European Maritime Safety Agency

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

Annual Report 2010

Unit C.1: Pollution Preparedness and Response

February 2011

CONTENT

EXECUTIVE SUMMARY

General

1. 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 (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 the Member State or the Commission. By the end of 2010, the Network comprised 15 fully equipped vessels and one partially equipped vessel ready for immediate mobilisation, and one back-up vessel.

2. To achieve the performance for pollution response required by the Vessel Availability Contract (VAC)[1], 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: Acceptance Drill and Quarterly Oil Pollution Response Drill, and two types of exercises: Operational Exercise and Notification Exercise. Performing 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 2010 is shown in the table below.

Table 1: Summary of Drills and Exercises carried out in 2010

Acceptance Drills: Newly Contracted Vessels	Acceptance Drills: upgrade of the vessel response capacity	Quarterly Drills	Operational Exercises	Notification Exercises
4	**4**	**51**	**9**	**12**

4. In 2010, 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 oversight of quarterly drills and exercises is adequate.

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 is an effective method to ensure that the level of response preparedness of the Network is adequately maintained.

[1] A contract between EMSA and a vessel owner/operator ensuring the availability of pre-fitted and certified commercial vessels (for example bunker and product tankers) to carry out at-sea oil recovery services following a request for assistance from a coastal State

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

Outcome of Drills and Exercises in 2010

1. The overall outcome of the drills and exercises carried out during 2010, 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.

2. Acceptance drills carried out in 2010 proved that the Agency's decision, based on the experience with the previous contracts, to extend the preparatory phase to 30 June (previously the deadline was 31 March) to be effective. Both vessels contracted at the end of 2009 (*Kontio* and *Sara*) were admitted to the stand-by oil recovery phase of the contract in 2010, without delays.

3. 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.

4. The most common technical deficiencies encountered during quarterly drills in 2010 were related to:
   - Limitations of hydraulic power supply for booms, skimmers and cranes
   - Boom damage
   - Inadequate crane lifting capacity

5. With regard to the crew skills, deployment of the primary set of response equipment (sweeping arms) as well as the secondary set of equipment (boom and skimmer) was always within the standards set by EMSA. However, operation of some complementary equipment such as the slick detection system or laboratory equipment created problems on some occasions due to the lack of skilled personnel.

6. Different levels of reporting of deficiencies occurring during the drills exist between contractors. In 2010, some contractors reported technical failures for each quarterly drill, whilst others reported successful quarterly drills without any technical problems. It is significant that EMSA observers usually provided comments regarding deficiencies observed in the vessel performance during the quarterly drills, while reports submitted by the contractors (except a few who have developed very detailed reports), related to drills not attended by EMSA, were very positive.

7. In order to strengthen the management of the oil pollution response equipment assets, in 2010, EMSA setup the Pollution Asset Management System (PAMS) in close cooperation with contractors. Equipment labelling during the first year of implementation of PAMS project have shown positive results.

8. In 2010, the number of operational exercises undertaken and Member States involved, increased in comparison with previous years. Operational exercises have brought a great deal of practical knowledge to the relevant crews and have improved their skills significantly. The exercises were also very important in strengthening the integration of the EMSA contracted vessels with the marine pollution response mechanisms of the Member States.

9. Notification Exercises carried out in 2010 provided valuable lessons regarding communication between EMSA, MIC[1], EMSA's contractors and Member States during the emergency phase of pollution response. This communication is a very important element of the response chain.

Recommendations

Technical

1. Attention should be given to the requirements regarding the lifting capacity of the skimmer crane during the negotiation phase of the 2011 vessel tenders launched by EMSA. The required lifting capacity (based on the experience up to date) should be at least 1 tonne at the full length of the crane's arm.

2. The feasibility of upgrading the capacity of existing cranes should be explored in cooperation with the contractors and equipment manufacturers.

Operational

3. The contractors should ensure that personnel have the skills and training to operate slick detection systems and laboratory equipment. Any crew exchange should take into account needs of the pollution response services provided by the contractor. There is a need to ensure that slick detection systems and laboratory equipment on board EMSA vessels are operational and skilfully operated. Contractors should pay more attention to ensuring that sufficient training is given.

4. It could be beneficial to agree the aim of the operational exercise and the evaluation method, at the stage of the exercise preparation, especially, when EMSA is invited to joint exercises.

Administrative

5. As the opportunity for EMSA vessels to participate in operational exercises arranged by Member States is limited, the growing EMSA Vessels Network may face a shortage of exercises. Arranging EMSA exercises in 2011 should be considered, subject to budget availability.

6. There is a need to improve the drill and exercise reporting by contractors. The contractors should be trained in drill and exercise reporting.

7. It could be beneficial to develop Guidelines with regard to EMSA procedures for mobilisation of vessels and experts for MS; and to distribute these Guidelines to the relevant counterparts within MS and to the MIC. This could be considered for 2011.

8. All Member States should be encouraged to participate in notification exercises with EMSA vessels and contractors in 2011.

[1]Monitoring and Information Centre (European Commission, DG ECHO)

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 (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 based on the Member States' or the Commission's request.

The Network is based on contractual agreements (Vessel Availability Contracts) 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 undertaking their commercial activities. In the event of an oil spill and following a request for assistance from a Member State or the Commission, the nominated vessel ceases its commercial activities and is transformed into a certified occasional oil recovery vessel within the contractually specified timeframe. Vessels mobilised in such a way provide oil pollution response services to the requesting Member States based on a pre-agreed standard Incident Response Contract (IRC) signed between the Member State and the contractor. The IRC has been developed by EMSA in cooperation with Member States. It addresses all responsibilities, terms and conditions for the provision of the service during an actual incident.

2010 was the fifth year of implementation of the Vessel Availability Contracts for the Stand-by Oil Spill Response Vessels. Contracted services were distributed between significant risk areas in European marine waters.

1.1 Vessels and Areas Covered

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

Lamor Corporation A.B. provides a pool of two bunkering vessels: *OW Aalborg* and *OW Copenhagen.* The vessels are stationed in Copenhagen and Skagen in Denmark. The contract allows both vessels to be mobilised simultaneously. The contract expires on 31 December 2011, without the option of renewal.

Arctia Icebreaking OY provides stand-by oil recovery services 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) during the winter season and in Helsinki for the rest of the year. The contract expires on 14 April 2013 with 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 the boom with a skimmer. The JFE contract, initially signed in 2007, was renewed in 2010 for another 3 year period until 20 April 2014.

Lamor Corporation A.B. provides the bunkering tanker *Bahia Tres* with the equipment stockpile based in Sines, Portugal. The vessel performed stand-by services until 5 July 2010. Based on the contract amendment the *Galp Marine* was replaced by the tanker *Bahia Tres* from 6 July 2010. 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 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 expires on 31 December 2011 with the option to be renewed once, for another three year period, depending on the evaluation of the contractor's performance.

- **The Mediterranean Sea (5 Arrangements)**

Mureoil S.A. initially provided the oil tankers *Bahia Tres* (primary vessel) and *Bahia Uno* (back-up). The equipment stockpile is located in the port of Algeciras, Spain. As from 1 July the *Bahia Tres,* with the agreement of the Agency, ceased her service in the Mediterranean Sea and was relocated to the Atlantic Coast. *Bahia Uno* after some technical modifications continues to provide the contracted services. 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 signed in 2007, was renewed in 2010 for another three year period until 15 August 2014.

Tankship Management Ltd also provides a bunkering tanker *Mistra Bay* based in Malta. The contract expires on 31 December 2011, without the option of renewal.

