European Maritime Safety Agency

Network of Stand-by Oil Spill Response Vessels: Drills and Exercises

Annual Report 2011

Unit C.1: Pollution Preparedness and Response

January 2012

CONTENT

Picture 1. M/T SARA exercising at sea

EXECUTIVE SUMMARY

General

1. In order to provide additional support to the Member States' pollution response mechanisms in a cost efficient way, the European Maritime Safety Agency (EMSA) has built up, in European waters, a network of contracted Stand-by Oil Spill Response Vessels. The vessels are ready to respond to oil spills at sea following the request of a coastal State[1] or the Commission. By the end of 2011, the Network comprised 16 fully equipped vessels and one partially equipped vessel ready for immediate mobilisation, as well as one back-up vessel.

2. To achieve the performance for pollution response required by the Vessel Availability Contract (VAC), Contractors together with the associated vessels and their crews participate regularly in training, drills and operational exercises. The Vessel Availability Contract defines two types of drills: 1) Acceptance Drill and 2) Quarterly Oil Pollution Response Drill, and two types of exercises: 1) Operational Exercises and 2) Notification Exercises. Carrying out drills and exercises is an obligation for the Contractor.

3. The number of drills and exercises carried out annually has increased significantly over the years in line with the development of the Network. The number of drills and exercises carried out in 2011 is shown in the table below.

Acceptance Drills: Newly Contracted Vessels	Acceptance Drills: Replacement of the existing vessels	Acceptance Drills: Re-acceptance of equipment	Quarterly Drills	Operational Exercises	Notification Exercises
1	**2**	**1**	**60**	**11**	**12**

4. In 2011, EMSA staff attended drills and exercises in line with the "Drill Attendance Guidelines"[2] introduced in 2009. After two years of implementation i.e. in 2012, the guidelines should be reviewed to ensure that the coverage of quarterly drills and exercises is still appropriate.

5. The performance of the vessels, crews and response coordinators is the main criterion for the evaluation of contract implementation. Evaluation of the acceptance drills, quarterly drills and exercises by the Agency's staff in line with pre-established guidelines is an effective method to ensure that the level of response preparedness of the Network is adequately maintained.

[1] EU Member States, EU Candidate States, EFTA States

[2] Guidelines on the Attendance of Drills and Exercises on Board EMSA Contracted Vessels, November 2009

Outcome of Drills and Exercises in 2011

1. The overall outcome of the drills and exercises carried out during 2011 demonstrated that the service is operated efficiently and in accordance with EMSA's expectations. Overall, the Network achieved a highly acceptable level of preparedness for oil pollution response. Of the 60 drills performed, 58 were assessed positively and 2 drills required repetition and were subsequently accepted by the Agency.

2. The evaluation of drills and exercises, either based on observations by the EMSA Officers present on board or on the Contractor's report, provided a number of lessons learned (described further in this report) with regard to the technical condition of the equipment and skill of the crew. A number of recommendations to be implemented in 2012 have been developed.

Findings and Recommendations

Technical

1. Many of the minor technical deficiencies identified could have been prevented by a thorough check of equipment directly before the quarterly drill as well as during the regular maintenance carried out in accordance with the Maintenance Plan. The Contractors should be requested to put more effort into the preparations for the quarterly drills.

2. There were a couple of cases of minor breakdown of equipment observed where the equipment could not be repaired due to missing spare parts or lack of adequate technical skills on board. The Contractors should be encouraged to ensure that during the drill there are sufficient equipment spare parts available on board (especially for vulnerable elements of the hydraulic system) and skilled technicians able to replace damaged parts. This issue should be addressed by EMSA observers on board during the quarterly drills of 2012.

3. Some cases of corroded equipment were observed on board the contracted vessels. The Agency should continue to review the monthly maintenance reports for any signs of deterioration of the equipment condition due to inadequate maintenance. Special attention should be given to corrosion prevention.

Operational

4. No incidents or casualties related to the operation of oil spill response equipment on board EMSA's contracted vessels were reported during the period. Nonetheless, there is a need to maintain high safety standards during drills and exercises. The need for continual safety training should be emphasised and addressed during drill briefings and de-briefings. Additional measures to secure the work place for responders should be considered (railings, markings, warning tables, personal safety equipment, etc.). Any case of safety deficiencies noted by the EMSA observers should be immediately reported to the vessel's captain. As safety on board is the responsibility of the

captain, it is his/her obligation to instruct the crew and/or to implement necessary safety measures accordingly.

5. A boom towing boat is an indispensable element of the secondary set of pollution response equipment (boom and skimmer) of each of EMSA's contracted vessels. Some incidents of boom deployment and recovery problems due to lack of skill or experience of the boom towing boat skipper were observed. It should be noted that under the contract, the ship owner is obliged to provide sufficient towing capacity resourced on his own initiative. Consequently, it would be beneficial if Contractors could identify skippers and boats suitable for drills as well as for the real response operations. These boats and skippers should be hired regularly for the quarterly drills in order to accumulate training time and experience. Some form of an agreement between EMSA's Contractor and a boat owner regarding these activities could also be helpful. Such an agreement could be supported by State Pollution Response Authorities which may recommend suitable boats listed in their contingency plan.

6. Some cases of misunderstanding regarding the role of oil spill response coordinator on board the EMSA vessel were observed. There were a couple of occasions where the coordinator was involved in the equipment deployment activities on deck instead of providing the overall coordination of the response action from the bridge. It is clearly stated in the contract that the ship master cannot play the role of the spill response coordinator. Consequently, appointed spill response coordinators must be present at all times on the bridge in order to maintain communications with other vessels participating in the response activities and in particular to coordinate the movements of the boom towing boat. Coordination of the equipment operation on deck is only one of the coordinator's tasks. The Contractors who are in breach of this role should be requested to train the oil spill response coordinator appropriately and results of the training should be verified during the next quarterly drill. In addition, the on board oil spill response coordinator's tasks and responsibilities could be addressed during the quarterly drill briefings.

7. Much more benefit could be achieved from the operational exercises if Member States were to apply a more in-depth exercise evaluation and provide EMSA with comprehensive feedback on the performance of the EMSA vessels. The Agency, when responding to any invitation to participate in an operational exercise, should emphasise the need for a thorough exercise evaluation and subsequent feedback to the Agency.

8. Half of the notification exercises arranged by the Member States in 2011 did not complete the procedure for mobilisation of EMSA's vessels. In 2012 EMSA should encourage Member States to conduct full notification exercises for the mobilisation of EMSA's vessels, including the signature of the Incident Response Contract (IRC).

9. During certain notification exercises it was observed that there are still countries which do not have adequate knowledge of the procedures to mobilise EMSA's contracted vessels. It could be beneficial to develop guidelines with regard to EMSA procedures for the mobilisation of vessels and experts for the Member States and to distribute these guidelines to the relevant counterparts within Member States and to

the Monitoring and Information Centre of DG Humanitarian Aid & Civil Protection of the European Commission (MIC) in order to support timely signature of IRCs.

10. Notification exercises proved that the Common Emergency Communication and Information System (CECIS) simplifies and facilitates mobilisation of assistance to a Member State affected by a pollution incident. EMSA should strongly encourage the use of this system during the notification exercises.

11. Some issues of common interest for EMSA Contractors and Member States were identified. It could be beneficial to arrange a Contractors Workshop back to back or in parallel to the Vessel Network Users Group in order to have one joint session with Contractors and Member States. The purpose of this joint session would be to discuss and come to conclusions regarding the following issues:

- Use of a secondary response system (boom and skimmer) on board EMSA's contracted vessels – boom towing boats;
- Vessel Mobilisation Procedures – signing the IRC;
- Role of the Pollution Response Coordinator on board EMSA's vessels.

Administrative

12. During the preparatory phase of the contract the Agency should encourage the Contractor to train the crew and to conduct equipment trials in order to achieve positive performance results before inviting the Agency to the acceptance drill.

13. It would be good practice for the Contractor, before submitting his quarterly drill report, to agree the draft with the responsible EMSA Officer.

14. Recommendations 5, 7, 8, 9 and 10 should be addressed during the second meeting of the Vessel Network User Group in 2012.[3]

[3] During the Stakeholders Consultation in the context of preparing the Agency's contribution to the Multi-annual Funding Mid-term Report, the establishment of a Vessel Network User Group was proposed. The User Group was set up accordingly and a first meeting was held on 25 October 2011 at EMSA. In addition to EMSA, there were participants from 16 different Member States, one EFTA Member State and three Candidate Countries. The aim of this User Group is to strengthen the existing communication among end users of the Stand-by Network and to facilitate the exchange of improvement proposals.

1. INTRODUCTION

In order to fulfil its obligation to provide additional support to the Member States' pollution response mechanisms in a cost efficient way, the European Maritime Safety Agency (hereinafter EMSA) has built up, in European waters, a Network of Stand-by Oil Spill Response Vessels. The vessels of the Network are ready to respond to oil spills at sea at the request of the coastal States[4] or the Commission.

2011 was the sixth year of implementation of the Vessel Availability Contracts (VAC) for the Stand-by Oil Spill Response Vessels. Contracted services were distributed between significant risk areas in European marine waters.

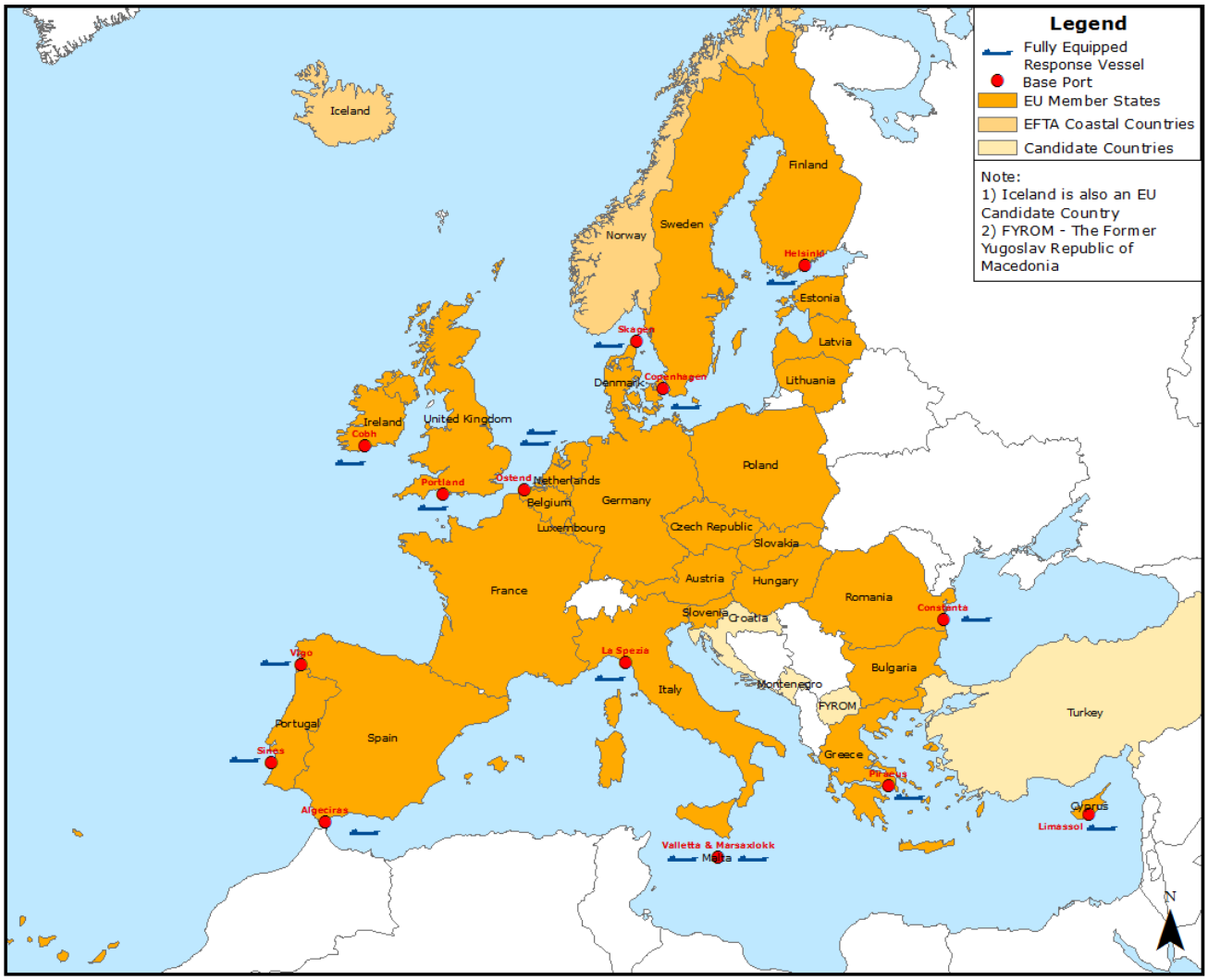
The Network is based on VAC contractual agreements made with private entities operating/managing commercial vessels around the European coastline to provide at-sea oil recovery services. Under normal circumstances, the contracted vessels are conducting their commercial activities. In the event of an oil spill and following a request for assistance from a Coastal State or the Commission, the nominated vessel ceases its commercial activities and is transformed into a certified oil recovery vessel within the contractually specified timeframe.

Vessels mobilised in such a way provide oil pollution response services to the requesting coastal States based on a pre-agreed standard Incident Response Contract (IRC) signed between the coastal State and the Contractor. The IRC has been developed by EMSA in cooperation with coastal States. It addresses all responsibilities, terms and conditions for the provision of the service during an actual incident, including a fixed price, established at the moment of the VAC signature, for the services.

1.1 Vessels and Areas Covered

At the end of 2011, the Network covered all European waters and comprised 16 fully equipped vessels and one partially equipped vessel ready for immediate mobilisation, as well as one back-up vessel. The distribution of the Network is presented in the map below. Detailed information on the contracted vessels and areas covered can be found in Annex 1.

[4] EU Member States, EU Candidate States, EFTA States



Map 1. Distribution of Network of EMSA contracted vessels at the end of 2011

1.2 Purpose and Types of Drills and Exercises

The vessels contracted by the Agency are all equipped with state of the art oil detection, containment and recovery equipment. They are technically capable of achieving high recovery rates and have a sizeable on board storage capacity. Once the technical requirements of each contract are satisfied, the most important factors determining success of the system is the skill of the vessel's crew for the operation of the equipment, and the capability of the oil spill response coordinator on board to lead the response action.

Regular training, drills and exercises are essential to achieve and maintain the appropriate level of performance.

