



European  
Maritime  
Safety  
Agency

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## Inventory of EU Member States Oil Pollution Response Vessels





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## Summary

In order to have an overview of at-sea equipment for oil spill response resources currently available in Member States and any future plans for investment, EMSA has created an Inventory of such resources. It has been realised that one of the most fundamental requirements is to understand what oil pollution prevention and response capabilities exist in the EU at the present time. This Inventory has been produced in response to that requirement.

The first version of the Inventory (21st October 2004) was submitted to EMSA's Administrative Board together with EMSA's Action Plan at its 9th meeting held in Lisbon on 21st and 22nd October 2004.

Since then, EMSA has twice updated the Inventory, first in 2006 and now once more in 2009.

The Inventory contains extensive information on capabilities in the coastal EU countries, candidate countries and the coastal EEA States.

In particular, there is available information regarding:

- Availability, distribution, costs and model contracts relating to multi-purpose vessels.
- Inventory profiles for each Member State.
- Plans or projects underway relating to oil pollution

response vessels.

Owing to the nature of this Inventory, only resources in coastal States are listed and non-littoral States have not been included.

EMSA would like to thank all parties that have contributed to the contents of this document. It would be very much appreciated if EMSA were to be informed of any changes in the national at-sea oil spill response equipment of a Member State. In this way the Inventory will remain up-to date and will hopefully remain a useful and viable information tool to the users.

# Country Profiles



## 1. GOVERNMENT OWNED OR CHARTERED RESOURCES

### 1.1 Specialised anti-pollution vessels

Belgium does not own or have under charter any specialised pollution response vessels, however 'vessels of opportunity' are available for the deployment of specialised pollution response equipment owned by the Directorate-General Environment of the federal public service Public Health, Food Chain Safety & Environment.

### 1.2 Assistance provided during the Prestige Accident

Belgium offered the UNION BEAVER to assist in at-

sea operations during the PRESTIGE incident. This vessel is not at the present time under contract of the Belgian authorities and, following up on the Belgian offer, it was chartered on an "ad-hoc" basis by the Spanish authorities for this particular incident.

### 1.3 Other Resources

The Directorate-General Environment of the federal public service Public Health, Food Chain Safety & Environment owns a comprehensive stockpile of oil pollution response equipment located in Ostend. This equipment includes one

Vikoma Hi Sprint boom 1500 (300 m) and Sea Devil Skimmer or Vikoma sea Skimmer 50; one Nofi Vee Sweep 450/1000 system with 450S guide boom and Komara 40 skimmer or Komara Star skimmer; four Vikoma pollutant floating storage units and four Vikospray 2000 dispersant spraying unit as well as stock of dispersants. Complete sets of oil recovery systems and dispersant-spraying gear can be deployed by several 'vessels of opportunity' belonging respectively to the fleet service of the Regional Flemish Maritime Administration and the Federal Science Policy Office, assisted by Ready Duty Vessels of the Belgian Navy.



At sea Response Resources: **BELGIUM**

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
ZEEHOND	Ostend	Tug; LOA: 39.50 m; 2 engines 1,766 kW total; crew: 8	•	No equipment permanently on-board	(Use of floating tanks)	
TER STREEP	Ostend	Hydrographic Vessel; LOA: 49.85 m; 2 engines 1,192 kW total; crew: 10	•	No equipment permanently on-board	(Use of floating tanks)	
BELGICA	Zeebrugge	Research Vessel; LOA: 50.90 m; 2 engines 1,154 kW (diesel)+ 82 kW (electric); crew: 15	•	No equipment permanently on-board	(Use of floating tanks)	

**1.3.1 Belgian Navy Ready Duty Vessels**

The Belgian Navy permanently maintains one of three vessels on stand-by at Zeebrugge to accomplish different tasks, including SAR, fisheries inspections and anti-pollution

operations. The three vessels available for such duties are: A950 VALCKE, A963 STERN and A996 ALBATROS. The vessels do not have permanently anti-pollution equipment and booms on-board. Skimmers or dispersant spraying

equipment would be loaded as needed. However, the storage capacity of the vessels used for oil recovery is limited and dependent of the use of floating storage tanks severely hampered by the lack of storage tanks on-board.

