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OPR Vessels, EAS and MAR-ICE

Activities Report 2024

Sustainability and Technical Assistance

Date: 25/03/2025

EMSA

Summary

The European Maritime Safety Agency (EMSA), under its mandate in Regulation (EC) No 1406/2002 (as amended), provides a suite of services to support EU coastal states in responding effectively to pollution incidents from ships and offshore oil and gas installations.

These services function as a 'toolbox' from which requesting states can select the most suitable response measures based on their immediate needs. By offering these services at the EU level, EMSA enhances and complements national and regional response capabilities through targeted, cost-effective, and efficient support.

EMSA ensures the continuous operational readiness of its response services, enabling rapid mobilization upon request. Once activated, these services fall under the control of the requesting authority. They are accessible to Member States (EU and coastal EFTA), and, under certain conditions, non-EU countries sharing a regional sea basin with the EU.

At the end of 2024, EMSA's response assets included:

- 14 fully equipped oil pollution response (OPR) vessels, 12 of which feature Light Remotely Piloted Aircraft Systems (LRPAS) for enhanced surveillance.
- One intermediate storage vessel for oil recovered at sea.
- Eight dispersant stockpiles (seven ready for mobilization and one in storage).
- Five Equipment Assistance Service (EAS) arrangements available for deployment.

To maintain high-performance standards, EMSA's response arrangements undergo regular training, vessel drills, EAS Equipment Condition Tests (ECTs), and exercises:

- Drills and ECTs: All stand-by oil spill response vessels regularly conduct drills under EMSA's supervision to assess vessel readiness, test oil spill response equipment, and train crews. A similar testing program of ECTs applies to EAS arrangements.
- Exercises: To ensure effective coordination under an international command structure - critical for large-scale incidents - EMSA's stand-by vessels participate in at-sea spill response exercises alongside national and regional response units. EAS equipment is also deployed during these exercises. Additionally, EMSA conducts tabletop exercises to assess activation procedures and overall service readiness.

EMSA staff evaluate contractor performance during vessel drills, EAS ECTs, and exercises, following the *Guidelines on Conducting Drills/ECTs and Exercises for EMSA Contracted Vessels/EAS Arrangements*, ensuring response services maintain a high state of preparedness.

For incidents involving Hazardous and Noxious Substances (HNS), EMSA provides 24/7 expert advice through the MAR-ICE Network, enabling rapid information transfer to EU/EFTA coastal states and EU candidate countries. Annual MAR-ICE exercises familiarize Member States with activation procedures, ensuring a high level of service reliability.

Overall, the vessel drills, EAS ECTs, exercises, and MAR-ICE activations conducted in 2024 confirmed that EMSA's services were delivered efficiently and met the expectations of service users.

Table 1. Summary of drills, ECTs and exercises carried out in 2024.

Vessel Acceptance Drills: Newly Contracted / Improvement projects	New EAS stockpile acceptance	Quarterly Drills / ECTs / Equipment training & familiarisation	Operational Exercises: Vessels / EAS	Notification Exercises: Vessels / EAS	MAR-ICE Exercises / Real cases of chemical pollution
2 / 1	2	55 / 54 / 2	10 exercises / 7 vessels (5 with RPAS) / 6 EAS	13 exercises / 12 vessels (10 with RPAS) / 6 EAS	1 / 1
TOTAL:		141			

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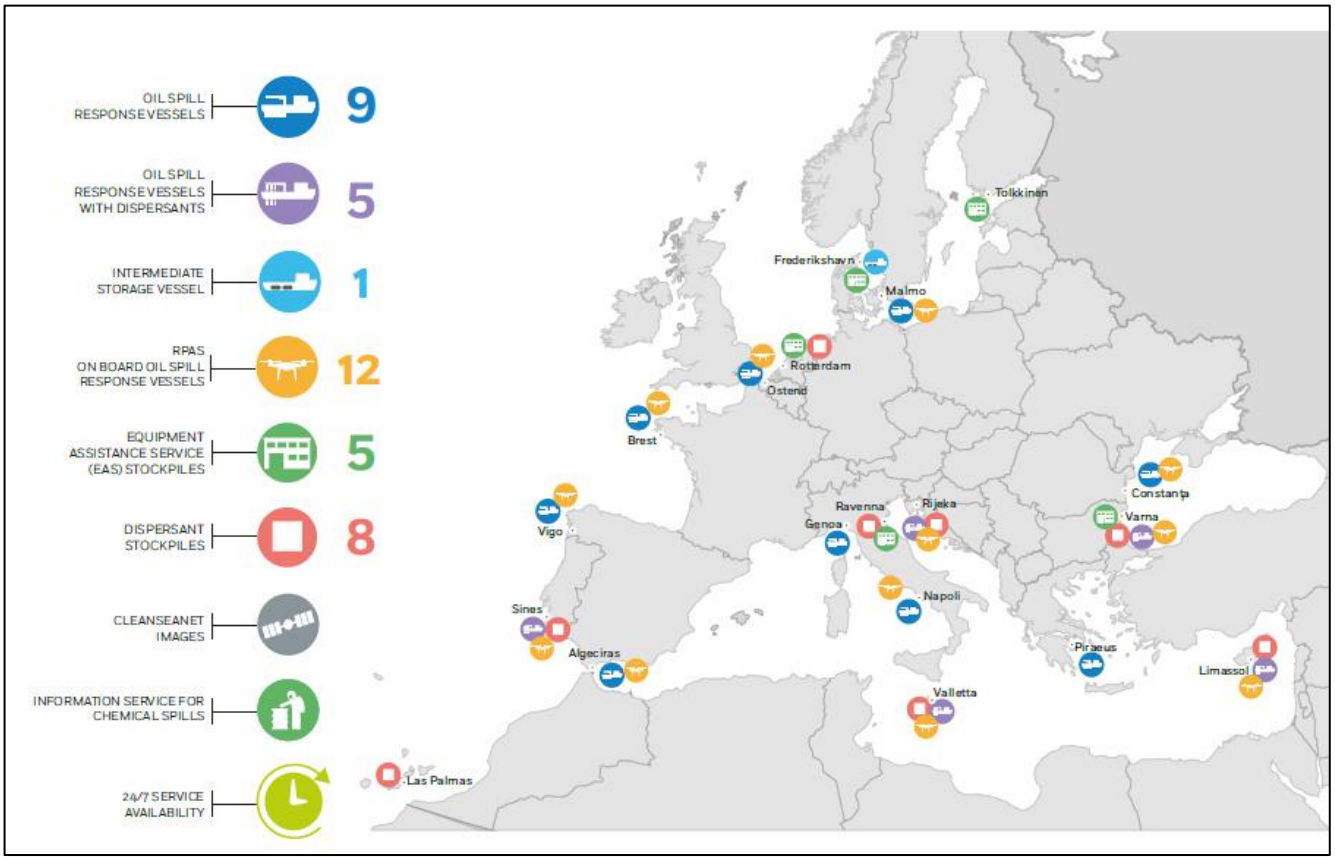
1. Introduction

1.1 EMSA's oil pollution response services (PRS) - Overview

Through its "toolbox" of Pollution Response Services (PRS), EMSA offers a European tier of response resources to top-up the capacities of coastal States for protecting their marine environment from marine pollution caused by ships and oil and gas installations. The map below provides an overview of EMSA's PRS and their geographical distribution.

Map 1: Distribution of EMSA's Marine Pollution Response assets in Europe at the end of 2024



1.2 Integration of EMSA services with MS pollution response mechanisms

To ensure that EMSA's pollution response tools integrate into the response plans of Member States, it is essential that each country has a thorough understanding of EMSA's assets, procedures, contractual arrangements, and cost structures. By fostering this awareness, EMSA's resources can be effectively incorporated into national contingency plans, enhancing overall preparedness and ensuring a cost-effective, coordinated, and timely response to pollution incidents.

When it comes to EAS, relevant personnel in Member States should also acquire skills in operating the different types of equipment. Moreover, this service needs to work along with identified Vessels of Opportunity (VOOs) and requires familiarisation.