Every Vessel Availability Contract (VAC) defines types and number of drills and exercises to be carried out by each associated vessel. Detailed instructions on conducting drills and exercises, and their methods of evaluation, are provided in the "Guidelines on Conducting Drills and Exercises for the EMSA Contracted Vessels". These Guidelines constitute a component of nearly all contracts. The VAC defines two types of drills: 1)

Acceptance Drills and 2) Quarterly Oil Pollution Response Drills, and two types of exercises: 1) Notification Exercises and 2) At-Sea Operational Exercises. Detailed definitions of drills and exercises can be found in Annex 2.

1.3 Number of Drills and Exercises Carried out in 2011

The number of drills and exercises is growing every year due to the expansion of the Network. In 2011, there were 87 events related to the EMSA drills and exercises. The table below shows the number and types of events carried out.

Table 1. Summary of Drills and Exercises carried out in 2011

Acceptance Drills: Newly Contracted Vessels	Acceptance Drills: Replacement of the existing vessels	Acceptance Drills: Re-acceptance of equipment	Quarterly Drills	Operational Exercises	Notification Exercises
1	**2**	**1**	**60**	**11**	**12**

2. DRILLS PERFORMED IN 2011

2.1 Acceptance Drills

In 2011, four acceptance drills were conducted:

- Newly contracted vessel *Alexandria* stationed in Cyprus, pre-fitted and equipped, was tested and accepted for the stand-by phase of the contract;
- Two replacement vessels, *Balluta Bay* replacing *Mistra Bay* in Malta and *Aegis I* replacing *Aegis* in Piraeus, were tested and accepted for the stand-by service;
- The "Transrec" multi-skimmer was tested and accepted after re-delivery following the assistance rendered to the USA in the context of the Deep Water Horizon oil spill.

A more detailed description of the acceptance drills carried out in 2011 can be found in Annex 3.

2.1.1 Outcome of the 2011 Acceptance Drills

In general the acceptance drills were completed satisfactorily although a small number required additional activities by the Contractor in order to achieve the required standards.

General Findings

Issuing a "Conditional Acceptance" after the acceptance drill has become common practice. In 2011 all vessels undergoing the acceptance drill were issued such a document, subject to rectification of the identified technical, operational or administrative deficiencies.

This practice has advantages and disadvantages. The most important advantage is that the vessel can enter the stand-by service despite some minor deficiencies. On the other hand, repeating the acceptance drills implies costs in terms of manpower, time and money (both for the Agency and the Contractor).

It should be noted that very often deficiencies identified on board the vessel during acceptance drills are related to simple technical and operational mistakes or omissions. This could be avoided if the Contractor put more effort into the acceptance drill preparation.

Recommendation

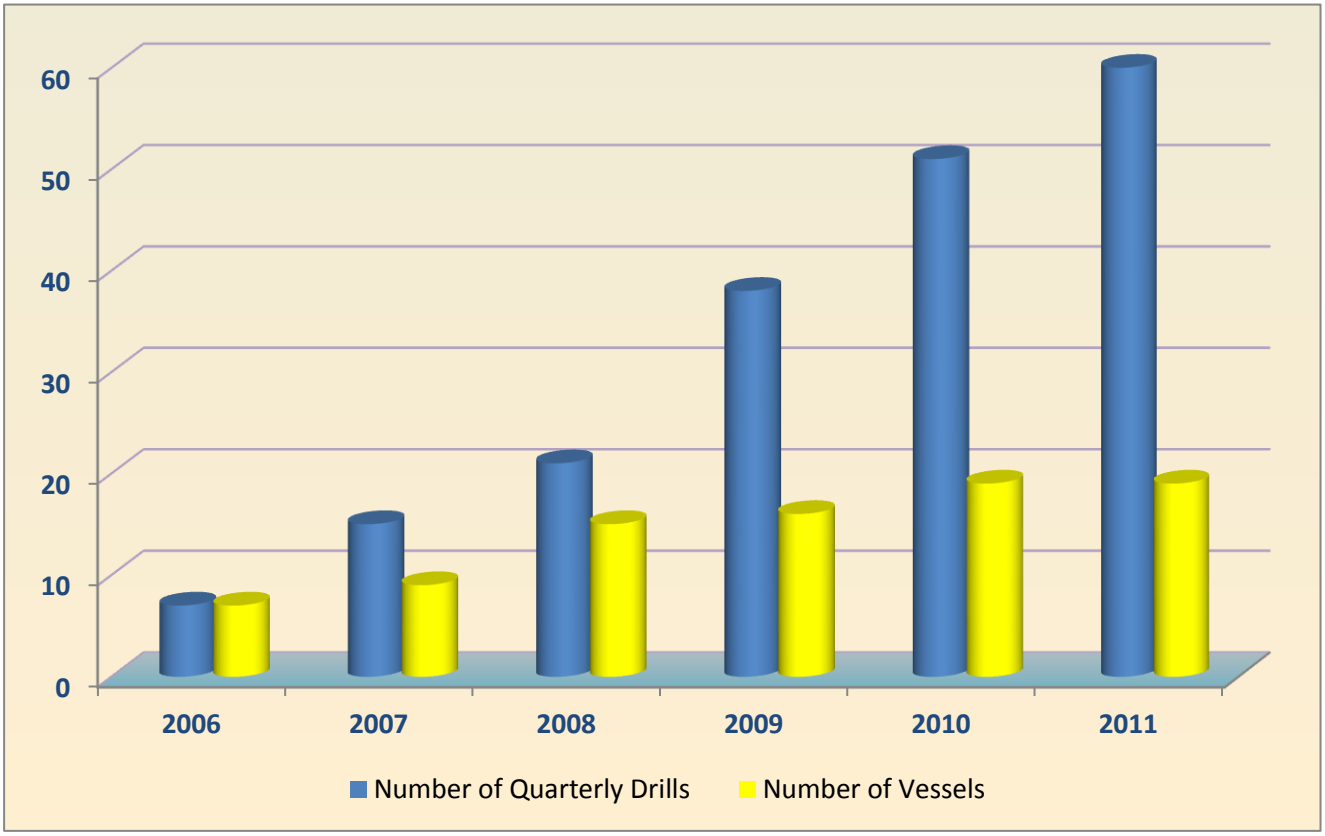
The acceptance drill should not be treated by the Contractor as an occasion to test the equipment or train the crew. This should be done before the acceptance drill, which serves to present the Agency with a vessel and a crew ready for the stand-by service.

During the preparatory phase of the contract the Agency should encourage the Contractor to train the crew and to conduct equipment trials in order to achieve positive performance results before inviting the Agency to the acceptance drill.

2.2 Quarterly Drills

The number of quarterly drills has increased significantly over the years as the Network has developed and expanded. A summary of quarterly drills performed by EMSA contracted vessels during the period 2006-2011 is shown in the chart below.

Chart 1. Number of Quarterly Drills and Contracted Vessels 2006-2011



In 2011 EMSA contracted vessels performed 60 quarterly drills of which 18 (30%) were attended by EMSA. The summary of the quarterly drills carried out in 2011 can be found in Annex 4.

2.2.1 Quarterly Drill Evaluation

Evaluation of the quarterly drills performed in 2011 is based on the reports submitted by EMSA observers and/or the Contractors.

General Findings

The overall outcome of the drills carried out during 2011 demonstrated that the service is operated efficiently and in accordance with EMSA expectations. Overall, the Network achieved a highly acceptable level of preparedness for oil pollution response. There were only 2 cases where the drill had to be repeated due to substantial failure (equipment damage). In both cases during the repeated drill, the Contractor had repaired equipment and improved performance. Consequently both repeated drills were accepted by the Agency. In all other quarterly drills crew and equipment performance were always within the standards required by the "Guidelines on Conducting Drills and Exercises for the EMSA Contracted Vessels"[5].

[5] Guidelines setting standards and providing instructions on how to arrange and conduct drill and exercises on board EMSA's contracted vessels. These guidelines are attached as an annex to most of the Vessel Availability Contracts.

The mobilisation of the vessels, which means in practical terms equipping them for the drill, was assessed as satisfactory. In all cases the equipment was loaded, installed and operated safely and correctly. Sufficient logistics to prepare vessels for the drills were in place. The time taken to deploy the major components of the oil recovery equipment was satisfactory. Knowledge of on board arrangements was good. In 2011 there were no cases where the quarterly availability fee was suspended or not paid to the Contractor.

Reports (Contractors' reports and EMSA reports) from certain of the quarterly drills show a variety of minor technical and operational problems to be solved, in order to restore or to improve the vessel performance.

The analysis of the reports showed that the most common deficiencies encountered during quarterly drills in 2011 were as follows:

Technical deficiencies:

- Hydraulic systems

Hydraulic systems are considered to be the most vulnerable part of the oil pollution response equipment. In some cases leaks of hydraulic hoses, failures of connections and problems with hydraulic valves, pumps or other parts were observed.

- Radio remote control

Most of the free floating skimmers on board EMSA's vessels are steered via radio remote control devices. Failure of such devices due to problems with appropriate radio frequencies, batteries and electronic panels were observed.

- Corrosion

Corrosion can seriously hamper performance of the equipment, especially pumps. Rusty equipment (including pumps) was reported several times in 2011.

- Boom inflation

Several cases of problems related to boom inflation were observed, e.g. leaking air valves, holed boom chambers, or damaged air hoses.

- Boom and hose reels

Several cases of mechanical damage to boom or hose reels were reported.

- Flexible sweeping arms

One case of bending and one case of arm breakage was reported in 2011.

Operational deficiencies:

- Safety on board

A limited number of cases of unsafe behaviour of the crew deploying or recovering equipment were observed. For example:

- Walking on the rigid sweeping arm hanging overboard with no railing or any other safety measure;
- Climbing on the top of boom reel without a safety harness;
- Crowded boom deployment platform.

Examples of unsafe behaviour were especially observed when technical problems with the equipment deployment occurred such as incorrectly attached or stacked lines, boom jammed on the reel, or difficulties locating the sweeping arm on the stand.

Picture 2. Example of unsafe behaviour

- Boom towing

On board most of EMSA's contracted vessels booms are deployed from the side of the vessel at a right angle to the vessel's course. Such a type of deployment requires a high level of manoeuvring, and experience on the part of the skipper of the boom towing boat. It was observed in some cases that these skills or experience were insufficient, which caused problems and delays in the boom deployment or retrieval. One of the reasons could be that the hired boom towing boat is usually different for each drill.

Picture 3: Difficulties with boom recovery

- Role of the assigned oil spill response coordinator in the response activities

Some cases were noted where the role of the on board spill response coordinator was not clearly understood by the Contractor. In these cases the spill response coordinator was involved in operational activities instructing the crew on the deck instead of coordinating the response operation (especially the movements of the boom towing boat) from the bridge.

All of the reported technical deficiencies were pointed out to the Contractors in order to be rectified. Some operational deficiencies such as the skills of the oil spill response coordinator, the skills of the boom towing skipper and on board safety issues require a more in-depth approach.

Recommendations

Technical:

- Hydraulic systems
- Radio remote control
- Boom inflation
- Boom and hose reels

The majority of these technical deficiencies could be prevented by a thorough check of equipment directly before the quarterly drill as well as during the regular maintenance carried out in accordance with the Maintenance Plan.

In parallel, Contractors experiencing such difficulties should ensure that during the drill there are sufficient equipment spare parts available on board (especially for vulnerable elements of the hydraulic system) and skilled technicians able to replace damaged parts. This issue should be addressed by EMSA observers on board during the quarterly drills of 2012.

- Corrosion

Preventing corrosion is strictly a matter of proper equipment maintenance. Equipment which was in contact with salt water should be rinsed with fresh water directly after the drill before putting it back in storage. Equipment should be treated more often with surface protecting coatings, lubricants and paint by the Contractors. The Agency should analyse carefully the monthly maintenance reports and look out for any signs of deterioration of the equipment condition due to inadequate maintenance.

- Flexible sweeping arms

Only one vessel arrangement (in the Baltic Sea) was equipped with the flexible sweeping arm system (two sets). With expiration of the contract (31 December 2011) the flexible sweeping arms were sold. The newly contracted arrangement will be equipped with the rigid sweeping arm system which has proved itself to be both durable and reliable.

Operational:

- Safety on board

To date there have been no reports of accidents or casualties related to the quarterly drills. Safety on board during the equipment deployment remains a vitally important aspect which requires a consolidated approach. Firstly there is a need for continual safety training. This issue should be addressed particularly during briefings before and de-briefings after each quarterly drill. Secondly, additional measures should be considered to secure the work place for responders (railings, markings, warning tables, personal safety equipment, etc.). Thirdly, any case of safety deficiencies noted by the EMSA observers should be immediately reported to the vessel's captain for immediate rectification. As safety on board is the responsibility of the captain it is his/her obligation to instruct the crew members and/or to implement the necessary safety measures.

- Boom towing

A boom towing boat is an indispensable element of the secondary set of pollution response equipment (boom and skimmer) of each of EMSA's contracted vessels. It should be noted that the towing boat is neither covered by the availability contract nor is part of the equipment financed by the Agency. It is the Contractor's responsibility to hire the boat for the purpose of a quarterly drill in order to deploy the boom. Many Contractors do this on a flexible basis, hiring what is available at that moment on the local market. This may result in variable performance depending on the skills and experience of the boat's skipper.

It could be beneficial for the Contractors to identify skippers and boats suitable for drills as well as for the real response operations. These boats and skippers should be hired regularly for the quarterly drills. Some form of an agreement between the Contractor and a boat owner regarding these activities could be also helpful. Moreover such an agreement might be supported by State Pollution Response Authorities which may recommend suitable boats listed in their contingency plan. This

could be beneficial for all sides, ensuring training opportunities for the boom towing boats, better integration of EMSA's contracted vessels with the local response system, better performance during drills and exercises and thus better preparedness to respond to real spills in the area.

This solution could be proposed and discussed during the second meeting of the Vessel Network User Group in 2012.

- Role of the assigned oil spill response coordinator in the response activities

It is clearly stated in the contract that the ship master cannot play the role of the spill response coordinator. Consequently, the appointed spill response coordinator must be present at all times on the bridge in order to maintain communications with other vessels participating in the response activities and especially to coordinate movements of the boom towing boat. Contractors who are in breach of this role should be requested to train the spill response coordinator appropriately and the results of the training should be confirmed during the drill following the one during which the deficiency was noted. In addition, the issue of the on board spill response coordinator's tasks and responsibilities could be addressed during the quarterly drill briefings.

General:

All of the contracted vessels are engaged in various commercial activities. Activities related to EMSA's contract are additional activities. Time spent by the crews of EMSA's contracted vessels to develop and train their pollution response skills is limited. It must therefore be emphasised that further intensive, practical, and regular training for oil spill pollution response is necessary to ensure that all EMSA contracted vessels are ready for real response operations.

