

Drills & Exercises Annual Report 2016

EMSA Pollution Response Services

Date: 02/03/2017

Summary

In order to provide additional support to the EU Member States' pollution response mechanisms in a cost efficient way, the European Maritime Safety Agency (EMSA) operates, in European waters, a range of oil pollution response (OPR) services consisting of a Network of stand-by oil spill response vessels, the Equipment Assistance Service (EAS) including specialised stand-alone equipment arrangements, as well as dispersant stockpiles. The OPR services are available for responding to oil spills at sea caused by ships as well as by oil and gas installations at the request of a coastal State¹, a Private Entity², and/or the European Commission.

At the end of 2016, 17 fully equipped oil spill response vessels, four dispersant stockpiles and two EAS arrangements were available for mobilisation.

To achieve the level of performance for pollution response required by the Agency, the contracted OPR services have to perform regular training, drills, Equipment Condition Tests (ECTs) and exercises. The figures related to these activities for 2016 are summarised in the table below:

Table 1 Summary of drills, ETCs and exercises carried out in 2016

Acceptance Drills: Newly Contracted Vessels	Acceptance Drills: Improvement projects/new equipment	Quarterly Drills / ECTs	Operational Exercises	Notification Exercises
2	1	69 / 7	10 (12 vessels)	10 (14 Contractors – 12 Vessels and 2 EAS)
Total number of events		99		

The evaluation of the contractors' performance during vessel drills, ECTs and exercises by the Agency's staff in line with the "Guidelines on Conducting Drills / ECTs and Exercises for the EMSA Contracted Vessels / EAS arrangements" is an effective method to ensure that the level of preparedness of the pollution response services is adequately maintained. In this regard it must be noted the increase in the number of operational events monitored by the Agency in 2016 in comparison with previous years due to the establishment of the first two EAS arrangements and the associated ECTs to test equipment performance.

Overall, the outcome of drills, ECTs and exercises carried out during 2016 demonstrated that the services are provided efficiently and in accordance with EMSA requirements.

In addition to providing operational assistance in case of oil spills, the Agency is tasked to support Member States in case of marine incidents involving chemicals. Since 2009, EMSA is providing expert advice for hazardous and noxious substances (HNS) through its MAR-ICE Network. This service provides rapid information transfer regarding chemical substances involved in marine pollution emergencies 24/7 and free of charge to the EU/EFTA coastal Member States and EU Candidate Countries. In order to familiarise EU Member States and to ensure high quality of this service, several exercises of MAR-ICE are performed each year.

¹ EU Member States, EU Candidate States, Norway and Iceland as well as those third countries sharing a regional sea basin with the European Union (Regulation (EU) 100/2013).

² Private Entity means the ship owner or oil and gas installation operator controlling the activity causing the marine pollution or the imminent threat of it. The Private Entity is responsible for the oil spill cleaning operations.

Table of Contents

1. Introduction.....	6
1.1 EMSA's Oil Pollution Response (OPR) Services - Overview	6
1.2 Purpose and types of drills and exercises	8
2. Drills & ECTs performed in 2016.....	8
2.1 Vessel drills	9
2.1.1 Acceptance drills	9
2.1.2 Quarterly drills.....	9
2.2 EAS - Equipment Condition Tests (ECTs)	11
2.3 Technical Issues Record	12
3. Exercises performed in 2016.....	13
3.1 Operational exercises	13
3.2 Notification exercises	15
4. MAR-ICE activations for drills and exercises	19
5. Conclusions / Highlights	20

List of Tables

Table 1	Summary of drills, ETCs and exercises carried out in 2016.....	3
Table 2	Summary of the OPR services and contractual information at the end of 2016.....	7
Table 3	Vessel / Improvement acceptance tests carried out in 2016	9
Table 4	Summary of the quarterly drills carried out in 2016	10
Table 5	Summary of the ECTs carried out in 2016.....	12
Table 6	Operational exercises carried out in 2016	15
Table 7	Notification exercises carried out in 2016	17
Table 8	MAR-ICE drills and exercises carried out in 2016	19

List of Maps

Map 1	Distribution of EMSA’s contracted vessels and EAS arrangements at the end of 2016	6
Map 2	Geographical Coverage of Operational Exercises 2016	14

List of Charts

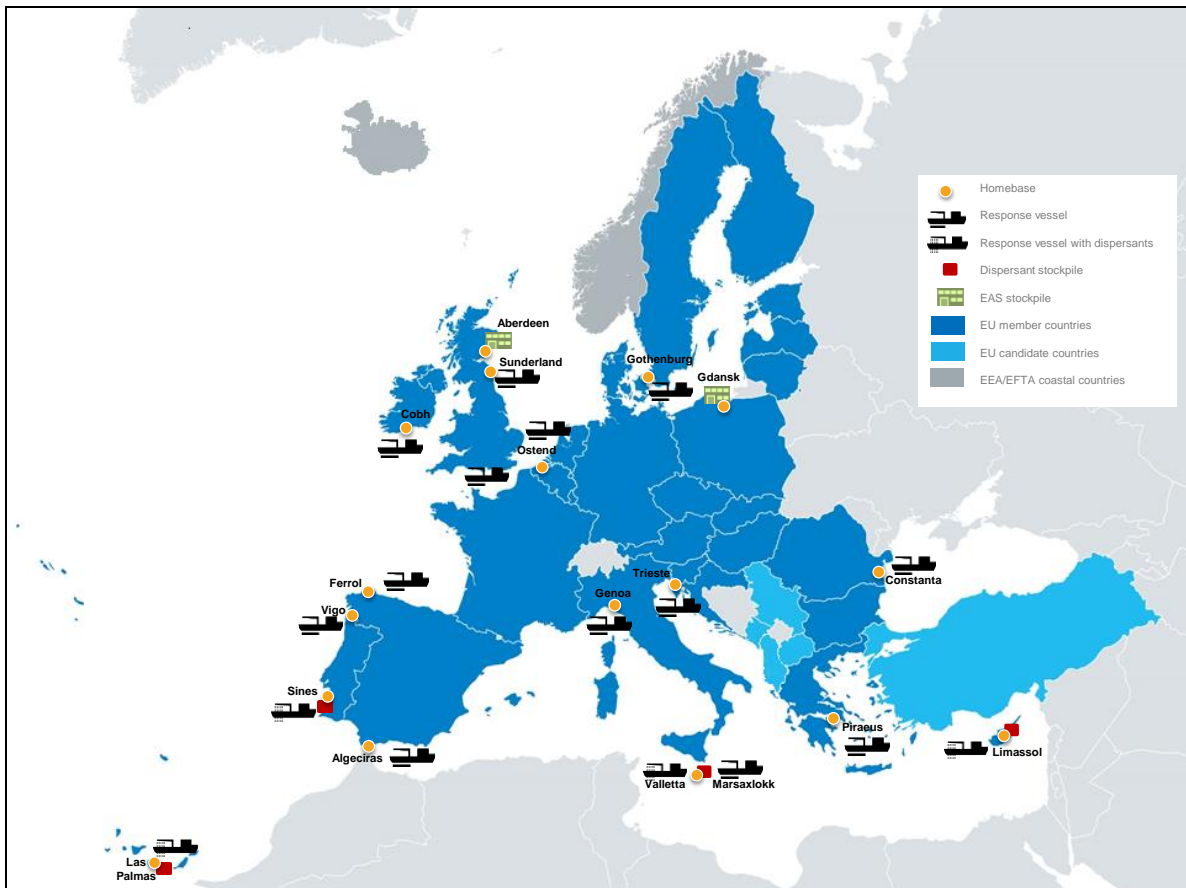
Chart 1	Number of drills 2006 – 2016.....	8
Chart 2	Number of notification exercises 2006 – 2016	16