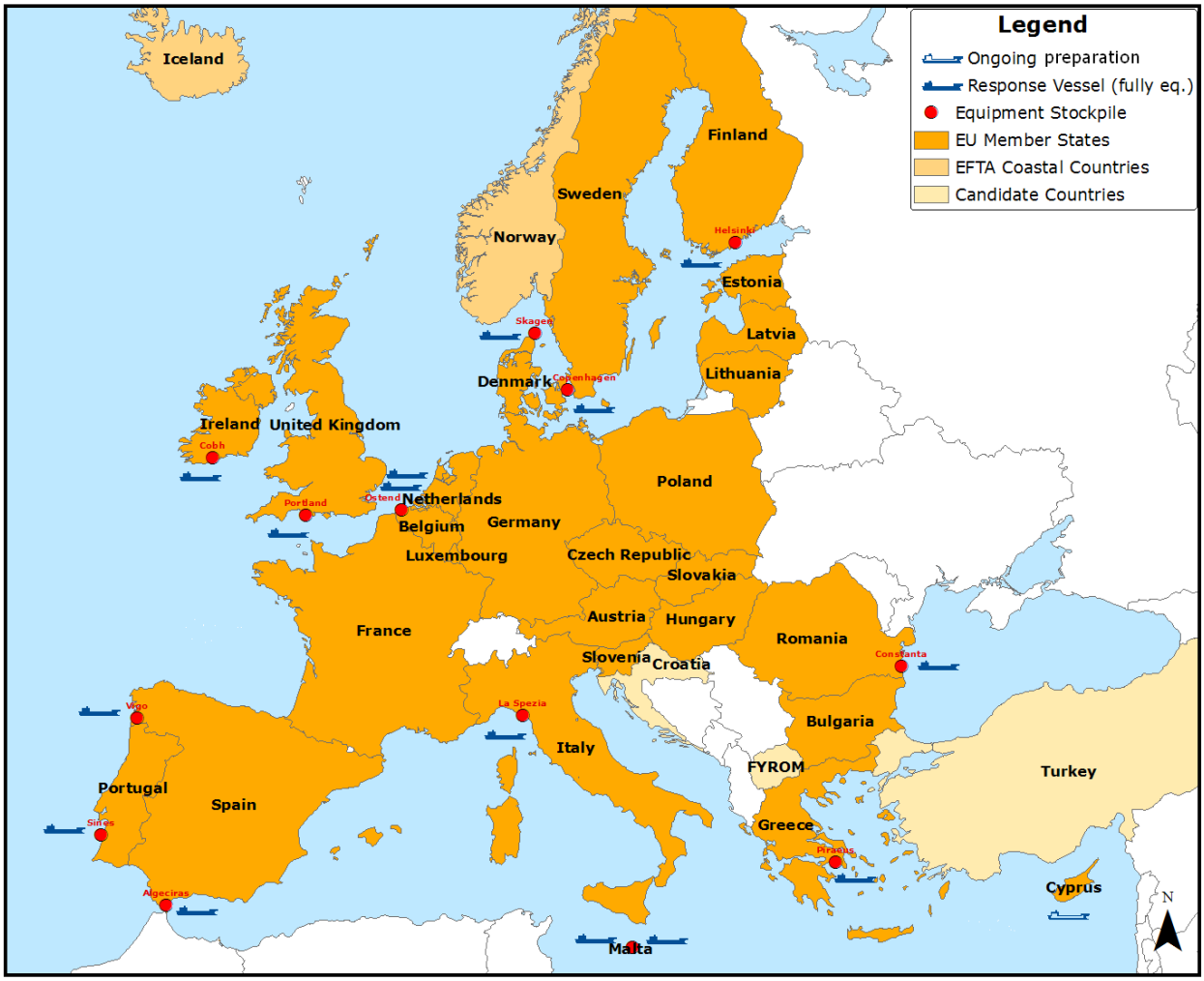
Falzon Station Services Ltd provides the bunkering tanker *Santa Maria,* stationed in Malta. The contract expires on 1 March 2013, without the option of renewal.

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.

Additionally, the tanker *Alexandria,* contracted in November 2010 from Petronav for the Mediterranean Sea, started the preparatory phase of the contract. The vessel is expected to be operational in June 2011.

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

Grup Servicii Petroliere S.A. provides the supply vessel *GSP Orion,* which is stationed in Constanta, Romania. The contract expires on 31 December 2011 with possibility to be renewed once, for another three year period, depending on the evaluation of the contractor's performance.



Map 1: Distribution of the Network of EMSA contracted vessels within European Waters at the end of 2010

By the end of 2010, the Network comprised 15 fully (and 1 partially) equipped vessels ready for immediate mobilisation, and one back-up vessel.

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 are dependent on the skills of the vessel's crew to operate and maintain the equipment.

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.

Drills

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

Acceptance Drill

This drill is carried out at the end of the preparatory phase of the contract. The purpose of this 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 the assessment of the vessel, oil pollution response equipment and the 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.

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 the notification exercise is to verify the performance of the agreed emergency and notification procedure and lines of communication for reporting, requesting and

providing assistance to Member States. The oil pollution response equipment and the Vessel will not be 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

Its purpose 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

Its purpose is to test the contractor's contingency arrangements. This type of exercise involves the equipment only and is applicable only for 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 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 could 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, aircraft 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.

1.3 Number of Drills and Exercises Carried out in 2010

The number of drills and exercises is growing every year due to the expansion of the Vessels Network. In 2010, there were 80 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 2010

Acceptance Drills: Newly Contracted Vessels	Acceptance Drills: upgrade of the vessel response capacity	Quarterly Drills	Operational Exercises	Notification Exercises
4	**4**	**51**	**9**	**12**

2. DRILLS PERFORMED IN 2010

2.1 Acceptance Drills

In 2010, 4 pre-fitted and equipped vessels were tested and accepted into the stand-by phase of the contract.

Two Acceptance Drills were conducted for vessels contracted in 2009 (Baltic Sea – the icebreaker *Kontio* and Atlantic Coast and Channel – the tanker *Sara*). The agreed deadline date for the completion of the preparatory phase was 30 June 2010. The Acceptance Drills for both vessels were conducted in the middle of July 2010 in accordance with the contractual obligation of 14 days after receipt of the Completion Report.

Three existing contracts (Mediterranean – Environmental Protection Engineering S.A. and Mureloil S.A; Atlantic Coast – Lamor Corporation S.A.) changed their vessel configurations. As a result of changes:

1) The supply vessel *Aegis* was added as a back-up vessel for the *Aktea OSRV,* in the Mediterranean Sea.

2) The tanker *Bahia Tres* replaced the bunker tanker *Galp Marine* in the Atlantic Coast.

In order to be admitted to the stand-by service these two vessels had to undergo a preparatory phase of the contract and an acceptance drill.

The table below summarises the vessel acceptance drills carried out in 2010.

Table 2: Vessel Acceptance Drills carried out in 2010

Area / Contractor	Vessel/ Date	Outcome of the drill	Comment
Baltic Sea Arctia Icebreaking Ltd	*Kontio* 13-14/07/10	The vessel was accepted conditionally. The "conditional" Acceptance Note was issued on 19/07/10, effective from 14 /07/10. The contractor was obliged to provide a solution for equipment storage during the winter season before 30/09/10. Conditions were fulfilled. The vessel was accepted unconditionally on 15/10/10.	The vessel was contracted in 2009. Preparatory phase was scheduled until 30/06/10.
Atlantic Coast Aegean Bunkers at Sea NV	*Sara* 14-15/07/10	The vessel was accepted conditionally. The "conditional" Acceptance Note was issued on on 21/07/10, effective from 15/07/10. The contractor was obliged to: -identify and solve problems regarding the hydraulic pressure delivered by the vessel system to the oil spill response equipment; -conduct pumping tests during the Quarterly Drill scheduled for 3rd Quarter of 2010. Conditions were fulfilled. The vessel was accepted unconditionally on 29/09/10.	The vessel was contracted in 2009. Preparatory phase was scheduled until 30/06/10.
Mediterranean Sea Environmental Protection Engineering S.A.	*Aegis* 07/06/10	The vessel was initially not accepted due to: -missing pre-fittings on the deck to install the equipment; -missing tank heating capacity; -missing EMSA logo on the vessel's superstructure. The contractor rectified all discrepancies (verified on the basis of documents provided by the Contractor). The unconditional Acceptance Note was issued on 29/07/10, effective from 19/07/10.	The vessel was added to the EPE (2008) contract in order to provide back-up for the Aktea OSRV.
Atlantic Coast Lamor Corporation A.B.	*Bahia Tres* 05/07/10	The vessel was accepted conditionally. The "conditional" Acceptance Note was issued on 13/07/10, effective from 06/07/10. The contractor was obliged to: -identify a technical solution to operate the skimmer using the portside sweeping arm crane; -arrange training on the Seadarq system for the navigational officers, the Oil Spill Coordinator and any personnel who might need to be familiar with the system; -submit a final Completion Report taking in consideration all the above mentioned remarks. Conditions were fulfilled. The vessel was accepted unconditionally on 10/12/10 effective from 06/07/10.	*Bahia Tres* (Mureloil) was relocated to the Atlantic Coast to replace *Galp Marine* (Lamor).
N° of Vessel Acceptance Drills in 2010	**4**		

In addition there were four acceptance drills for the vessel response capacity upgrade projects (installation of the multi skimmers on board *GSP Orion* and *Ria de Vigo,* upgrade of the skimmer on board the *Aktea OSRV*, and upgrade of the *Bahia Uno* response capacity). The *Bahia Uno* (a replacement vessel for the *Bahia Tres*), in order to be able to provide the services at the appropriate level, had to complete the response capacity upgrade. The acceptance drills for the vessel response capacity upgrade were carried out in conjunction with the regular quarterly drills.