To fully utilise the potential of EMSA's pollution response tools, continuous and proactive cooperation between EMSA and the operational teams in each Member State is vital. Recognizing the importance of this collaboration, EMSA has established a structured schedule of PRS activities for 2024**,** ensuring that national authorities remain well-informed and prepared to integrate EMSA's resources into their response mechanisms. These activities include training sessions, joint exercises, workshops, and operational briefings**,** all designed to enhance coordination and ensure a swift, well-organized response in the event of a maritime pollution incident.

As part of the cooperation framework between the European Maritime Safety Agency (EMSA), the European Fisheries Control Agency (EFCA), and the European Border and Coast Guard Agency (Frontex), Multipurpose Maritime Operations (MMOs) are conducted in specific areas of European waters. These operations require strengthened inter-agency collaboration to support national authorities in carrying out coast guard functions at the national, EU, and, where appropriate, international levels.

In 2024, EMSA's pollution response services played a key role in these activities, providing response resources for the Polnord exercise in France and the Balex Delta exercise in Lithuania. Additionally, EMSA facilitated hands-on training for Member States on MAR-ICE and EAS equipment, further enhancing preparedness and response capabilities.

The table below provides a summary of the joint operational activities carried out between EMSA and Member States throughout 2024, reflecting the commitment to ongoing collaboration, capacity-building, and enhanced maritime pollution response capabilities**.**

The summary of the joint operational EMSA-Member States (MS) activities conducted in 2024 are listed in the table below.

Table 2. Joint operational activities EMSA-MS 2024.

Service	Activity	Where
Vessel Network & EAS	**Notification/Table-top Exercises: 13** - 10 activations of Vessel Contractors - 6 activations of EAS Contractors	MS
	Operational Exercises: 7 - 7 deployments of Vessels - 3 deployments of EAS	MS
	Dedicated in-country familiarisation on the EAS equipment: 3 - 3 operational deployments took place in Finland (2), and Germany (1)	MS
	Hands-on training sessions at EAS stockpile: 2 - Hands-on session EAS North Sea with 8 operators from 8 MS - Hands-on session EAS Southern Europe with 7 operators from 4 MS	EAS locations
MAR-ICE Service	**National MAR-ICE familiarisation sessions: 2** - 2 sessions executed in 2024	Online
	Notification/Table-top Exercises: 11 - 1 activation of MAR-ICE service for HNS exercises	MS

1.3 Activities of the EMSA Network of pollution response vessels and EAS in 2024

At the close of 2024, there were 14 fully equipped OPR vessels, including 12 with LRPAS capability, one intermediate storage vessel for oil recovered at sea, 8 dispersant stockpiles (7 ready for mobilisation and one storage), and 5 EAS arrangements available for mobilization available for mobilization in case of marine pollution.

The key milestones for the Vessel Network development in 2024 were as follows:

- Introducing a new vessel service in the Baltic and North Sea of an intermediate storage for the oil recovered at sea. The tanker vessel *Vingaren* with a 6341 m^3 storage capacity started the service on 13 March 2024.

- Entering service of the vessel arrangement, re-contracted at the end of 2023, to replace the expiring contract for the Baltic Sea. The vessel *Norden*, stationed in Frederikshavn, Denmark, started the operational service on 07 August 2024.
- The completion of the improvement of spill detection and monitoring capacity by equipping vessels *Norden* with LRPAS. The improvement became operational as of 01 October 2024.

In 2024, the main activities related to EAS included:

- Awarding a Framework Contract for EAS Southern Europe located in Ravenna, Italy. The EAS is planned to be operational in April 2025.
- Launching of a procurement procedure for Service Contract for EAS in the Black Sea. The first specific contract is expected to be signed in September 2025.

Details regarding the service of the Vessel Network and EAS arrangements in 2024 are outlined in the table below.

Table 3. Summary of the OPR services in 2024.

Area	Contractor / Contract	Vessel(s) / Assets	Vessel type / storage capacity(m^3) / dispersant stock	Service 2024
1. Contracted vessels				
Southern Baltic	Stena Oil EMSA/NEG/1/2015 Lot 2	*Norden*	Oil Tanker / 2880	Contract expired on 02/03/2024
Baltic Sea	Stena Oil 2023/EMSA/CPNEG/2/2023 Lot 2	*Norden*	Oil Tanker / 2880	The vessel was re-contracted and entered the service on 07/08/2024
	Stena Oil 2023/EMSA/CPNEG/5/2022	*Vingaren*	Oil tanker – Intermediate storage vessel / 6341	The vessel entered the service on 13/03/2024
Channel and Southern North Sea	DC Industrial S.A. 2023/EMSA/CPNEG/3/2022 Lot 1	*Interballast 3*	Hopper Dredger / 1886	Whole year service
Atlantic Middle	Remolcadores Nossa Terra S.A. 2022/EMSA/CPNEG/3/2022 Lot 2	*Ria de Vigo*	Offshore Supply / 1522	Whole year service
Bay of Biscay	Seaowl EMSA/CPNEG/01/2017	*VN Partisan*	Offshore Supply / 1022	Whole year service
Southern Atlantic Coast	Mureloil EMSA/CPNEG/1/2020 Lot 2	*Bahia Tres*	Oil Tanker / 7413 / Dispersant 200 t.	Whole year service
Canary Islands and Madeira	Petrogas EMSA/NEG/1/2015 Lot 1	*Mencey*	Oil Tanker / 3500 / Dispersant 200 t.	Contract expired on 14/04/2024
Western Mediterranean Sea	Naviera Altube EMSA CPNEG/1/2019 Lot 2	*Monte Anaga*	Oil Tanker / 4096	Whole year service
	Ciane EMSA/CPNEG/1/2020 Lot 3	*Brezzamare*	Oil Tanker / 3288	Whole year service
Central Mediterranean Sea	Sarda Bunkers EMSA/CPNEG/1/2020 Lot 1	*SB Borea*	Oil tanker / 3558	Whole year service
	Petronav EMSA/CPNEG/1/2019 Lot 3	*Adelia*	Oil Tanker / 7458 Dispersant 180 t.	Whole year service

	Environmental Protection Engineering S.A. EMSA/CPNEG/2/2021 Lot 2	*Aktea II*	Oil Tanker / 4486	Whole year service
Adriatic Sea	Dinamarin Ltd EMSA/CPNEG/1/2019 Lot 1	*Kijac*	Oil/Chemical Tanker / 1730 Dispersant 200 t.	Whole year service
Eastern Mediterranean Sea	Petronav EMSA/CPNEG/1/2018	*Alexandria*	Oil Tanker / 7458 / Dispersant 200 t.	Whole year service
Southern Black Sea	Petronav 2022/EMSA/CPNEG/3/2022 Lot 3	*Amalthia*	Oil Tanker / 5154	Whole year service
	COSMOS EMSA/CPNEG/6/2016 Lot 1	*Galaxy Eco*	Oil Tanker / 2969 Dispersant 200 t.	Whole year service
2. EAS				
Northern Baltic Sea	Lamor Corporation AB 2022/EMSA/CPNEG/4/2021	25 stand-alone equipment sets	Contracted storage area: 900m^2 (Tolkkinen, Finland)	Whole year service
Baltic Sea	Stena EMSA/CPNEG/2/2019 Lot 1	24 stand-alone equipment sets	Contracted storage area: 1,000m^2 (Frederikshavn, Denmark)	Whole year service
North Sea	Ambipar EMSA/CPNEG/2/2019 Lot 2	29 stand-alone equipment sets Dispersant 205 t.	Contracted storage area: 900m^2 (Rotterdam, The Netherlands)	Whole year service
Southern Europe	Ottavio Novella EMSA/CPNEG/2/2020	34 stand-alone equipment sets Dispersant 200 t.	Contracted storage area: 1,000m^2 (Ravenna, Italy)	Whole year service
Black Sea	Bon Marine EMSA/CPNEG/3/2021	17 stand-alone equipment sets	Contracted storage area: 600m^2 (Varna, Bulgaria)	Whole year service

1.4 Purpose and types of drills and exercises

- **Operational Readiness of EMSA's Pollution Response System**

To maintain the highest standards of operational readiness, EMSA places significant emphasis on training, drills, ECTs, and exercises. These activities are crucial in maintaining the efficiency of both stand-by vessels and EAS arrangements, ensuring that response teams are fully prepared for real-world incidents.