2.2.2 Quarterly Drill Report

The Contractor is obliged to submit a quarterly drill report to EMSA. The acceptance of the Contractor's report and associated invoice by EMSA is the condition for the payment of the vessel availability fee. The report is provided on a template developed by the Agency.

General Findings

All reports in 2011 were accepted by the Agency. On the basis of these reports Contractors were paid the vessel availability fee.

Very often the Contractor's reports should be more comprehensive, especially with regard to technical and operational issues to be addressed in order to improve the vessel's performance.

Recommendations

It would be good practice if the Contractor, before submitting his quarterly drill report, agreed the draft with the responsible EMSA Officer.

2.2.3 Drill and Exercise Attendance Guidelines

The direct monitoring and observation carried out by EMSA of the Stand-by Oil Spill Response Vessels' performance during drills and exercises is indispensable for the verification of the contract implementation. It ensures that contract management is effectively implemented and gives the Agency the possibility to react immediately to address any shortcomings.

In 2009, EMSA produced internal "Guidelines on the Attendance of Drills and Exercises on Board EMSA Contracted Vessels." In general, the Guidelines require the presence of EMSA staff on board each contracted vessel at least twice a year during drills and/or exercises. EMSA participation in all drills on board newly contracted vessels during the first year of the stand-by phase of the contract is recommended, as the Contractors usually do not have adequate experience, knowledge and skills to achieve the level of preparedness required by EMSA.

For more experienced Contractors, the presence of EMSA observers on board is required two times per year (one exercise and one quarterly drill). The Agency has given those Contractors who perform well the responsibility for self-evaluation and self-improvement. All Contractors provide EMSA with information regarding their performance during drills and exercises using specially designed drill and exercise report templates.

In cases when there are any indications that the Contractor's performance does not meet the required standards, further drills are attended by EMSA until the vessel achieves a satisfactory level of performance.

General Findings

In 2011 EMSA observers attended 18 quarterly drills out of 60, corresponding to an attendance rate of 30%. In addition, all at-sea operational exercises were attended by EMSA. Consequently most of the vessels were visited 2 times per year by the Agency's representatives. However there were some vessels which were visited only once and some not at all in 2011.

2.2.4 Equipment Management

Checking the technical status and completeness of the oil pollution response equipment on board the vessels is an important element of each drill attended by EMSA observers.

The "Pollution Asset Management System (PAMS)" set up in 2010 in order to strengthen the management of the oil pollution response equipment assets was completed in 2011

for the current contracts. The project will be continued for new vessel arrangements contracted in the future.

Picture 4. Equipment label

2.2.5 Technical Issues Database

On the basis of observations from drills and exercises, the Agency developed a database on technical issues related to the oil pollution response equipment on board EMSA's contracted vessels.

This database allows the Agency to obtain a broader overview of the performance of different types and brands of equipment. Identification of the most frequent technical problems leads to prevention of failures during actual pollution response and also helps the acceptance process for equipment arrangements in the framework of the vessel tenders and improvement projects.

The database may support sharing of experience and dissemination of good practice between EMSA and Member States (e.g. during the Vessel Network User Group meetings).

3. EXERCISES PERFORMED IN 2011

At-sea operational exercises 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 2011, 13 EMSA Stand-by Oil Spill Response Vessels participated in 11 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 and Black Seas.

In connection with the operational exercises, 12 notification exercises, aiming to evaluate the agreed emergency and notification procedures between EMSA, Member States, EMSA Contractors and the EU cooperation civil protection mechanism (through the MIC), were organised by the Agency.

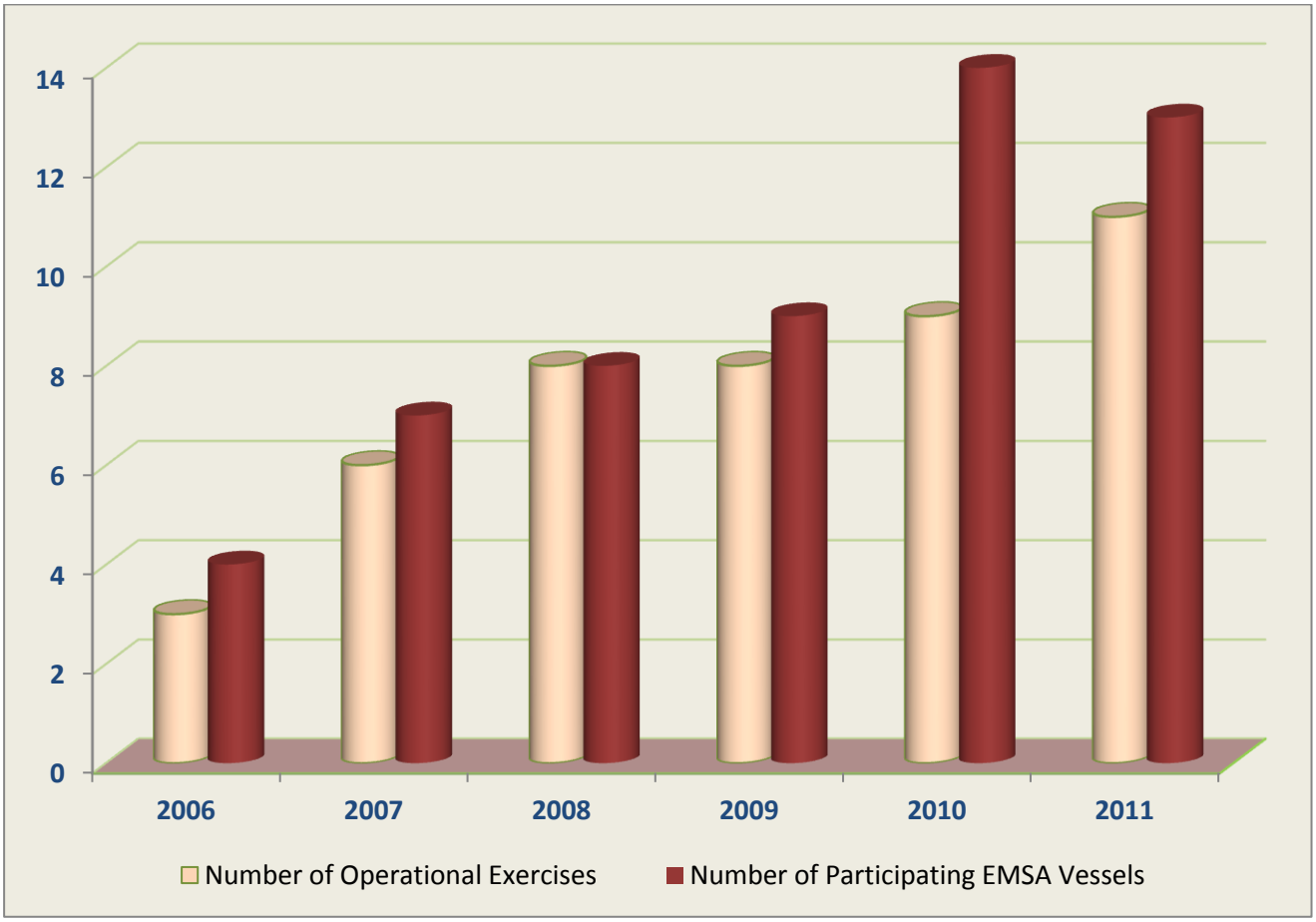
It is worth noting that in 2011, for the first time, an EMSA contracted vessel participated in the operational exercise at-sea hosted by Georgia (non EU State). The exercise was arranged within the framework of the Bucharest Convention. Additionally, a notification exercise with Croatia (EU Candidate Country) was carried out for the first time.

3.1 Operational Exercises

The number of operational exercises has increased significantly over the years. Each year of Network development has brought the expansion of the response area and through exercises, the improvement of the integration of the EMSA contracted vessels with the marine pollution response mechanisms of the Member States.

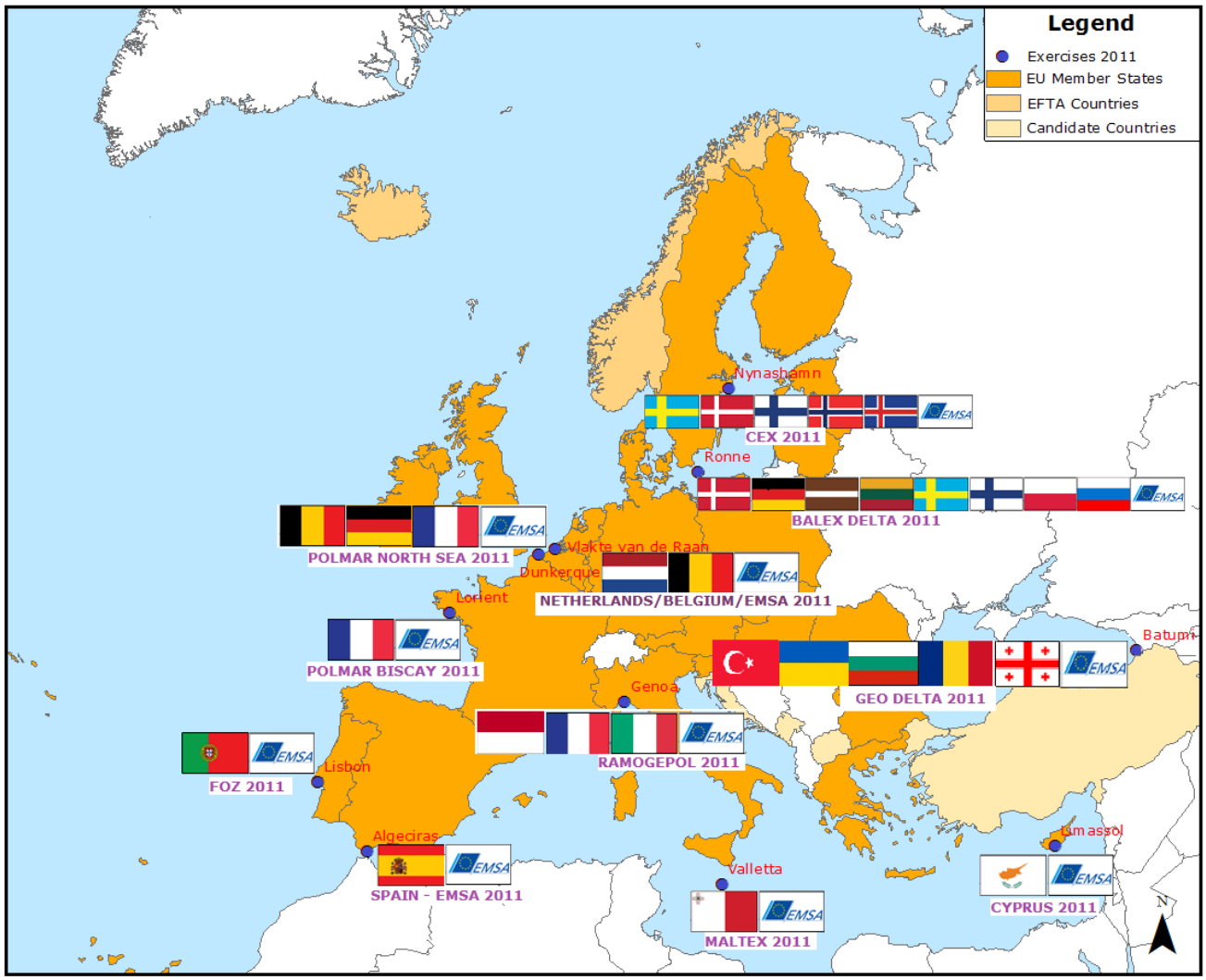
The summary of operational exercises performed by EMSA contracted vessels during the period 2006-2011 is shown in the chart below.

Chart 2. Number of Operational Execises and participating EMSA Vessels 2006-2011



The number of operational exercises per year differs from the number of participating EMSA vessels as more than one EMSA vessel can participate in an exercise. For the purpose of statistics, when the same vessel participated in more than one exercise during the year it was counted as a separate vessel for each exercise.

During 2011, EMSA contracted vessels participated in 11 national and regional at-sea exercises. The geographical spread of operational exercises in Europe with EMSA vessel participation is shown in the map below.



Map 2. Operational Exercises 2011 and Participating Parties

A detailed overview of the operational exercises carried out in 2011 can be found in Annex 5 to this Report.

General Findings

It should be noted that the operational exercises at sea are organised by the Member States within the framework of national or regional contingency plans. EMSA, as a guest to these exercises, usually has a limited influence on their content.

In 2011, Agency staff attended all operational exercises that involved the participation of EMSA contracted vessels. In general, the results of these exercises showed that EMSA vessels were well integrated into the pollution response mechanisms of Member States and Regional Agreements. Reports of EMSA observers indicate that all vessels participating in the operational exercises successfully completed the tasks assigned by the Pollution Response Command of the country hosting the exercise.

All of the exercises were considered a success. However, it was noted that in most cases there was a lack of comprehensive exercise evaluation. With the exception of one exercise, there was also lack of written feedback from the host country on the performance of EMSA's vessels.