Table 3: "Capacity Upgrade" Acceptance Drills

Area / Contractor	Vessel/ Date	Project	Outcome
Atlantic Coast Remolcadores Nosa Terra S.A.	*Ria de Vigo* 02/06/10	Installation of a multi-skimmer	Accepted
Black Sea Grup Servicii Petroliere S.A.	*GSP Orion* 22/06/10	Installation of a multi-skimmer	Accepted
Mediterranean Sea Environmental Protection Engineering S.A.	*Aktea OSRV* 25/11/10	Installation of thrusters on the skimmer	Not accepted. To be continued in 2011
Mediterranean Sea **Mureloil S.A.**	*Bahia Uno* *30/11/10*	Technical upgrade of the vessel capabilities (heating, safety, communication, pumping)	Accepted
N° of the "Capacity Upgrade" Acceptance Drills	**4**		

2.1.1 Outcome of the 2010 Acceptance Drills

During the acceptance drills, the performance of the crew and the technical aspects of the installed equipment are observed and evaluated by EMSA officials.

The evaluation is performed in line with the method stipulated in the Guidelines on Conducting Drills and Exercises for EMSA Contracted Vessels and in accordance with the technical specification checklist developed by EMSA. In 2010, a revised acceptance drill checklist was used in order to improve the verification of the newly contracted vessels.

General Findings

It should be highlighted that the preparatory phase of the contracts signed in 2009 was completed successfully without the level of delays which were observed in previous years.

The Agency's decision, based on the experience with the previous contracts, to extend the preparatory phase to 30 June proved to be effective. Both vessels contracted in 2009

(*Kontio* and *Sara*) were admitted to the stand-by oil recovery services according to the schedule, without significant delay affecting the contracted service.

Regarding the vessels relocated or joining the EMSA Vessel Network as a result of a change to the contract arrangement (*Bahia Tres* and *Aegis*), it is important to note that problems experienced by the contractors during the preparatory phase did not affect the contracted services. Amendments changing the contracted arrangement did not enter into force until the *Aegis* and *Bahia Tres* were accepted. The contracted services continued, based on the "original" contract in the interim.

In a similar manner, delays in the "capacity upgrade" projects did not affect the performance of the contracted services. The major project of the multi-skimmer installation was completed successfully in 2010. The upgrade of the skimmer on board the *Aktea OSRV* is in progress and will be completed at the beginning of 2011.

2.2 Quarterly Drills

In accordance with the Vessel Availability Contract, each contractor is obliged to perform drills, usually, on a quarterly basis.

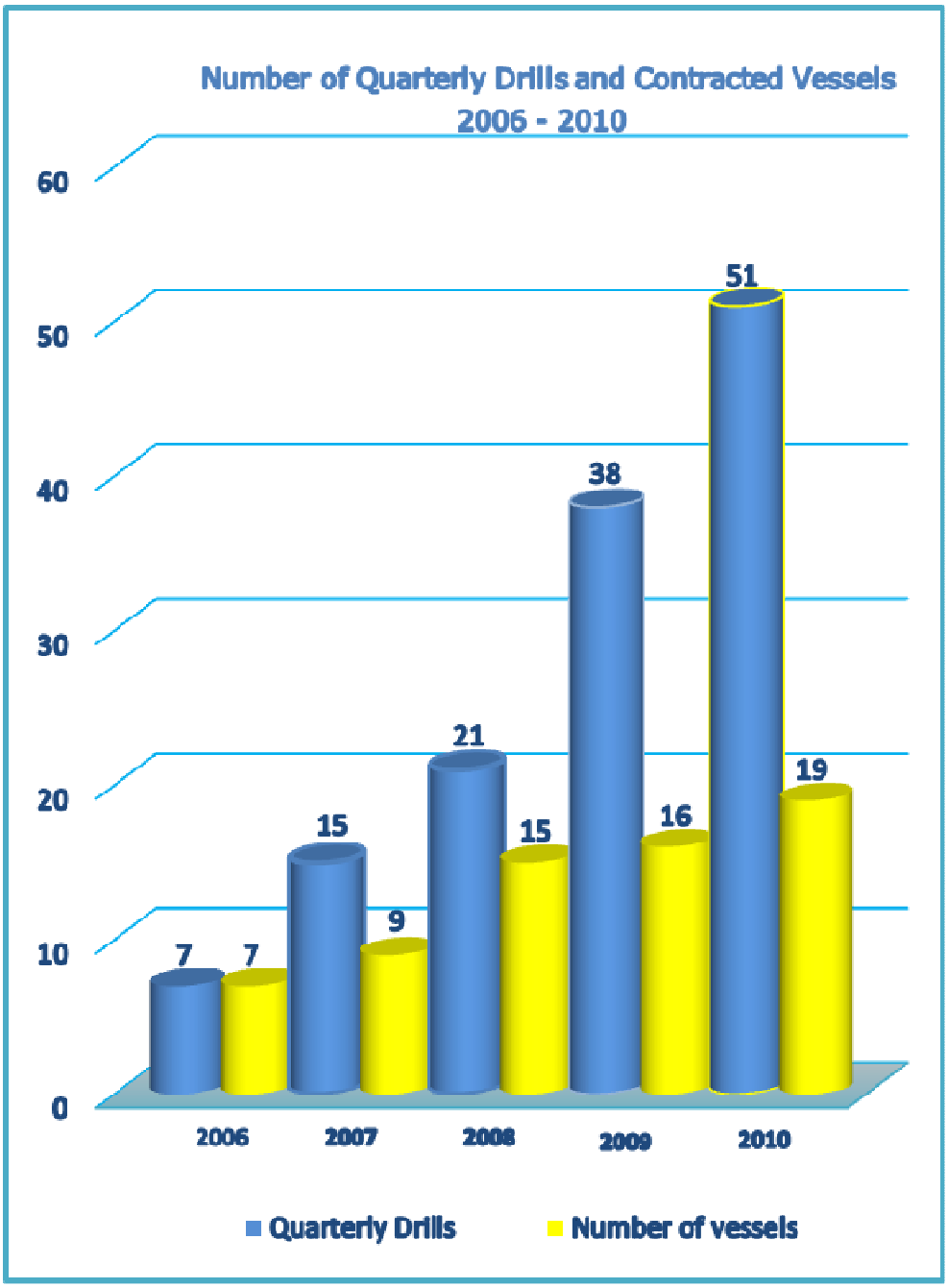
The purpose of the quarterly oil pollution response drill is to verify the contracted service and to demonstrate the performance of the vessel, crew and equipment is to the level required by the contract. In particular, the contractor is obliged to confirm the appropriate level of the:

- Equipment operating skills of the vessel's crew/specialised personnel brought on board;
- Captain's skills in manoeuvring the vessel with equipment deployed;
- Contractor's oil spill response coordinator skills in pollution response coordination;
- Operational condition of the vessel, crew and equipment.

The quarterly drills are evaluated by EMSA. The evaluation is conducted either on the basis of observations by the Agency's officers present on board or on the basis of the contractor's report and additional evidence, such as pictures and video provided by the contractor, if the drill is not attended by the Agency. Drill and Exercise evaluation criteria are provided in the "Guidelines on Conducting Drills and Exercises for the EMSA Contracted Vessels". A positive evaluation triggers stage-payments and has an impact on the contract renewal.

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 2006-2010 is shown in the chart below.

Chart 1.



In 2010 EMSA contracted vessels performed 51 quarterly drills of which 16 (31%) were attended by EMSA.

The quarterly drills carried out in 2010 are summarised in Tables 4 and 5 below.

Table 4: Quarterly drills performed in 2010 (North & West Europe)

Area/Contractor	Vessel	N°	Date	Comments
Baltic Sea Lamor Corporation A.B.	*OW Aalborg*	1	03/03/10	4 drills required annually. All drills accepted. 2 drills were attended by EMSA.
	OW Copenhagen	2	20/05/10	
	OW Copenhagen	3	21/08/10	
	OW Aalborg	4	07/10/10	
Arctia Icebreaking Ltd	*Kontio*	3	15/09/10	2 drills required in 2010. The acceptance drill was carried out on 14/07/20. All drills accepted. 1 drill was attended by EMSA.
		4	20/10/10	
North Sea DC Industrial Ltd	*DC Vlaanderen*	1	18/02/10	4 drills required annually. All drills accepted. 1 drill was attended by EMSA.
	Interballast 3	2	23/06/10	
	DC Vlaanderen	3	23/06/10	
	Interballast 3	4	03/11/10	
Atlantic Coast James Fisher Everard Ltd	*Mersey Fisher*	1	02/03/10	2 drills per vessel annually are required (6 in total). All drills accepted. 2 drills were attended by EMSA. Galway Fisher – 3 drills Mersey Fisher – 2 drills Forth fisher – 1 drill.
	Galway Fisher	2	19/04/10	
	Forth Fisher	3	19/06/10	
	Mersey Fisher	4	28/08/10	
	Galway Fisher	5	17/09/10	
	Galway Fisher	6	27/10/10	
Lamor Corporation A.B.	*Galp Marine*	1	22/04/10	4 drills required annually. All drills accepted. The *Galp Marine* was replaced with the *Bahia Tres* from 06/07/2010. 1 drill was attended by EMSA.
	Galp Marine	2	03/06/10	
	Bahia Tres	3	30/09/10	
	Bahia Tres	4	13/10/10	
Aegean Bunkers at Sea NV	*Sara*	3	08/09/10	2 drills required in 2010. All drills accepted. 2 drills were attended by EMSA.
		4	24/11/10	
Remolcadores Nosa Terra S.A.	*Ria de Vigo*	1	04/03/10	4 drills required. All drills accepted. 2 drills were attended by EMSA.
		2	22/06/10	
		3	22/09/10	
		4	16/11/10	