- **Drills and Exercises for Pollution Response Vessels**

Each vessel contract specifies the types and frequency of required drills, and exercises to ensure continued compliance with EMSA's performance standards. The following drills and exercises are conducted as part of the vessel readiness program:

1. Acceptance drills (acceptance tests) – These are performed when a new vessel enters service or undergoes a major equipment upgrade. They confirm that the vessel and its crew meet EMSA's operational standards before becoming fully active.

2. Quarterly oil pollution response drills – Conducted at regular intervals throughout the year, these drills test crew readiness, response equipment functionality, and coordination among response teams.

3. Notification exercises – These exercises assess the effectiveness of communication protocols between EMSA, vessel operators, and Member State authorities during an emergency activation.

4. At-sea operational exercises – These are realistic, scenario-based exercises conducted in cooperation with Member States. They test the full deployment of pollution response assets, coordination with other response units, and overall preparedness for large-scale pollution incidents.

- **EAS Readiness and Testing**

For EAS arrangements, operational readiness is equally critical. Each EAS contract stipulates a maximum number of ECTs per year, based on the number of equipment sets covered under the service agreement. If additional equipment is stored within the EAS framework, EMSA may commission additional ECTs as needed to maintain readiness.

These tests serve two primary purposes:

- Verifying the full functionality of pollution response equipment, ensuring it is ready for immediate deployment.
- Assessing the capabilities of technical support personnel in handling, deploying, and instructing Member State operators on proper equipment use.

It is important to note that while EMSA's technical support personnel provide guidance and instruction during training and drills, they do not operate pollution response equipment during actual incidents. Instead, the responsibility for deployment rests with the trained operators within Member States.

Like the pollution response vessels, EAS arrangements also participate in both notification and at-sea operational exercises, further ensuring their integration into national and regional response frameworks.

- **Guidelines and Continuous Improvement**

To standardize drill execution, performance evaluation, and operational assessments, EMSA has developed comprehensive Guidelines on Conducting Drills/ECTs and Exercises for EMSA Contracted Vessels/EAS Arrangements. These guidelines form an integral part of all EMSA contracts and are subject to regular review and updates to incorporate:

- Lessons learned from past incidents, drills, and exercises.
- Advancements in pollution response technology and best practices.
- New service developments and the introduction of additional equipment or response capabilities.

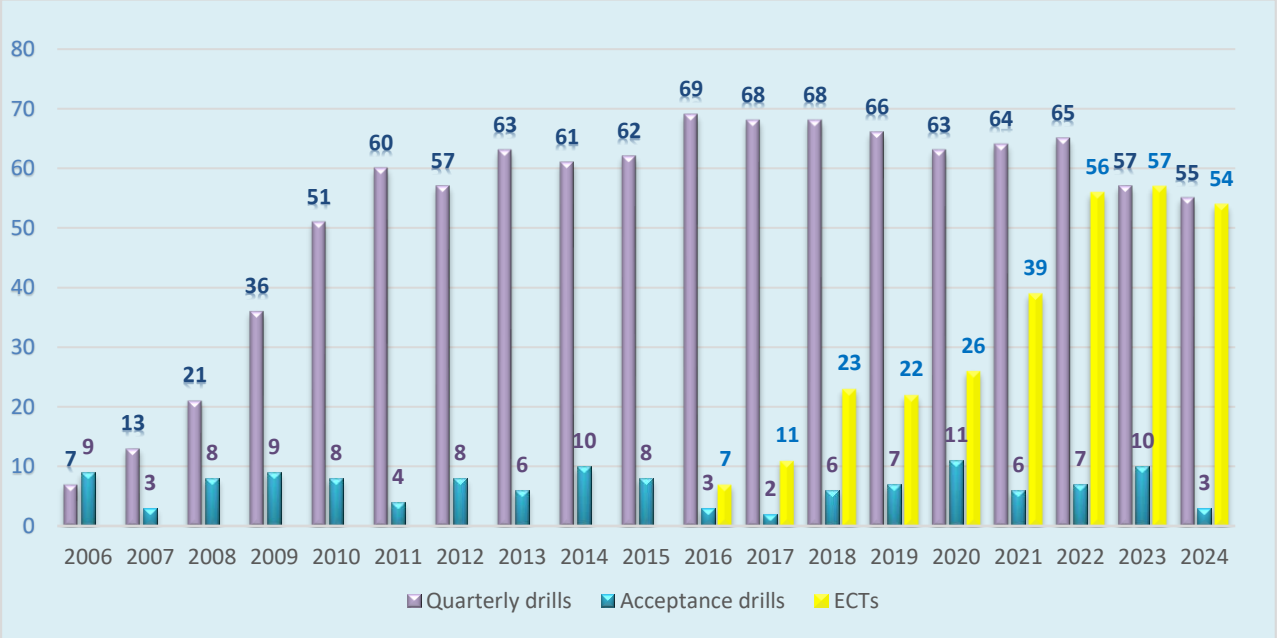
By maintaining a rigorous schedule of drills, exercises, and equipment tests, EMSA ensures that both its contracted vessels and EAS arrangements remain fully prepared to provide an efficient, rapid, and well-coordinated response to maritime pollution emergencies.

2. Drills & ECTs performed in 2024

In 2024 a total of 55 quarterly drills and 3 acceptance drills/tests related to vessels, and 54 EAS ECTs were performed respectively by the Vessels and the EAS arrangements under contract to the Agency.

A summary of Vessel drills and EAS ECTs performed by EMSA's OPR services during the period 2006-2024 is shown in the chart below.

Chart 1. Number of Vessel drills and EAS ECTs 2006 – 2024.



2.1 Vessel drills

2.1.1 Acceptance drills

The acceptance drills are of particular importance as they are the major milestone for new vessels, new equipment as well as the overhauled equipment to enter into the standby phase of the pollution response service.

The table below summarise the vessel acceptance drills in 2024.

Table 4. Vessel / Equipment Improvements and Acceptance drills carried out in 2024.

No.	Contract	Contractor	Vessel/EAS/ Home port	Subject	Acceptance Test Date	Results
1	2023/EMSA/CPN EG/5/2022	**Stena Oil A.B.**	***Vingaren*** **Frederikshavn, Denmark**	Acceptance of the newly contracted vessel	12/03/2024	Acceptance effective from 13/03/2024
2	Contract EMSA 2023/EMSA/CPN EG/2/2023 Lot 1 Baltic Sea	**Stena Oil A.B.**	***Norden*** **Frederikshavn, Denmark**	Acceptance of the re-contracted vessel	30/07/2024	Acceptance effective from 07/08/2024
3	Amendment 1 to Contract 2023/EMSA/CPN EG/2/2023 Lot 1 Baltic Sea	**Stena Oil A.B.**	***Norden*** **Frederikshavn, Denmark**	Acceptance of the improvement project: Accommodation for the lightweight RPAS services on board the vessel	01/10/2024	Acceptance effective from 01/10/2024

Fig. 1. *Vingaren* Acceptance Test. Loading fenders.

2.1.2 Quarterly drills

The EMSA vessel Contractor is obliged, on a quarterly basis, to proceed to a drill to train the vessel's crew and test the oil pollution response equipment, to be ready to carry out oil pollution response services efficiently.

The guidelines describing performance standards for the vessel, crew and equipment are part of the Vessel Availability Contract. The quarterly drill can be accepted only if all required standards have been achieved. The acceptance of the Contractor's Quarterly Drill Report is a condition for the payment of the Vessel Availability Fee.

The outcome of the quarterly drills carried out during 2024, with no drill rejected, demonstrates that the various vessels arrangements are operated up-to EMSA standards and that the vessel arrangements are fully operational.

The summary of the quarterly drills carried out in 2024 is presented in the table below.