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
A950 VALCKE	Zeebrugge	LOA: 30.68 m; 2 engines 1,240 HP total; crew: 8	•	No equipment permanently on-board	0	
A963 STERN	Zeebrugge	LOA: 49.90 m 2 engines each of 1,810 HP; crew: 13	•	No equipment permanently on-board	0	
A996 ALBATROS	Zeebrugge	27.70 m; 1 engine 720 HP; crew: 8	•	No equipment permanently on-board	0	



## 2. PRIVATE RESOURCES

Belgium does not have any contracts for pollution vessels with private companies. Major oil terminals have some equipment, including dispersant, to meet their own requirements but no formal agreements exist whereby this equipment could be pooled in the event of a large incident. However, Total and Esso have agreed to make their equipment available in the event of an oil spillage in the port of Antwerp.

The private company 'URS Salvage & Maritime Contracting' based in Antwerp, Belgium, operates several vessels which have salvage equipment on-board for fire-fighting, re-floating of grounded or sunken ships, wreck removal and oil pollution response.

The UNION BEAVER is a multi-purpose salvage vessel of that company. She is equipped with dispersant-

spraying gear, and with two sweeping booms and LORI side-collector units. She has an on-board autonomous oil-storage capacity of about 300 m<sup>3</sup>. The UNION BEAVER participated in the international response to the Prestige oil spill (2002-2003) and was engaged as first-line oil-combating vessel in the oil-pollution contingency arrangements on the site of the TRICOLOR wreck-removal operation off Dunkirk (2003-2004).





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At sea Response Resources: **BULGARIA**

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**1. GOVERNMENT OWNED OR CHARTERED RESOURCES**

According to the National Oil Spill Contingency Plan, the lead role for at-sea spill response operations is assigned to the Bulgarian Maritime Administration (BMA) of the Ministry of Transport and is exercised through the Marine Emergency Response Squadron (MERS). Bulgarian territorial waters are divided into two regions of responsibility covering respectively the BMA's directorates in Varna and Burgas. The harbour masters of Varna and Burgas are in charge of the relevant MERSs.

Shoreline clean-up operations are dealt with by the Coastal Emergency Response Squadron (CERS) led by the Civil Protection Unit of the Ministry of Emergency Situations.

The coordination between different response teams is carried out by the Permanent Commission (PC) for Protection of Population in case of Natural Disasters and Significant Industrial Accidents (PC). There are two levels of the PC – one national (to the Council of Ministers) and one regional level (to the Governors).

The preferred response is containment/recovery for at sea response and manual/mechanical techniques for shoreline clean-up. Special permission for the use of chemicals (e.g. dispersants) needs to be obtained from the Ministry of Environment and Waters. Limited stockpiles of equipment for at-sea response are held by the private company Marine Antipollution Enterprise JSC. The Border Police and Bulgarian Navy can also provide a range of vessels and personnel to support the response, if needed.



**1.1 Specialised anti-pollution vessels**

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
ROPOTAMO	Varna	Recovered oil storage vessel	Yes		1,014	
PERUN	Varna	Search and rescue tug; LOA: 58.55 m; draught: 4.6 m	Yes			
MIZAR	Varna	Fire fighting boat; speed: 13 knots; LOA: 28.00 m; draught: 3.0 m	Yes			

**1.2 Projects in progress and any other up to date information**

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
According to PHARE it is expected two more boats to be provided in 2009	Varna, Burgas	Recovered oil storage vessel; LOA: 18-22 m; draught: 1.5 m; max speed: 30 knots	Yes	Boom layers, skimmers - 50 m <sup>3</sup> /hr, laboratory for oil Identification, kit material for oil spills	50	

At sea Response Resources: **BULGARIA****1.3 Other support vessels**

There are 2 survey vessels and 14 multipurpose vessels based in the ports of Varna and Burgas.

**2. PRIVATE RESOURCES**

There are six oil spill response vessels in the main Bulgarian ports – Varna and Burgas. Oil recovery

vessels of this type are operational in sea conditions up to 2 Beaufort scale. The technical details of recovery vessels are as follows:

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
RUSALKA	Burgas	Oil recovery vessel; max speed 8 knots; LOA: 25.22 m; draught: 3.24 m	5 NM from the coast, 50 NM from refuge	Boom – 1,000 m; Desmi Skimmer-50 m <sup>3</sup> /hr	128	
NS-26	Varna	Oil recovery vessel; max speed 2 knots; LOA: 14.85 m; draught: 1.6 m	No Vessel is used only in port area and covered waters		12	
NS-28	Varna	Oil recovery vessel; max speed 2 knots; LOA: 14.85 m; draught: 1.6 m	No Vessel is used only in port area and covered waters		12	
NS-23	Burgas	Oil recovery vessel; max speed 2 knots; LOA: 14.85 m; draught : 1.60 m	No Vessel is used only in port area and covered waters		14.8	

