission, Norway and Iceland as contracting parties to the European Free Trade Agreement (EFTA) as well as independent experts, adopted the "Action Plan for Oil Pollution Preparedness and Response". The Action Plan describes the overall framework as well detailing activities foreseen for 2005. This document is supplemented and updated by the EMSA Work Programme 2006. Both documents were developed in consultation with the Member States and the Commission as well as being adopted by the Administrative Board.

Before determining the precise activities that the Agency should undertake to fulfil its legal obligations, it is necessary to outline the framework and implications of the Action Plan.

The overall context for EMSA's activities consists of the following elements:

Existing Framework

- Having reviewed the approaches of Member States to response preparedness, it is clear that EMSA should also provide its support in the same spirit of co-operation and of supplementing resources and structures that are already in place.
- The OPRC 1990 Convention is the backbone of this attitude through its underlying tiered approach to spill response. Whilst it has been ratified by most Member States, there are distinct variations in the degree of implementation.
- A similar pattern can also be observed with respect to approaches and investment in the national contingency plans of Member States.
- All Member States are contracting parties to one or more of the Regional Agreements e.g. Barcelona Convention, Bonn Agreement, Helsinki Convention and Lisbon Agreement.
- As a group, these structures have made a significant contribution to improving preparedness and response to spills in Member States through the development of joint procedures and technical understanding of the issues.
- There is a wide disparity in level of activity and effectiveness of these agreements, highlighted by the fact one is not actually in force. Regarding those that are in force, there are variations in types, frequency and scale of activities implemented, particularly exercises.

"Top-up" Philosophy:

- As underlined by its Administrative Board, EMSA's operational task should be a "logical part" of the oil pollution response mechanism of coastal states requesting support and should "top-up" the efforts of coastal states by primarily focussing on spills beyond the national response capacity of individual Member States.
- EMSA should not undermine the prime responsibility of Member States for operational control of pollution incidents. The Agency should not replace existing capacities of coastal states. The Agency feels strongly that Member States have their own responsibilities regarding response to incidents.

- EMSA's equipment should, in principle, be channelled to requesting states through the existing Community mechanism in the field of civil protection established by Decision 2001/792/EC, Euratom.
- The requesting state will have the equipment at its disposal and under its sole command and control.
- The Agency's operational role should be conducted in a cost-efficient way.
- EMSA's activities should respect and build upon existing co-operation frameworks and regional agreements. In addition, EMSA should strengthen existing arrangements and should create coherence within the European Union.

Financial Framework

- It is clear that only limited resources are available to EMSA to carry out its Action Plan. The total budget for all pollution response activities in 2005 was € 17.8 m of which € 17.5 m was earmarked for the provision of at-sea oil recovery services. Clearly the Agency does not have the financial resources available to buy or build dedicated oil pollution response vessels.
- With this in mind, the Agency has tried to offer at least a minimum viable system of additional means. In order to achieve this, a phasing-in period of some years is needed.

The Agency undertook a review of various key issues concerning marine pollution including the historical incidence of spills in Europe. For example, the figure below illustrates the location of tanker spills greater than 700 tonnes in Europe over the last 20 years. Those incidents involving more than 10,000 tonnes are highlighted in yellow. It is noteworthy that a significant proportion of these spills are in Western Europe.