1. Introduction

1.1 EMSA's Oil Pollution Response (OPR) Services - Overview

Through its “toolbox” of response services, EMSA offers a European tier of pollution response resources to top-up the capacities of coastal States for protecting their coastlines from marine pollution caused by ships or oil and gas installations. The map below provides an overview of EMSA's OPR Services and their geographical distribution.

Map 1 Distribution of EMSA's contracted vessels and EAS arrangements at the end of 2016



At the end of 2016, 17 fully equipped oil spill response vessels were available for pollution response, with ten of these 17 vessels certified for recovery of oil with flashpoints <math>< 60^{\circ}\text{C}</math>. All the contracted vessels based in areas with the presence of oil and gas installations are now certified for recovery of oil with flashpoints <math>< 60^{\circ}\text{C}</math>.

Main activities related to the Vessel Network in 2016 included:

- Entering into operational service of the two vessels contracted at the end of 2015, covering the areas of the southern Baltic Sea and of the Canary Islands and the Madeira archipelago;
- Awarding a new contract for the southern Black Sea, in order to replace the contract that expired in the same area at the end of 2016. The new contracted vessel will enter into operation in mid-2017;
- The procurement for a new vessel arrangement in the northern Baltic Sea was not successful and no contract was awarded. A new tender to replace the response capacity in this area will be launched in 2017;
- Renewal of two vessel contracts covering the western and central Mediterranean Sea for an additional 4-year period;
- Setting-up seaborne dispersant spraying capability and a stock of dispersant for the vessel arrangement based in Sines (Portugal). At the end of 2016, four vessel arrangements were equipped for seaborne dispersant application with associated dispersant stocks of 200 tonnes each, in Cyprus (Limassol), Malta (Valetta), Portugal (Sines) and Spain (Las Palmas).

Regarding the newly established Equipment Assistance Service (EAS), the two arrangements contracted in the Baltic Sea and in the North Sea became fully operational in the second half of 2016. This new service provides specialised stand-alone equipment (i.e. fire booms, integrated oil containment and recovery systems) that can be used by Vessels of Opportunity (VOO), ready for mobilisation and transport at short notice, around the clock.

Detailed information on the Vessel Network and EAS arrangements at the end of 2016 can be found in the table below.

Table 2 Summary of the OPR services and contractual information at the end of 2016

Area covered	Contractor / Contract	Vessel(s) / Assets	Vessel type / storage capacity(m ³) / dispersant stock	Service 2016
1. Contracted vessels				
Northern Baltic	Arctia Icebreaking Ltd VAC 09/NEG/01/2009 Lot 1	<i>Kontio</i>	Icebreaker / 2033	Expired on 13/04/2016
Southern Baltic	Stena Oil EMSA/NEG/1/2015 Lot 2	<i>Norden</i>	Oil Tanker / 2880	New service operational as of 03/06/2016
Northern North Sea	James Fisher Everard Ltd EMSA/NEG/1/2013 Lot 1	<i>Mersey Fisher, Thames Fisher</i>	Product Tankers / 5028 / 5028	✓
Channel and Southern North Sea	DC Industrial S.A. 2014/EMSA/NEG/1/2014 Lot 3.1	<i>Interballast 3</i>	Hopper Dredger / 1886	✓
	DC Industrial S.A. 2014/EMSA/NEG/1/2014 Lot 3.2	<i>DC Vlaanderen 3000</i>	Hopper Dredger / 2744	✓
Atlantic North	James Fisher Everard Ltd EMSA/NEG /1/2013 Lot 2	<i>Galway Fisher, Forth Fisher</i>	Product Tankers / 4754 / 4754	✓
Atlantic Coast	Remolcadores Nossa Terra S.A. EMSA/NEG/1/2014 Lot 1	<i>Ria de Vigo</i>	Offshore Supply / 1522	✓
Bay of Biscay	Ibaizabal VAC NEG/01/2012 Lot 3	<i>Monte Arucas</i>	Oil tanker / 2952	✓
Southern Atlantic Coast	Mureloil VAC NEG/1/2012 Lot 1	<i>Bahia Tres</i>	Oil Tanker / 7413 / Dispersant 200 tonnes	✓
Canary Islands and Madeira	Petrogas EMSA/NEG/1/2015 Lot 1	<i>Mencey</i>	Oil Tanker / 3500 / Dispersant 200 tonnes	New Service started on 15/07/2016
Western Mediterranean	Naviera Altube EMSA NEG/1/2011 Lot 4	<i>Monte Anaga</i>	Oil Tanker / 4096	Contract renewed on 20/03/2016
	Ciane EMSA/NEG/34/2012	<i>Brezzamare</i>	Oil Tanker / 3288	✓
Central Mediterranean	Tankship EMSA NEG/1/2011 Lot 2	<i>Balluta Bay</i>	Oil Tanker / 2800 / Dispersant 200 tonnes	Contract renewed on 15/05/2016
	SL Ship Management Ltd EMSA NEG/1/2012 Lot 2	<i>Santa Maria</i>	Oil Tanker / 2421	✓
Adriatic Sea	Castalia EMSA/NEG/1/2013 Lot 4	<i>Marisa N</i>	Oil Tanker / 1562	✓
Aegean Sea	Environmental Protection Engineering S.A. EMSA/NEG/1/2013 Lot 3	<i>Aktea OSRV (Aegis I as a back-up vessel)</i>	Oil Tanker / 3000 Offshore Supply / 950	✓
Eastern Mediterranean	Petronav EMSA NEG/1/2010 Lot 1	<i>Alexandria</i>	Oil Tanker / 7458 / Dispersant 200 tonnes	✓
Black Sea	Bon Marine Ltd EMSA NEG/1/2011 Lot 5	<i>Enterprise</i>	Oil Tanker / 1374	Contract expired on 20/09/2016.
Northern Black Sea	Petronav EMSA/NEG/1/2014 Lot 2	<i>Amalthia</i>	Oil Tanker / 5154	✓
2. EAS arrangements				
Baltic Sea	Labelpoland.com EMSA/NEG/8/2015 – Lot 2	10 stand-alone equipment sets	Storage area: 800m ² (Gdansk, Poland)	Operational as of 9 June 2016
North Sea	Sureclean / NRC EMSA/NEG/8/2015 – Lot 2	9 stand-alone equipment sets	Storage area: 600m ² (Oldmeldrum, UK)	Operational as of 4 August 2016

1.2 Purpose and types of drills and exercises

The vessels and EAS arrangements contracted by the Agency are equipped with state-of-the-art oil slick detection, containment and recovery equipment. In addition some of the vessels have dispersant spraying capabilities and dispersant stock is available. Furthermore, in-situ-burning equipment is available at the EAS stockpiles. Both Vessel Network and EAS are technically capable of achieving high recovery rates and high effectiveness of the pollution response activities.