At sea Response Resources: **BULGARIA**

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
NS-25	Burgas	Oil recovery vessel; max speed 2 knots; LOA: 14.85 m; draught: 1.60 m	No Vessel is used only in port area and covered waters.		14.8	
TYULENOVO	Varna	Recovered oil storage vessel	No		250	
TAYFUN	Burgas	Auxiliary boat for deploying booms	No Boat is used only in port area and covered waters			
Stationary Floating storage tank	Burgas	Oil storage; length: 14.0 m; breadth: 6.0 m; draught: 2.0 m	No		263.88	



At sea Response Resources: **CYPRUS**

1. GOVERNMENT OWNED OR CHARTERED RESOURCES

1.1 Anti-pollution vessels

The Department of Fisheries and Marine Research (DFMR) of the Ministry of Agriculture and Natural

Resources is responsible for oil spill control and response at the national level and for the setting up of the emergency response centers (ERCs) as follows:

- Department of Fisheries and Marine Research Headquarters - major accidents, activation of the National Contingency Plan and if necessary Subregional Contingency Plan between Cyprus, Israel, and Egypt.

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
ALKYON	Larnaca	Multipurpose Vessel; length: 38'; speed: 22 knots		Dispersant sprays, transportation of response personnel, equipment and products		519.76
AMFITRITI	Paphos	Multipurpose Vessel; length: 38'; speed: 22 knots		Dispersant sprays, transportation of response personnel, equipment and products		346.51
GORGO	Limassol	Patrol Vessel; length: 42'; speed: 24 knots		Dispersant sprays, transportation of response personnel, equipment and products		346.51
F.8	Agia Napa	Anti-pollution; length: 28'; speed: 20 knots		Dispersant sprays, transportation of response personnel, equipment and products		86.63



- One of the districts offices (minor accidents). The Cyprus National Authorities also have in their possession 1,550 m of Open Sea Boom, 1.850m of Harbour Boom, 600m of Coast Boom, 10 Dispersants Spraying Units, 11 Skimmers Units, approximately 22,000 litres of Oil Dispersants, 6 Oil Holding Tank Units, 3 Submersible pump units, 4 pressure steam cleaner units, 5 Oil/Water Separator Units, 3 Generating Sets, Oil Sorbents, Vehicles, Portable Hydraulic Winches,

3 Water Pumps, and 1 Vacuum Cleaner.

- According to the Cyprian Council of Ministers decision no 61,930 dated 27/04/2005, oil pollution response at national level will be assigned to the private sector under the supervision of the Department of Merchant Shipping, Ministry of Communication and Works. The Department of Fisheries and Marine Research is temporarily responsible for

the oil spill response until the implementation of the Council of Ministers decision.

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## 2. PRIVATE RESOURCES

Cyprus Oil Refinery, BP and the cement factories all maintain stocks of boom, dispersants, skimmers and sorbents to varying degrees. A number of private contractors offer spill response equipment including dispersant spraying vessels. However no information is presently available regarding vessel details.



At sea Response Resources: **DENMARK**

1. GOVERNMENT OWNED OR CHARTERED RESOURCES

1.1 Specialised anti-pollution vessels

The Royal Danish Navy owns and operates six specialised oil spill response vessels. These are equipped with a variety of booms, skimmers, pumps

and other accessories and are stationed at centrally-located naval bases. Three dedicated storage barges are also kept on stand by for emergency use. Further barge capacity can be chartered in the local shipping market.

The Danish Ministry of Defense has initiated the procurement of the following equipment:

- General sweeping equipment and shallow water sweeping gear.
- Two new shallow water response vessels.