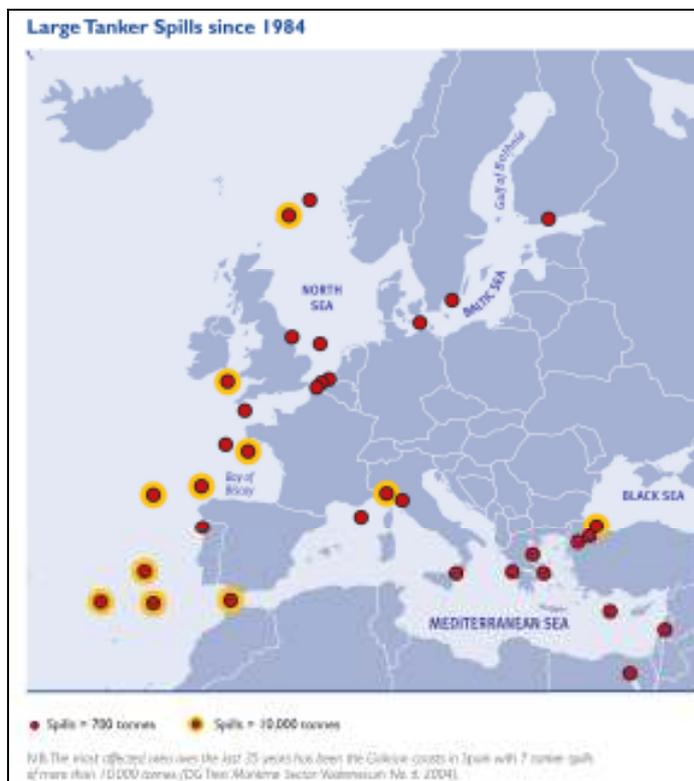


Figure 1: Large tanker spills since 1984

Other factors reviewed included:

- the present and future tanker trading patterns,
- the available (recognised) response options,
- an analysis of various case studies,
- the socio-economic and environmental sensitivities e.g. the Particularly Sensitive Sea Area (PSSA) of the Western European Waters along the European coastline
- as well as the activities of the Member States.

As result of the above mentioned findings, the Action Plan adopts a phase-in approach by firstly focusing on of spills of heavy oil and with spills of other materials to be addressed at a later date. Consequently, the Action Plan identifies three main themes, namely:

- Operational Support
- Co-operation and Co-ordination
- Information

Operational Support: At-sea Oil Recovery Services

Within the context of responding to large scale incidents involving heavy oils, the following technical points need to be noted:

- The most appropriate response strategy at the EU level for spills of heavy oil, or “weathered” oil, is by way of at-sea containment and recovery,
- Analysis of case studies indicate specific technical aspects that enhance at-sea recovery by vessels e.g. sweeping arm systems are generally more effective at recovering heavy oil than boom and skimmer systems,
- More development is required to improve the performance of at-sea oil recovery systems operating in difficult weather and sea conditions,
- There are various additional deficiencies in the response chain which should be addressed by all the parties concerned. These include the availability of aerial, and where appropriate satellite support, to assist the efficient deployment of anti-pollution vessels in the thicker concentrations of oil at sea and for establishing sufficient facilities for discharging oil recovered at sea in a timely manner.

A European Public Private Initiative

After considering all these points and the findings of the previously mentioned review, the Agency launched an open procurement procedure in order to work with the shipping and the spill response industry in providing at-sea oil recovery services to Europe. The Agency is providing the at-sea oil recovery capacity through 3 year contracts with the spill response and shipping industry. Such an approach has never been carried out before at the European level.

The vessel(s) under contract will, in normal circumstances, carry out its usual commercial activities. In the event of a large oil spill and following a request for assistance from a Member State, the vessel(s) will cease its usual activity and at short notice be transformed into and operate as an oil recovery vessel(s).

Appropriate modification or pre-fitting to the vessel(s) will be made in order to ensure that the specialised oil spill response equipment can be installed rapidly onboard the vessel and operated safely by the crew. Nonetheless it should be noted that all the vessels are have been classed as “Occasional Oil Recovery” vessels.

The following response capacity arrangements have been contracted by the Agency:

Table 1: At-sea Oil Recovery Contract Summary

At-sea Oil Recovery Services	Additional capacity (m³)	Contract Value (€)	Lead Contractor
The Baltic Sea Arrangement	18,528 (max)	4,050,000	Lamor Corporation AB
The Atlantic and Channel Arrangement	4,000	8,500,000	Louis Dreyfus Amateurs SAS
The Mediterranean Arrangement	1,805-3,577	3,850,000	Tankship Management Ltd
Operational Fund*		2,280,000	
Overall Total		18,680,000	

*The Operational Fund will be used by EMSA to cover accelerated mobilisation of vessels immediately following a large scale spill and for the participation of vessels in multinational/regional/national at-sea oil recovery exercises. With an internal budget transfer the Agency has made more resources available for this task (the final amount represents 106% of the original budget assigned to the task.).