Once the technical requirements of each contract are satisfied, the most important factors determining success of the system are the skills of the vessel’s and EAS crews in the operation of the equipment, the capability of the oil spill response coordinators to lead the response action and, to integrate EMSA’s response assets within the pollution response mechanisms of the Member States. Therefore, regular training, drills, ECTs and exercises are essential to achieving and maintaining the appropriate level of performance.

Every vessel and EAS contract defines the types and number of drills, ECTs and exercises to be carried out by each associated service:

- The vessels may perform two types of drills: 1) acceptance drills (also referred to as acceptance tests) and 2) quarterly oil pollution response drills; and two types of exercises: 1) notification exercises and 2) at-sea operational exercises.
- With regard to the EAS arrangements, the drills are called ‘Equipment Condition Tests’ (ECTs) and the contracts have defined a maximum number of six ECTs per year. With regard to exercises, there are the same two types of exercises as for the vessels.

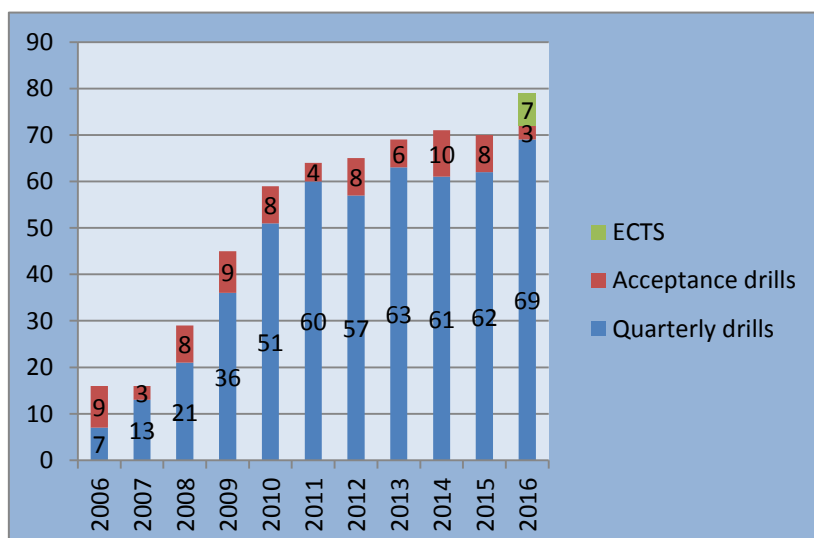
Detailed instructions on conducting drills ECTs and exercises, including their methods of evaluation are provided in the “Guidelines on Conducting Drills/ECTs and Exercises for the EMSA Contracted Vessels/EAS arrangements”. These Guidelines constitute a component of all contracts and are updated regularly taking into account the further development of the pollution response ‘toolbox’ offered by the Agency, e.g. new equipment, dispersant application systems etc.

2. Drills & ECTs performed in 2016

In 2016, a total of 69 quarterly drills, 3 acceptance drills and 7 ECTs were performed by the vessels and the EAS arrangements under contract to the Agency. The acceptance drills are of particular importance as they are the major milestone for new vessels and/or equipment to enter into the stand-by phase of a contract.

A summary of drills / ECTs performed by EMSA’s OPR services during the period 2006-2016 is shown in the chart below.

Chart 1 Number of drills 2006 – 2016



2.1 Vessel drills

2.1.1 Acceptance drills

Two vessel arrangements contracted at the end of 2015 successfully completed the Preparatory Phase and became fully operational in 2016:

- The Tanker *Norden*, based in Gothenburg, Sweden, providing replacement capacity in the Baltic Sea;
- The Tanker *Mencey* based in Las Palmas, Gran Canaria, Spain providing new response capacity for the Canary Islands and Madeira.

One technical improvement project launched in 2015 was successfully accepted in 2016:

- Upgrade of the response capacity of the *Bahia Tres*, contracted from Mureloil for the area of the Atlantic coast, by installing dispersant application capability on board the vessel and establishing a dispersant stockpile in Sines (Portugal).

Details of the acceptance drills are demonstrated in the table below.

Table 3 Vessel / Improvement acceptance tests carried out in 2016

N°	Contract	Contractor	Vessel	Home port	Subject	Acceptance Test Date	Results
1	EMSA/NEG/1/2015 Lot 2 Southern Baltic	Stena Oil	<i>Norden</i>	Gothenburg	Replacement of the capacity for the Southern Baltic Sea. Acceptance Test for pre-fitting and equipment	01-02/06/2016	Acceptance Note effective from 03/06/2016.
2	EMSA/NEG/1/2015 Lot 1 Canary Islands and Madeira	Petrogas	<i>Mencey</i>	Las Palmas	Provision of the new capacity for the Canary Islands and Madeira. Acceptance Test for pre-fitting and equipment	12-14/07/2016	Acceptance Note effective from 15/07/2016.
3	VAC NEG/1/2012 Lot 1 Southern Atlantic Coast	Mureloil S.A.	<i>Bahia Tres</i>	Sines	Improvement of the pollution response capacity of the <i>Bahia Tres</i> . Acceptance Test of seaborne dispersant capability	15/06/2016	Acceptance Note issued after provision of the updated Completion Report. Acceptance effective from 23/06/2016

2.1.2 Quarterly drills

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 on a quarterly basis. 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.

The Agency developed guidelines describing vessel, crew and equipment performance standards. These guidelines compose integral part of the Vessel Availability Contract. The quarterly drill can be accepted only if all required standards have been achieved.

End users of the EMSA services must be aware of the EMSA assistance capabilities. Attendance of the MS representatives to the quarterly drills is very important from the point of view of the promotion of EMSA's services as well as the integration of EMSA's resources with the pollution response mechanisms of the Member States. During 2016 three quarterly drills were attended by representatives of the Member States and 2 by a Private Entity.

The summary of the quarterly drills carried out in 2016 is presented in the table below.