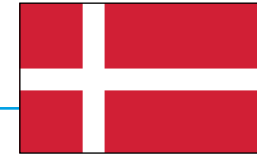
Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m³)	Anti-pollution Operations Daily Rate (€)
GUNNAR SEIDENFADEN	Korsor	Offshore supply/Ice class; speed: 12 knots; LOA: 56 m; crew: 16-34	•	3x200 m Ro-boom 2000, Desmi Terminator combination skimmer systems. The skimmer system incorporates the Desmi Dop-250 pump fitted with injection flange for heavy oil pumping applications. 400 l HFO grab. Steam generator for heating HFO.	312 m³ internal storage, of which 220 m³ is heated	13,650
GUNNAR THORSEN	Copenhagen	Offshore supply/Ice class; speed: 12 knots; LOA: 56 m; crew: 16-34	•	3x200 m Ro-boom 2000, Desmi Terminator combination skimmer systems. The skimmer system incorporates the Desmi Dop-250 pump fitted with injection flange for heavy oil pumping applications. 400 l HFO grab. Steam generator for heating HFO. 130 tm crane with a 3 tons grab.	312 m³ internal storage, of which 220 m³ is heated	13,650



At sea Response Resources: **DENMARK**

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
MARIE MILJO	Korsor	Sea truck class; speed: 9 knots; LOA: 29 m; crew: 6	Coastal waters	200 m Ro-boom, 1 x desmi-250 skimmer, 320l HFO grab	60 m <sup>3</sup> unheated internal storage	6,825
METTE MILJO	Copenhagen	Sea truck class; speed: 9 knots; LOA: 29 m; crew: 6	Coastal waters	200 m Ro-boom, 1 desmi-250 skimmer, 320l HFO grab	60 m <sup>3</sup> unheated internal storage	6,825
MILJO 101	Korsor	Launch/work boat class; speed: 15 knots; LOA: 16 m	Coastal waters	1 mini-max skimmer on MILJO 102, built in 1996	No on-board storage	
MILJO 102	Korsor	Launch/work boat class; speed: 15 knots; LOA: 16 m	Coastal waters	1 mini-max skimmer on MILJO 102, built in 1996	No on-board storage,	
MS 201	Korsor	Storage barge; LOA: 24 m			5 enclosed tanks, 300 m <sup>3</sup> total storage with heating coils but no integrated heat source	
MS 202	Copenhagen	Storage barge; LOA: 24 m			5 x enclosed tanks, 300 m <sup>3</sup> total storage with heating coils but no integrated heat source	
MS 203	Fredriks-havn	Storage barge; LOA: 24 m			5 x enclosed tanks, 300 m <sup>3</sup> total storage with heating coils but no integrated heat source	





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At sea Response Resources: **DENMARK**

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**2. PRIVATE RESOURCES**

It is possible that private tug and salvage companies might become involved in a response operation, especially if there are salvage aspects

to the incident. Though there is an internationally-significant manufacturer of spill response equipment located in the country (Ro-clean Desmi), there are no specialised spill clean-up contractors that

would operate at sea in Danish waters. Private firms are often involved in off-loading oil from recovery vessels or in shoreline clean-up operations.



**1. GOVERNMENT OWNED OR CHARTERED RESOURCES**

Board of Border Guard, responsible for oil spill combating has:

**1.1 Specialised anti-pollution vessels**

Equipment including booms, skimmers, hot water washers, absorbents is stocked in Tallinn.

- 4,900 m of boom for coastal waters
- 2,800 m of boom for open sea

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
PVL-202 KATI (Border Guard)	Tallinn	Offshore supply; LOA: 40 m; breadth: 6.6 m; draught: 3 m; max speed: 12 knots		Lamor brush skimmers 120 m <sup>3</sup> /h.	113	
EVA-316 (Estonian Maritime Administration)	Summer/Tallinn Winter/Pärnu	Offshore supply/Ice class LOA: 60 m; breadth: 12.2 m; draught: 5 m; max speed: 15 knots		Lamor brush skimmers 2x200 m <sup>3</sup> /h (summer) 2x50 m <sup>3</sup> /h (winter).	196	
SEKTORI; owner Finstaship (operated by Estonian Maritime Administration)	Tallinn	Offshore supply/Ice class IA; LOA: 33 m; breadth: 7.9 m; draught; 2.9 m; max speed: 10 knots		Lori brush skimmers 2x250 m <sup>3</sup> /h	113	



At sea Response Resources: **ESTONIA**

2. PRIVATE RESOURCES

The major ports have their own recovery equipment. Muuga, the biggest oil terminal has 3,350 m of oil

booms, 1 offshore Lamor brush skimmer, 3 x Lamor Minimax brush skimmers, 1 boom-layer and three smaller oil combating vessels.

A private contractor based at Pämu has a significant amount of clean-up equipment for coastal waters.



1. GOVERNMENT OWNED OR CHARTERED RESOURCES

1.1 Specialised anti-pollution vessels

The Finnish oil spill response fleet comprises fifteen government-owned and operated ship-sized recovery

vessels. It should be noted that none of these vessels are classed to operate outside the Baltic Sea and that requests to send the vessel abroad are evaluated technically on a case by case basis.