It must be stressed that the vessels are a “reserve for disasters” at the disposal of every requesting coastal state to assist in cases of a (major) oil spill anywhere in European waters, the assistance provided for by EMSA is not restricted to the indicated areas.

Each arrangement has the following common characteristics:

- The vessel will operate as an oil recovery vessel on the basis of a pre-agreed model contract with fixed fees and conditions as developed by the Agency for this purpose;
- The contractor is obliged to respond positively to all requests for assistance to respond to an oil spill, regardless of the spill location;
- The primary oil recovery system is based around the “sweeping arm” concept with an alternative “ocean going boom and skimmer” system also available. The requesting Member State can select the system in accordance with the incident characteristics;
- All the specialised oil spill response and associated equipment is containerised in order to facilitate rapid installation onboard the vessels;
- Each vessel has a speed over 12 knots for prompt arrival on site;
- Each vessel is equipped with a local radar based oil slick detection system;
- Each vessel has a high degree of manoeuvrability required to carry out oil recovery operations;
- Each vessel is able to decant excess water so maximising the utilisation of the onboard storage capacity;
- Each vessel has the ability to heat the recovered cargo and utilise high capacity screw pumps in order to facilitate the discharging of heavy viscous oils;
- Other complementary equipment comprises of flashpoint tester, oil/water interface system, gas detection (fixed and portable), sampling mini-lab and portable cleaning machines;

- The crew will have been trained appropriately regarding the equipment and working under an international command and control structure. They will be able to provide the service on a 24 hour per day basis;
- Each vessel will be available for participation in at-sea spill response exercises (minimum 1 per year).

Under the EMSA arrangement, the contractors will offer at-sea oil recovery services from 31st March 2006 until 31st December 2008. The contracts may be renewed once.

Operational Support: 2nd Round of Contracts

The Action Plan for Oil Pollution Preparedness and Response of 2005 stated:

“With limited resources, EMSA will need a significant phasing-in period in order to build up its “reserve for disasters”.

The EMSA Work Programme 2006 confirms this “phasing-in” approach. Taking into account the large sea areas that have to be covered and the need for rapid arrival on-site, the Agency is organising a second round of the call for tender in 2006 to build up the response capacity as planned. The maximum budget available for the tender is the same as in 2005: € 17.5 million. In January 2006 the Agency published a Prior Information Notice in the Official Journal of the European Union (OJEU) indicating that a second call for tenders for at-sea oil recovery services will be launched by EMSA. A third round will probably be launched for the Black Sea area in conjunction with Rumania and Bulgaria becoming Member States of the European Union.

Operational Support: Satellite Monitoring and Surveillance Services

There is a need for an operational system at the EU level for marine oil slick detection and monitoring to improve the combating of accidental spill and illegal discharges and to assist to deter and to identify possible polluters. In the recently published directive on ship-source pollution and on the introduction of sanctions for infringements, EMSA was given a task in relation to illegal discharges (Article 10 of Directive 2005/35/EC of the European Parliament and Council).

EMSA aims to provide a high-performance monitoring system for marine oil spill detection and surveillance of European waters. While some Member States already use satellite data to support marine surveillance activities on a national or regional level under different conditions, other Member States have not taken action so far. The capabilities of European industries and institutions to provide these services are recognised and the benefits of this activity for Member States and policy makers are clear. EMSA is taking into account ongoing work in this field by the European Commission and others, for example by EGEMP¹, ESA², REMPEC³ and the JRC⁴. In addition, there are significant research projects in progress (or just completed)⁵. It is EMSA’s intention to conclude contracts to develop this service through public tendering with providers for satellite imagery and image interpretation. As a first step pre-analysed satellite imagery and information will be purchased. Furthermore an