Table 5: Quarterly drills performed in 2010 (South & East Europe)

Area/Contractor	Vessel	N°	Date	Comments
Mediterranean Sea Mureoil S.A.	*Bahia Tres*	1	04/03/10	4 drills required annually. All drills accepted. 1 drill was attended by EMSA.
	Bahia Uno	2	29/06/10	
		3	15/09/10	
		4	17/11/10	
Tankship Management Ltd	*Salina Bay*	1	25/03/10	4 drills required annually. All drills accepted. 1 drill was attended by EMSA.
		2	29/06/10	
		3	03/09/10	
		4	18/10/10	
Tankship Management Ltd	*Mistra Bay*	1	17/03/10	4 drills required annually. All drills accepted. 1 drill was attended by EMSA.
		2	28/04/10	
		3	15/09/10	
		4	17/11/10	
Falzon Station Services Ltd	*Santa Maria*	1	09/03/10	4 drills required annually. All drills accepted. 1 drill was attended by EMSA.
		2	26/05/10	
		3	18/10/10	
		4	28/11/10	
Environmental Protection Engineering S.A.	*Aktea OSRV*	1	28/01/10	4 drills required annually. All drills accepted. 1 drill was attended by EMSA
		2	05/06/10	
		3	03/09/10	
		4	24/11/10	
	Aegis	5	25/11/10	In 2010, 1 drill was required. 1 drill was attended by EMSA.
Black Sea Grup Servicii Petroliere S.A.	*GSP Orion*	1	10/03/10	4 drills required annually. All drills accepted. 1 drill was attended by EMSA.
		2	02/06/10	
		3	03/09/10	
		4	28/11/10	
Total:			**51**	All drills passed verification.

2.2.1 Quarterly Drill Evaluation

Evaluation of the quarterly drills performed in 2010 is based on the reports submitted by EMSA observers and/or the contractors.

General Findings

In general, the outcome of the quarterly drills in 2010 was positive. There were no cases where the drill had to be repeated due to substantial failure. The crew and equipment performance were always within the standards required by the "Guidelines on Conducting Drills and Exercises for the EMSA Contracted Vessels".

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. All the drills were considered as acceptable.

Of the 51 quarterly drills, 29 resulted in a report where no technical or crew skills discrepancies were noted. Reports from the remaining 22 drills show a variety of technical and operational problems to be solved.

The analysis of the reports showed that the most common deficiencies encountered during quarterly drills in 2010 were as follows:

Technical deficiencies:

1) Hydraulic power supply for booms, skimmers and cranes
On several occasions, leaks from the hydraulic system were noted as well as problems with proper connection of the hydraulic hoses. This type of technical malfunction occurred on board different vessels and with different types of equipment.

2) Boom damage
Damage (punctures, tears, leaking air valves) usually happened during boom deployment and was caused for different reasons e.g. adverse weather conditions, limited deployment skill of the crew, limited experience of the crew of the boom towing boat, on deck obstacles, etc.
Several cases of boom damage were observed on board different vessels involving different types of booms.

3) Crane lifting capacity
Two contractors reported difficulties related to the lifting capacity of the crane belonging to the skimmer set. It was observed that the arm of the crane bends under the weight of the skimmer when fully extended. It does not appear that the crane would be strong enough to recover a skimmer full of oil onto a rolling vessel during a "real" operation.

There was also one case of crane winch damage reported. The reporting contractor questioned the robustness of the equipment in the environment in which it is supposed to operate.

Operational deficiencies:

1) Crew skills in equipment operation
No significant deficiencies were observed regarding deployment of the primary (sweeping arms) and secondary (boom and skimmer) response systems. Crew skills in deployment of this equipment were always within the standards set by EMSA. However, operation of some complementary equipment such as the slick detection system or laboratory equipment created problems on some occasions due to the lack of skilled personnel. The crews changed periodically and not all of the crews included personnel with adequate skills related to the response equipment operation. The best results during drills and exercises were achieved by those contractors, who do not have a high turnover of

personnel. Personnel of these contractors repeat the training and gather experience and knowledge and thus improve their performance.

Way forward

The proposed follow up actions in 2011 regarding the above listed deficiencies are as follows:

Technical:

1) Hydraulic power supply for booms skimmers and cranes
EMSA contractors should be requested to:
- Mark (with colours) the couplings and hoses of the hydraulic system to allow the crew to connect them quickly and properly.
- Thoroughly check the hydraulic system before each drill and to test it at maximum pressure.

2) Boom damage
EMSA observers and the contractors' spill response coordinators should be instructed to focus during the drill on possible risks of the boom damage (crew deployment skills, vessel pre-fittings, design of equipment etc.). Technical and organisational solutions to eliminate identified risks should be implemented immediately.

3) Crane lifting capacity
The requirements regarding the lifting capacity of the skimmer cranes should be taken into consideration during the negotiation phase of the 2011tenders and vessel tenders in future. The recommended lifting capacity (based on the experience up to date) should be at least 1 tonne at the full length of the crane's arm.
The possibility of upgrading existing cranes which were problematic during drills and exercises should be explored.

Operational:

1) Crew skills in equipment operation
The contractors should be reminded that they are obliged to ensure adequately skilled and trained personnel to operate the slick detection system and laboratory equipment. Any crew change should take into account the needs of the pollution response services provided by the contractor.

There is a need for a systemic solution to ensure that the slick detection systems and laboratory equipment on board EMSA vessels are operational and skilfully operated. The contractor should put appropriate focus on the necessary crew training

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 the EMSA's contracted vessels to develop and train their pollution response skills is limited. Therefore, it must be stressed 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 to EMSA a quarterly drill report. 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
During 2010 31% of quarterly drills were observed and evaluated by EMSA staff. The remainder (69%) were self-evaluated by the contractors.
Different levels of deficiency reporting exist between contractors. For example one of the contractors reported technical failures experienced during each quarterly drill, whilst others reported successful quarterly drills without any technical problems.

It is significant that the EMSA observers usually provided comments on problems observed regarding the vessel performance during the quarterly drills, and reported deficiencies while reports submitted by the contractors (except a few who have developed very detailed reports) for "non-attended" drills were very positive.

Way forward
It would be beneficial to train contractors in filling in the report template. EMSA should also not hesitate to reject inadequate reports. Training on filling in reports in could be provided to contractors during a contractor's Workshop or during extended drills.

2.2.3 Drill and Exercise Attendance Guidelines

The direct monitoring and observation of the Stand-by Oil Spill Response Vessels' performance carried out by EMSA during drills and exercises is an indispensable tool 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 the 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 (1 exercise and 1 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 templates.

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

General Findings

In 2009 34% of quarterly drills were attended by the EMSA observers. In 2010, the attendance rate was 31%. In addition, 100% of exercises were attended. Overall attendance of drills and exercises by the EMSA staff was in accordance with the recommendations of the "Drill and Exercise Attendance Guidelines".

Way forward

After two years of implementation i.e. in 2012, the Guidelines should be reviewed to ensure that oversight of quarterly drills and exercises is adequate.

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.
In order to strengthen the management and control of the oil pollution response equipment assets, in 2010, the "Pollution Asset Management System" (PAMS) was set up. PAMS has been carried out in close cooperation with contractors.

Equipment labels

Implementing the PAMS was completed by the most of the contractors during 2010. One contractor completed the project in January 2011. The system facilitates equipment inventories carried out during quarterly drills by the EMSA staff.
Experience from the first year of the PAMS implementation was positive.
Accordingly, this project will be extended to new VACs signed from 2010 onwards.