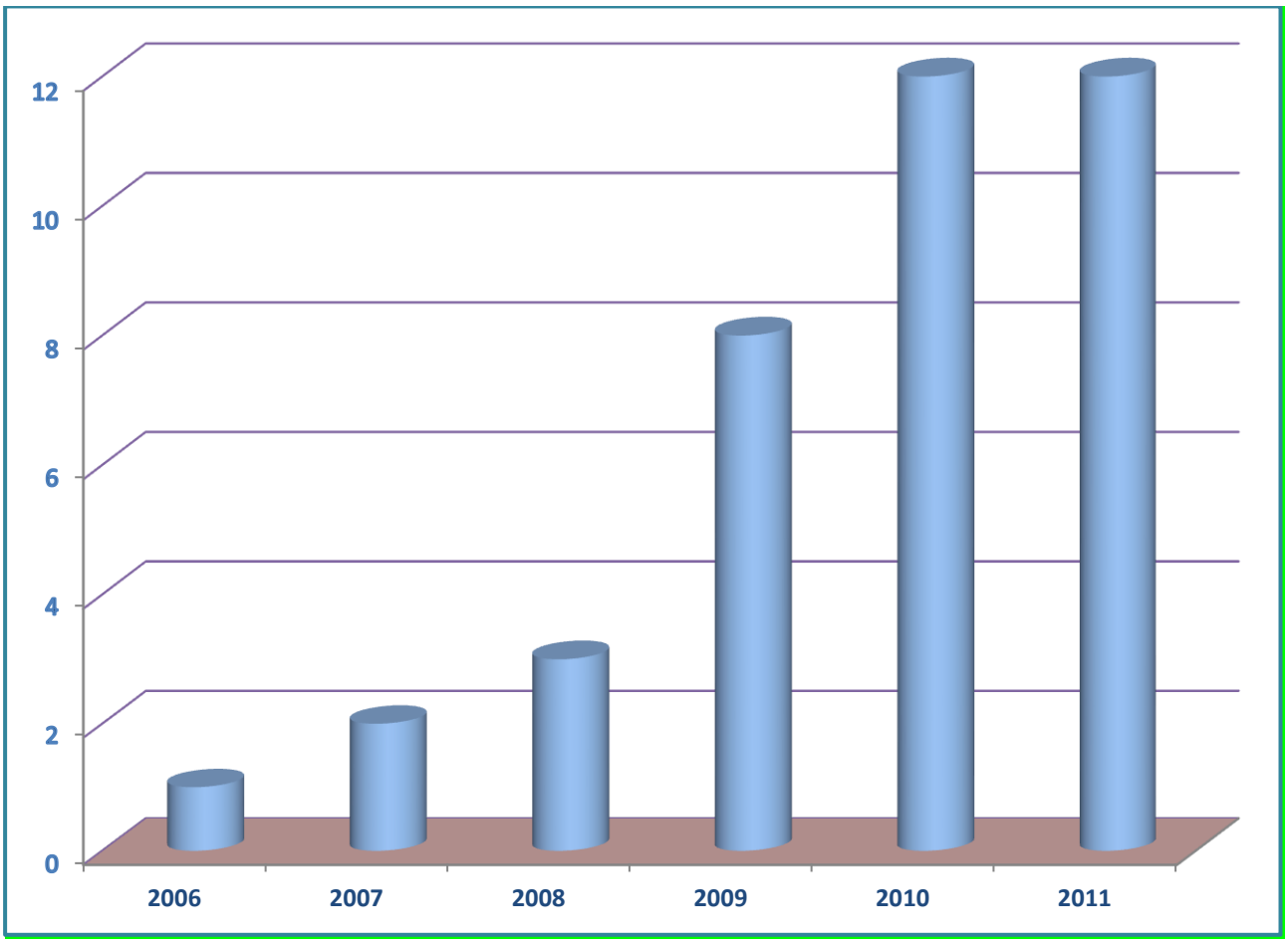
Recommendations

Much more benefit could be derived from the operational exercises if Member States were to apply a more in-depth exercise evaluation system and provide EMSA with a comprehensive feedback on the EMSA vessels' performance. Based on the exercise evaluation, the Agency would be able to take measures to improve the response capabilities of the Vessel Network and to strengthen its integration in the response mechanisms of the Member States. Therefore the Agency, responding to any invitation to participate in the operational exercise, should emphasise the need for a thorough exercise evaluation and subsequent feedback to the Agency. This issue could be also addressed during the second Vessel Network User Group in 2012.

3.2 Notification Exercises

Although "stand alone" notification exercises are occasionally carried out, notification exercises are usually conducted prior to an operational exercise and may be initiated either by EMSA or by a Member State. The aim of these exercises is to test and implement agreed procedures and lines of communication for reporting incidents and for requesting and providing assistance. Notification exercises usually involve EMSA, the Contractor, one or more Member State(s) and the MIC. The main criterion for the evaluation of the notification exercise is the time needed for the Incident Response Contract (IRC) to be signed by both the EMSA Contractor and the Member State requesting assistance.

Chart 3. Number of Notification Exercises 2006 - 2011



In 2011, EMSA participated in 12 notification exercises. A detailed description of these exercises can be found in Annex 6.

Findings

During the Notification Exercise the timing begins at the moment the formal assistance request, sent via the MIC, is received by EMSA. Taking into account variables such as the time of day, the day of the week, the Contractor's location, time difference between Portugal and other Member States, etc., 6 hours is seen as an acceptable target deadline for all parties to sign.

It must be noted that of the 12 notification exercises carried out in 2011 only 6 included the full procedure of EMSA vessel mobilisation by way of the signature of the IRC. 6 exercises were terminated by the hosting country after receiving information on vessel availability. The Member States hosting these exercises lost an excellent opportunity to test their internal channels and procedures for the mobilisation of EMSA's vessels. During all notification exercises in which the IRC was signed, the time achieved was under 6 hours.
The CECIS system operated by the MIC should be used by Member States for the mobilisation of vessels; however this is not always done. In 2011, only 8 out of 12 exercises were conducted with the use of CECIS.

Recommendations

In 2012 EMSA should encourage Member States to conduct the complete notification exercises for the mobilisation of EMSA's vessels including the signature of the IRC.

It could be beneficial to develop guidelines on EMSA's procedures for the mobilisation of vessels and experts for the Member States, and to distribute these guidelines to the relevant counterparts within Member States and to the MIC, in order to support timely signature of IRCs.

As CECIS simplifies and facilitates mobilisation of assistance to a Member State affected by a pollution incident, EMSA should strongly encourage the use of this system during the notification exercises.

These issues regarding the notification exercises should be also addressed during the second Vessel Network Users Group in 2012.

4. CONCLUSIONS

Drill and Exercise Evaluation

1. The overall outcome of the drills and exercises carried out during 2011 demonstrated that the service is operated efficiently and in accordance with EMSA expectations. Overall, the Network achieved an acceptable level of preparedness for oil pollution

response. All drills and exercises undertaken were assessed positively, although two quarterly drills (out of 60 performed) required repetition and were consequently accepted by the Agency.

2. The evaluation of drills and exercises, either based on observations by the EMSA Officers present on board or on the Contractor's report, provided a number of lessons learned (described further in this report) with regard to the technical condition of the equipment and the crew skills. Based on the lessons learned a number of recommendations have been developed to be implemented in 2012.

Recommendations

Technical

1. Most of the technical deficiencies identified in 2011 could be prevented by a thorough check of the equipment directly before the quarterly drill as well as during the regular maintenance provided in accordance with the Maintenance Plan. The Contractors should be requested to put more effort into the quarterly drill preparations.

2. The Contractors should ensure that during the drill there are sufficient equipment spare parts available on board (especially for vulnerable elements of the hydraulic system) and skilled technicians able to replace damaged parts. This issue should be addressed by EMSA observers on board during the quarterly drills of 2012.

3. The Agency should examine closely the monthly maintenance reports and any signs of deterioration of the equipment condition due to inadequate maintenance. During the annual verification of the Equipment Inventory, special attention should be paid to corrosion prevention.

Operational

4. Safety on board during the equipment deployment remains a concern and requires a consolidated approach. Firstly there is a need for more safety training. This issue should be addressed during briefings before and de-briefings after each quarterly drill. Secondly, all possible measures to secure the work place for responders should be applied (railings, markings, warning tables, personal safety equipment, etc.). Thirdly, any case of safety deficiencies noted by the EMSA observers should be immediately reported to the vessel's captain in order to trigger his/her response. As safety on board is the ultimate responsibility of the captain it is his/her obligation to instruct the crew members and/or to implement necessary safety measures.

5. A boom towing boat is an indispensable element of the secondary set of pollution response equipment (boom and skimmer) on board each EMSA contracted vessel. It would be beneficial if the Contractors could identify skippers and boats suitable for drills as well as for the real response operations. These boats and skippers should be hired regularly for the quarterly drills in order to accumulate the training time and experience. Some form of an agreement between the EMSA Contractor and boat

owner regarding these activities would also be helpful. Moreover, such an agreement could be supported by State Pollution Response Authorities which may recommend suitable boats listed in their contingency plan.

6. It is clearly stated in the contract that the ship master cannot play a role of the oil spill response coordinator. Consequently, the appointed oil spill response coordinator must be present at all times on the bridge in order to maintain communications with other vessels participating in the response activities and especially to coordinate movements of the boom towing boat. Contractors who are in the breach of this role should be requested to train appropriately the oil spill response coordinator and results of the training should be verified during the next quarterly drill. In addition, the issue of the on board oil spill response coordinator's tasks and responsibilities could be addressed during the quarterly drill briefings.

7. Much more benefit could be achieved from the operational exercises if Member States were to apply a more in-depth exercise evaluation and provide EMSA with comprehensive feedback on the EMSA vessels' performance. Based on the exercise evaluation the Agency would be able to take measures to improve the response capabilities of the Vessel Network and to strengthen its integration with the Member States response mechanisms. The Agency, when responding to any invitation to participate in an operational exercise, should emphasise the need for a thorough exercise evaluation and subsequent feedback to the Agency.

8. In 2012 EMSA should encourage Member States to conduct the complete notification exercises for the mobilisation of EMSA's vessels, including the signature of the IRC.

9. It could be beneficial to develop guidelines with regard to EMSA procedures for mobilisation of vessels and experts and to distribute these guidelines to the relevant counterparts within Member States and to the MIC in order to support timely signature of IRCs.

10. CECIS simplifies and facilitates mobilisation of assistance to a Member State affected by a pollution incident and EMSA should strongly encourage the use of this system during the notification exercises.

11. It would be beneficial to arrange a Contractors' Workshop back-to-back or in parallel with the Vessel Network Users Group in order to have one joint session with Contractors and Member States. The purpose of this joint session would be to discuss and come to conclusions regarding the following issues:

    - Use of a secondary response system (boom and skimmer) on board EMSA's contracted vessels – boom towing boats;
    - Vessel Mobilisation Procedures – signing the IRC;
    - Role of the Pollution Response Coordinator on board EMSA's vessels.

Administrative

12. During the preparatory phase of the contract the Agency should encourage the Contractor to train the crew and to conduct equipment trials in order to achieve positive performance results before inviting the Agency to the acceptance drill.

13. It would be good practice if the Contractor, before submitting the quarterly drill report, agreed the draft with the responsible EMSA Officer.

14. Recommendations 5, 7, 8, 9 and 10 should be addressed during the second meeting of the Vessel Network User Group in 2012.

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ANNEX 1: Overview of EMSA Contracted Vessels and areas covered

- **The Baltic Sea (2 Arrangements)**

Lamor Corporation A.B. provided a pool of two bunkering vessels: *OW Aalborg* and *OW Copenhagen.* The vessels were stationed in Copenhagen and Skagen in Denmark. The contract allowed both vessels to be mobilised simultaneously. The contract expired on 31 December 2011, without the option of renewal. To replace the expiring contract a tender was launched in 2011. A new contract has been awarded to OW Tankers A/S. The vessel *OW Copenhagen* contracted again is expected to enter the stand-by service in the middle of 2012.

Arctia Icebreaking OY provides stand-by oil recovery services by way of the icebreaker *Kontio.* The vessel was contracted in November 2009 and after the preparatory phase joined the stand-by service on 14 July 2010. The vessel and the oil recovery equipment depot are stationed in Oulu (North of Bothnian Bay), Finland, during the winter season and in Helsinki for the rest of the year. The contract expires on 14 April 2013 with the possibility to be renewed once for another four year period, depending on the evaluation of the Contractor's performance.

- **The North Sea (1 Arrangement)**

DC Industrial Ltd provides two dredger vessels: *DC Vlaanderen 3000* and *Interballast III.* Both vessels are stationed in Ostend, Belgium. The contract allows both vessels to be mobilised simultaneously. The contract expires on 20 June 2012 with the option to be renewed once, for another three year period, depending on the evaluation of the Contractor's performance.

- **The Atlantic Coast and Channel (4 Arrangements)**

James Fisher Everard Ltd (JFE) provides three oil tankers: *Forth Fisher, Galway Fisher* and *Mersey Fisher*. An equipment (oil response) stockpile is located in the port of Cobh, Ireland. The contract allows two vessels to be mobilised simultaneously, though only one is fully equipped (sweeping arms and a boom with a skimmer); the other one carries only a boom with a skimmer. An improvement project to fully equip the second vessel was launched at the end of 2011. The new equipment (rigid sweeping arms) is expected to be operational in the middle of 2012. The JFE contract, initially signed in 2007, was renewed until 20 April 2014.

Lamor Corporation A.B. provides the bunkering tanker *Bahia Tres* with the equipment stockpile based in Sines, Portugal. The contract expires on 21 May 2013, without the option of renewal.

Aegean Bunkers at Sea NV provides the tanker *Sara* stationed in Portland, UK. The vessel was contracted in 2009. After the preparatory phase she joined the stand-by service on 15 July 2010. The contract expires on 15 April 2013 with the possibility to be renewed once, for another four year period, depending on the evaluation of the Contractor's performance.

Remolcadores Nosa Terra S.A. (Remolcanosa) provides a supply vessel *Ria de Vigo* which is stationed in Vigo, Spain. The contract expired on 31 December 2011 and has been renewed for another three year period until 31 December 2014.

- **The Mediterranean Sea (6 Arrangements)**

Mureoil S.A. provides the bunkering tanker *Bahia Uno.* The Mureloil contract, which was signed in 2007, was renewed in 2010 for another three year period until 31 December 2013.

Tankship Management Ltd provides the bunkering tanker *Salina Bay* based at La Spezia (Italy). The contract, which was initially signed in 2007, was renewed until 15 August 2014.

Tankship Management Ltd also previously provided a bunkering tanker *Mistra Bay* based in Malta. In 2011 *Mistra Bay* was replaced by the *Balluta Bay,* effective from 26 June 2011. The contract expired on 31 December 2011, without the option of renewal. To replace the expiring contract a tender was launched in 2011. The contract has been awarded again to the Maltese company Tankship Management Ltd. The tanker *Balluta Bay,* contracted once more, will undergo a major enhancement and is expected to enter the stand-by service in the middle of 2012.

Falzon Station Services Ltd provides the bunkering tanker *Santa Maria,* stationed in Malta. The contract expires on 1 March 2013, without the option of renewal.

Environmental Protection Engineering S.A. (EPE) provides a tanker *Aktea OSRV,* which is stationed in Piraeus, Greece. The contract of EPE, which was signed in 2007, was renewed in 2010 for another three year period until 22 February 2014. On 19 July 2010, the EPE contract was modified with the supply vessel *'Aegis'* as a back-up for the *Aktea OSRV* during her periods of absence from the contracted area. The *Aegis*, was replaced in 2011 by a newly purchased vessel the *Aegis I*. The *Aegis I* was accepted for the stand-by service effective from 25 August 2011.

Petronav Ship Management Ltd provides a tanker *Alexandria,* contracted in November 2010 for the Mediterranean Sea. The *Alexandria* is stationed in Limassol, Cyprus. The vessel completed the preparatory phase of the contract and entered the stand-by service effective from 5 August 2011. The contract expires on 31 December 2015 with the option to be renewed once, for another four year period, depending on the evaluation of the Contractor's performance.