Technical details of Finnish recovery vessels:

Vessel	Operator	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
HALLI	Navy	Turku	LOA: 60.5 m; Breadth: 12.4 m; draught: 4.0 m; max speed: 12 knots	• Baltic Sea only	2 sweep arms (40 m sweeping width), 3x200 metres, 2 m high Ro-Boom & 3x200 metres, 1.5 m high Ro-Boom	1,400	14,800
HYLJE	Navy	Kirkkonummi	LOA: 54.1 m; breadth: 12.5 m; draught: 3.0 m; max speed: 10.5 knots; min crew: 8+12	• Baltic Sea only	2 sweep arms (35 m sweeping width), 4x200 metres, 2 m high Ro-Boom	800	14,900
KUMMELI	State Shipping Enterprise (Finstaship)	Savonlinna	LOA: 28.2 m; breadth: 7.9 m; draught: 2.45 m; max speed: 11 knots	Home port in Lake Saimaa	2 sweeping arms (25 m sweeping width)	70	

At sea Response Resources: **FINLAND**

Vessel	Operator	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
LETTO	State Shipping Enterprise (Finstaship)	Oulu	LOA: 42.7 m; breadth: 12.2 m; draught: 5.0 m; max speed: 12 knots		2 sweeping arms (30 m sweeping width) 3x200 metres, 1,5 m high Lamor Boom)	42.7	5,500
LINJA	State Shipping Enterprise (Finstaship)	Pori	LOA: 34.9 m; breadth: 9 m; draught: 2.8 m; max speed: 10 knots		2 sweeping arms (23 m sweeping width)	77.4	6,300
MERI-KARHU	Border Guard of Finland	Helsinki	LOA: 58 m; breadth: 11 m; draught: 4.7 m; max speed: 16 knots; min crew: 10	Baltic Sea only	2 sweeping arms (32 m sweeping width) 3x200 metres, 1,5 m high LAMOR boom	40 + oil sack station	13,500
OILI I	State Shipping Enterprise (Finstaship)	Helsinki	LOA: 24.5 m; breadth: 6.6 m; draught: 2.1 m; max speed: 8 knots	Coastal	2 sweeping arms (21 m sweeping width)	80	2,700
OILI II	State Shipping Enterprise (Finstaship)	Turku	LOA: 24.5 m; breadth: 6.6m; draught: 2.1 m; max speed: 7 knots	Coastal	2 sweeping arms (21 m sweeping width)	80	2,700
OILI III	State Shipping Enterprise (Finstaship)	Maarian-hamina	LOA: 24.5 m; breadth: 6.6 m; draught: 2.1 m; max speed: 7 knots	Coastal	2 sweeping arms (21 m sweeping width)	80	2,700



At sea Response Resources: **FINLAND**

Vessel	Operator	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
OILI IV	State Shipping Enterprise (Finstaship)	Vaasa	LOA: 19 m; breadth: 6.5 m; draught: 2 m; max speed: 7 knots	Coastal	2 sweeping arms (19 m sweeping width)	30	2,700
SEKTORI	State Shipping Enterprise (Finstaship)	Turku	LOA: 33 m; breadth: 7.9 m; draught: 2.45 m; max speed: 11 knots		2 sweeping arms (25 m sweeping width)	108	4,600
SEILI	State Shipping Enterprise (Finstaship)	Kotka	LOA: 50.5 m breadth: 12.2 m draught : 5.0 m max speed: 12 knots		2 sweeping arms (30 m sweeping width)	198	5,500
SVARTAN	Aland Government	Maarian-hamina	LOA: 24 breadth: 6.6 m	Coastal	2 sweeping arms (21 m sweeping width)	52	2,700
TURSAS	Border Guard of Finland	Turku	LOA: 61.45 m breadth: 10.2 m draught: 4.85 m max speed: 14 knots	Baltic Sea only	2 sweeping arms (30 m sweeping width)	100+ oil sack station	13,500
UISKO	Border Guard of Finland	Turku	LOA: 61.45 m breadth: 10.2 m draught: 4.85 m max speed: 14 knots	Baltic Sea only	2 sweeping arms (30 m sweeping width)	100+ oil sack station	13,500



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At sea Response Resources: **FINLAND**