3. EXERCISES CARRIED OUT IN 2010

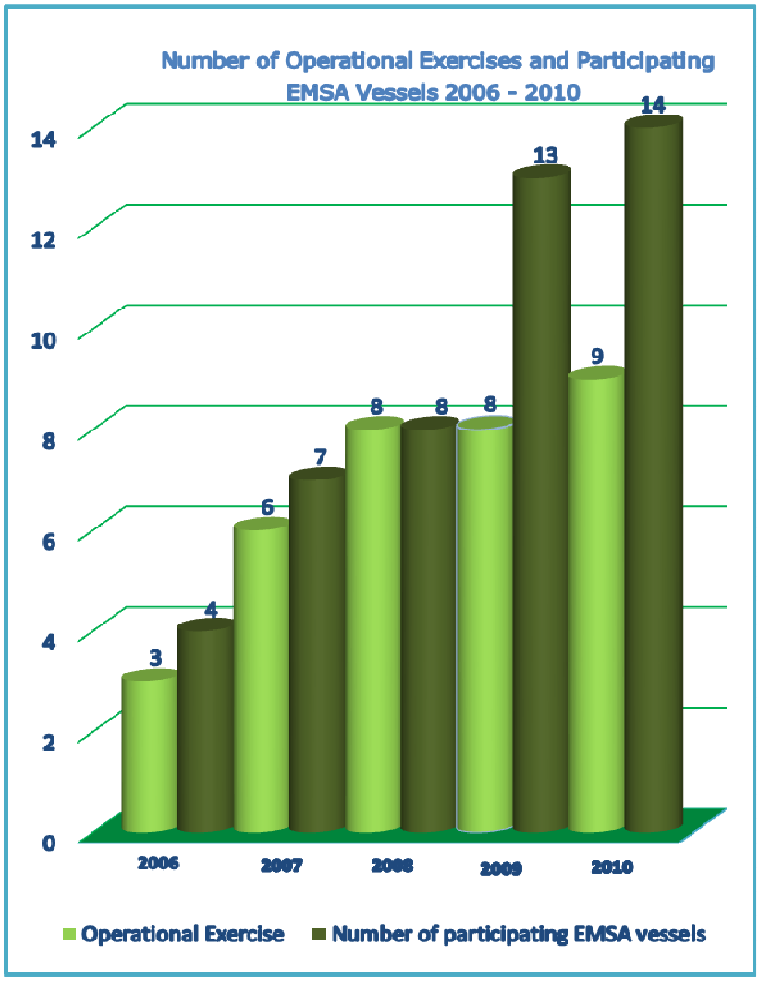
In 2010, EMSA contracted vessels participated in 9 (at-sea) operational exercises. 12 different EMSA vessels were involved (sometimes in more than one exercise) in these exercises spending in total 14 vessel-days on these activities. 5 exercises were arranged by Member States at the national level, 3 were arranged within the framework of the Regional Agreements and 1 exercise was organised by EMSA. In total, EMSA vessels interacted with 20 different counterparts (Member States and Russia) during the 9 Operational Exercises.
In addition, 12 notification desk top exercises were performed by the Agency with the aim of signing altogether 16 Incident Response Contracts with 12 Member States.

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 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 2006-2010 is shown in the chart below.

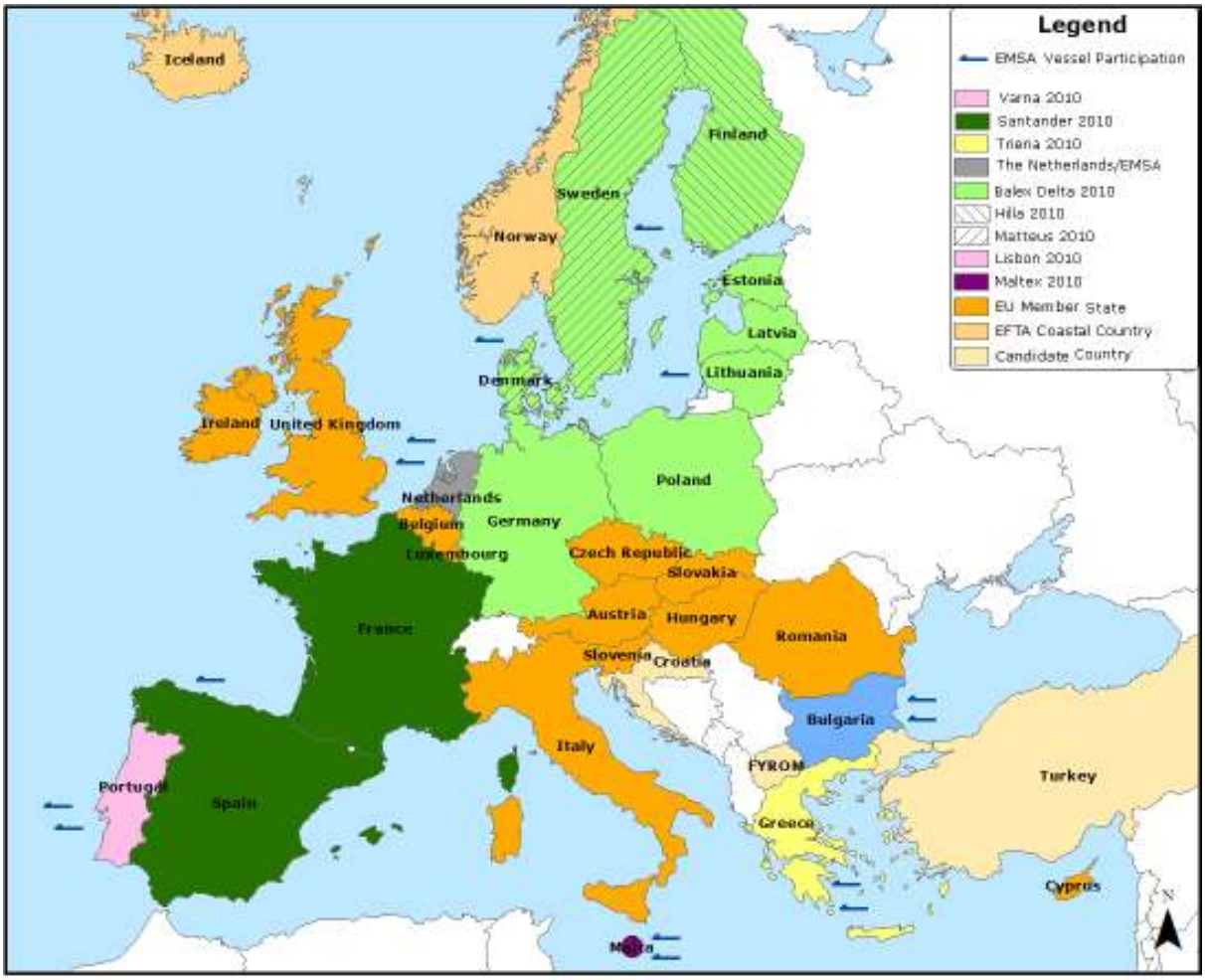
Chart 2.



The number of the 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 2010, EMSA contracted vessels participated in 9 national and regional exercises at-sea. The geographical spread of operational exercises in Europe with EMSA vessel participation is shown in the map below.

Map 2: Operational Exercises 2010



An overview each of the operational exercises carried out in 2010 is in Annex 1 to this Report.

The table below shows a summary of the operational exercises in 2010.

Table 7: Operational Exercises carried out in 2010

Exercise Name	Date, Location	Participating Parties	EMSA vessels	Comments
VARNA 2010	10/03/10 Varna, Bulgaria	Bulgaria, EMSA	*GSP Orion* *Santa Maria*	Bulgarian national exercise
SANTANDER 2010	25-27/05/10 Santander, Spain	France, Spain, EMSA	*Ria de Vigo*	Cantabria Territorial Contingency Plan, Spanish Contingency Plan for Oil Pollution Response, and Biscay Plan exercise
TRIENA 2010	08/06/10 Piraeus, Greece	Greece, EMSA	*Mistra Bay* *Aktea OSRV*	Greek national exercise
The Netherlands-EMSA	24/06/10 Zeebrugge, Belgium	The Netherlands, EMSA	*DC Vlaanderen* *Interballast III*	Dutch national exercise
BALEX DELTA 2010	23-24/08/10 Klaipeda, Lithuania	Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Sweden, EMSA	*OW Copenhagen*	HELCOM annual exercise
HILLA 2010	16/09/10 Helsinki, Finland	Finland, EMSA	*Kontio*	Finnish national exercise
MATTEUS 2010	21-22/09/10 Gothenburg, Sweden	Denmark, Norway, Sweden, EMSA	*OW Aalborg*	Copenhagen Agreement exercise
LISBON 2010	14/10/10 Lisbon, Portugal	Portugal, EMSA	*Ria de Vigo* *Bahia Tres*	EMSA exercise
MALTEX 2010	19/10/10 Malta	Malta, EMSA	*Salina Bay* *Santa Maria*	Maltese national exercise
9 operational exercises	**14 vessel/days**	**20 EMSA counter parts involved**	**14 vessels**	**6 National exercises** **3 Regional Agreement exercises**

General Findings

In 2010, Agency staff attended all operational exercises that involved the participation of EMSA contracted vessels. In general, results of these exercises showed that EMSA vessels integrated well in the pollution response mechanisms of Member States and Regional Agreements. In all cases, the performance of the vessels was evaluated positively both by organisers and the Agency.