- **The Black Sea (1 Arrangement)**

Grup Servicii Petroliere S.A. provides the supply vessel *GSP Orion,* which is stationed in Constanta, Romania. The contract expired on 31 December 2011 and has been renewed, for another three year period, until 31 December 2014.

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ANNEX 2: Definition of Drills and Exercises

Drills

The Vessel Availability Contract (VAC) defines two types of drills: Acceptance Drills and Quarterly Oil Pollution Response Drills.

Acceptance Drill

The acceptance drill is carried out at the end of the preparatory phase of the contract. The purpose of the drill is for the Contractor to demonstrate to EMSA that the modifications to the vessel, the oil pollution response equipment installation, and crew training were successfully implemented in order for the vessel to undertake the contracted tasks. The acceptance drill is accompanied by an assessment of the vessel and oil pollution response equipment, and the issuing of relevant certificates by the Agency.

If the evaluation of the acceptance drill is satisfactory, the vessel is admitted to the next phase of the contract: stand-by oil pollution response service. The preparatory phase must be completed within the timeframe set in the contract.

Acceptance drills are also performed in order to accept changes to the stand-by oil pollution response services, e.g. when the vessel providing the service has been replaced by other vessel or when new (or overhauled) equipment has been installed on board.

The Contractor has a right to replace the vessel contracted under the VAC on the condition of providing equivalent, or surpassing existing storage and oil recovery capacities. In such a case, all related pre-fitting costs are borne by the Contractor. The preparatory phase deadline also depends on the Contractor. The originally contracted vessel provides services until the replacement is accepted by the Agency.

Based on the experience gathered during drills and exercises, the pollution response capacity of EMSA's contracted vessels is often upgraded through "improvement projects". Within the framework of such projects, usually new equipment or vessel response system modifications are introduced on board. Any change related to the stand-by oil pollution response services has to be accepted by the Agency after completion of an acceptance drill.

Quarterly Oil Pollution Response Drill

According to the contract, the Contractor is obliged to train his crew and to maintain the oil pollution response equipment in order to be ready to carry out oil pollution response services efficiently. To demonstrate the fulfilment of these obligations, the Contractor is obliged to carry out drills, usually on a quarterly basis. The drills can be assessed by EMSA observers. The acceptance of the Contractor's Quarterly Drill Report by the Agency is a condition for the payment of the Availability Fee by the Agency.

Exercises

The Vessel Availability Contract defines the following types of exercises:

Notification Exercises

The aim of a notification exercise is to verify the performance of the agreed emergency and notification procedures and lines of communication for reporting, requesting and providing assistance to Member States. The oil pollution response equipment and the vessel are not used during such an exercise.

Operational Exercises

Operational exercises involve actual mobilisation of a vessel, crew and equipment.
In general, 3 main types of operational exercises can be requested by EMSA:

1. Vessel mobilisation exercise

The purpose of this exercise is to test the Contractor's ability to mobilise the vessel within the timeframe set in the contract. In accordance with the contract, EMSA may only request this type of exercise once during the contractual period. The decision to launch this exercise is taken by EMSA on the basis of the evaluation of the Contractor's performance during the contract implementation. The exercise is likely to be launched should there be any doubts over the Contractor's ability to mobilise the vessel according to the contract requirements.

2. Oil pollution response equipment mobilisation exercise

The purpose of this exercise is to test the Contractor's contingency arrangements. This type of exercise involves the equipment only and is applicable only to the equipment depots. The vessels are not involved.

EMSA may launch this type of exercise twice during the contractual period. Under normal circumstances, equipment mobilisation also forms part of the quarterly drills and other types of operational exercises, so stand-alone equipment mobilisation exercises will only occur if there are insufficient drills and other operational exercises to confidently verify the Contractor's readiness.

3. International/EMSA exercise

This type of exercise involves individual or multiple EMSA contracted vessels and their equipment, and other vessels and equipment of the Member States participating in the exercise. These exercises are normally organised by a Member State individually or within the framework of a Regional Agreement. They can also be arranged by EMSA. The main elements to be practised during an International Exercise are typically the following:

- Loading and fitting the equipment;
- Deployment of the equipment;
- Cooperation with other vessels and with the command structure of the Member State requesting assistance;
- Communication with other vessels, aircrafts and land stations;
- Vessel and equipment handling during a response operation;
- Administrative procedures: Incident Response Contract, harbour fees, etc.

The at-sea operational exercise is normally arranged in such a way that participating parties, under the operational command of the exercise organiser, shall respond at sea to a virtual oil spill under a pre-defined scenario. The exercise includes establishing the command structure, forming the strike teams, allocating tasks, executing tasks (e.g. equipment deployment and oil recovery), communication and cooperation.

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ANNEX 3: Overview of the Acceptance Drills carried out in 2011

The table below summarises the vessel acceptance drills carried out in 2011.

Table 2. Acceptance Drills carried out in 2011

Acceptance Drill	Remarks
Newly contracted vessel: ***Alexandria***	Entry into Stand-by Phase of the Contract
Replacement of the vessel: ***Balluta Bay***	Replacement for the *Mistra Bay*
Replacement of the back-up vessel: ***Aegis 1***	Back-up of *Aktea OSRV* within EPE Contract Replaced *Aegis*
Re-acceptance test: ***Ria de Vigo***	Re-delivery of the high capacity skimmer following Deepwater Horizon oil spill

1. Alexandria

The *Alexandria*, for which a 4 year contract was awarded for the provision of at-sea oil recovery services at the end of 2010, with the associated equipment stockpile, is located in Limassol, Cyprus. The ship is a Maltese flagged double hulled tanker built in 2008 with a speed of 13 knots and capacity for recovered oil of 7,458 m^3, one of the largest under contract with the Agency. Mobilisation of the service will be facilitated by the permanent storage of oil-spill response equipment on board, rather than in a land-based equipment stockpile.

The *Alexandria* considerably strengthened EMSA's oil-spill response coverage of the Eastern Mediterranean Sea, a sensitive sea area given its proximity to major oil transport routes transiting the Suez Canal, and those originating in Black Sea and Middle-Eastern ports.

The contractual deadline to complete the Preparatory Phase for the *Alexandria* was 30 June 2011. The Contractor submitted the Completion Report as required by the contract. However, the Completion Report could not be accepted by the Agency due to unfinished pre-fitting works on board the vessel. The Contractor experienced unanticipated problems with the delivery of the equipment and the alignment of the propeller, part of the conversion from fix pitch propeller (FPP) to controllable pitch propeller (CPP). Consequently, the acceptance drill was postponed until all technical issues were corrected by the Contractor. On 13 July the Contractor submitted a Completion Report indicating that all vessel preparations had been completed, the ship now being certified as "Oil Recovery Capability Class 1". Accordingly, an Acceptance Test was conducted on 2-4 August. Following the Acceptance Test a "Conditional" Acceptance Note was issued subject to the rectification of some minor deficiencies observed.

In particular, the following points had to be addressed by the Contractor:

- Lack of power and manoeuvrability of the assisting tugboat;
- Set-up of the boom net, currently attached to the J formation towing ropes;

- Lack of power of the portable air-blower placed on the tugboat to inflate the boom as designed (single point inflation). It should be noted that the boom could be fully inflated using the extra deflator as air-blower;
- Overall understanding by the crew of the boom operation, particularly regarding J formation;
- Better description of the particular roles of the oil spill and deck coordinators.

Consequently, EMSA requested the Contractor to conduct a (partial) repetition of the acceptance drill. The repeated drill carried out on 31 August 2011 off Limassol, Cyprus, showed that all deficiencies had been rectified. Therefore, a Vessel Acceptance Note effective from 5 August was issued for the *Alexandria*. The delay in entering the vessel into the stand-by phase was around one month.

2. Balluta Bay

In February 2011, Tankship Management informed EMSA that "the *Mistra Bay* is due for class and statutory certificates renewal, survey and dry-docking by 26 June 2011. Successful completion of these requirements would require the vessel to be out of service for approximately 2 months*".* Furthermore, Tankship had earlier confirmed that the works required for *Mistra Bay* to obtain the new Class certificate were economically inadvisable. Consequently, the Contractor proposed to replace the *Mistra Bay* by the vessel *Balluta Bay* for the remaining contractual period*.*

According to the Contract Amendment N° 4 to the Contract N° 05-810-RES/09/05-Lot 4 (Mediterranean) signed between the Agency and Tankship Management Ltd, the *Balluta Bay* was to be pre-fitted, equipped and certified to meet the technical requirements as an occasional oil recovery vessel in order to replace the *Mistra Bay* to provide the contracted service.

The Completion Report received from the Contractor on 27 May 2011 indicated that the pre-fitting of the vessel had been completed. The Report was comprehensive and included all relevant documents. At that moment, there were however some issues pending including the certification of the vessel by the Classification Society (Lloyds Register of Shipping) and internal training. Both were scheduled to be completed shortly after. On this basis, it was agreed with the Contractor for the acceptance drill to be performed on 15-16 June 2011. The results from the acceptance drill on board the *Balluta Bay* showed that the ship generally was technically ready to provide Stand-by oil recovery services. All the relevant pre-fitting works had been carried out in accordance with the Contractor's plan and were found to be in place. The storage facilities and mobilisation procedures were also in order. The arrangement of oil pollution response equipment was complete. However, the secondary oil spill response system was not fully operational. The following deficiencies were identified:

- The boom was fully inflated and deployed but while being towed a deflated area of approximately 20 metres appeared at the apex of the J formation. The potential reasons, as discussed with the Contractor and equipment manufacturer, could be a defect in the internal wiring of the 300 meters boom, a problem on the internal hose or lack of pressure from the air compressor;

- The skimmer floating ring, a circular float attached to the weir skimmer, became detached from the unit during the deployment. This device is set to decant the oil from the water to improve the effectiveness of the system. The reason was a failure in the sewing. The problem could be solved by stitching the ring;
- The skimmer was not detached from the crane wire during the deployment, restricting the manoeuvrability of the skimmer. The skimmer should be detached from the wire, manoeuvred in the water to the apex of the J formation and recovered by hooking it back to the wire. This is common practice and it could be achieved with a quick release hook and a hooking pole.

A conditional Vessel Acceptance Note for the *Balluta Bay* was therefore issued. The payment of the vessel availability fee was suspended until the rectification by the Contractor of all deficiencies identified. On 8 July the Contractor informed EMSA that all deficiencies had been rectified. On 19 July, EMSA officials visited the vessel to confirm that the outstanding issues had been addressed.

Following the results of the inspection on board the tanker *Balluta Bay* carried out on 19 July 2011 in La Valetta, Malta and taking into account the fulfilment by the Contractor of the basic contractual conditions to complete the Preparatory Phase to replace the *Mistra Bay,* the unconditional acceptance (replacing the "Conditional Acceptance") was granted effective from 26 June 2011.

3. Aegis I

In May 2011 the Contractor Environmental Protection Engineering (EPE) informed EMSA that the company's management had decided to replace the *Aegis*, back-up vessel to the *Aktea OSRV*, by a newly purchased vessel, the *Aegis I*.

EPE provided the Agency with the *Aegis I* technical characteristics and ship certificates. The *Aegis I* was already classed as an Oil Recovery Vessel. In most of the relevant aspects, the proposed replacement provided upgraded service as the *Aegis I* offered better characteristics related to:

- storage capacity (bigger capacity)
- year of build (newer vessel)
- manoeuvrability and low speed (controllable pitch propeller).

On 24 August 2011 EMSA conducted the acceptance drill on board the *Aegis I* off Piraeus, Greece.

Results of the inspection and 'first drill' showed that:

- The Contractor had fulfilled all basic contractual conditions and requirements to complete the Preparation Phase for the replacement of the previous back-up vessel;
- The *Aegis I* was technically ready for stand-by oil spill recovery services as a back-up vessel to the *Aktea OSRV*.

Nevertheless, during the Acceptance Test some issues were identified for follow-up action by the Contractor, in particular:

- Due to the adverse weather conditions (strong wind and current) the boom could not be fully deployed in the water and no J configuration was formed. About 100 m of the boom was deployed properly, but the strong current and wind resulted in some minor damage to the equipment and deployment was cancelled.

Therefore, at that stage, a "Conditional" Vessel Acceptance Note for the *Aegis I* was issued, subject to the rectification by EPE of the identified deficiencies. The full acceptance of the vessel was subject to the partial repetition of the acceptance drill (to address the full deployment of the boom in J formation) by EPE by 16 September or earlier. Taking into account the previous experience of the Contractor, it was considered that EMSA observation of the repetition was not needed.

On 5 September EPE performed the partial repetition of the acceptance drill. On 19 September the Agency received the relevant report and supporting evidence by EPE. The report showed clearly that the Contractor fulfilled EMSA requirements and the boom had been fully deployed in the J configuration. Consequently, the unconditional Acceptance Note was issued for the *Aegis I,* effective from 25 August 2011.

4. Re-delivery of the high capacity skimmer

A re-acceptance test was carried out subsequent to the re-delivery of the TransRec skimmer package sent to the Gulf of Mexico to support the response actions to the Deepwater Horizon oil spill following the request for assistance by the US authorities. The equipment was re-installed in March on board the EMSA contracted vessel *Ría de Vigo* and was successfully tested and found to be operational in the presence of representatives from the Contractor, the manufacturer and EMSA.

Following the successful re-acceptance test for the TransRec 150 and the Weir Skimmer head, performed on 16 March (in the presence of EMSA representatives) as well as the HiVisc Skimmer head re-commissioning and test, performed on 25 March by Framo (onboard the *Ria de Vigo* in the presence of the Contractor), EMSA accepted the TransRec 150 system for further stand-by service.

Whilst the equipment was certainly appreciated during the Deepwater Horizon pollution response and was returned in a timely manner, the procedure to initiate the payment by BP for the necessary repairs to the equipment has been rather cumbersome.

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ANNEX 4: Summary of the Quarterly Drills carried out in 2011

The quarterly drills carried out in 2011 are summarised in Tables 3 and 4 below.