Table 4 Summary of the quarterly drills carried out in 2016

N°	Contract	Contractor	Vessel/s	Drill	Date	Results
1	VAC 09/NEG/01/2009 Lot 1 Northern Baltic Sea	Arctia Icebreaking Ltd	<i>Kontio</i>	1Q	29/03/2016	1 drill required in 2016. The drill was performed and accepted by EMSA. The Contract expired on 14/04/2016
				2Q	n/a	
				3Q	n/a	
				4Q	n/a	
2	EMSA/NEG/1/2015 Lot 2 Southern Baltic	Stena Oil	<i>Norden</i>	1Q	n/a	2 drills required in 2016. All drills were conducted and accepted by EMSA. The service started on 03/06/2016
				2Q	n/a	
				3Q	02/08/2016	
				4Q	16/11/2016	
3	2014/EMSA/NEG/1/2014 Lot 3.1 Channel and Southern North Sea	DC Industrial S.A.	<i>Interballast III</i>	1Q	16/02/2016	4 drills required annually. All drills were conducted and accepted by EMSA.
				2Q	09/05/2016	
				3Q	23/08/2016	
				4Q	12/10/2016	
4	2014/EMSA/NEG/1/2014 Lot 3.2 Channel and Southern North Sea	DC Industrial S.A.	<i>DC Vlaanderen 3000</i>	1Q	16/02/2016	4 drills required annually. All drills were conducted and accepted by EMSA.
				2Q	14/06/2016	
				3Q	27/09/2016	
				4Q	12/10/2016	
5	EMSA/NEG/1/2013 Lot 1 Northern North Sea	James Fisher Everard Ltd	<i>Mersey Fisher</i>	1Q	16/02/2016	4 drills required annually (2 per vessel). All drills were conducted and accepted by EMSA.
				3Q	19/07/2016	
			<i>Thames Fisher</i>	2Q	25/05/2016	
				4Q	19/10/2016	
6	EMSA/NEG /1/2013 Lot 2 Atlantic North	James Fisher Everard Ltd	<i>Galway Fisher</i>	1Q	10/03/2016	4 drills required annually (2 per vessel). All drills were conducted and accepted.
				3Q	19/07/2016	
			<i>Forth Fisher</i>	2Q	24/06/2016	
				4Q	12/10/2016	
7	VAC NEG/01/2012 Lot 3 Bay of Biscay	Ibaizabal S.A.	<i>Monte Arucas</i>	1Q	22/03/2016	4 drills required annually. All drills were conducted and accepted by EMSA.
				2Q	17/05/2016	
				3Q	22/07/2016	
				4Q	15-16/11/2016	
8	2014/EMSA/NEG/1/2014 Lot 1 Atlantic Coast	Remolcadores Nossa Terra S.A.	<i>Ria de Vigo</i>	1Q	22/03/2016	4 drills required annually. All drills were conducted and accepted by EMSA.
				2Q	25/05/2016	
				3Q	21/09/2016	
				4Q	16/11/2016	
9	VAC NEG/1/2012 Lot 1 Southern Atlantic Coast	Mureloil S.A.	<i>Bahia Tres</i>	1Q	10/03/2016	4 drills required annually. All drills were conducted and accepted by EMSA.
				2Q	15/06/2016	
				3Q	24/08/2016	
				4Q	18/10/2016	
10	EMSA/NEG/1/2015 Lot 1 Canary Islands and Madeira	Petrogas	<i>Mencey</i>	1Q	n/a	2 drills required in 2016. All drills were conducted and accepted by EMSA. The service started on 15/07/2016
				2Q	n/a	
				3Q	24/08/2016	
				4Q	18/10/2016	
11	EMSA NEG/1/2011 Lot 4 Western Mediterranean Sea	Naviera Altube S.L.	<i>Monte Anaga</i>	1Q	12/01/2016	4 drills required annually. All drills were conducted and accepted by EMSA.
				2Q	22/04/2016	
				3Q	11/08/2016	

				4Q	8-9/11/2016	
12	EMSA/NEG/34/2012 Western Mediterranean Sea	Ciane SpA	<i>Brezzamare</i>	1Q	15/03/2016	4 drills required annually. All drills were conducted and accepted by EMSA.
				2Q	27/06/2016	
				3Q	15/09/2016	
				4Q	25/11/2016	
13	EMSA/NEG/1/2013 Lot 4 Adriatic Sea	R.T.I Castalia	<i>Marisa N</i>	1Q	30/03/2016	4 drills required annually. All drills were conducted and accepted by EMSA.
				2Q	21/06/2016	
				3Q	30/09/2016	
				4Q	22/11/2016	
14	EMSA NEG/1/2011 Lot 2 Central Mediterranean Sea	Tankship Ltd	<i>Balluta Bay</i>	1Q	17/02/2016	4 drills required annually. All drills were conducted and accepted by EMSA.
				2Q	n/a	
				3Q	10/08/2016	
				4Q	28/11/2016	
15	EMSA NEG/1/2012 Lot 2 Central Mediterranean Sea	SL Ship Management Ltd	<i>Santa Maria</i>	1Q	3&8 /03/2016	4 drills required annually. All drills were conducted and accepted by EMSA.
				2Q	8-9/06/2016	
				3Q	03/10/2016	
				4Q	21-22/11/2016	
16	EMSA/NEG/1/2013 Lot 3 Aegean Sea	Environmental Protection Engineering S.A.	<i>Aktea OSRV</i>	1Q	08/03/2016	6 drills required annually (4 <i>Aktea OSRV</i> and 2 <i>Aegis I</i>). All drills were conducted and accepted by EMSA.
				2Q	17/06/2016	
				3Q	21-22/09/2016	
			<i>Aegis I</i>	4Q	14/11/2016	
				2Q	17/06/2016	
				4Q	14/11/2016	
17	EMSA NEG/1/2010 Lot 1 Eastern Mediterranean Sea	Petronav Ship Management Ltd	<i>Alexandria</i>	1Q	03/03/2016	4 drills required annually. All drills were conducted and accepted by EMSA.
				2Q	14/04/2016	
				3Q	21/09/2016	
				4Q	11/10/2016	
18	EMSA NEG/1/2011 Lot 5 Black Sea	Bon Marine International Ltd	<i>Enterprise</i>	1Q	17/03/2016	3 drills required in 2016. All drills were conducted and accepted by EMSA. The Contract expired on 20/09/2016.
				2Q	29/06/2016	
				3Q	14/07/2016	
				4Q	n/a	
19	2014/EMSA/NEG/1/2014 Lot 2 Northern Black Sea	Petronav Ship Management Ltd	<i>Amalthia</i>	1Q	08/03/2016	4 drills required annually. All drills were conducted and accepted by EMSA.
				2Q	01/06/2016	
				3Q	21/09/2016	
				4Q	23/11/2016	

The outcome of the quarterly drills carried out during 2016 demonstrated that the service is operated efficiently and in accordance with EMSA expectations. Overall, the Network achieved a satisfactory level of preparedness for oil pollution response. All drills were accepted however three drills required follow-up actions for equipment related issues, to be addressed by the contractors before acceptance of the drill by the Agency.

2.2 EAS - Equipment Condition Tests (ECTs)

According to the contract, the Contractors are obliged to train their staff and to maintain the equipment in a full state of readiness for carrying out oil pollution response services efficiently.