It is worth noting the geographical spread of such operational exercises. Exercises with Portugal, Malta, France and Spain (both in Mediterranean Sea and Atlantic Coast), Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, and Sweden (BALEX DELTA in the Baltic Sea) are now annual events. Cooperation with Greece and Romania started with the first at-sea exercises respectively in 2007 and 2009, and there is the opportunity for further development. In 2010, EMSA's exercise partners also included Bulgaria (VARNA 2010) the Netherlands (Joint EMSA – the Netherlands exercise 2010) and Greece (TRIENA 2010).

2010 was also the first year when the concept of an EMSA organised exercise was implemented.
LISBON 2010 was the first exercise fully organised and coordinated by the Agency.

However it must be noted that much more benefit could be achieved from these exercises if Member States were to apply a more in-depth exercise evaluation system.

Way forward

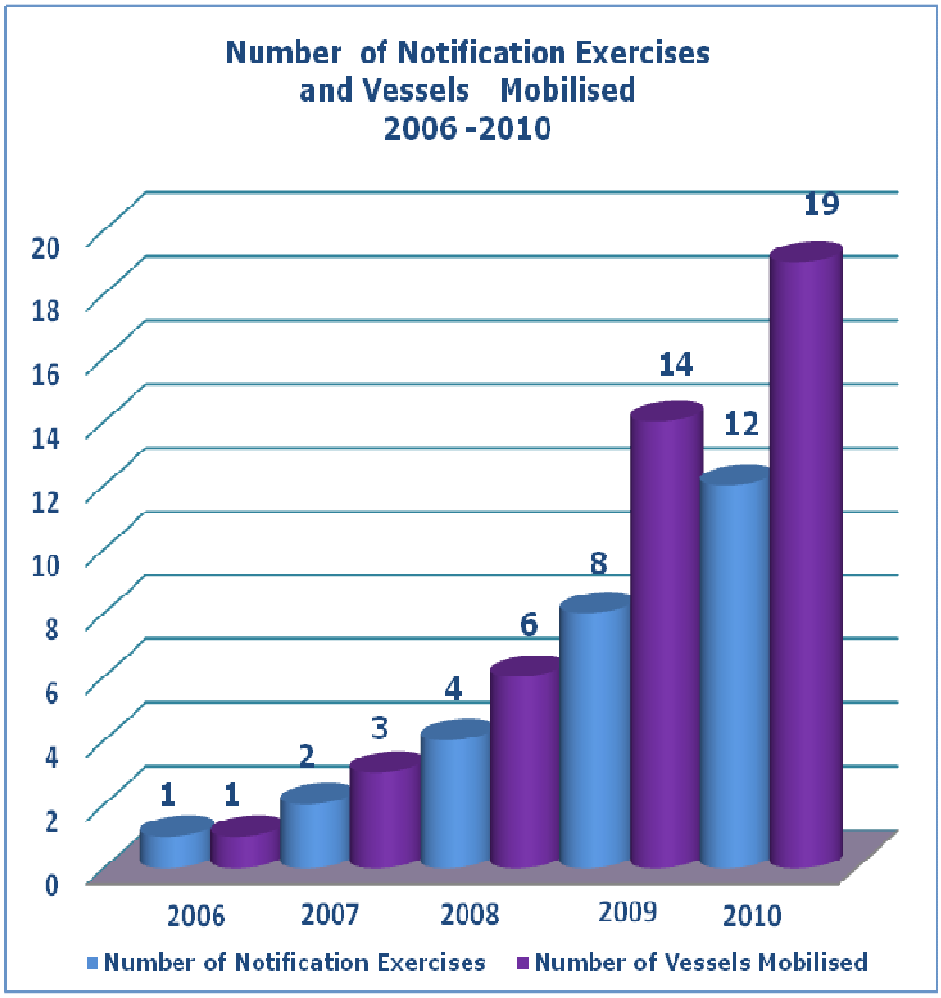
While taking part in meetings of the Regional Agreements' technical groups (e.g. Helcom Response, OTSOPA) EMSA representatives should raise the issue of exercise evaluation (as has been done during previous meetings) and initiate work towards improving the evaluation methods. It could also be beneficial to agree the exercise aim and evaluation method at the stage of the exercise preparation, especially when EMSA is invited to bilateral exercises.

As the opportunity for EMSA vessels to participate in operational exercises arranged by Member States is limited, the growing EMSA Vessels Network may face the shortage of exercises. Arranging EMSA exercises in 2011 should be considered.

3.2 Notification Exercises

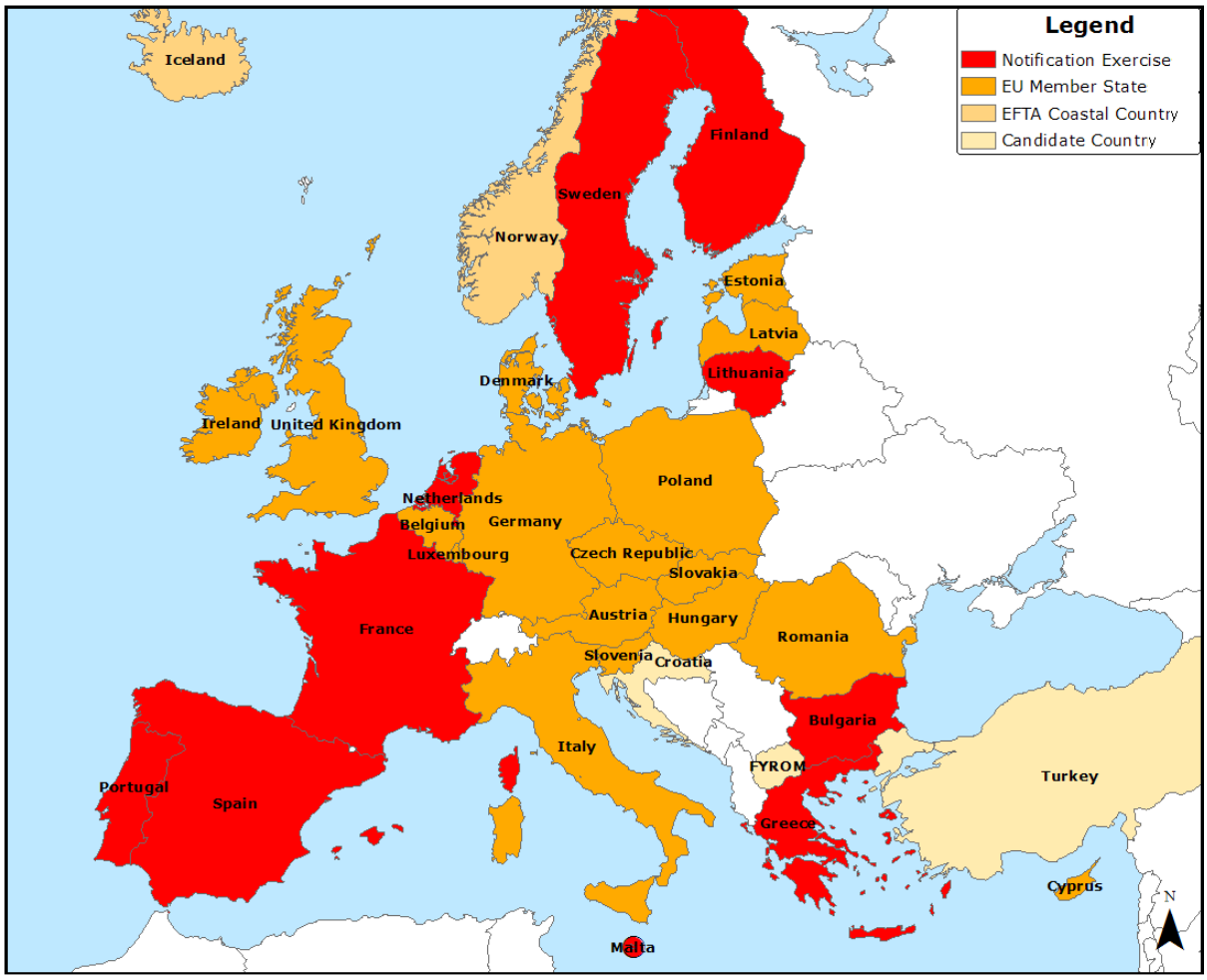
Although "stand alone" notification exercises are carried out, notification exercises are normally conducted prior to an operational exercise and may be initiated either by EMSA or by a Member State. The aim of these exercises is to test and implement agreed procedures and lines of communication for reporting incidents, requesting and providing assistance. Notification exercises usually involve EMSA, the contractor, one or more Member State(s) and the MIC.

Chart 3.



In 2010, EMSA participated in 12 notification exercises (with 19 EMSA vessels involved). The geographical spread of the notification exercises in 2010 is shown in the map below.

Map 3: Notification Exercises Map 2010



Findings

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. The "clock" starts at the moment the formal assistance request, sent via the MIC is received by EMSA. Taking into account such variables 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.