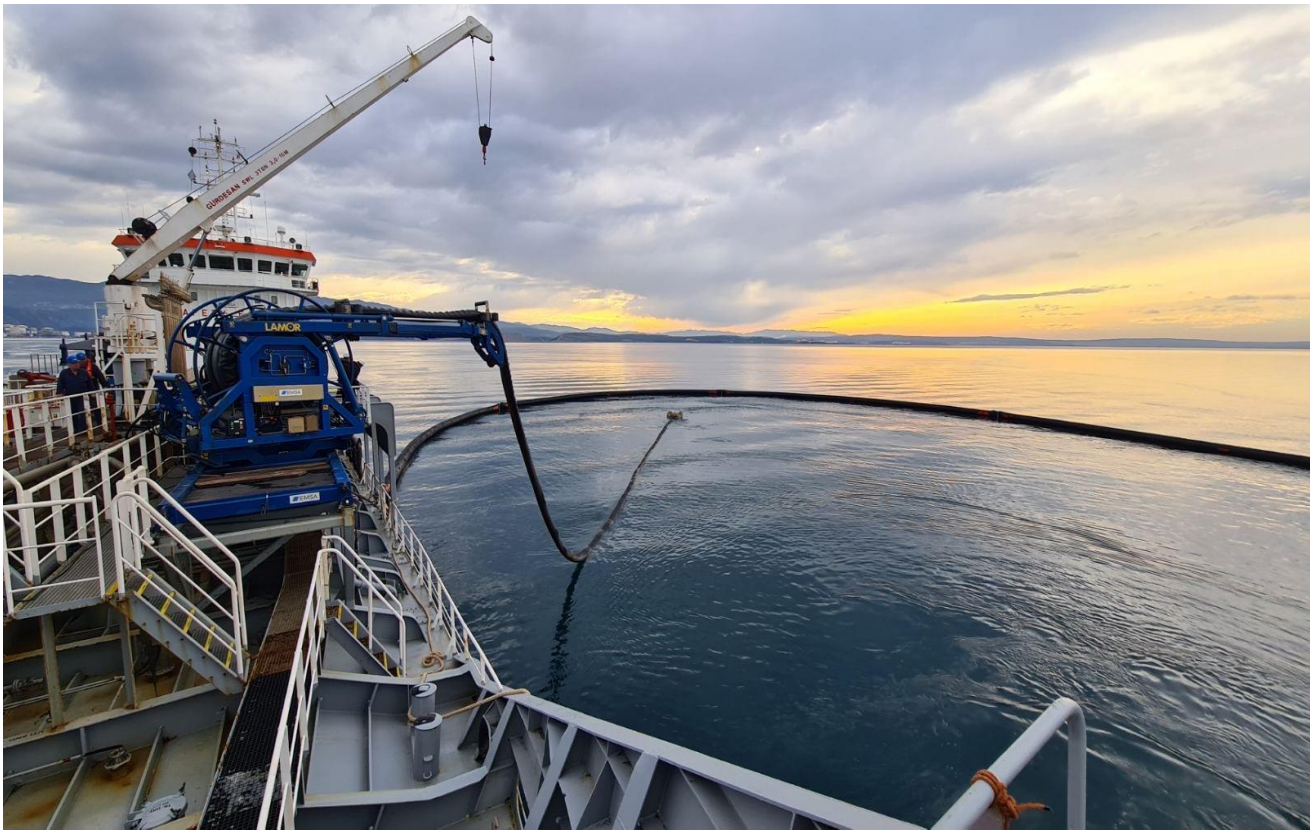
Table 5. Summary of quarterly drills 2024.

Area	EMSA Contractor / Contract	*Vessel*	No.	Date in year 2024	RPAS Flight	Comment
Baltic	Stena Oil AB / EMSA/NEG/1/2015 - Lot 2 Southern Baltic Sea	*Norden*	1Q	29/02		1 drill required. The drill was conducted and accepted by EMSA. Contract expired on 02/03/2024
			2Q	-		
			3Q	-		
			4Q	-		
	Stena Oil 2023/EMSA/CPNEG/2/2023 Lot 2 Baltic Sea	*Norden*	1Q	-		1 drill required. The drill was conducted and accepted by EMSA. The vessel was re-contracted and entered the service on 07/08/2024
			2Q	-		
			3Q	-		
			4Q	01/10	yes	
Southern North Sea and the Channel	DC Industrial / 2014/EMSA/NEG/1/2014 - Lot 3.1 Channel & Southern North Sea	*Interballast III*	1Q	05/03		4 drills required All drills were conducted and accepted by EMSA.
			2Q	14/05	yes	
			3Q	06/08		
			4Q	04/10		

Bay of Biscay	SeaOwl / 2017/EMSA/CPNEG/22/2017 Bay of Biscay	*VN Partisan*	1Q	08/03		4 drills required. All drills were conducted and accepted by EMSA.
			2Q	29/06	yes	
			3Q	06/09		
			4Q	15/10		
Atlantic Middle	Remolcadores Nossa Terra / 2022/EMSA/CPNEG/3/2022 Lot 2 - Atlantic Middle	*Ria de Vigo*	1Q	31/01		4 drills required. All drills were conducted and accepted by EMSA.
			2Q	24/04	yes	
			3Q	17/07		
			4Q	14/10		
Southern Atlantic coast	Mureloil / EMSA /CPNEG/1/2020 - Lot 2 Southern Atlantic Coast	*Bahia Tres*	1Q	15/02		4 drills required. All drills were conducted and accepted by EMSA.
			2Q	18/04		
			3Q	17/09	yes	
			4Q	04/10		
Canary Islands and Madeira	Petrogas / EMSA/NEG/1/2015 - Lot 1 Canary Islands and Madeira	*Mencey*	1Q	23/03	yes	1 drill required. The drill was conducted and accepted by EMSA. Contract expired on 14/04/2024.
			2Q	-		
			3Q	-		
			4Q	-		
Western Mediterranean Sea	Naviera Altube / EMSA CPNEG/1/2019 Lot 2 Western Mediterranean Sea	*Monte Anaga*	1Q	13/02		4 drills required. All drills were conducted and accepted by EMSA.
			2Q	07/05		
			3Q	03/09	yes	
			4Q	26/11		
	Ciane / EMSA/NEG/1/2020 - Lot 3 Western Mediterranean Sea	*Brezzamare*	1Q	28/01		4 drills required. All drills were conducted and accepted by EMSA.
			2Q	12/05		
			3Q	09/09		
			4Q	06/11		
Central Mediterranean Sea	Petronav / 2019/EMSA/CPNEG/1/2019 - Lot 3 Adriatic Sea	*Adelia*	1Q	19/03		4 drills required. All drills were conducted and accepted by EMSA.
			2Q	20/06		
			3Q	25/09		
			4Q	05/11	yes	
	Sarda Bunkers / 2020/EMSA/CPNEG/1/2020 - Lot 1 Central Mediterranean	*SB Borea*	1Q	08/02		4 drills required. All drills were conducted and accepted by EMSA.
			2Q	24/06	yes	
			3Q	30/09		
			4Q	18/11		
Aegean Sea	EPE / EMSA/CPNEG/2/2021 Lot 2 Aegean Sea	*Aktea II*	1Q	13/03		4 drills required. All drills were conducted and accepted by EMSA.
			2Q	11/04		
			3Q	11/09		
			4Q	20/11		
Adriatic Sea	Dinamarin Ltd / 2019/EMSA/CPNEG/1/2019 - Lot 1 Adriatic Sea	*Kijac*	1Q	25/01		4 drills required. All drills were conducted and accepted by EMSA.
			2Q	10/5		
			3Q	16/09	yes	
			4Q	14/11		
Eastern Mediterranean	Petronav / 2018/EMSA/CPNEG/1/2018 Eastern Mediterranean	*Alexandria*	1Q	19/03	yes	4 drills required. All drills were conducted and accepted by EMSA.
			2Q	20/06		
			3Q	05/05		
			4Q	12/11		
Black Sea North	Petronav / 2022/EMSA/CPNEG/3/2022 - Lot 3 Black Sea North	*Amalthia*	1Q	18/03		4 drills required. All drills were conducted and accepted by EMSA.
			2Q	19/06		
			3Q	28/08	yes	
			4Q	23/10		

Black Sea South	**Cosmos 2016 EMSA/CPNEG/6/2016 - Lot 1 Southern Black Sea**	***Galaxy Eco***	1Q	15/03		4 drills required. All drills were conducted and accepted by EMSA.
			2Q	22/06		
			3Q	17/09	yes	
			4Q	10/10		
Total number of Quarterly Drills 2024: 55 Drills with RPAS flights: 13						

Fig. 2. Quarterly drill on board *Kijac.* Oil boom and high-capacity skimmer deployment.