To demonstrate the fulfilment of these obligations, the Contractors are obliged to carry out ECTs, up to a maximum of six per year. The Agency developed guidelines describing equipment performance standards. These guidelines are an integral part of the Service Availability Contract. The ECT can be accepted only if all required standards have been achieved. The summary of the ECTs carried out in 2016 is presented in the table below.

Table 5 Summary of the ECTs carried out in 2016

N°	Contract	Contractor	EAS Location	ECT	Results
1	EMSA/NEG/8/2015 Lot 1 North Sea	Sureclean / NRC	Oldmeldrum, UK	Current Buster 06/09/16	Equipment was found in a good condition. All ECTs accepted by EMSA.
				Fire boom 17/10/16	
2	EMSA/NEG/8/2015 Lot 2 Baltic Sea	Labelpoland.com	Gdansk, Poland	Combined: Brush Skimmer & Artic Skimmer 17/08/16	Equipment was found in a good condition. All ECTs accepted by EMSA.
				Speed Sweep 18/08/16	
				Trawl Net 18/08/16	
				Current Buster 12/10/16	
				RoBoom-RoSkim 13/10/16	

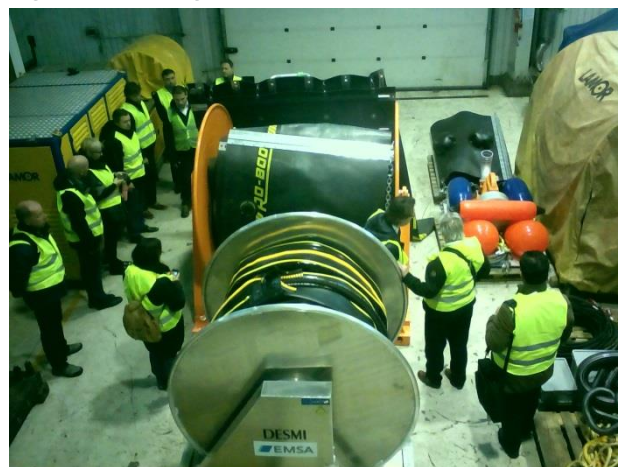
The outcome of the ECTs carried out during 2016 demonstrated that both EAS arrangements are operated efficiently and in accordance with EMSA expectations. Overall, the EAS achieved a good level of preparedness for oil pollution response.

Following the establishment of the two EAS arrangements, EMSA organised two training seminars, one for each of the two arrangements, with the purpose of demonstrating the service to the representatives of the EU Member States. The training took place on 15 September in Aberdeen (UK) and 5 October in Gdansk (Poland).

Figure 1 Training seminar in Aberdeen



Figure 2 Training seminar in Gdansk



Overall, 26 representatives from 18 EU/EFTA Member States attended the two trainings and the general feedback was very positive towards EMSA's new established service and the approach to present it through such familiarisation events.

2.3 Technical Issues Record

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

For better management of EMSA's oil spill response equipment, the annual verification of the equipment stockpiles became a routine practice.

During each drill, exercise and ECT attended by the Agency, the condition of the equipment was closely assessed and recorded. This record 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.

For both services (Vessels and EAS), out of 37 technical issues recorded in 2016, 14 were related to oil booms, eight to hydraulic systems, four to pumps, three to power packs and the rest to other equipment. All technical issues were dealt with in an efficient and effective way. The equipment was brought back to the operational state as quickly as possible.

Based on the equipment records, the overhauling or replacement plan is being established in order to improve services and reduce the probability of equipment failure.

3. Exercises performed in 2016

At-sea operational exercises assist the integration of EMSA's OPR services within the response mechanisms of Member States, improving the necessary coordination and cooperation of the EMSA resources with the coastal State response units.

In 2016 EMSA planned and participated in the exercises using a procedure for the internal/external exercise coordination in order to provide the full set of services (CleanSeaNet, vessels, EAS, Mar-ICE) in a harmonised manner as well as to receive the appropriate feedback from the Member States after the performance of the exercises.

3.1 Operational exercises

In the course of 2016, 11 EMSA Stand-by Oil Spill Response Vessels and OPR equipment from one vessel were deployed in 10 at-sea operational exercises, organised in cooperation with EU Member States and/or Regional Agreements as well as with SAFEMED and TRACECA beneficiaries.

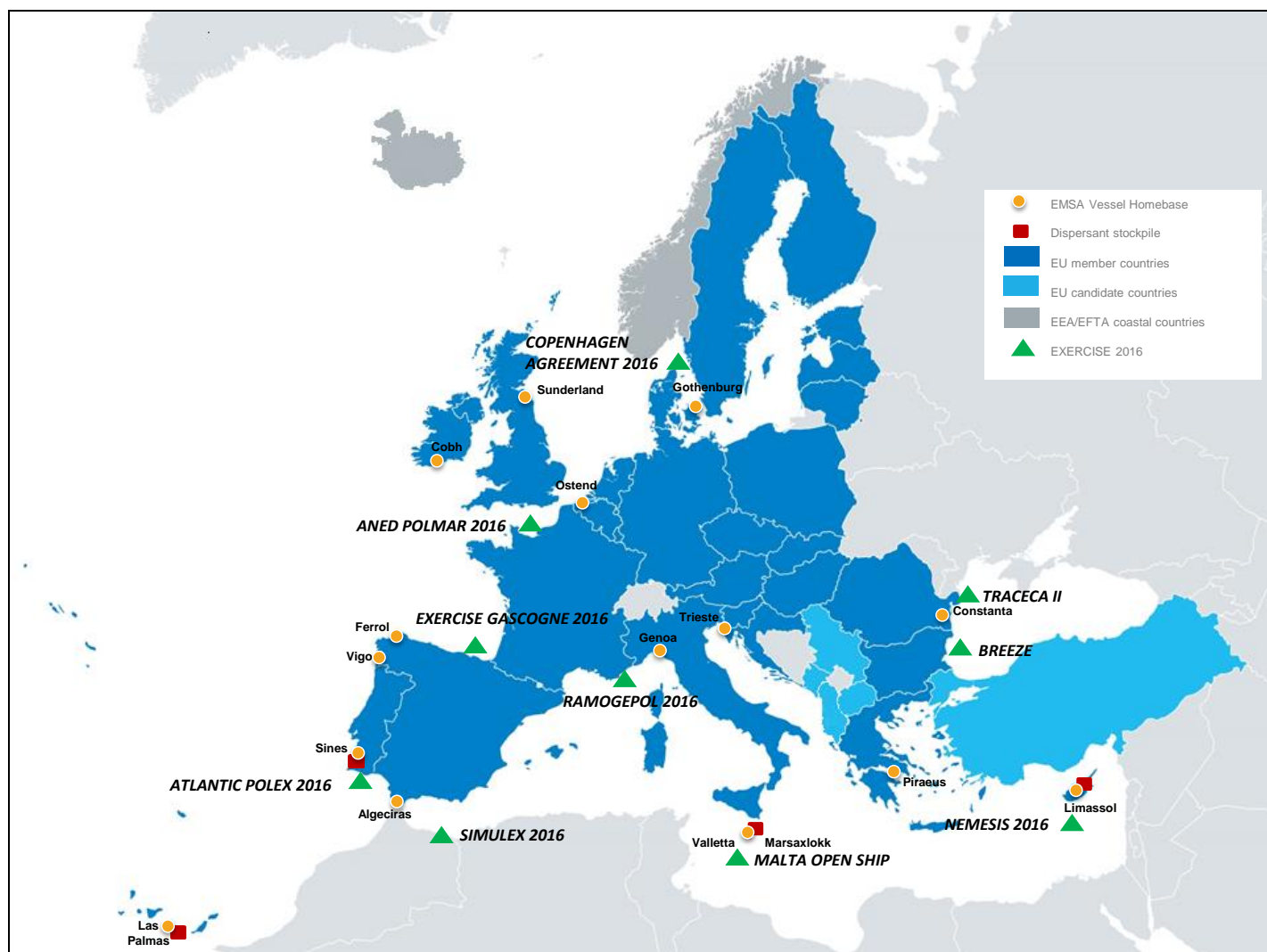
These events took place in all European Regional sea basins, covering the Baltic Sea, North Sea, Atlantic Coast, Mediterranean Sea and Black Sea. In general, the results of these exercises showed that EMSA vessels were well integrated into the pollution response mechanisms of Member States and Regional 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.