¹ European Group of Experts on Satellite Monitoring of Sea-based Oil Pollution

² The European Space Agency is funding the MARCOAST project

³ The Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea is involved in drift forecasting projects

⁴ The Joint Research Centre is providing statistical analyses for the European waters

⁵ i.e. OCEANIDES, RAMSES

appropriate infrastructure will be set up providing advanced products (e.g. link with AIS, drift modelling) to complement the information for Member States, if requested. This will increase the reliability of the satellite imagery information and will be the value adding element presently missing in the national systems. The information from satellites should support the activities of Member States and the Commission primarily for the prevention of and response to illegal discharges from ships and when required for the recovery of oil from accidental spills.

The Agency would therefore like to begin supporting transnational surveillance activities which provide appropriate follow-up actions to trace ship sourced oil polluters at sea. Furthermore the Agency will support training to Member States, if requested, to improve their capabilities in using satellite surveillance information for their operational follow-up activities. In addition, the Agency would like to monitor on an at random basis specific sea areas surrounding the European Union. This systematic surveillance for a given period of time should serve as an important deterrent to polluters.

Both the European Commission and the Member States must be able to use EMSA as a focal point for all types of requests for near real-time data in this field. Through a centralised approach at the European level, improvements in efficiency and direct availability of satellite data can be made, and improved quality and completeness of the service, as well as significant cost-savings (economies of scale) should be achieved.

Co-operation and Co-ordination: Existing Arrangements

The European Community is contracting party to all the (major) regional agreements in Europe as illustrated below.

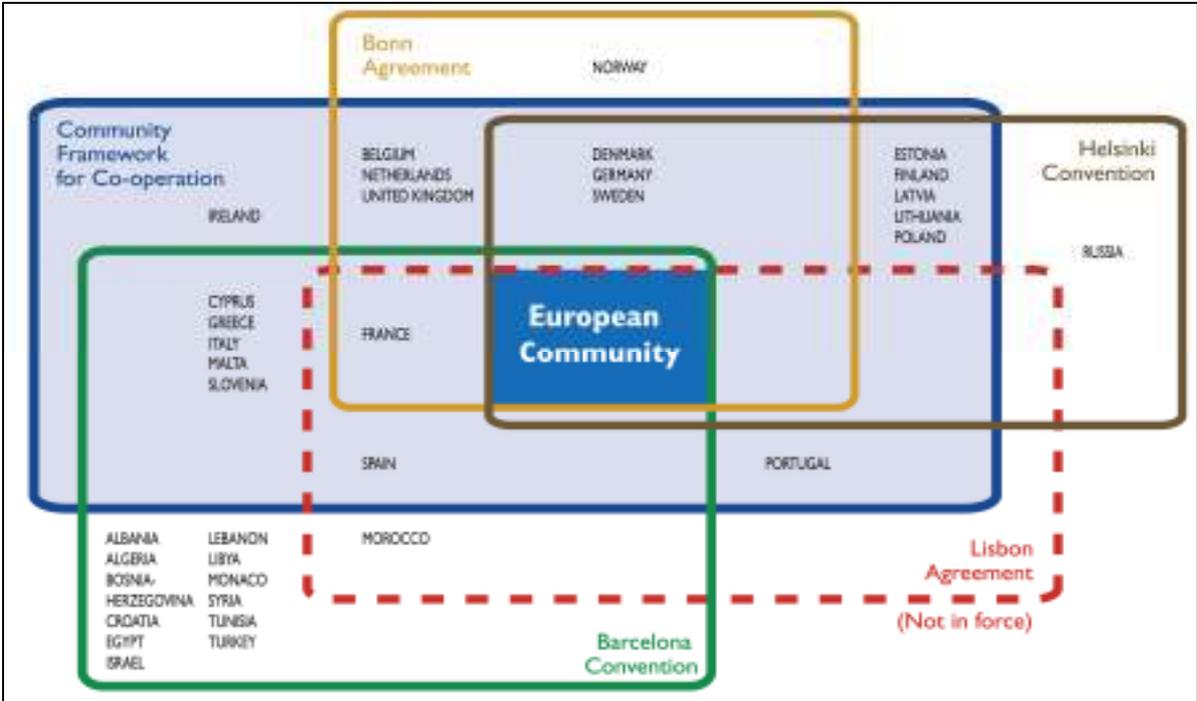


Figure 2 International Framework for Co-operation in Combating Pollution

EMSA will upon request provide relevant Commission services with technical, operational and scientific assistance, i.e. to disseminate best practices among regional agreements and to set up a system to exchange observers from the various Regional Agreements and other parties concerned to be present at exercises taking