Municipalities also have a number of medium and small-size vessels that can be used in recovery operations. These include 94 specialised oil-combating boats and rafts in the 10-20 meter length range as well as hundreds of smaller, non specialised boats. Among the municipal boats, 17 are permanently outfitted with sweeping arm stiff-brush oil recovery systems. Ten of

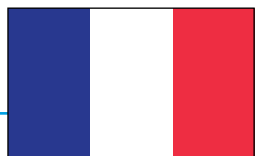
the ship-size vessels are suitable for operating in open waters/high seas and five in coastal waters. All of the vessels are equipped with sweeping arm oil recovery systems with ability to recover heavy viscous oils and have heated oil storage capacity (two biggest 800 and 1,400 m<sup>3</sup>). Total storage capacity of 15 vessels is 3,256 m<sup>3</sup> and total sweeping performance is 18 km<sup>2</sup> per 24

hours at vessel velocity of 1 knot. That total capacity will be used in any place of Finland's response region after three days.

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## 2. PRIVATE RESOURCES

There are currently no private spill response contractors in Finland.



## 1. GOVERNMENT OWNED OR CHARTERED RESOURCES

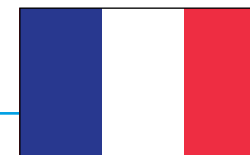
### 1.1 Emergency towing vessels

Technical details of French Emergency Towing Vessels

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
ABEILLE BOURBON	Brest	Emergency towing vessel; LOA: 80 m; crew: 12	•	4 engines 16,000 HP 2 propellers	0	
ABEILLE LIBERTE	Cherbourg	Emergency towing vessel; LOA: 80 m; crew: 10	•	4 engines 16,000 HP 2 propellers	0	
ABEILLE FLANDRE	Toulon	Emergency towing vessel; LOA: 63.4 m; crew: 10	•	4 engines 12,800 HP 2 propellers	0	
MONARCH*	Dover	Emergency towing vessel; LOA: 63.4 m; crew: 11	•	16,340HP	0	
ABEILLE LANGUEDOC	La Pallice	Emergency towing vessel; LOA: 63.4 m; crew: 10	•	4 engines 12,800 HP 2 propellers	0	

\* This vessel is shared with United-Kingdom on both a funding and operational basis.





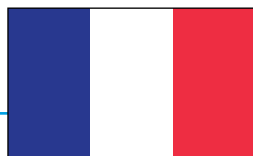
At sea Response Resources: **FRANCE**

Stockpiles are located in different places along the French coastline such as Dunkerque, Le Havre, Brest, Saint-Nazaire, Nantes, Le Verdon, Bordeaux, Sete, Marseille and Ajaccio.

**1.2 Specialised anti-pollution vessels**

Technical details of French recovery vessels

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m³)	Anti-pollution Operations Daily Rate (€)
AILETTE	Toulon	Oil recovery vessel; LOA: 53 m; crew: 7	•	2 skimmers, 1 sweeping arm, two 9 m dispersant spraying arms, 300 m high sea booms, 1 transfer pump 300 m³/h	480	
ALCYON	Brest	Oil recovery vessel; LOA: 53 m; crew: 7	•	2 skimmers, 1 sweeping arm, two 9 m dispersant spraying arms, 300 m high sea booms, 1 transfer pump 300 m³/h	480	
CARANGUE	Toulon	Oil recovery vessel; LOA: 64.6 m; crew: 8	•	2 skimmers, two 12 m dispersants spraying arms, high sea booms, 2 pumps two 96 m³/h transfer pump	480	
ARGONAUTE	Brest	Oil recovery vessel; LOA: 69 m; crew: 9	•	2 skimmers, 2 sweeping arm, two 9 m dispersant spraying arms, 2x300 m high sea booms, 1 transfer pump 300 m³/h	Between 1,100 and 1,500	



### 1.3 Support Type vessels

These follow technical details of “Chamois” type support

vessels that could be used to deploy skimmer and booms.

However there is no on board recovered oil storage capacity

available on these vessels.

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
ELAN	Cherbourg	Support Vessel; LOA: 41.5 m	•	Not always on ship but can operate oil skimmer+booms +floating storage tank	0	
CHEVREUIL	Toulon	Support Vessel; LOA: 41.5 m	•	Not always on ship but can operate oil skimmer+booms +floating storage tank	0	
GAZELLE	Toulon	Support Vessel; LOA: 41.5 m	•	Not always on ship but can operate oil skimmer+booms +floating storage tank	0	
TAAPE	Toulon	Support Vessel; LOA: 41.5 m	•	Not always on ship but can operate oil skimmer+booms +floating storage tank	0	

## 2. PRIVATE RESOURCES

No information available at present.