Table 3. Quarterly drills performed in 2011 (North & West Europe)[6]

Area/Contractor/Port	Vessel	N°	Date	Comments
Baltic Sea Lamor Corporation A.B. Skagen, Copenhagen	*OW Aalborg*	1	08/03/11*	4 drills required annually. 1 drill had to be repeated due to equipment damage. All required drills accepted. 2 drills were attended by EMSA.
	OW Aalborg	2	10/05/11	
	OW Copenhagen	3	12/05/11	
	OW Copenhagen	4	28/08/11	
	OW Aalborg	5	04/10/11	
Arctia Icebreaking Ltd Helsinki/Oulu	*Kontio*	1	18/03/11*	4 drills required annually. All drills accepted. 1 drill was attended by EMSA.
		2	23/05/11	
		3	23/08/11	
		4	31/10/11	
North Sea DC Industrial Ltd Ostend	*DC Vlaanderen*	1	10/03/11*	4 drills required annually. All drills accepted. 1 drill was attended by EMSA.
	Interballast III	2	28/04/11	
	DC Vlaanderen	3	06/07/11	
	Interballast III	4	06/12/11	
Atlantic Coast James Fisher Everard Ltd Cobh	*Forth Fisher*	1	12/04/11*	2 drills per vessel annually are required (6 in total). All drills accepted. 3 drills were attended by EMSA. Galway Fisher – 2 drills Mersey Fisher – 2 drills Forth Fisher – 2 drills.
	Galway Fisher	2	14/06/11	
	Mersey Fisher	3	14/07/11	
	Forth Fisher	4	10/08/11	
	Galway Fisher	5	07/10/11*	
	Mersey Fisher	6	08/11/11*	
Lamor Corporation A.B. Sines	*Bahia Tres*	1	02/03/11*	4 drills required annually. All drills accepted. 1 drill was attended by EMSA.
		2	02/05/11	
		3	14/09/11	
		4	24/11/11	
Aegean Bunkers at Sea NV Portland	*Sara*	1	09/03/11	4 drills required annually. All drills accepted. 1 drill was attended by EMSA.
		2	15/06/11*	
		3	21/09/11	
		4	06/12/11	
Remolcadores Nosa Terra S.A. Vigo	*Ria de Vigo*	1	16/03/11*	4 drills required annually. 1 drill was repeated due to sweeping arm deployment failure. 2 drills were attended by EMSA.
		2	24/03/11*	
		3	19/05/11	
		4	14/09/11	
		5	16/11/11	
7 Contractors	11 Vessels	32 Drills	*10 Drills attended	All required drills accepted 2 repetitions

[6] * indicates attended drill

Table 4. Quarterly drills performed in 2011 (South & East Europe)[7]

Area/Contractor/Port	Vessel	N°	Date	Comments
Mediterranean Sea Mureoil S.A. Algeciras	*Bahia Tres*	1	23/02/11*	4 drills required annually. All drills accepted. 1 drill was attended by EMSA.
		2	07/06/11	
		3	21/09/11	
		4	15/11/11	
Tankship Management Ltd Malta	*Mistra Bay*	1	23/03/11	4 drills required annually. All drills accepted. 1 drill was attended by EMSA. *Balluta Bay* replaced *Mistra Bay*
	Balluta Bay	2	19/07/11	
		3	13/09/11*	
		4	28/11/11	
Tankship Management Ltd La Spezia	*Salina Bay*	1	16/03/11	4 drills required annually. All drills accepted. 1 drill was attended by EMSA.
		2	19/05/11*	
		3	28/09/11	
		4	26/10/11	
Falzon Station Services Ltd Malta	*Santa Maria*	1	03/03/11*	4 drills required annually. All drills accepted. 1 drill was attended by EMSA.
		2	11/05/11*	
		3	13/09/11	
		4	29/11/11	
Environmental Protection Engineering S.A. Piraeus	*Aktea OSRV*	1	28/03/11	4 drills required annually. All drills accepted. 1 drill was attended by EMSA.
		2	29/06/11	
		3	23/08/11*	
		4	30/11/11	
	Aegis I	5	05/09/11	2 drills required annually. All drills accepted.
		6	07/12/11	
Petronav Ship Management Ltd Limassol	*Alexandria*	3	03/10/11*	2 drills required in 2011. The vessel was accepted effective from 05/08/11. All drills accepted. 1 drill was attended by EMSA.
		4	23/11/11	
Black Sea Grup Servicii Petroliere S.A. Constanta	*GSP Orion*	1	10/03/11	4 drills required annually. All drills accepted. 1 drill was attended by EMSA.
		2	15/06/11*	
		3	08/09/11	
		4	13/10/11	
7 Contractors	8 Vessels	28 Drills	*8 Drills attended	All drills accepted

[7] * indicates attended drill

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ANNEX 5: Overview of the Operational Exercises 2011

CONTENT

The Operational Exercises at Sea carried out in 2011 are summarised in Table 5 below.

Table 5. Operational Exercises carried out in 2011

Exercise Name	Date, Location	Participating Parties	EMSA vessels
FOZ 2011	04/05/11 Lisbon, Portugal	Portugal, EMSA	*Bahia Tres*
ORSEC POLMAR 2011 (North Sea)	31/05/11 Dunkerque, France	France, Belgium, Germany, EMSA	*Sara*
ORSEC POLMAR 2011 (Bay of Biscay)	16/06/11 Lorient, France	France, EMSA	*Galway Fisher*
BALEX DELTA 2011	30/08/11 Ronne, Denmark	Denmark, Lithuania, Latvia, Poland, Russia, Germany, Sweden, Finland, EMSA	*OW Copenhagen*
MALTEX 2011	14/09/11 La Valetta, Malta	Malta, EMSA	*Balluta Bay* *Santa Maria*
GEO DELTA 2011	15/09/11 Batumi, Georgia	Georgia, Bulgaria, Romania, Turkey, Ukraine, EMSA	*GSP ORION*
CEX-2011 COPENHAGEN AGREEMENT	28/09/11 Nynashamn, Sweden	Sweden, Denmark, Finland, Iceland, Norway, EMSA	*Kontio*
JOINT NETHERLANDS-EMSA EXERCISE 2011	03/10/11 Vlakte van de Raan, The Netherlands	The Netherlands, Belgium EMSA	*DC Vlaanderen 3000 and Interballast III*
RAMOGEPOL 2011	24/10/11 Genoa, Italy	Italy, France, Monako, Spain, EMSA	*Salina Bay*
NIRIIS 2011	06/10/11 Limassol, Cyprus	Cyprus, EMSA	*Alexandria*
JOINT SPAIN-EMSA EXERCISE 2011	16/11/11 Algeciras Bay, Spain	Spain, EMSA,	*Bahía Uno*
11 Operational Exercises	**13 Exercise Days**	**24 EMSA Counterparts**	**13 Different EMSA SOSRVs**

Exercise FOZ 2011

On 04 May 2011 the at-sea pollution response exercise, FOZ 2011, was held off Figueira da Foz, 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 the DGAM with other entities, particularly local authorities and port administrations as well as to strengthen the integration of the Agency contracted vessel *Bahia Tres* based in Sines, Portugal, at the operational level with the ships of the Member State.

In conjunction with the operational exercise, a notification exercise involving the requesting Member State (Portugal) and EMSA was also carried out for the mobilisation of the EMSA contracted vessel. The incident response contract was signed by the Contractor and the Member State in less than two hours from the formal request for assistance which can be considered as highly acceptable.

The exercise was based on the collision of a merchant vessel with the north pier port of Figueira da Foz. As a result of the accident, the vessel suffered significant damage to her hull. A spillage of about 500 m³ IFO180 occurred. Following the activation of the Portuguese Contingency Plan and request for assistance to MIC/EMSA, oil recovery operations were undertaken together with a shoreline clean-up.

The FOZ 2011 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 oil recovery vessel was successfully implemented. 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.

Picture 6: Exercising vessels

Picture 7: Skimmer recovering oil simulant (popcorn)

Exercise ORSEC POLMAR 2011 (North Sea)

On 31 May 2011, the exercise ORSEC POLMAR 2011 (North Sea) was held off Dunkerque, France. The exercise was organised by the Préfecture Maritime de la Manche et de la Mer du Nord. The aim of this operational exercise was to test and to improve the cooperation of the French Authorities with other entities, particularly local authorities and port administrations as well as to strengthen the integration of the Agency contracted

vessel *Sara*, based in Portland, UK, at the operational level with the ships of Member States. Units from Belgium and Germany also took part in the at-sea 'oil recovery' operations.

The exercise scenario simulated a collision between two merchant vessels in the vicinity of the Port of Dunkerque on 30 May. As a result of the accident, both vessels suffered significant damage. The situation was analysed by the Crisis Centre, involving the French Navy, Maritime and Local Authorities. Following the activation of the relevant French Contingency Plan (Préfecture Maritime de la Manche et de la Mer du Nord) appropriate response vessels and other resources were mobilised. Oil recovery operations were undertaken in the area between Dunkerque and Calais on 31 May.

The oil recovery operations were carried out in adverse weather conditions. With a wind force between 5 to 6 Beaufort and a wave height of over 2m, the waves created a splashover the sweeping arms at even the lowest sweeping speed. In such weather conditions the skimming of the water surface could not be carried out correctly. The popcorn used to simulate the oil spill was not observed in the exercise area and the aircraft also failed to identify the 'oil spill.' The reasons for this could be the small quantity of popcorn dropped or that the popcorn sank due to the weather conditions.

The exercise was nevertheless a positive experience for all the participants in challenging circumstances and the coordination between the different units was positively tested. The EMSA contracted vessel *Sara* nevertheless fulfilled the role assigned to it by France, the organising Member State, and also met the Agency's expectations.

Picture 8: Sara during the ORSEC POLMAR 2011(North Sea) exercise

Exercise ORSEC POLMAR 2011 (Bay of Biscay)

The at-sea marine pollution response exercise 'ORSEC POLMAR 2011 (Bay of Biscay)' was organised by the Préfecture Maritime de la Atlantique and held off Lorient, France on 15 and 16 June 2011. The two major objectives were to deal with vessels in distress (15 June) and the oil recovery operations (16 June).

The aim of the operational exercise was to test and to improve the cooperation of the respective French Authorities with other entities, particularly local authorities, port administrations and to strengthen the integration of the Agency contracted vessel, *Galway Fisher*, as contracted from James Fisher Everard, based in Cobh, Ireland, at the operational level with ships of the Member State. Observers from Spain, Portugal and Morocco were present on board the French Naval vessel *BSAD Argonaute* and in the Crisis Centre.

The exercise scenario simulated a collision between the tanker *Guyenne* and the cargo vessel *Teresa* off the Lorient coast. As a result of the accident, the tanker suffered significant damage. Following analysis of the incident by the Crisis Centre, evaluation and intervention teams were sent on board the vessel. Assistance was given by a tug towing the vessel to a place of refuge. After the sinking of the tanker, on 16 June, the Préfecture Maritime de la Atlantique requested assistance, including mobilisation of the EMSA oil recovery vessel *Galway Fisher*. Oil recovery operations were undertaken in the area between Lorient and Brest on 16 June.

The EMSA contracted vessel *Galway Fisher* deployed only its sweeping arms for a total time of approximately 1.5 hours due to the rough sea and wave heights of more than three metres. The *Galway Fisher* nevertheless performed satisfactorily and met the requirements of both the Agency and the French authorities.

Exercise BALEX DELTA 2011

BALEX DELTA operational response exercises have been held annually since 1989. This operational exercise is the largest maritime emergency and counter-pollution drill of its kind in the Baltic Sea area and one of the largest worldwide. The BALEX DELTA 2011 exercise took place off Ronne, Denmark on 30 August 2011. The exercise included the participation of 14 oil spill response vessels from 9 different HELCOM contracting parties and a surveillance helicopter. EMSA participated in the exercise with the *OW Copenhagen*. Other participating vessels were: *Scharhorn* (Germany), *KBV* 003 and *KBV 047* (Sweden), *Kapitan Poinc* and *Planeta* (Poland), *Gunnar Thorson, Eno and Hjorto* (Denmark), *Merikarhu* and *Louhl* (Finland), *A-90 Varonis* (Latvia), *Sakiai* (Lithuania) and *Yasnyy* (Russia).

The goals of the exercise were to test the alarm procedure, the response capability and the response time of the Contracting Parties and to test and train the staff and the co-operation between combating units of the contracting Parties. The exercise was based on the simulation of a collision between an oil tanker and a trawler in the waters between the Island of Bornholm (Denmark) and Sweden, resulting in an oil spill of approximately 5,000 tonnes of crude oil. As a result of the accident, the trawler did not suffer any serious damage, however the oil tanker had a large gash mainly above the water line.

Due to adverse weather conditions (winds 15-20 m/s), the participating vessels were instructed by the Supreme On-scene Commander to keep a large distance between the

units. Each of the masters were also given the freedom to choose to deploy oil spill recovery equipment or just to simulate recovery operations. Given the weather conditions and in particular the wind direction, it was decided that the EMSA contracted vessel, *OW Copenhagen*, would deploy its sweeping arms individually, keeping the deployed arm in the water from the lee side of the vessel only. It should be noted that the *OW Copenhagen* was one of the few vessels that actually deployed its oil recovery equipment given the weather conditions.

BALEX DELTA 2011 was a positive experience for the participants and the coordination between the different units was successfully tested. The large number of vessels taking part presented a real challenge, particularly in view of the adverse weather which highlighted that such conditions could indeed occur in a real situation.

Picture 9: OW Copenhagen during the BALEX DELTA 2011

Exercise MALTEX 2011

On 14 September, 'MALTEX 2011' oil spill response exercise, organised by Transport Malta, was conducted off La Valletta, Malta. The main purpose of this exercise was to train the MS command and communication system and pollution response operations as well as the practical use of recovery equipment and the cooperation of participating units.

It was agreed that the *Balluta Bay* and the *Santa Maria*, contracted from Tankship and Falzon respectively, both based in Malta, would take part in this exercise. The exercise scenario simulated the collision of the tanker *MT Oiltank 1* with another vessel due to bad weather conditions. The tanker broke in two and finally sank, resulting in heavy fuel oil leaking to the surface for a radius of approximately 1 nautical mile. According to the exercise programme, the vessels were tasked to recover the simulated oil spill with their on board oil recovery systems. To coordinate the different units participating in the exercise the *Balluta Bay* was chosen as the leading vessel. Upon arrival to the exercise area the on scene commander (OSC) order the *Spinola* and the *Felica* (two Maltese tugboats) to deploy a boom (250 meters) in a J-formation placing *Spinola's* skimmer on it. A third tugboat (*St Rocco*) was standing by the formation. After the boom

deployment, *Balluta Bay* and *Santa Maria* were ordered to deploy their sweeping arms and simulate oil recovery in parallel to the other formation.

EMSA vessels performed at their best during this exercise. The equipment deployment and crew performance was satisfactory. The coordination with other units, led by the *Balluta Bay,* was good. Overall, the exercise was a good opportunity for the participating units to improve coordination during oil pollution response operations. MALTEX 2011 was a positive experience for all the participants.