place in the regions on a structured basis. The regional bodies have expressed their interest in having close working relationships with EMSA in this particular field. In order to achieve this objective, working arrangements will be arranged with the relevant secretariats in close cooperation with the Commission.

In addition to the links with regional agreements, EMSA will work closely with the services of the European Commission within the existing co-operation mechanisms in an efficient way and to avoid any duplication of activities. EMSA has agreed working arrangements with the services of the Commission. This arrangement should reinforce synergies between the services of the European Commission and EMSA within the existing mechanisms to provide Member States with assistance.

Co-operation and Co-ordination: Strengthening the Response Chain

Other activities are needed to improve the response chain. Experiences of recent accidents show that a close look is needed at the whole chain of activities required to be successful. In particular the issues of on-board oil storage and discharging recovered oil should be addressed. For large spills like the PRESTIGE (~63,000 tonnes spilled), the storage capacity on board recovery vessels will never be sufficient to prevent any oil stranding. The largest vessel of this type currently in operation has a storage capacity of ~3,500 tonnes and, in previous incidents, has spent a significant number of days in port discharging while it was needed at sea. Acceleration of this unloading phase is required.

It follows that, while organisation of spill response is a key issue, the other important area for improvement is the identification and remedy of any weak links in the response chain. It is essential that all the components required to conduct at-sea recovery be in place as the operation commences.

To make at-sea recovery operations as efficient as possible, EMSA would welcome any improvement of the overall performance of the response chain.

In a similar vein, many Member States are undertaking a review of the strengths and weaknesses of using chemical dispersants to respond to marine oil spills. In context EMSA has published an "Inventory of National Policies regarding the use of oil spill dispersants in the EU Member States" as well as a software tool to facilitate decision-making where the use of dispersants might be appropriate. Additional actions are also being undertaken in co-ordination with Member States.

Information

As previously stated, EMSA needs to provide the Commission and Member States with technical and scientific assistance. With the further development of the Agency's Pollution Response Unit, there will be capacity for the gathering, analysis and dissemination of best practices, techniques and innovation in the field of oil pollution response, in particular for at-sea oil recovery during large spills.

In parallel, research into innovative ship design and new response techniques should be stimulated to bring about a further strengthening of the response system in the medium and long term.

An important activity for the Pollution Response Unit is the dissemination of best practice to key parties. Accordingly, the Agency hosts a number of workshops or

similar events. The results of these events can be found on the Agency website along with a range of relevant links in marine pollution. Information is also available on the call for tenders that EMSA has launched for at-sea oil recovery services from www.emsa.eu.int.

Closing remark

The Action Plan for Oil Pollution Preparedness and Response (and the associated Work Programme 2006) has been put forward with the intention of strengthening European response to oil pollution as requested by the Commission, the Council of Ministers and the European Parliament and, formally, through the regulation amending the tasks of EMSA. The Agency is in the process of implementing the identified tasks in co-operation with the Commission and the Member States.

References:

- Action Plan for Oil Pollution Preparedness and Response
- EMSA Work Programme 2006
- Information Note: Stand-by Oil Recovery Vessels for Europe
- Inventory of National Polices regarding the use of oil spill dispersants in the EU Member States
- Regulation (EC) N° 1406/2002 Establishing the European Maritime Safety Agency (EMSA)
- Regulation (EC) N° 724/2004 Amending Regulation (EC) N° 1406/2002

All documents are available from the EMSA website: www.emsa.eu.int