2.2 EAS ECTs, training sessions and national familiarisation sessions.

According to the contract, the EAS Contractors shall train their staff and 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 carry out ECTs. An ECT is a periodical test of the condition, functionality and operational readiness of the equipment set in normal operational conditions (in water).

Due to weather limitations, most of the activities were carried out during the 2nd and 3rd quarters of the year, where weather conditions are more favourable. The results of the ECTs were assessed partly on site by EMSA and partly remotely based on the visual evidence provided by the contractors.

The summary of the ECTs carried out in 2024 is presented in the table below.

Table 6. ECTs 2024.

Contractor	ECTs 1st Quarter	ECTs 2nd Quarter	ECTs 3rd Quarter	ECTs 4th Quarter	Result
LAMOR AB EAS Northern Baltic Sea (Tolkkinen)		Lamor LAS 125 (2/24) in conjunction with the Finnish Border Guard	New Naval Storage Barge (9/24)	Lamor Workboat (11/24)	Equipment was found in a good condition. All ECTs accepted by EMSA
			Lamor LRB 150 (9/24)	Lamor Workboat (11/24)	
			Lamor LRB 150 (9/24)	Lamor Medium Skimmer System (12/24)	
			Lamor LAS 125 (9/24)		
			New Naval Fence Boom (9/24)		
			New Naval Fence Boom (9/24)		
			Lamor LFF 100 (9/24)		
			Lamor Medium Skimmer System (9/24)		
			Current Buster 4 (9/24) in conjunction with the Finnish Border Guard and the Estonian Navy.		
		Lamor LAS 125 (2/24) in conjunction with the Finnish Border Guard	New Naval Storage Barge (9/24)	Lamor Workboat (11/24)	
Stena Oil EAS Baltic Sea (Frederikshavn)		New Naval Barge (05/24)	New Naval Fence Boom (07/24)		Equipment was found in a good condition. All ECTs accepted by EMSA
		Lamor Work Boat (05/24)	Desmi Speed Sweep (07/24)		
		Desmi RoBoom RoSkim (06/24)	Lamor Work Boat (08/24)		
		Current Buster 4 (06/24)	Lamor Barge (08/24)		
			Ro-Trawl (09/24)		
			New Naval Barge (09/24)		
LAMOR AB EAS North Sea (Werkendam)		Speed Sweep (05/24)	Lamor Medium Skimmer (09/24)	Lamor Medium Skimmer (12/24)	Equipment was found in a good condition. All ECTs accepted by EMSA
		New Naval Barge (05/24)	Lamor Work Boat (09/24)		
		Lamor Work Boat (05/24)	New Naval Fence Boom (09/24)		
		Current Buster 4(05/24)	Lamor Barge (08/24)		
		EAS Familiarisation in Cuxhaven, DE (04/24)	Lamor Barge (08/24)		

Ottavio Novella EAS Southern Europe (Ravenna)	New Naval Storage Barge (3/24)		Exercise with EFCA and Croatia to test the Ro-Trawl on the Ocean Guardian (10/24)	Desmi Ro-trawl (11/24)	Equipment was found in a good condition. All ECTs accepted by EMSA
	Lamor V-Sweep (3/24)			Current Buster 6 (11/24)	
	Speed Sweep (3/14)			Lamor Barge (11/24)	
	Desmi RoBoom RoSkim (03/24)			Lamor Barge (11/24)	
	Current Buster 4 (03/24)			Lamor Workboat (11/24)	
				Lamor Workboat (11/24)	
				New Naval Fence Boom (11/24)	
				Current Buster 4 (11/24)	
Bon Marine EAS Black Sea (Varna)		Lamor Work Boat (05/24)	Lamor Medium Skimmer (09/24)		Equipment was found in a good condition. All ECTs accepted by EMSA
		Lamor Work Boat (06/24)	New Naval Fence Boom (09/24)		
		New Naval Barge (06/24)	Lamor V-Sweep (09/24)		
		Speed Sweep (06/24)	BREEZE Exercise (07/24)		
		Current Buster 4 (06/24)			
TOTAL Number ECTs 2024: 54					

Within the framework of the joint co-operation programme EMSA-Member States, two training sessions for the Member States' equipment operators were organised in the EAS North Sea, from 28-30 May 2024 in Werkendam, the Netherlands, with 9 operators from 7 MS, and in the EAS Black Sea, from 25-27 June 2024 in Varna, Bulgaria, with 6 operators from 4 MS. The trainees were able to get familiarised and operate different equipment systems such as the Current Buster 4, the Speed Sweep, the Lamor work boats and oil storage barges.

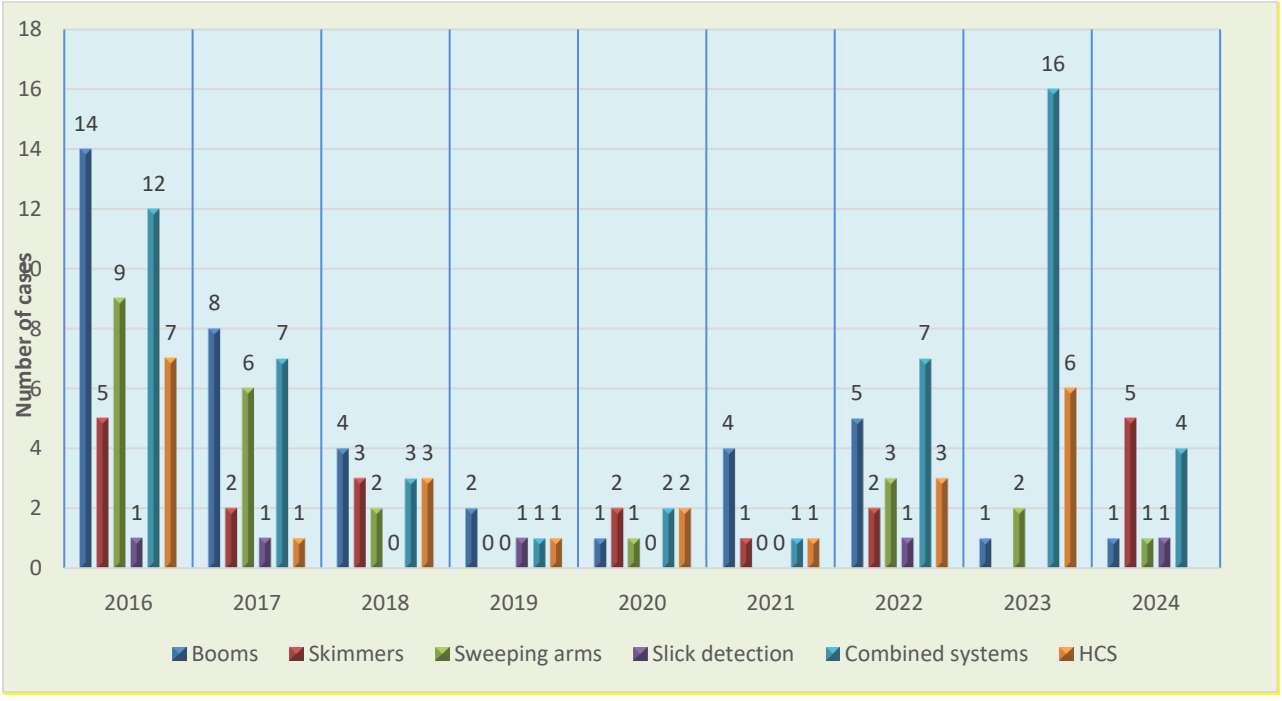
Furthermore, as part of the SLA between EFCA and EMSA, one hands-on training session took place on 19 September 2024, on board EFCA chartered vessel Ocean Guardian in conjunction with an exercise with the Croatian Authorities.

Fig. 3. EAS Black Sea. Exercise in Burgas, Bulgaria. Current Buster 4 deployed.

2.3 Technical Issues Record

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

Chart 2. Number of Technical issues 2016 – 2024.



2.3.1 Equipment Condition Monitoring and Incident Reporting

To ensure the highest level of operational readiness, EMSA conducts an annual verification of all pollution response equipment under its contracted vessels and EAS arrangements. This thorough inspection process assesses the functionality, reliability, and overall condition of the equipment, identifying any potential issues before they impact operational effectiveness.