Figure 3 OSRV *Enterprise* during the Breeze Exercise



The geographical spread of operational exercises in Europe with EMSA vessels participation is shown in the following map below.

Map 2 Geographical Coverage of Operational Exercises 2016



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. Each EMSA's participation to an exercise is followed by a request to evaluate performance of the provided service.

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 exercise results and 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 response mechanisms of the Member States. The Agency, when responding to any invitation to participate in an operational exercise, should emphasise the advantages of a thorough exercise evaluation and mutual feedback between the Agency and the exercise organiser. Attendance of EMSA observers to post-exercise debriefings to discuss and evaluate results of the exercise should be more active.

The summary of operational exercises performed by EMSA contracted vessels during the 2016 is shown in the table below.

Table 6 Operational exercises carried out in 2016

N°	Name	Date	Location	Participating Parties	EMSA vessel/s
1	RAMOGEPOL	27 April 2016	Monaco	Monaco, France, Italy, Spain, EMSA	<i>Brezzamare</i>
2	SIMULEX	25-27 April 2016	Nador, Morocco	Safemed III beneficiaries (Morocco host), EMSA	<i>Monte Anaga</i>
3	POLMAR	11 May 2016	Le Havre, France	France, EMSA	<i>Interballast III</i>
4	GASCOGNE	25 May 2016	Golfe of Gascogne, France	France, EMSA	<i>Monte Arucas</i>
5	TRACECA II	15 June 2016	Constanta, Romania	TRACECA II beneficiaries, Romania, EMSA	<i>Amalthia</i>
6	BREEZE	15 July 2016	Burgas Bay, Bulgaria	Bulgaria, Romania Turkey, US, EMSA	<i>Enterprise</i>
7	COPENHAGEN AGREEMENT	20-22 September 2016	Lysekil, Sweden	Parties to the Copenhagen Agreement (Sweden host), EMSA	<i>Norden</i>
8	MALTA OPEN SHIP	4 October 2016	Valetta, Malta	Malta, EMSA	<i>Balluta Bay and equipment from Santa Maria</i>
9	NEMESIS 2016	12 October 2016	Limassol, Cyprus	Cyprus, Greece, France, UK, Egypt, US, EMSA	<i>Alexandria</i>
10	ATLANTIC POLEX.PT	20 October 2016	Portimao, Portugal	Portugal, Spain, EMSA	<i>Bahia Tres Monte Anaga</i>

3.2 Notification exercises

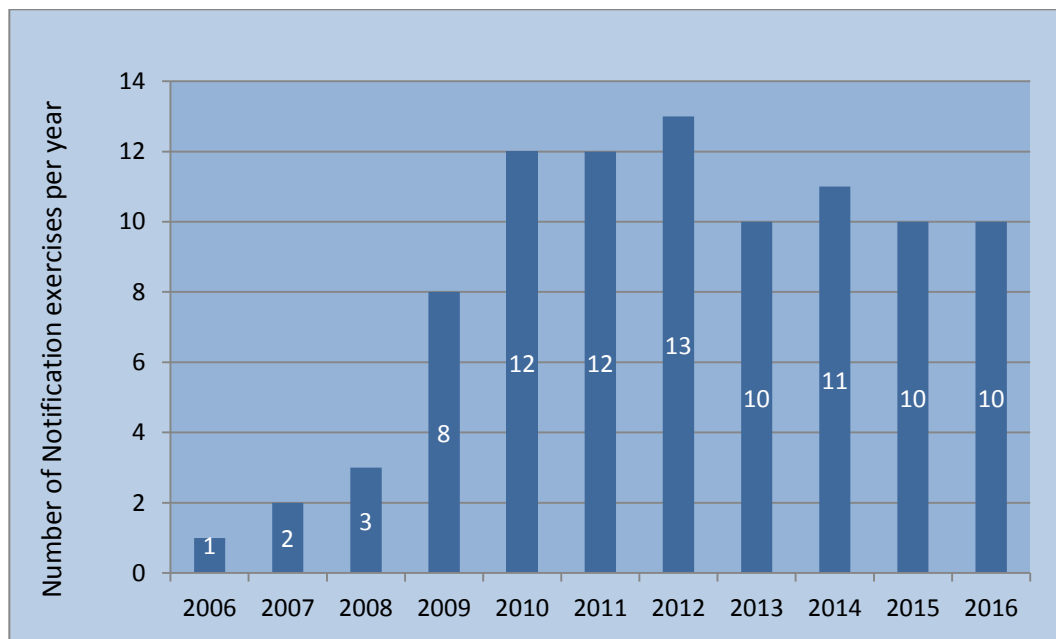
Notification exercises are usually conducted in conjunction with operational exercises. In addition, 'stand-alone' notification exercises are occasionally carried out. The aim of these exercises is to test and implement agreed procedures and lines of communication for reporting incidents and for requesting and providing assistance.

Notification exercises involve EMSA, one or more Requesting Party(ies)³, EMSA's contractor(s) and the Emergency Response Coordination Centre (ERCC), operated by DG ECHO. The main criterion for the evaluation of the notification exercise is the time needed for the Incident Response Contract (Vessel - IRC-V or EAS - IRC-E)⁴ to be signed by both the EMSA contractor and the Requesting Party.

In 2016, the Agency participated in 10 notification exercises, involving activation of 12 vessel contractors and, for the first time, two EAS contractors.

The number of notification exercises carried annually over the years 2006-2016 is shown on the chart below.

Chart 2 Number of notification exercises 2006 – 2016



During the notification exercise, the time counting starts at the moment when the formal assistance request is received by EMSA. Taking into account variables such as the time of day, the day of the week, the contractor's location and other factors, six hours is considered as an acceptable target deadline for all parties to complete the mobilisation process, including signature of the Incident Response Contract (IRC). During the exercise, the Agency provides any assistance necessary to the Member State for facilitating the process of completing and signing the IRCS.