At sea Response Resources: **GERMANY**1. GOVERNMENT OWNED OR CHARTERED  
RESOURCES

Technical details of German offshore response vessels:

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
NEUWERK	Cuxhaven	Ice-breaker/ fire-fighting/ emergency tug/ lightering/ pollution response	•	2x15 m sweeping arms, suction pumps, grab, 2 x 200 high sea booms, deck storage tanks, oil/water separation unit, 2/4 high sea fenders, crane	1,000 (heated)	are regularly updated
NORDSEE	Willhelmshaven	Dredger/spill response	•	2x22 m sweep arms, gravity separation system	5,400	are regularly updated
MELLUM	Willhelmshaven	Ice-breaker/ emergency tug/ lightering/ pollution response/fire fighting	•	2x15 m sweep arms, suction pumps, grab, 2x200 high sea booms, deck storage tanks, oil/water separation unit, 2/4 high sea fenders, crane	910	are regularly updated
SCHARHÖRN	Kiel	Fire fighting/ lightering/ pollution response/ emergency tug	•	2x13.5 sweep arms, grab, 2x200 high sea booms, deck storage tanks, oil/water separation unit, 2/4 high sea fenders, crane	430 (heated)	are regularly updated
BOTTSAND	Warnemünde	Scissor-ship bunkering-disposal vessel/ pollution response	•	Twin hull vessel equipped with skimmers, oil/water separation unit	790 (heated)	are regularly updated



At sea Response Resources: **GERMANY**

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
EVERSAND	Willhelmshaven	Scissor-ship bunkering-disposal vessel/ pollution response	•	Twin hull vessel equipped with skimmers, oil/water separation unit	790 (heated)	are regularly updated
VILM	Rostock / Lübeck	Lightering/Oil Recovery Vessel	•	Lightering equipment, 2 sweeping arms	500 (heated)	are regularly updated
KIEL	Kiel	Fire fighting/ pollution response	•	2xsweep arms, skimmers, boom-laying launch	350	are regularly updated
WESTENSEE	Bremerhaven	Non-motorised catamaran requiring 2 tugs/pollution response	•	Non self propelled unit for recovery in rough seas, skimming system, gravitation separation system	1,960	are regularly updated
ARKONA	Stralsund	Ice-breaker/ Fire-fighting/ Emergency Tug/ Lightering/ Pollution Response	•	2x15 sweep arms, suction pumps, grab, 2x200 high sea booms, deck storage tanks oil/water separation unit, crane, 2/4 high sea fenders	400 (heated)	are regularly updated
LEYHÖRN	Norddeich	Supplier/Oil Recovery Vessel		2xsweeping arms, skimmers, mobile pump equipment, crane, high pressure cleaner	200	are regularly updated
THOR	Willhelmshaven	Scissor-ship Bunkering-Disposal vessel/ Oil Recovery Vessel		Twin hull oil recovery vessel, equipped with skimming system	280	are regularly updated
JANSSAND	Norddeich	Lightering/Oil Recovery Vessel		2xsweeping arms, skimmers, mobile pump equipment, crane, high pressure cleaner	93	are regularly updated
ÖSK 1	Brake	Oil recovery vessel		Catamaran, bow collector	18	are regularly updated
KNECHTSAND	Cuxhaven	Oil recovery vessel		Multipurpose oil skimming system, chemical storage tank, pumps, crane, high pressure cleaner	400	are regularly updated

At sea Response Resources: **GERMANY**

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
MPOSS	Hamburg	Oil recovery vessel		Multipurpose oil skimming system, pumps, crane, high pressure cleaner	300	are regularly updated
ODIN/LÜTTMOOR	Husum	Tug/Oil Recovery Barge		2xsweeping arms, crane, mobile pump	285	are regularly updated
STRELASUND	Stralsund	Oil Recovery/water surveillance vessel		2xsweeping arms, crane, mobile pump	200	are regularly updated
LUNEPLATE	Bremerhaven	Oil recovery/lightering		2xsweeping arms, bow collector, crane, mobile pump, vacuum system, 60 to heating boiler	550 (heated)	are regularly updated
SARDINE	Amrum	Support Vessel/Oil Recovery		1xoutrigger system, skimmer	20	are regularly updated
SAIBLING	Husum	Support Vessel/Oil Recovery		1xoutrigger system, skimmer	20	are regularly updated
STINT	Lübeck	Support Vessel/Oil Recovery		1xoutrigger system, skimmer	20	are regularly updated
ÄSCHE	Rostock	Support Vessel/Oil Recovery		1xoutrigger system, skimmer	20	are regularly updated
ORFE	Stralsund	Support Vessel/Oil Recovery		1xoutrigger system, skimmer	20	are regularly updated
MELISA	Lübeck	Support Vessel/Oil Recovery (private)		1xoutrigger system, skimmer	10	are regularly updated
OLAND	Husum	Surveying Vessel		Assistance in oil covered areas		are regularly updated