In addition to these scheduled verifications, both vessel and EAS contracts include mandatory reporting requirements for any incidents or malfunctions affecting the equipment. To facilitate standardized reporting and ensure a swift response to technical issues, EMSA has developed a dedicated reporting tool known as the Event Report. This structured reporting mechanism enables contractors to document and submit detailed accounts of equipment failures or malfunctions, allowing EMSA to track trends, assess the reliability of different systems, and take appropriate corrective measures.

In 2024, a total of twelve event reports were submitted to EMSA. Given the number of EMSA contracted vessels, EAS stockpiles, and the total volume of equipment sets in use, this figure represents a relatively low rate of technical issues, indicating that the overall reliability of the pollution response assets remains high. Notably, the number of recorded failures decreased by approximately 50% compared to the previous year, reflecting improvements in equipment maintenance, handling, operational procedures and replacement of the obsolete equipment.

2.3.2 Analysis of Equipment Failures

The reported equipment failures in 2024 were categorized as follows:

- Minor physical damage during deployment, retrieval, or towing – This included small punctures, tears, or abrasions in containment booms such as Current Buster or Ro-Trawl sections, as well as air leaks in the towing slings of floating barges. These issues typically arise due to operational stress but were promptly repaired.
- Malfunctions of high-capacity skimmer systems – Some failures were linked to hydraulic system issues or skimmer head components, requiring maintenance or replacement of specific parts.
- Power pack operational failures – Several cases involved difficulties in starting or running power packs, often due to broken spring starters or minor mechanical faults.
- Combined system failures – Isolated incidents were reported where multiple interconnected components experienced issues simultaneously, requiring more complex troubleshooting and repair.
- Corrosion and rust-related issues – Some equipment items, particularly those exposed to prolonged storage in challenging environmental conditions, exhibited signs of rust. Regular anti-corrosion treatments and protective measures were applied to mitigate further deterioration.

Despite these occasional malfunctions, all reported technical issues were efficiently and effectively addressed. In each case, EMSA worked closely with contractors to restore the affected equipment to full operational status as quickly as possible, ensuring no prolonged periods of unavailability. As a result, in 2024, the OPR equipment under both the Vessel and EAS contracts remained in a constant state of operational readiness, fully capable of supporting Member States in responding to pollution incidents in accordance with EMSA's high performance standards.

2.3.3 Addressing Equipment Aging and Future Replacement Plans

While EMSA’s pollution response network remains operational, it's worth noting that after many years of service some of the equipment acquired in the early years is beginning to show signs of aging and deterioration.

To proactively manage this challenge, EMSA has implemented a comprehensive equipment inventory verification process, systematically assessing the condition of each piece of pollution response equipment. This detailed monitoring allows the Agency to make informed, technically justified decisions regarding the declassification of older equipment and, where necessary, its replacement with new, upgraded systems.

The replacement of aging equipment is subject to the availability of financial resources, and EMSA continues to explore cost-effective solutions to ensure the long-term sustainability of its pollution response capabilities. By maintaining a rigorous approach to equipment maintenance, monitoring, and renewal, the Agency aims to safeguard the effectiveness of its pollution response assets and continue its commitment to providing reliable, high-quality services to Member States.

3. Exercises performed in 2024

At-sea operational exercises play a crucial role in facilitating the integration of EMSA's OPR services within the response mechanisms of Member States. This enhances the necessary coordination and cooperation between EMSA resources and coastal State response units. Additionally, these exercises offer rare opportunities for Member States' personnel to become familiar with the equipment available in the stockpiles.

It is important to note that, except for exercises within regional cooperation projects organized by the Agency, EMSA does not initiate exercises but actively participates upon request. The Agency applies a procedure for internal and external exercise coordination. It also facilitates the exchange of feedback between EMSA and the Member States following the completion of exercises.

3.1 Operational exercises

In the course of 2024, six EMSA contracted vessels (four of which equipped with RPAS) 1 EFCA Vessel with EMSA equipment on board and six EAS arrangements were deployed in ten at-sea oil pollution response operational exercises, organised in cooperation with Member States and/or Regional Agreements.

These events took place in Portugal, Malta, France, Italy, Bulgaria, Lithuania and Croatia.

In addition, three dedicated in-country operational familiarisations on the EAS equipment, including equipment deployment on vessels of the Member States, were provided on the following occasions:

- Cuxhaven, Germany (April 2024), with deployment of the Desmi Speed Sweep.
- Tolkkinen, Finland for Finnish Border Guard, with the arctic skimmer LAS 125.
- Tolkkinen, Finland for Finnish Border Guard and Estonian Navy, with a Current Buster 4.

Feedback from the exercises organisers as well as reports from EMSA service providers indicate that all vessels / EAS systems deployed in the operational exercises successfully completed the tasks assigned.

The summary of operational exercises performed by EMSA contracted vessels and EAS arrangements in 2024 is shown in the table below.

Table 7. Operational exercises 2024.

No.	Name of Exercise	Date	Location	Participating Parties	EMSA Vessel (RPAS) / EAS
1	**ATLANTIC POLEX.PT 2024**	17 April	Portimao, Algarve, Portugal	Portugal / EMSA	*Bahia Tres with RPAS*
2	**MALTEX Barracuda**	07 May	Malta	Malta / EMSA	*Adelia with RPAS / EAS Southern Europe: Current buster 4*
3	**POLNORD 24**	14-17May	Dunkirk, France	France / Belgium / EMSA	*Interballast III with RPAS*

4	**RAMOGEPOL 24**	28 – 30 May	Livorno / Italy	Italy / EMSA	*Brezzamare*
5	**BREEZE 2024**	12 July	Burgas / Bulgaria	Bulgaria / EMSA	*Galaxy ECO with RPAS / EAS Black Sea: Current buster 4*
6	**BALEX DELTA 24**	26 – 29 August	Klaipeda, Lithuania	Lithuania / Helcom Countries / EMSA	*Vingaren*
7	**National familiarisation EAS**	06 February	Tolkkinen / Finland	Finland / EMSA	*EAS Northern Baltic / Arctic skimmer*
8	**National familiarisation EAS**	17 April	Cuxhaven / Germany	Germany / EMSA	*EAS North Sea / Speed Sweep*
9	**National familiarisation EAS**	23 -27 September	Tolkkinen / Finland	Finland / EMSA	*EAS Northern Baltic / Current Buster 6*
10	**Croatia & EFCA**	27 September	Split / Croatia	Croatia / EFCA / EMSA	*EFCA Ocean Sentinel / EMSA Ro-trawl*

Fig. 4. *Vingaren* training STS operation during BALEX DELTA 24 Exercise.