It must be noted that out of the 10 notification exercises carried out in 2016, only six exercises included the full procedure of EMSA Vessel and/or EAS mobilisation. This was a result comparable to that achieved in 2014 and 2015. EMSA Contractors reacted immediately and in line with standards set by EMSA. However, some Member States terminated the procedure prior to the signature of the IRC. This could have a negative effect during a real case of mobilisation of EMSA's pollution response services. The mobilisation of the EMSA assistance could be seriously delayed due to the MS lack of training/ knowledge on the mobilisation steps, timing, cost, formalities documents templates etc.

It has to be reiterated that for exercises signing the IRC does not trigger the payment of any fee by the Requesting Party.

³ EMSA's OPR services can be activated by the following Requesting Parties: EU Member States, EU Candidate Countries, European Free Trade Association (EFTA)/European Economic Area (EEA) coastal Member States, Third countries sharing a regional sea basin with the Union, Private Entities and/or the European Commission.

⁴ Incident Response Contract⁴: This contract is to be concluded between the EMSA contractor and the Requesting Party. This pre-established model contract addresses the actual response operations. It covers the terms and conditions of the service and includes the associated daily hire rates. Following a request for assistance, EMSA will activate or even pre-mobilise the vessel / equipment to facilitate the operation. The command and control during an incident rests with the affected coastal State using the vessel / equipment.

In 2016 the Marine Pollution Common Emergency Communication and Information System (CECIS MP) operated by DG ECHO was the common tool for conducting the notification exercises. However, not all notification exercises were conducted with the use of CECIS MP. Some Member States trying to use CECIS MP experienced problems such as lack of personnel trained on the use of the system, lack of constant CECIS MP monitoring during the exercise, or lack of knowledge regarding access to the system. There is a need to improve the tool and to train users.

In accordance with the Directive 2002/59 as amended, Coastal Stations/Authorities shall distribute information about incident/accident posing a potential hazard to shipping or a threat to maritime safety, the safety of individuals or the environment. Such Incident Reports shall be distributed via SafeSeaNet (SSN) to the potentially affected Member States (art. 16, 17 and 21).

The pollution incident report (POLREP) is a widely employed form to exchange information with other interested parties whenever the environment is affected or is likely to be affected after a confirmed or possible spill or an illegal discharge. In that sense, POLREPs in SSN shall be used to warn (POLWARN) and to inform (POLINF) other Member States Authorities located along the planned route of the vessel.

In April 2016 was established the SSN-CECIS MP link to avoid double reporting of POLREP messages (POLWARN and POLINF information). The Incident Report notifications type "POLREP", reported by a SSN user, are now automatically communicated by SSN to CECIS MP through a link between the two systems. The data from SSN is then processed by CECIS MP and made available to its users.

POLFAC messages including the assistance request should be introduced directly to CECIS MP. Additional training for Member States on the use of SSN and CECIS MP is envisaged in 2017.

A description of the notification exercises carried out in 2016 can be found in the table below.

Table 7 Notification exercises carried out in 2016

N°	Exercise name/date	Participating parties: MS / Contractor / Service mobilised	Results	Comments
1	RAMOGEPOL 2016 27/04/2016	France, EMSA / Ciane / <i>Brezzamore</i>	Time from the dispatch of the Notice of Pollution Response until time of receiving copy of the IRC signed by the EMSA Contractor was 2 h 50 min. The Contractor reacted properly but there is a room for improvement. The Contractor delayed response due to unavailability of a person responsible of the contract signature. The Requesting State broke the procedure and didn't sign the IRC-V.	Full scenario of the exercise was not completed.
2	ANED POLMAR 2016 /10 – 11 May 2016	France, EMSA / DC Industrial / DC <i>Vlaanderen 3000, Interballast III,</i>	The exercise was concluded without acceptance of EMSA offer in CECIS and without signature of the relevant IRCs between the requesting party and the Agency's contractors. Time from the dispatch of the Notice of Pollution Response until time of receiving copy of the IRC signed by the EMSA Contractor was below 1 h.	The requesting State didn't use CECIS. The request was delivered by e-mail.
3	BALEX DELTA 2016 / 20/06/2016	Lithuania, EMSA/ Stena Oil, Label Poland / <i>Norden</i> , EAS Baltic	Requesting party submitted request for 2 services: Oil pollution response vessel <i>Norden</i> and EAS. The EMSA contractors reacted to the request in an efficient way. Time from the dispatch of the Notice of Pollution Response/Mobilisation until time of receiving copy of the IRC-V/IRC-E signed by the EMSA Contractor was: IRC-V: 41 min, IRC-EAS: 1 h 20 min. The requesting party signed the contract respectively in 23 h and 9 h.	On the first day of the exercise IRC-V was not signed.

4	BREEZE 2016 / 14/07/2016	Bulgaria, EMSA / BM Gust / <i>Enterprise</i>	The mobilisation procedure was conducted with a positive result and the IRC-V was signed by the requesting Member State and the EMSA Contractor. Time from the request for assistance to the contract signature by both parties was less than 4 h.	The Requesting State didn't use CECIS to submit the assistance request.
5	COPENHAGEN AGREEMENT / 20/09/2016	France, EMSA /Stena Oil / <i>Norden</i>	Requesting party submitted request for the oil pollution response vessel <i>Norden</i> . Time from receiving the initial request for assistance to receiving copy of the IRC-V signed by both Parties: 4 h 30 min.	Good result of the exercise.
6	ATLANTIC POLEX.pt 2016 / 03/10/2016	Portugal, EMSA / Mureloil, Naviera Altube, Sureclean / <i>Bahia Tres, Monte Anaga</i> , EAS North Sea	Requesting party submitted request for two services: Oil pollution response vessel and EAS. Fast and efficient response of EMSA's Contractors. Contracts were signed and sent to the requesting party in less than 1 h. The requesting Party signed IRC-V and IRC-E after 28 h.	Technical problems with CECIS. Person responsible for signing the IRC on behalf of the requesting party was not available during the first day of the exercise
7	VALENCIA 2016 06/10/2016	Spain, EMSA / Naviera Altube / <i>Monte Anaga</i> ,	Time from the Notice of Pollution Response/Mobilisation until time of receiving copy of the IRC-V signed by the EMSA Contractors (Contractor reaction time) was 18 min. Requesting State informed that the IRC will not be returned and closed the exercise.	Full scenario of the exercise was not completed. The main bottleneck was the time waiting for the Requesting State to provide the contact details necessary to fill up the Notice of Pollution Response.
8	NEMESIS 2016 11/10/2016	Cyprus, EMSA / Petronav / <i>Alexandria</i>	The mobilisation procedure was conducted with a positive result and the IRC-V was signed by the requesting Member State and the EMSA Contractor. Time from the request for assistance to the contract signature by both parties was less than 2 h.	Very good result of the exercise.
9	BULGARIA / 17/11/2016	Bulgaria, EMSA / Petronav / <i>Amalthia</i>	Requesting party submitted request for 2 services: Oil pollution response vessel <i>Amalthia</i> and additionally standalone equipment from the vessel (high capacity skimmer). Time from receiving the initial request for assistance to receiving copy of the IRC-V signed by both Parties: 2 h 48 min.	Very good result of the exercise. The exercise was successfully concluded with the mobilisation of the <i>Amalthia</i> . The request for mobilisation of the high capacity skimmer as "stand alone" equipment showed multiple implications of the independent mobilisation of equipment to be considered i.e. insurance, IRC-E, operators, VAC contract amendment.
10	GREY SEAL 2016 22-23/11/2016	UK (MCA), EMSA / James Fisher Everard / <i>Mersey Fisher</i>	The EMSA Contractor reacted efficiently and fast. Time from receiving the acceptance of assistance offered until MS receives the IRC (Service reaction time) was 39 min. EMSA offered 3 vessels that could be at the incident location within 26 h (<i>Mersey Fisher</i> and <i>DC Vlaanderen</i>) and 29 h (<i>Interballast III</i>) from the mobilisation request. The exercise was concluded with the mobilisation of the <i>Mersey Fisher</i> .	Requesting State did not fill up the IRC-V but only signed. Requesting State didn't use CECIS.
TOTAL		EXERCISES: 10 VESSELS: 12 EAS: 2 IRCs SIGNED BY EMSA CONTRACTORS: 14 (12 Vessels and 2 EAS)		