In 2010, only five out of eleven notification exercises related to vessel mobilisation were completed within this time limit. In other cases, the time needed to sign the IRC was between seven and ten hours, and in the case of one contractor, seventeen hours. In comparison with the exercises performed in 2009, in which all IRCs were signed within 6 hours, a decrease in performance can be noted.

A misunderstanding regarding the vessel mobilisation procedure was noted. The MIC expressed some concerns about the way EMSA notifies the Member State of the available assistance. Normally, the Agency sends information on the available assistance directly to the Member State with a copy to the MIC. According to the MIC, the offer of assistance should be sent by EMSA firstly to the MIC and then forwarded by the MIC to

the Member State. The Agency does not share the MIC view on this issue. Based on the experience up to date, the procedure applied by EMSA is more efficient.

Way forward

It could be beneficial to develop Guidelines with regard to EMSA procedures for mobilisation of vessels and experts, for the MS; and to distribute these Guidelines to the relevant counterparts within MS and to the MIC in order to support timely signature of IRCs. This should be considered for 2011.

The EMSA vessel mobilisation procedure should be discussed and agreed formally with MIC. Implementation of the Common Emergency Communication and Information System (CECIS) would eliminate need to use MIC as an intermediary between EMSA and Member States requesting pollution response assistance. Nevertheless, previous procedures would have to be retained for those States which have not implemented CECIS.

Notification exercises carried out in 2010 provided valuable lessons regarding communication between EMSA, EMSA's contractors and Member States during the emergency phase of pollution response. This communication is a very important element of the response chain. All Member States should be encouraged to participate in the notification exercises with EMSA vessels and contractors in 2011.

4. CONCLUSIONS

Drill and Exercise Evaluation

1) The outcome of the drills and exercises carried out during 2010 demonstrated that the Stand-by Oil Spill Response Network is operated efficiently and in line with EMSA expectations. Overall, the Network achieved an acceptable level of preparedness for oil pollution response. All quarterly drills and operational exercises were assessed positively.

2) The evaluation of drills and exercises provided a number of lessons learned with regard to the technical condition of the equipment, the skills of the crew in its operation, and emergency mobilisation procedures. Several potential improvements were identified.

Potential Improvements

Technical

1. Attention should be given to the requirements regarding the lifting capacity of the skimmer crane during the negotiation phase of the 2011 vessel tenders launched by EMSA. The required lifting capacity (based on the experience up to date) should be at least 1 tonne at the full length of the crane's arm.

2. The feasibility of upgrading the capacity of existing cranes should be explored in cooperation with the contractors and equipment manufacturers.

Operational

3. The contractors should ensure that personnel have the skills and training to operate slick detection systems and laboratory equipment. Any crew exchange should take into account needs of the pollution response services provided by the contractor. There is a need to ensure that slick detection systems and laboratory equipment on board EMSA vessels are operational and skilfully operated. Contractors should pay more attention to ensuring that sufficient training is given.

4. It could be beneficial to agree the aim of the operational exercise and the evaluation method, at the stage of the exercise preparation, especially, when EMSA is invited to joint exercises.

Administrative

5. As the opportunity for EMSA vessels to participate in operational exercises arranged by Member States is limited, the growing EMSA Vessels Network may face a shortage of exercises. Arranging EMSA exercises in 2011 should be considered, subject to budget availability.

6. There is a need to improve the drill and exercise reporting by contractors. The contractors should be trained in drill and exercise reporting.

7. It could be beneficial to develop Guidelines with regard to EMSA procedures for mobilisation of vessels and experts for MS; and to distribute these Guidelines to the relevant counterparts within MS and to the MIC. This could be considered for 2011.

8. All Member States should be encouraged to participate in notification exercises with EMSA vessels and contractors in 2011.

European Maritime Safety Agency

Network of Stand-by Oil Spill Response Vessels: Drills and Exercises Annual Report 2010

ANNEX 1: OVERVIEW OF THE OPERATIONAL EXERCISES 2010

CONTENT

Exercise VARNA 2010

This joint oil spill response exercise, held on 10 March 2010, was the first such exercise undertaken between Bulgaria and EMSA. It was a good opportunity to test the co-ordination and cooperation among EMSA's contracted vessels and the Bulgarian oil spill response units.

The exercise was designed to address oil pollution response activities in accordance with the National Oil Spill Contingency Plan and, in particular, the process for requesting and receiving international assistance in case of a major oil spill.

Two EMSA vessels participated in the Varna 2010 Exercise: *Santa Maria*, based in Malta (Contractor Falzon), and *GSP Orion*, based in Constanta (Contractor GSP).

An 'open ship' activity was organised on board both EMSA contracted vessels for invited observers and media as well as the interested public. Experts and journalists showed interest in the vessels and oil spill response equipment.

GSP Orion (on the left) and *Santa Maria* simulating oil recovery

There was considerable media interest in the 'open ship' event. A large number of journalists and reporters, representing around 20 of the biggest national Bulgarian TV channels, radio networks and mass circulation newspapers, reported on the exercise activities.

Exercise SANTANDER 2010

The international exercise SANTANDER 2010 was organized by the Spanish Maritime Authority (Dirección General de la Marina Mercante) and took place from 25 to 27 May 2010. The purpose was to test the preparedness of the vessels for oil recovery operations, improve the crew training for the deployment of equipment, and identify problems in the mobilization process to reduce the response time.
Participants in the exercise were:
- Spain, with the vessels *Urania Mella*, *Salvamar Deneb*, *María Metzu* and *Mahón*;
- France with the vessel *Argonaute*;
- EMSA with the oil recovery vessel *Ria de Vigo*;

For the purposes of the exercise, the Spanish authorities launched the National Contingency Plan for Oil Pollution Response, the Cantabria Territorial Contingency Plan and the Biscay Plan.
In advance of the at-sea oil pollution response operations the participating vessels, including the *Ria de Vigo,* were in port at Santander and accessible to invited observers, journalists and interested members of the public. The *Ria de Vigo* visitors benefited from a guided tour of the vessel including a brief presentation of the oil spill response equipment and received informative leaflets on the vessel.
Operations at-sea began on 27 May 2010. The exercise scenario was fully executed and all of the exercise goals were achieved. The EMSA contracted vessel performed well. All instructions given by the On-Scene Commander were followed by the vessel efficiently and in a timely manner. The *Ria de Vigo* fulfilled the role assigned to it by the Spanish Maritime Authority in charge of the exercise, and met the expectations of the Agency.

Argonaute assisted by the tugboat *Mahón*

Ria de Vigo

Exercise TRIENA 2010

The exercise TRIENA 2010 was conducted on 8 June 2010 in Greece. It was organised within the general framework of collaboration between the Hellenic Coastguard Authorities and EMSA, in order to check the adequacy of the existing pollution contingency arrangements on a regional basis (for example, mobilization, communications, decision-making capability, co-ordination, and surveillance of clean-up operations).
EMSA vessels participated in the TRIENA 2010 exercise: *Mistra Bay*, *Aktea* OSRV and its back-up vessel *Aegis*.

500 m boom deployed from the *M/V Aegis*

M/T Mistra Bay, the Coastguard boat and *M/T Aktea OSRV* with the sweeping arms deployed

An 'open ship' event was held on 9 June on board the *Aktea OSRV* for the public and for the participants of the *POSIDONIA 2010 Exhibition* being held at the same time. Detailed information on the EMSA Network of Stand-by Oil Spill Response Vessels and the *Aktea*'s capacities was provided to the public and the media.

Guided tour for the visitors on board *Aktea OSRV*

Joint anti-pollution exercise: The Netherlands - EMSA, 2010

On 24 June 2010 a joint anti-pollution exercise organised between EMSA and Dutch authorities was held in the area 'Vlakte van de Raan', 12 nautical miles North of Zeebrugge, Belgium. The exercise was hosted by the Dutch authorities – Rijkswaterstaat (RWS) – and included the participation of the EMSA contracted hopper-dredgers based in the North Sea: *DC Vlaanderen 3000* and *Interballast III*.

DC Vlaanderen and *Frans Naerebout* manoeuvring to form an open U configuration

DC Vlaanderen and *Frans Naerebout* towing boom

Interballast III with sweeping arms in position for oil collection

The exercise scenario simulated the collision between the tankers *Montego* and *Curzola* close to the border of Belgium and the Netherlands. As a result of the 'accident', the *Montego* suffered significant damages in her hull. As the tanker *Montego* leaked 5,000 tonnes of heavy fuel oil into the sea, the Dutch National Contingency Plan was activated. In parallel, international assistance from EMSA's oil spill response vessels *DC Vlaanderen 3000* and *Interballast III* (through signature of Incident Response Contract between the Netherlands and DC Industrial) was also triggered.