Picture 10: Maltex 2011 Exercise

Exercise GEO DELTA 2011

The Black Sea Delta Regional Exercise 'GEODELTA 2011' was organized under the framework of the Bucharest Convention and regional cooperation mechanism of the Black Sea Contingency Plan. GEODELTA 2011 was hosted by Georgia and took place on 15 September off the coast of Batumi. Regional operational exercises are organised by the Black Sea riparian countries every two years on a rota basis. The Agency had successfully participated in the RODELTA exercise in 2009, hosted by Romania.

The exercise scenario was based on a simulated incident which took place on 15 September. The tanker *Nord Wind*, loaded with azeri crude oil, collided with the Ro-Ro vessel *Anna Maria* approximately 5 nautical miles offshore. As a result of the collision, the tanker sustained damage to her cargo tanks and approx. 250 tonnes of crude oil were spilled into the sea. One crew member of the Ro-Ro vessel *Anna Maria* fell overboard and another one was seriously injured. All SAR actions were coordinated by MRCC Georgia according to the national procedures. The National On-Scene Commander was the Head of the MRCC. To conduct operations at-sea/on shore the National On-Scene Commander designated the Local On-Scene Commander/s. The ''National Marine Oil Spill Contingency Plan'' was activated. Due to fact that the Georgian national oil pollution combating capacity was being exceeded, Georgia requested assistance from the Black Sea States and EMSA.

In total 12 ships (oil pollution response and ancillary ships) and one helicopter participated during the GEODELTA exercise. The participating fleet was made up of Georgian response ships, supporting ships from the Black Sea coastal states and the EMSA vessel *GSP Orion*. The ship agent of *GSP Orion* was acting as a liaison officer between the Local On Scene Commander (LOSC) and pollution response coordinator on board the *GSP Orion*. It took approximately 15 minutes for the EMSA contracted vessel to deploy both sweeping arms and to fall into position in line with the instructions received from the LOSC.

The Exercise GEODELTA 2011 was completed successfully. This very first exercise in Georgia, together with the supporting event ('open ship') was an excellent way to promote EMSA pollution response services among the competent Black Sea states, local authorities, international organisations, media and public. The EMSA contracted vessel *GSP Orion* fulfilled the role assigned by the Georgian Authority in accordance with the exercise scenario and performed well following instructions by the Local On-Scene Commander. The deployment of the OSR equipment from *GSP Orion* ran smoothly and without any complications. However, this exercise has shown that neither Georgia nor the other Black Sea countries have sufficient resources to cope with a large scale oil spill in the area.

Picture 11: Equipment on the deck of the *GSP ORION* during GEODELTA 2011 Exercise

Exercise CEX-11: At-sea exercise under the Copenhagen Agreement

On 28 September 2011, the at-sea marine pollution response exercise 'CEX-11' under the Copenhagen Agreement was held off Nynashamn, Sweden. The exercise was organised by the Swedish Coast Guard in cooperation with the Finnish Environment Institute (SYKE).

The aim of the operational exercise CEX-11 was to practise emergency procedures, teamwork in cooperation with other nations, and to exercise the response capability and the response time of the Contracting Parties. EMSA participated in the oil recovery

operations with the icebreaker *Kontio*, as contracted from Arctia Icebreaking at Sea, based in Helsinki, Finland. 9 units from Sweden and Finland took also part in the at-sea exercise.

The exercise scenario simulated a collision between an oil tanker and a cargo vessel. The vessel *M/S Goose Sleep Town* located in Gävle, north of Stockholm left the harbour on 26 September at 20:09 heading south on its journey to the port of Rotterdam in the Netherlands. On 26 September the oil tanker *Shu Shing Shi* crossed Bornholmsgattet on her way to Nynäshamn. The following day, she rounded the island Gotska Sandön and turned west. The vessels collided early in the morning of 27 September and oil (around 20,000 m^3 crude oil) started to leak.

The exercise was a success despite the challenge of coordinating a large number units in a relatively narrow exercise area. The EMSA contracted vessel *Kontio* fulfilled the role assigned to it by the Member State organising this exercise, Sweden, and also met the expectations of the Agency. The *Kontio* also participated in an unforeseen ship-to-ship transfer operation and this experience provides useful input to the ongoing project assessing the ship-to-ship transfer capabilities of the EMSA Network, in particular as regards the compatibility of the connectors, the use of grounding cables and the wearing of gas masks by the crew.

Pictures 12 & 13: CEX 11 Exercise

Joint Anti-Pollution Exercise: The Netherlands, Belgium and EMSA 2011

EMSA arranged a joint operational exercise in cooperation with the Netherlands, Belgium and the EMSA Contractor DC Industrial. The aim of the exercise was to strengthen the integration at the operational level of EMSA's contracted vessels with the Dutch and Belgian marine pollution response mechanisms. The exercise took place in the North Sea at Vlakte van de Raan on 3 October 2011. Two EMSA contracted vessels took part in the exercise: *DC Vlaanderen 3000* and *Interballast III*, together with several other vessels and Dutch and Belgian air surveillance aircraft. The exercise was coordinated by the Dutch On-scene Commander.

The exercise programme envisaged testing the 'U' formation of the boom towed by the Belgian tugs followed by the *DC Vlaanderen*, *Interballast III* and a third DC Industrial vessel (contracted by the Rijkswaterstaat Nordzee) skimming oil with their sweeping arms. The oil slick was simulated by oil dispersant 'Radiagreen' spilled on the water surface (150 litres). The exercise programme was completed with success. During the Exercise, the EMSA contracted vessels *DC Vlaanderen 3000* and *Interballast III*

performed well and fulfilled the role assigned by the Netherlands, the Member State in charge for this Exercise and also met the expectations of the Agency.

Picture 14: Dredger with deployed sweeping arms following open U formation

Exercise NIRIIS 2011

On 4-6 October the pollution response exercise 'NIRIIS 2011,' organised by the Cyprus Maritime Authority, was conducted off Limassol (Cyprus). Within the framework of the exercise an open-day event and a related press conference, the "Cyprus Maritime Conference 2011" was also carried out. The main purpose of this exercise was to train the MS command and communication system and pollution response operations, the practical use of recovery equipment and the cooperation of participating units.

The exercise counted on the participation of the vessel *Alexandria*, contracted by EMSA from Petronav, two support vessels, small crafts, one helicopter and an "observer's boat" for the press and other observers. During the exercise, the on scene commander (OSC) coordinated the operations from the *Alexandria.* The exercise scenario simulated serious structural damage of a tanker en route from Suez to Cyprus carrying 20,000 tonnes of heavy fuel oil. According to the exercise program, the Petronav vessel was tasked to collect and recover the simulated oil spill with her on board oil recovery systems. This task was carried out in coordination with other participating units.

The NIRIIS 2011 exercise was a positive experience for all the participants. The coordination between the different units was positively tested. The *Alexandria's* performance during the first exercise within the EMSA network was up to the expected standards.

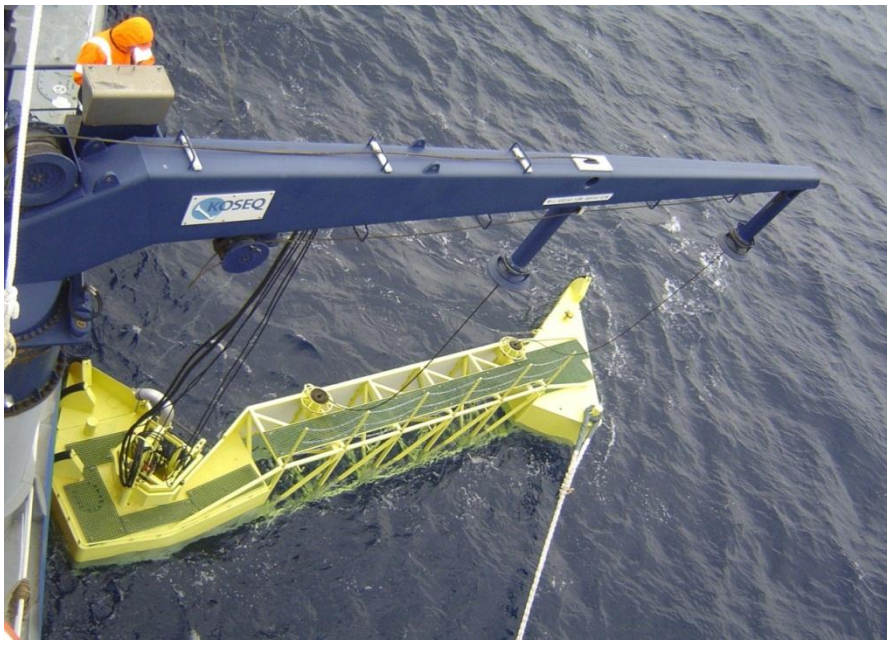
Picture 15: Exercise NIRIIS 2011

Exercise RAMOGEPOL 2011

On 24 October 2011 the Agency participated in the international pollution response exercise RAMOGEPOL 2011, held off Genoa, Italy. This exercise was hosted and organised by the Italian authority General Directorate for the Nature and Sea Protection within the framework of the RAMOGE agreement (France, Italy and Monaco). The scope of this exercise was to strengthen the operational cooperation with the countries party to the RAMOGE agreement.

During the exercise, Italy launched the relevant procedures and mechanisms for international assistance in the region. Accordingly, the Italian authorities implemented the RAMOGEPOL plan and requested assistance by EMSA contracted vessels through the MIC. According to the exercise scenario, the tanker *Sara* was on fire at the forward end of the vessel, while carrying Arabian heavy oil with 2.73% sulphur content.

The tugboat *Bonassola* was the lead vessel of the strike team, located near the *Sara.* The EMSA vessel *Salina Bay* was instructed to follow the *Bonassola* and deploy her sweeping arms. Due to adverse weather conditions only the tugboat *Bonassola* was able to deploy her flexible sweeping arms. The *Salina Bay* performance during the exercise was up to the expected standards, especially taking into account the adverse weather conditions.



Picture 16: *Salina Bay* with the starboard sweeping arm deployed

Exercise RAMOGEPOL 2011 was a fruitful experience for all the participants and a good opportunity to strengthen the cooperation between the parties to the RAMOGE agreement and the EMSA contracted vessel in this area, the *Salina Bay*.

Joint Spain – EMSA Exercise 2011

This antipollution exercise organised by the Sociedad de Salvamento y Seguridad Maritima (SASEMAR) was performed on 16 November 2011 off Algeciras, Spain. The aim of the exercise was to coordinate joint resources from EMSA and SASEMAR to combat marine pollution.

The exercise scenario simulated the collision of a container vessel with an oil tanker carrying a cargo of around 85,000 tonnes of intermediate fuel oil 180, in the area of Algeciras. Eighty tonnes were spilled into the water drifting towards the north coast of Algeciras Bay. Additionally, the continuous release of the cargo raised a potential threat to the marine environment.

The vessel *Bahia Uno,* contracted from Mureloil, was mobilised in order to assist with the recovery of the oil. The vessel received instructions to deploy the starboard sweeping arm. The vessel deployed the sweeping arm, while the assisting vessel *Luz del Mar* alternated with *Bahia Uno* in leading the formation. In parallel, the SASEMAR oil spill response vessel *Miguel de Cervantes,* based in Algeciras, was on site and carrying out oil pollution response operations. The overall performance of the EMSA contracted vessel *Bahia Uno* was very good and the exercise was considered to be successful.

European Maritime Safety Agency

Network of Stand-by Oil Spill Response Vessels: Drills and Exercises
Annual Report 2011

ANNEX 6: Overview of the Notification Exercises 2011

CONTENT

The Notification Exercises carried out in 2011 are summarised in Table 6 below.

Table 6: Notification Exercises carried out in 2011

#	NOTIFICATION EX.	DATE/ HOST COUNTRY	IRC Signed by MS	COMMENT
1	FOZ	03/05/11 Portugal	1	IRC signed by Contractor and MS
2	SULA	18/05/11 UK	NO	IRC not signed by MS
3	ORSEC POLMAR (BAY OF BISCAY)	16/06/11 France	NO	EMSA's participation agreed but on the day EMSA assistance not requested
4	BALEX DELTA	29/08/11 Denmark	NO	IRC signed by Contractor but not by MS
5	BELGIUM	31/08/11 Belgium	NO	IRC signed by Contractor but not by MS
6	JOINT EMSA/NL/MIC	05/09/11 Netherlands	NO	No IRCs sent: purpose to test communications and use of CECIS
7	MALTEX	13/09/11 Malta	2	IRCs signed by 2 Contactors (FALZON & TANKSHIP) and MS
8	BOILEX	27/09/11 Sweden	NO	Exercise terminated by MS upon receiving vessel availability info.
9	NIRIIS	04/10/11 Cyprus	1	IRC signed by Contractor and MS
10	CROATIA	18/10/11 Croatia	1	IRC signed by Contractor and MS
11	JOINT/SPAIN/EMSA	14/11/11 Spain	1	IRC signed by Contractor and MS
12	CAPE TUZLA	08/12/11 Romania	1	IRC signed by Contractor and MS
	12		**7**	

FOZ

On 3 May 2011, a notification exercise for the area of the Atlantic coast was carried out by Portugal, EMSA and EMSA's Contractors. This notification exercise was organised by the Portuguese National Maritime Authority (Autoridade Marítima Nacional, DGAM) and was held in conjunction with the at-sea marine pollution response exercise "FOZ 2011", conducted at Figueira da Foz (Portugal) on 4 May 2011.

The Notification Exercise aimed at testing the agreed emergency and notification procedures for the Atlantic area, through the mobilisation of *Bahia Tres*, upon request from Portugal (via CECIS), and the signature of the relevant Incident Response Contract between Portugal Authorities and EMSA Contractor (Lamor Corporation A.B.).

The affected Member State (Portugal) informed EMSA about the pollution incident and requested the assistance of the EMSA contracted vessel *(Bahia Tres*) via CECIS. The IRC between Portugal and EMSA Contractor was signed after 6 hours and thirty-two minutes after the start of the Notification Exercise. The duration of the exercise was found acceptable and in line with the duration of the notification exercises performed previously.

It was the first time that the EMSA Pollution Preparedness and Response Unit, in cooperation with the Maritime Support Services (MSS), tested the use of CECIS during a Notification Exercise in accordance with the latest draft of the EMSA Contingency Plan.
CECIS proved to be a very useful system and streamlines the exchange of correspondence with the Member State requesting assistance. In particular, the system reduces the number of communications with MIC. Member States should be encouraged by EMSA to use CECIS, both for the notification exercises and real emergencies.