4. MAR-ICE activations for drills and exercises

The MAR-ICE network of chemical experts was established in October 2008 between EMSA, Cefic (European Chemical Industry Council) and Cedre. It became fully operational in January 2009.

The MAR-ICE network offers a 24 hours service to EU Member States, Coastal EFTA States and EU Candidate Countries to provide information on chemicals involved in marine spills to national authorities in charge of response operations. The information provided is based on product specific characteristics and on advice from company's experts obtained through the ICE database.

In 2016, the network was activated on three occasions by Croatia, Finland and EMSA. Details are presented in the table 8.

Table 8 MAR-ICE drills and exercises carried out in 2016

MAR-ICE DRILLS / EXERCISES				
1	19.04.2016	EMSA (support of 2 nd ITOFF HNS table-top exercise)	<ul style="list-style-type: none"> - MAR-ICE Contact Form used (prepared in advance); - Collision of vessels with release of 500 mT of MEK. 	<ul style="list-style-type: none"> - MAR-ICE Contact provided documents (MAR-CIS datasheet, ERICARD, Cedre's chemical guide on MEK) with 30 minutes of request. - CHEMMAP modelling of MEK was subsequently provided (1 h). - And periodisation of hazards and first actions to be taken.
2	20.06.2016	Croatia, MRCC Rijeka	<ul style="list-style-type: none"> - MAR-ICE (old) Contact Form used; - Exercise scenario involved a spill of 700 litres of UN 1203 (motor gasoline), with potential spilt quantity up to 10,000 l; - Info requested about first aid measures; firefighting measures and handling and storage. 	<ul style="list-style-type: none"> - MAR-ICE Contact provided documents (ERICARDS, emergency response guidelines 2016, Canutec, MSDS), and highlighted the relevant parts. - Reply was send within one hour.
3	14.09.2016	Finland, SYKE	<ul style="list-style-type: none"> - MAR-ICE Contact Form used; - Scenario: grounding of container ship in coastal waters; containers lost at sea; 5 chemical releases' (UN No 2312, 2055, 2014, 2362, 1005). 	<ul style="list-style-type: none"> - MAR-CIS datasheets provided within 30 minutes; - Additional info requested (substance trajectory and fate modelling); requester was asked to prioritise; styrene monomer Chemap model was run & info about gas drifting/trajectory for ammonia was also requested and provided within 1.5 h. - Model results for both substances were provided by MAR-ICE Contact, together with comments on reliability of results of ammonia spill model (due to model limitations for gaseous releases above sea surface).

In all three exercises, the communication between the requesters and the MAR-ICE Contact Point went well and the requested information was provided well within the established timelines.

5. Conclusions / Highlights

- The outcome of the oil pollution drills, ECTs and exercises carried out during 2016 demonstrated that the service is operated efficiently and in accordance with EMSA requirements. Overall, the oil pollution response services achieved a high acceptable level of preparedness for oil pollution response.
- The evaluation of oil pollution drills, ECTs and exercises, either based on assessment by EMSA staff or on the contractors' reports, as well as feedback from the Member States, is a most important tool providing lessons learned with regard to the technical condition of the equipment and performance of the crew/staff. Lessons learned in 2016 allowed determining actions aiming at the improvement of EMSA pollution response services in 2017 including pollution response capacity improvements, equipment overhauling or replacement, crew/staff performance parameters improvement, as well as the improvements/updates of the service mobilisation procedures.
- During the annual verification of the Equipment Inventory, special attention will be paid to deterioration of the condition of the equipment purchased in 2006-2008. Some older equipment systems (especially oil booms) which show signs of ageing may require overhauling and/or replacement in 2017.
- Participation of Member States representatives in vessel drills, ECTs and exercises makes them more familiar with the operational capabilities of the Vessel Network and EAS equipment sets. In 2017, EMSA will continue promoting this approach in order to enhance the integration of EMSA's pollution response services into the Member States response mechanisms.
- Considering the positive feedback from MS, EMSA should continue in 2017 with the EAS training programme consisting dedicated training sessions on equipment deployment and operation for equipment operators from the Member States.
- EMSA should request more feedback from the Member States on the results of notification and operational exercises, in order to improve the mobilisation procedures and performance of response assets at sea. In 2017 EMSA shall analyse and implement the best approaches in this regard.
- In 2017 EMSA should continue encouraging Member States to give more importance to the completion of the full mobilisation procedure during the notification exercises. To improve results of the notification exercises EMSA may consider a series of trainings/workshops especially for those countries which encountered problems with completing the mobilization procedure.
- CECIS Marine Pollution (MP) simplifies and facilitates mobilisation of assistance to a Member State affected by a pollution incident. EMSA strongly encourages the use of this system during the notification exercises. In order to improve the system, all deficiencies related to the use of CECIS MP during notification exercises should be reported by EMSA and Member States to the system administrator (DG ECHO).
- Considering the obligation of the Member States to use SafeSeaNet for incident reporting and CECIS MP for assistance request/offer, training users in the use of both systems would help to improve emergency communication during the exercises and in real incidents.
- The number of activations of MAR-ICE for drills and exercises has increased over the years. This trend is positive as Member States that have used the service for exercises seem to be more likely to also activate the network for real incidents.

European Maritime Safety Agency

Praça Europa 4
1249-206 Lisbon, Portugal
Tel +351 21 1209 200
Fax +351 21 1209 210
emsa.europa.eu