The main goal of the at-sea exercise was to deploy a series of oil booms from the *Interballast III* and form an Open-U configuration with the assistance of the *Frans Naerebout*. The next step was to follow the open boom configuration with the sweeping arms from the *DC Vlaanderen 3000*.

During the exercise, the *DC Vlaanderen 3000* and *Interballast III* fulfilled the role assigned by the Netherlands and also met the expectations of the Agency. The EMSA contracted vessels performed well and the crews were highly motivated.

The exercise scenario was realistic, and the manoeuvring of the hopper-dredgers with their sweeping arms behind the Open-U boom configuration was successfully conducted.

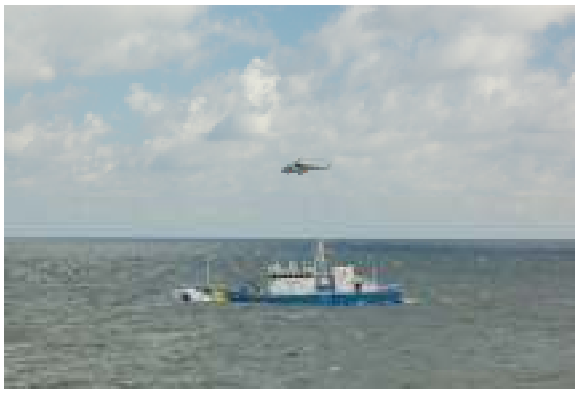
Exercise BALEX DELTA 2010

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 2010 exercise took place off Klaipeda, Lithuania on 24 August 2010. The exercise included the participation of 8 oil spill response vessels from 8 different HELCOM contracting parties and a Lithuanian Air Force helicopter. EMSA participated in the exercise with the *OW Copenhagen* based in Copenhagen, Denmark. Other participating vessels were: *Arkona* (Germany), *KBV 201* (Sweden), *Kapitan Poinc* (Poland), *Guannar Seidenfaden* (Denmark), *Merikarhu* (Finland) *A-90 Varonis* (Latvia) and *Sakiai* (Lithuania).

The goals of the exercise were to train the HELCOM command and communication system and, for pollution response operations, to train the practical use of recovery equipment and cooperation between participating units. The exercise was based on the scenario where an oil tanker, after being loaded with about 100,000 tonnes of crude oil at the Butinge Oil Terminal, ran aground off the Lithuanian coast. As a result of the accident, the ship suffered a hull breach and leaked around 9,000 tonnes of oil, which drifted towards the Latvian coastline.
Once in the exercise area, the vessels were divided in 4 strike teams. Due to adverse weather conditions (winds over 27 knots), the use of oil spill recovery equipment was suspended by the organiser (Lithuanian Navy). The exercise continued with the participating units sailing in formation as requested by the on-scene coordinator from the Lithuanian Navy.

BALEX DELTA 2010 was a positive experience for the participants. The coordination between the different units was positively tested. The exercise showed the potential adverse conditions which may occur in a real situation.

It should be noted that the *OW Copenhagen* was the only vessel considering deployment of any equipment given the existing weather conditions.



KBV 201

OW Copenhagen

Exercise HILLA 2010

The exercise HILLA 2010 was organised by the Finnish Environmental Institute (SYKE) and took place off Helsinki, Finland on 16 September 2010. The goals of the exercise were to train the command and communication system with the Member State (Finland) and, for pollution response operations, to train the practical use of recovery equipment and cooperation between participating units.

The exercise included the participation of the *Kontio*, the *Seili* (OPR vessel from the Finnish Coastguard) and 2 OPR boats from the "Helsinki rescue and fire fighting brigade". HILLA 2010 exercise was the first exercise with the participation of the *Kontio*, who was accepted for the Stand-By Phase of the EMSA Contract on 14 July 2010.

Due to adverse weather conditions the 2 smaller units could not proceed to the exercise area and continued the exercise within Helsinki harbour limits. *Kontio* and *Seili* deployed their primary OPR equipment, rigid and flexible sweeping arms respectively, but sea conditions made the use of the equipment unsafe and it was retrieved shortly after. In both cases the equipment was damaged.

After retrieval, *Kontio*'s starboard side sweeping arm was found to have sustained minor damage to the brush skimmer pump. Damages to the equipment were repaired shortly after the exercise.

The overall outcome of the exercise was considered positive, despite the fact that weather conditions limited the application of the equipment.

Kontio and OSR vessels

Seili

Exercise MATTEUS 2010

On 21 and 22 September 2010 the international maritime pollution response exercise MATTEUS was held off Goteborg, Sweden. The exercise was organised by the Swedish Coast Guard within the framework of the Copenhagen Agreement (which includes Denmark, Finland, Iceland, Norway and Sweden). Its aim was to test the Copenhagen Agreement response system, its command and communication structure, the cooperation between the response units of the contracting parties, as well as their capability and efficiency. EMSA participated with the *OW Aalborg*, based in Skagen, Denmark. Units from the Danish Admiral Fleet, Swedish Coast Guard and Norwegian Kystverket also took part in the exercise.

The exercise scenario simulated the collision of the tanker *Matteus* and *Paulus* at the Goteborg anchorage area "A/R2". As a result of the 'accident', the *Matteus* suffered significant damage to her hull. Emergency towage and emergency lightering performed involving the tanker in distress. Following the activation of the Swedish National Contingency Plan and request for assistance made to the MIC/EMSA and the Copenhagen Agreement, arrangements were made for appropriate oil recovery operations to be undertaken as well as shoreline clean-up.

The objectives for this exercise involving the participation of the *OW Aalborg* were:

a) Testing the established mobilisation procedures between MIC/EMSA/Contractor and, the Swedish Coast Guard for requesting the assistance by EMSA contracted vessels;
b) Acting as a vessel in distress and providing emergency lightering;
c) Actual oil recovery exercise at sea, deploying response equipment.

OW Aalborg fulfilled the role assigned by the authorities in charge of this exercise and also met the expectations of the Agency. The EMSA contracted vessel performed well.

OW Aalborg during the emergency lightering

Exercise LISBON 2010

On 14 October 2010 an at-sea pollution response exercise, LISBON 2010, was held off Lisbon, Portugal. The exercise was organised and coordinated by the European Maritime Safety Agency in cooperation with Portuguese authorities. It was an operational type "DELTA" exercise for practical testing of the oil pollution recovery equipment in open sea conditions. The main aim of the exercise was to involve two EMSA contracted vessels in a joint operation. The participating vessels were the *Bahia Tres* based in Sines, Portugal and the *Ria de Vigo* based in Vigo, Spain.
The exercise was based on the following scenario:
On 12 October, 2010 at 09:00 UTC the tanker *Coral Water* reported collision with the cargo vessel *Egbert Wagenborg*. There was no damage to the cargo vessel. At 10:00 UTC due to hull damage of the tanker, a spill of 150 tonnes of heavy fuel (IFO 180) occurred. Accordingly, on 12 October, the Portuguese Authorities requested EMSA assistance via the MIC. Following this request, EMSA's Stand-by Oil Spill Response Vessel *Bahia Tres* and *Ria de Vigo* were contracted by the Portuguese Authorities and mobilised. On the morning of 13 October, the *Bahia Tres* and *Ria de Vigo* arrived on-scene. Due to adverse weather conditions, the oil recovery operation could only be started on the following day.

The LISBON 2010 exercise was a positive experience for all the participants. The coordination between both contracted vessels was tested positively. It should be highlighted that it was the first at-sea oil pollution exercise organised and coordinated by the Agency. The experience gained shows that similar at-sea exercises could be organised by the Agency in other parts of Europe. In such exercises, EMSA contracted vessels as well as units from other Member States could be involved.

The exercise plan was well prepared and both participating vessels were assigned clear roles in the exercise. The instructions of the On-Scene Coordinator (OSC) given were clear and correct. The Oil Pollution Response (OPR) equipment available and the vessels' formations were managed well. The "oil recovery operations" were performed well and both crews of the EMSA vessels showed high levels of motivation. *Ria de Vigo* and *Bahia Tres* fulfilled the roles assigned by the Agency for this exercise and met expectations.

Bahia Tres- Boom in "J" formation

Bahia Tres-sweeping arms deployed

Exercise: MALTEX 2010

The MALTEX 2010 oil spill response exercise was hosted and organized by the Authority for Transport in Malta (ATM) as the national authority responsible for pollution response. The exercise was conducted on 19 October 2009 off the coast of Malta. The scenario included an oil spill resulting from a collision between a tanker and a cargo vessel off the Munxar East cardinal buoy.

Unfortunately, the weather conditions on the day of the exercise were adverse with strong winds and rough sea conditions. Due to the bad weather it was decided that there would be no deployment of equipment at-sea. Instead, simulation of deployment of OPR equipment in the area was carried out and the vessels worked in formation. Consequently, the assigned role for EMSA's ships within the exercise was to simulate the mechanical oil recovery process.

Salina Bay (on the left) simulating boom deployment supported by a tugboat