3.2 Notification exercises

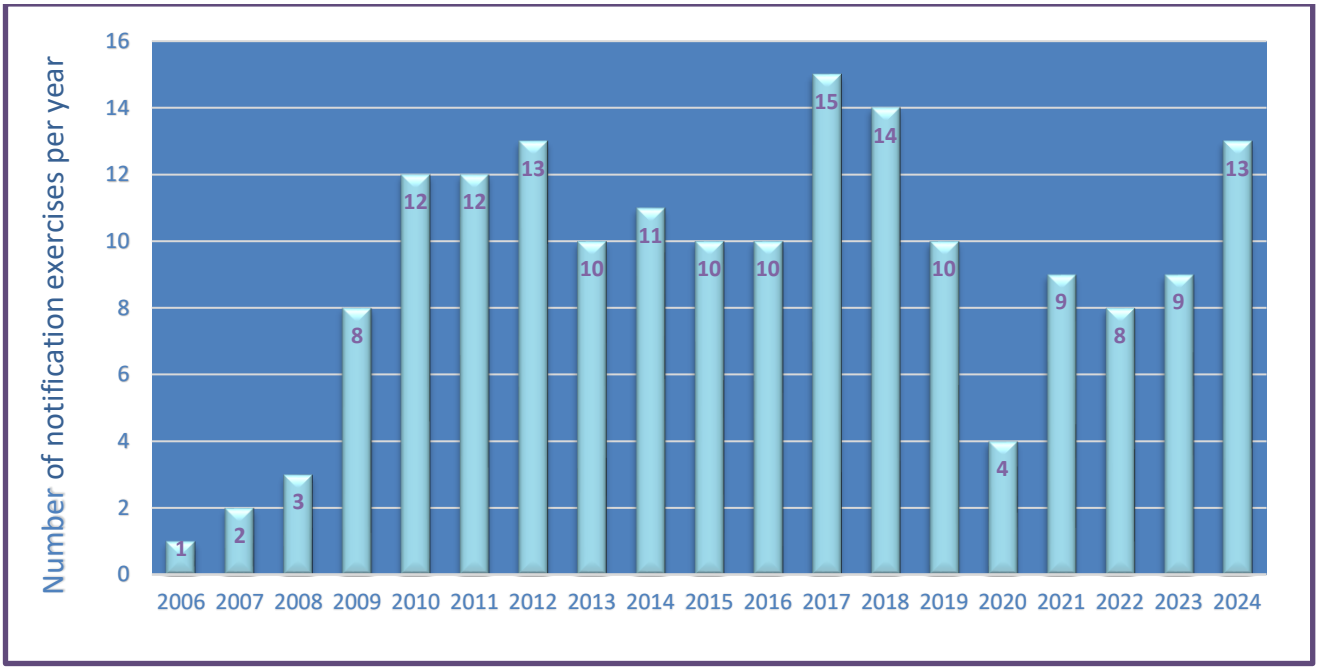
Notification exercises typically coincide with operational exercises, although there are instances of standalone notification exercises. The primary objective of these exercises is to assess and implement agreed-upon procedures and communication channels for reporting incidents and requesting/providing assistance. Member States typically initiate these exercises.

Notification exercises involve EMSA, one or more Requesting Parties, EMSA's contractor(s), and the Emergency Response Coordination Centre (ERCC) operated by DG ECHO. The key evaluation criterion for notification exercises is the time required for both the EMSA contractor and the Requesting Party to sign the Incident Response Contract Vessel (IRC-V) or EAS (IRC-E).

In the year 2024, the Agency engaged in thirteen notification exercises, encompassing eleven activations of EMSA vessels and six activations of the EAS services.

The chart below illustrates the annual count of notification exercises conducted from 2006 to 2024.

Chart 3. Notification exercises 2006-2024.



In 2024, out of thirteen exercises, only six saw the completion of EMSA assistance procedures, with the signature of six IRC vessel contracts and four IRC equipment contracts.

During each exercise, EMSA Contractors acted promptly and followed EMSA standards. However, some Member States ended the procedure before signing the IRC Form. It's crucial to emphasize that mobilizing EMSA assets depends on signing the Incident Response Contract and its annex, the IRC Form. This contract outlines obligations for both the Requesting Party and the Contractor.

Exercises provide a chance to ensure response authorities understand all clauses of this contract. The IRC Form specifies the vessel's configuration, or the type of EAS equipment requested. It's important to note that signing the IRC during exercises doesn't trigger any payment by the Requesting Party.

In the 2024 notification exercises, there was an improvement in Member States using the Common Emergency Communication and Information System (CECIS). However, there's still a need for more CECIS training to pollution response personnel responsible for seeking assistance from EMSA through the Union Civil Protection Mechanism.

Summary of results of the notification exercises carried out in 2024 can be found in the table below.

Table 8. Outcome of the Notification exercises 2024.

No.	Name / date	Participating parties	Assistance Requesting party / time	EMSA assistance offer type / time	Acceptance of EMSA assistance offer / time	EMSA action	Signature of IRC-V / time IRC-E / time	Comment
1	**MOSPAEx 28/02/2024**	NO, EMSA	Norway / 09:34	2 boats and 1 HC Skimmer from EAS N.Baltic / 11:42	2 boats and 1 HC Skimmer from EAS N. Baltic	Mobilisation of EAS	None	Exercise discontinued after acceptance of EMSA offer. No IRC- E signed.
2	**ATLANTC POLEX.PT 2024 17/04/2024**	PT, EMSA	Portugal / 08:11	OPR Vessel BAHIA TRES / 08: 53	OPR Vessel BAHIA TRES / 09:05	Mobilisation of the vessel	IRC-V / 10:47	Successful exercise with IRC-V signed within short time (< 3 h).
3	**BARRACUDA 07/05/2024**	MT, IT, EMSA	Malta / 11:32	OPR vessel ADELIA with RPAS and EAS Adriatic / 11:23	OPR vessel ADELIA with RPAS and CB 4 from EAS / 12:06	Mobilisation of the vessel, RPAS and EAS / 12:30	IRC-V & IRC-E / 13:11	Successful exercise with both IRC -V and IRC-E signed within less than 2 hours from the request for assistance.
4	**POLNORD 2024 14/05/2024**	BE, DE, DK, FR, IE, NL, NO, SE, UK, EMSA	France / 12:47	OPR vessel INTERBALLAST III with RPAS / 13:00	OPR vessel INTERBALLAST III with RPAS / 13:39	Mobilisation of the vessel and RPAS / 14:27	None	The exercise was not continued after assistance offer acceptance. IRC-V was not signed. .
5	**MSS-121218 - OIL SPILL RESPONSE EXERCISE 2024 26/06/2024**	REMPEC States / CY / EMSA	Cyprus / 07:16	OPR vessel ALEXANDRIA with RPAS, EAS equipment / 11:06	OPR vessel ALEXANDRIA with RPAS 1 CB6 / 12:30	Mobilisation of the vessel, RPAS and EAS 12:45	IRC-V / 13:03 IRC-E / 14:00	Successful exercise with both IRC -V and IRC-E signed within the reasonable time. MS and EMSA contractors exercised full procedure of EMSA assistance mobilisation including Notice of Readiness sent to MS.
6	**BURGAS 24 09/07/2024**	BG, EMSA	Bulgaria / 08:16	OPR vessel GALAXY ECHO with RPAS / 12:22, and dispersant spraying system and EAS equipment / 09:12	OPR vessel GALAXY ECHO with RPAS / 12:22, and dispersant spraying system and CB4 from EAS BS / 9:40	Mobilisation of the vessel, RPAS and EAS / 10:45	IRC-V & IRC-E / 12:18	Successful exercise with both IRC -V and IRC-E signed within 3h from the request for assistance.
7	**BALEX BRAVO 26/08-04/09/2024**	EMSA, DK, EE, FI, DE, LV, LT, PL, SE	Lithuania / 13:05	Intermediate storage vessel VINGAREN and OPR vessel NORDEN with RPAS / 13:31	Intermediate storage vessel VINGAREN / 13:54	Mobilisation of the vessel	IRC-V signed 26/08 16:00 / Counter signed by EMSA Contractor 27/08/24 6:48	Successful exercise with both IRC -V and IRC-E signed..

8	**HANKOIL 24 10/09/2024**	FI, SE, EMSA	Finland / 07:03	Intermediate storage vessel VINGAREN, and OPR vessel NORDEN with RPAS / 08:19	None	None	None	Assistance offer was not accepted in CECIS. Exercise was terminated before offer acceptance.
9	**EXERCISE Croatia EFCA 27/09/2024**	HR, EFCA, EMSA	Croatia / 7:00	OPR vessel OCEAN SENTINEL / with Ro-Trawl onboard	OPR vessel OCEAN SENTINEL/ with Ro-Trawl onboard	Vessel and equipment mobilisation	None	The exercise was not continued after assistance offer acceptance. IRC-V was not signed. .
10	**GALWARN 24 08/10/2024**	BE, DE, DK, FR, IE, NL, NO, SE, UK	France / 08:53	OPR vessel VN PARTISAN with RPAS / 09:24	None	None	None	Assistance offer was not accepted in CECIS. Exercise was discontinued
11	**NEMESIS 24 30/10/2024**	REMPEC countries, CY, EMSA	Cyprus / 07:46	OPR vessel ALEXANDRIA with RPAS, EAS equipment / 10:28	OPR vessel ALEXANDRIA with RPAS / 12:06 EAS equipment / 12:47	Mobilisation of the vessel, RPAS / 12:29 and EAS 13:06	IRC-V / 12:30 IRC-E / 13:13	Successful exercise with both IRC -V and IRC-E signed within the reasonable time (less than 6 hours)
12	**JOUKAHAINEN 10/11/2024**	HELCOM countries, FI, EMSA	Finland / 11:21	Intermediate storage vessel VINGAREN, and OPR vessel NORDEN with RPAS / 12:33	None	None	None	Assistance offer was not accepted in CECIS. Exercise was not continued after submission of offers from EMSA and Sweden
13	**PACHVOGEL 18/11/2024**	BE, EMSA, FR, NL, UK	Belgium 12:17 Request for 60 tons of dispersant	None	None	None	None	The exercise was terminated at 13:48, before submission of an offer by EMSA

4. MAR-ICE activations

The MARitime Intervention for Chemical Emergencies (MAR-ICE) Network of chemical experts was established in October 2008, through a 3-party Cooperation Agreement between EMSA, CEFIC (European Chemical Industry Council) and CEDRE (Centre for Documentation, Research and Experimentation on accidental water pollution). The MAR-ICE service became fully operational in January 2009, it has been activated over 70 times to date and currently runs through to December 2027.