SULA

On 18 May 2011 EMSA carried out a Notification Exercise for the area of the Atlantic Coast and Channel. This Notification exercise was organised by the UK Maritime and Coastguard Agency (MCA) and was held in conjunction with a simulated large scale, deep water spill west of Shetland, with estimated release rate of 1000 tonnes per day. This Notification Exercise aimed to test the agreed emergency and notification procedures for the area of the Atlantic Coast and Channel; specifically the mobilisation of the EMSA contracted vessels, and the signature of the Incident Response Contracts between UK and relevant EMSA Contractors. The affected Member State (UK) informed EMSA about the pollution incident by phone on 18 May at 12:30. The formal information through MIC reached EMSA on 18 May at 15:01. The exercise took two days in total as the vessel mobilisation was exercised on 19 May. CECIS was not used during this exercise.

The time that the various Contractors needed to provide information on the vessel availability is shown in the table below.

Table 7: Results of the SULA Exercise

Date	Warning of Pollution Incident sent to	Time sent	Requested info received	Response time
18 May	JFE	13:36	14:43	1:07
	Remolcanosa	13:38	16:17	2:39
	DCI	14:00	14:36	36 min
	Lamor Baltic, Lamor Atlantic	14:28	15:09	41 min
	ABAS	14:35	14:50	15 min

Actual gathering of information by EMSA from five Contractors regarding availability of nine vessels took 2 hours and 41 minutes, from the time of the initial call. After receiving information on the availability of the response vessels UK suspended the exercise until the following day.

At 9.28 on the next day MCA formally requested assistance of all vessels offered by the Agency. EMSA sent the Notice of Pollution Response together with IRCs to six Contractors. The time needed to notify all the Contractors was 2 hours. At 12:43 EMSA

informed MCA that the relevant Notices of Pollution Response together with the Incident Response Contracts had been provided to EMSA Contractors.

The general outcome of the exercise was positive. The UK request for assistance was fulfilled within a reasonable time. It is difficult to evaluate the result of the exercise in full as the UK terminated the exercise before the Incident Response Contracts between the UK and EMSA Contractors could be signed. The UK missed the opportunity to complete the paper work required to sign the IRC and thus to exercise their internal channels for the mobilisation of EMSA's vessels.

ORSEC POLMAR (BAY OF BISCAY)

On 16 June 2011 the at-sea marine pollution response exercise ORSEC POLMAR 2011 (Bay of Biscay) was held off Lorient, France. The exercise was organised by the Préfecture Maritime de la Atlantique.

Initially, a Notification (alert) Exercise involving the requesting MS (France), EMSA and MIC was planned to be held in conjunction with the operational exercise. The alert exercise was launched by France on 15 June at 10:10. The message was acknowledged by the Agency (MSS). The initial message was not followed by a request for assistance by e-mail/fax or via CECIS application. In this way, the alert exercise involved only the responsible French institutions. EMSA and MIC were informed of the end of the exercise at 16:16. France missed the opportunity to exercise a procedure for the EMSA's vessels mobilisation.

BALEX DELTA

The at-sea marine pollution response exercise 'BALEX DELTA 2011' was held off Ronne, Denmark on 30-31 August 2011. In conjunction with the at-sea operational exercise, a Notification Exercise involving HELCOM Contracting Parties was started on 29 August and continued on 30 August.

The Notification exercise was organised by the Danish Authorities (Danish Maritime Assistance Service, Admiral Danish Fleet). The aim of this exercise was to evaluate the agreed emergency and notification procedures, including EU cooperation for pollution in Danish waters. Accordingly, the lines for reporting, requesting and providing assistance between MIC, EMSA and EMSA's Contractor operating in this area (Lamor Corporation AB) were tested.

The affected Member State requested one EMSA contracted vessel (*OW Copenhagen*). The Danish authorities decided to use CECIS and communication with MIC and EMSA was done in this way. However, only the initial exchange functioned correctly in CECIS as the Danish operator subsequently launched the system incorrectly in 'training mode.'

The total time between the formal request for assistance by the Member State (13:14) and the proposal of three vessels by the Agency (14:41) was 1 hour and 27 minutes.

The main bottlenecks/delays and follow-up actions were as follows:
- The Member State started using CECIS successfully in the morning, however due to a personnel exchange, they were later incorrectly using the training mode and were unable to confirm the choice of vessel from 13:41 until 19:39.
- The Contractor (Lamor Corporation AB) took a long time to sign the IRC and to send it to the Member State (from 9:23 to 12:25).
- The Member State failed to inform either the Contractor or EMSA of the signature of the IRC. Even in the context of a notification exercise, it would be helpful if the Member State could participate fully by signing the IRC and providing a copy to EMSA and the Contractor.

EMSA/BELGIUM

On 31 August 2011 EMSA carried out a Notification exercise for the area of the Belgian coast. This Notification exercise was organised by the Belgian Authorities (DG Environment, Marine Environment Service). The aim of this exercise was to evaluate the agreed emergency and notification procedures, including the EU cooperation for pollution in Belgian waters. Accordingly, the lines for reporting, requesting and providing assistance between MIC, EMSA and EMSA's Contractor operating in this area (DC Industrial) were tested.

The affected Member State requested one EMSA contracted vessel (*Interballast III*). The Belgian authorities decided not to use CECIS and thus communication with MIC and MSS was done by fax and e-mail. Based on the information received from the Contractor on the day in question the *Interballast III* was located in Ostend and the vessel would have been ready to sail at 16:00 on 31 August. The total time between the formal request for assistance by the Member State (09:31) and the reception of the IRC signed by the Contractor (10:58) was 1 hour and 27 minutes.

The Member State did not inform either the Contractor or EMSA of the signature of the IRC. It appears for the purposes of the exercise, they simply wanted to check the response of EMSA and the Contractor. The Belgian authorities missed the opportunity to exercise their internal procedures for the mobilisation of EMSA's vessels (through signing the IRC).

JOINT EMSA/NL/MIC

On 5-6 September 2011 EMSA participated in a Notification Exercise for the area of the North Sea. The notification exercise was organised by the Netherlands in cooperation with MIC within the framework of the expert exchange programme EMPOLLEX. This table-top Exercise was launched by marine pollution experts from the Netherlands during their training in MIC premises.

EMSA and CECIS Participating States were involved in this alert exercise in order to practice coordination procedures related to request for and offer of assistance as well as communication through logbook in CECIS.

Prior to the exercise, it was agreed with MIC and the Dutch experts that the mobilisation request for the contracted vessels, involving the Agency's Contractor (DC Industrial) would not be exercised. During the alert exercise, the affected Member State, the Netherlands, informed EMSA and participating MS about the pollution incident and requested assistance via CECIS.

EMSA was alerted on 5 September 2011 at 17:18 and the EMSA assistance in the form of oil recovery vessels was offered at 17:53. The offer was accepted by the requesting MS at 08:36 on 6 September.

CECIS proved to be a very useful, and streamlines the exchange of correspondence with the Member State requesting assistance. In particular the system reduces the number of communications with MIC.

MALTEX

On 13 September 2011 EMSA carried out a Notification Exercise for the area of the Mediterranean Sea. This Exercise was organised by Malta Transport Centre and was held in conjunction with the at-sea marine pollution response exercise MALTEX 2011, conducted in Malta on 14 September.

The Notification Exercise aimed at testing the agreed emergency and notification procedures for the Mediterranean area, through the mobilisation of the vessels *Balluta Bay* and *Santa Maria* on the request of the Malta Maritime Authority, along with the signature of the relevant Incident Response Contracts between the Maltese authorities and two EMSA Contractors, respectively Falzon Group Holdings Limited and Tankship Management Ltd.

The affected Member State (Malta) informed EMSA about the pollution incident and requested the assistance of two EMSA contracted vessels (*Balluta Bay* and *Santa Maria*) via CECIS.

The actual mobilisation of the two vessels and the deployment of their oil pollution response equipment took place on 14 September.EMSA was alerted on 13 September 2011 at 13:36 and the two IRCs were signed on the same day. The total time needed from activation to signature of IRC between Malta and Tankship was 3 hours and 14 minutes. The total time needed from activation to signature of IRC between Malta and Falzon was 4 hours and 49 minutes.

The notification exercise lasted in total 4 hours and 49 minutes which was considered acceptable and in line with the duration of previous notification exercises.

BOILEX

The pollution response exercise 'CEX-11,' held within the framework of the Copenhagen Agreement (Denmark, Finland, Iceland, Norway and Sweden) took place off Nynashamn, on 27-28 September 2011. The exercise was organised by the Swedish Coast Guard in cooperation with the Finish Environment Institute (SYKE).

In conjunction with these operational exercises, on 27 September, a Notification (Alert) Exercise "BOILEX" was held, involving EMSA and Copenhagen Agreement Contracting Parties. Sweden requested mobilisation of EMSA contracted vessels via MIC. CECIS was not used during this exercise.

Taking into account the area indicated by the Swedish Coastguard, EMSA decided to exercise mobilisation of the Lamor vessels (*OW Copenhagen* and *OW Aalborg*) located nearest to the place of the incident. The information on the vessel availability and the offer of assistance were provided to the Member State 2 hours and 18 minutes after receiving the request.

The Swedish Coastguard terminated the exercise after receiving information about the EMSA vessel availability. MIC was properly informed at all times. The exercise cannot be considered as a complete notification exercise because the important elements of the EMSA vessels notification procedure – Notice of Pollution Response and IRC were not executed. The exercise organiser (Swedish Coastguard) missed an excellent opportunity to check its capability to mobilise EMSA assistance.

NIRIIS

On 4 October 2011 EMSA carried out a Notification Exercise for the area of the Eastern Mediterranean Sea. This Exercise was organised by Cyprus Maritime Authority and was held in conjunction with the at-sea marine pollution response exercise 'NIRIIS 2011' which was conducted off Limassol (Cyprus) on 5 and 6 October.

The Notification Exercise aimed at testing the agreed emergency and notification procedures for the Eastern Mediterranean Sea, through the mobilisation of the vessel *Alexandria* on the request of the Cyprus Maritime Authority, along with the signature of the relevant Incident Response Contract between the Cypriot authorities and EMSA Contractor's Petronav.

Following the request for assistance by Cyprus, the EMSA contracted vessel *Alexandria* was mobilised. The total time needed from activation to signature of IRC between Cyprus and Petronav was 2 hours and 58 minutes. Taking into account that this Notification Exercise was performed for the first time with Cyprus and Petronav, the time needed for signature of the IRC by both parties can be considered as very good.

Cyprus inserted the exercise notification in CECIS but did not send any messages to EMSA via the application. Therefore, the exchange of information was conducted by traditional communication means, i.e. e-mails and faxes.

JOINT CROATIA/EMSA

On 18 and 19 October 2011 EMSA carried out a Notification Exercise for the area of the Adriatic Sea. The Exercise was organised by Croatia and was held in conjunction with the top level regional staff exercise: "A Man Made Environmental Crisis at Sea". It should be noted that this was the first time that such an exercise was organised between EMSA and a Candidate Country.

The Notification Exercise aimed at testing the agreed emergency and notification procedures for the Mediterranean area (Adriatic Sea), through the mobilisation of the vessel *Aktea OSRV* at the request by Croatia, along with the signature of the relevant Incident Response Contract between the Croatian authorities and EMSA Contractor's EPE. The exercise started on 18 October, when information about the available vessels was requested. The request for vessel mobilisation was made on 19 October.

The total time needed from request for mobilisation of the *Aktea OSRV* to the signature of IRC between Croatia and EPE was 6 hours and 40 minutes. Taking into account that this Notification Exercise was performed for the first time with Croatia, the overall time needed for signature of the IRC by both parties can be considered as satisfactory. It should be noted that the Contractor EPE responded very quickly and filled in and sent back both the Warning of Pollution template and IRC.

The Croatian Maritime Authority needed more than 5 hours in order to sign the IRC form and they only signed and did not fill in the relevant boxes of the template. This showed that the procedure for mobilisation of EMSA vessels was unfamiliar to them although there were a number of phone calls from EMSA explaining what was needed. The Croatian Maritime Authority made the request for assistance via CECIS and 11 communications were made during the exercise using CECIS system.

JOINT/SPAIN/EMSA

On 14 November 2011 EMSA carried out a Notification Exercise for the area of the West Mediterranean. The Exercise was organised by Spanish Maritime Safety Agency (SASEMAR) and was held in conjunction with the at-sea marine pollution response exercise conducted in Algeciras (Spain) on 16 November 2011.

The Notification Exercise aimed at testing the agreed emergency and notification procedures for the Mediterranean area, through the mobilisation of the vessel *Bahia Uno* at the request of the Spanish Maritime Authority, along with the signature of the Incident Response Contract between the Spanish authority and EMSA Contractor, MURELOIL S.A.

The affected Member State (Spain) informed EMSA about the pollution incident and requested the assistance of EMSA vessel *Bahia Uno* via CECIS. The actual mobilisation of the vessel and the deployment of the oil pollution response equipment took place on 16 November 2011.

The Notification Exercise took place over two days as follows:
On the first day (14 November) EMSA was activated at 10:25.
EMSA's Contractor filled in the following documents:

- Warning of Pollution Incident (at 11:16)
- Notice of Pollution Response and Incident Response Contract (at 11:46).

The Notification Exercise was suspended by EMSA at 14:57.
On the second day (15 November) the exercise was resumed at 9.24.
The IRC was signed by SASEMAR at 10:11.

The total time needed from activation to signature of the IRC between Spain and MURELOIL was 5 hours and 30 minutes (the time gap from the moment in which the exercise was officially suspended until the first action taken on the second day is not included) which can be considered as a positive result.

CAPE TUZLA

On 8 December 2011 a Notification (alert) Exercise was carried out for the area of the Black Sea. This Exercise was organised by Romanian Maritime Coordination Centre/Romanian Naval Authority.

The Notification Exercise aimed at testing the agreed emergency and notification procedures for the Black Sea area, through the mobilisation of the vessel *GSP Orion* at the request of the Romanian Maritime Authority request, along with the signature of the Incident Response Contract between the Romanian Maritime Authority and EMSA Contractor, Grup Servicii Petroliere (GSP).

The affected Member State (Romania) informed EMSA about the pollution incident via CECIS. The Member State's duty officer forwarded the request for assistance by normal e-mail addressed to MSS, rather than by using CECIS. EMSA was alerted on 8 December 2011 at 10:28 LT and the IRC was signed on the same day. The total time needed from activation to signature of IRC between Romania and GSP was 2 hours and 28 minutes.
The exercise was conducted efficiently. The duration of the exercise was found acceptable and in line with the duration of previous notification exercises.