Countries requesting the service can activate the MAR-ICE Network for real incidents, as well as for drills and exercises by contacting the MAR-ICE Contact Point and sending the MAR-ICE Activation Form, as per the activation procedures and contact numbers known to the relevant national authorities dealing with pollution response at-sea.

The MAR-ICE Network offers a 24/7 service to Member States (EU and Coastal EFTA) providing, upon request, rapid access to specialised information and expert advice on chemicals involved in marine spills. This expert support is available both remotely via phone and email (MAR-ICE service level-1) and on-site at the command

centre of the requesting country (MAR-ICE service level-2). The information and support provided by the MAR-ICE Contact Point is based on product specific characteristics and on advice from chemical industry experts.

Other dedicated tools developed by EMSA for chemical spill support, complement the MAR-ICE service, such as the 277 MARitime Chemical Information Sheets (MAR-CIS) datasheets and the BEhaviour of CHEMicals (BE-CHEM) tool outputs. When these are available for the substances involved in the specific incident or exercise scenario, they are also provided to the requesting country through the MAR-ICE service.

In 2024, the MAR-ICE Network was activated twice, as presented in the Table below:

- Once for a real incident.
- Once for an exercise.

During the activations, comments regarding the Activation Form and the activation procedure were noted, as well as some minor communication issues. The requested information was provided within the established timelines of the service and the user feedback received was positive.

In raising awareness of the service among national administrations, EMSA, together with the MAR-ICE Contact Point (Cedre), delivered in 2024 two more online national familiarisation sessions (webinars) to relevant national experts from Belgium and Greece. These short MAR-ICE familiarisation sessions aim to present to a wider national audience the service's scope, activation procedures and expected outputs, and are available upon request and free of charge to relevant administrations.

Table 9: Overview of MAR-ICE service activations in 2024

MAR-ICE SERVICE ACTIVATIONS 2024				
Nr	Date	Country	Incident / Scenario / Products involved	Assistance provided
1	28/05/2024	Italy (RAMOGEPOL 2024 Exercise)	**Exercise scenario** involved the spill at sea of 2 products. **Products involved**: Caustic soda (solid) (UN 1823) and Paraffin wax (solid). **Request covered** product specific information (Section F1 of Form)	**Activation of MAR-ICE Level 1** The MAR-ICE service provided the following product-specific documentation and information regarding the substances involved: • Safety Datasheets (SDS) & MAR-CIS datasheets • ERICards (in Italian language) • Cedre chemical response guide • Information about products' behaviour and impacts, advice on possible actions
2	01/11/2024	Spain (SASEMAR) Real Incident	**incident** involved a vessel collision and the spill at sea of one product. A request was made for more information about the product.	**Activation of MAR-ICE Level 1** The MAR-ICE service provided relevant product-specific documentation, information and advice regarding the substance involved, as well as drift modelling outputs.

4. Key Conclusions and Insights

- **Operational Readiness and Efficiency**
  EMSA OPR Vessel Network, EAS and MAR- ICE activities conducted throughout 2024 reaffirmed that the pollution response services are fully operational, effective, and aligned with both EMSA standards and the expectations of Member States. This indicates a high level of preparedness to tackle marine pollution incidents.

- **Advancements in Oil Pollution Detection**
  Since 2018, EMSA has progressively enhanced the capabilities of its contracted vessels by integrating LRPAS to improve oil pollution detection on the sea surface. By 2024, 12 out of 14 vessels in the Agency's fleet were equipped with this technology. The ultimate goal is to ensure that all EMSA vessels are outfitted with LRPAS, subject to technical feasibility. This continuous improvement highlights EMSA's commitment to leveraging advanced technology for more effective pollution monitoring and response.

- **Strengthening HNS Pollution Response**
  EMSA has expanded its assistance in hazardous and noxious substances (HNS) pollution response by securing a framework contract for HNS-specific equipment, including HNS pumping sets. This specialized equipment will be stationed in five EAS warehouses, enabling quicker and more efficient responses to chemical spills. To maximize effectiveness, Member States are encouraged to incorporate these resources into their training and exercises.

  Aging Equipment and the Need for Modernization
  While the EMSA Vessel Network has been operational since 2006, early purchased equipment is now showing signs of wear, aging, and obsolescence, particularly in IT-related systems. EMSA is actively conducting equipment condition assessments and plans to accelerate replacement efforts, subject to budgetary constraints. This underscores the necessity for ongoing investment in modernization to maintain high response capabilities. The ongoing modernization of equipment to adapt to new type of oils, expansion of response services, and improved coordination mechanisms will be vital in ensuring a robust and effective marine pollution response framework for the future allowing EMSA to fulfil its mandate.

- **Progress in Notification Procedures**
  The results of 2024's notification exercises show that there is still a need to enhance the use by Member States of the full procedure for mobilizing EMSA's resources. Gaps remain, particularly in the use of CECIS. Strengthening MS personnel's understanding of these procedures will enhance EMSA's ability to provide timely and effective assistance during major pollution events.

- **Enhancing Operational Cooperation**
  As part of the cooperation framework between EMSA, EFCA and Frontex, Multipurpose Maritime Operations (MMOs) are conducted in specific areas of European waters. These operations require strengthened inter-agency collaboration to support national authorities in carrying out coast guard functions at the national, EU, and, where appropriate, international levels. In 2024, EMSA's pollution response services played a key role in these activities, providing response resources for the Polnord exercise in France and the Balex Delta exercise in Lithuania. Additionally, EMSA facilitated hands-on training for Member States on MAR-ICE and EAS equipment, further enhancing preparedness and response capabilities.

- **Utilization of EMSA Vessels in Exercises**
  EMSA vessels and EAS systems participate in operational exercises each year, with EMSA covering associated costs. In 2024, six requests for operational participation with an OPR vessel were received. MS often don't use the full capabilities of EMSA vessels during exercises, limiting activities to simple deployments of sweeping arms. To maximize training effectiveness, MS should design more complex exercise scenarios including use of the full vessel capabilities, including booms, skimmers, slick detection systems, RPAS, and dispersant spraying systems.

The cost of participating in exercises is influenced by multiple factors, including distance to the exercise site, fuel expenses, and vessel daily rates. The increasing costs of fuel, equipment, and labour, driven by inflation, make cost efficiency a crucial consideration. EMSA recommends that MS optimize the use of vessels during exercises to ensure that resources are deployed in the most impactful and cost-effective manner.

- **Awareness and Training on MAR-ICE**
  EMSA is actively promoting the MAR-ICE service during various technical meetings and workshops. Additionally, the Agency offers the opportunity to request national familiarization sessions, providing Member States personnel with a comprehensive understanding of MAR-ICE activation procedures and service offerings. These efforts aim to ensure that all relevant stakeholders are well-equipped to utilize MAR-ICE effectively in real-life scenarios.

- **New Intermediate Storage Vessel for Oil Spill Response**
  Based on consultations with Member States, EMSA contracted a vessel in 2023 specifically for the intermediate storage of oil recovered during major spills. This vessel *Vingaren,* based in Frederikshavn, Denmark, entered service on 13 March 2024. Its deployment represents a significant enhancement in OPR capabilities, allowing for more efficient recovery and storage operations.

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