Federal stockpiles are located in Wilhelmshaven, Cuxhaven, Kiel. State's stockpiles are located in Hilgenriedersiel, Husum, Meldorf, Cuxhaven, Stralsund, Heiligendamm, Kiel, Wilhelmshaven, Bremerhaven, Bremen, Lübeck, Flensburg, Hamburg, Brunsbüttel, Käggsdorf,

## 2. PRIVATE RESOURCES

There are a number of oil spill clean-up contractors in Germany, most of which are based in the major ports. These operate a number of specialised vessels and maintain equipment stockpiles relevant for spill response. While much of this equipment is held in readiness for incidents involving small ships in ports

and terminals, some of it could be relevant for large spills where resources are pooled from different stockpiles. A number of the nation's recovery vessels are owned and operated under contract with the federal government. Where appropriate, private salvage companies could also be contracted to assist in response operations.



1. GOVERNMENT OWNED OR CHARTERED RESOURCES

1.1 Specialised anti-pollution vessels

Technical details of Greek recovery vessels:

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m³)	Anti-pollution Operations Daily Rate (€)
413	Elefsis	Multipurpose vessel; length: 29.10 m; breadth: 6.2 m; draft: 2.4 m; speed: 15 knots; crew: 8	Coastal	300 m fence type boom (Flexi 1100), skimmer type T-Disk 18B Vikoma, dispersant spray capability	10 (2x5 heated tanks)	602 except cost of the crew
414	Chania	Multipurpose vessel; length: 29.10 m; breadth: 6.2 m; draft: 2.4 m; speed: 15 knots; crew: 8	Coastal	300 m fence type boom (Flexi 1100), skimmer type T-Disk 18B Vikoma, dispersant spray capability	10 (2x5 heated tanks)	602 except cost of the crew
415	Thessaloniki	Multipurpose vessel; length: 29.10 m; breadth: 6.2 m; draft: 2.4 m; speed: 15 knots; crew: 8	Coastal	300 m fence type boom (Flexi 1100), skimmer type T-Disk 18B Vikoma, dispersant spray capability	10 (2x5 heated tanks)	602 except cost of the crew
416	Piraeus	Anti-pollution vessel; length: 19 m; breadth: 6 m; draft: 1.7 m; speed: 9.5 knots; crew: 7	Coastal	250 m air inflatable, troil boom A/F 1300, mop skimmer, skimming pump Desmi Dop-160, dispersant spray capability, hydraulic crane	27 (2x13,5 heated tanks)	602 except cost of the crew



At sea Response Resources: **GREECE**

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
417	Lavrio	Anti-pollution vessel; length: 19 m; breadth: 6 m; draft: 1.7 m; speed: 9.5 knots; crew: 7	Coastal	Air inflatable, troil boom A/F 1300, mop skimmer, skimming pump Desmi Dop-160, dispersant spray capability, hydraulic crane	27 (2x13.5 heated tanks)	602 except cost of the crew
401	Piraeus	Multipurpose vessel, length: 19.30 m; breadth: 5.55 m; draft: 1.6 m; speed: 13 knots; crew: 6	Coastal	180 m fence type boom (Troilboom 1100), Skimmer type Komara 12 K, dispersant spray capability	6	602 except cost of the crew

24 Regional Marine Pollution Combating Centers (RMPCCs) have been set-up in the following Greek ports: Piraeus, Elefsis, Kavala, Thessaloniki, Patra, Chania, Isthmia, Syros, Neapolis Vion, Volos, Pylos, Alexandroupolis, Limnos, Chios, Rhodes, Zakynthos, Igoumenitsa, Iraklio, Thira, Corfu, Lavrio, Mitilini, Preveza and Samos. These centres, which are under the supervision of Port Authorities, have been manned with experienced personnel and are equipped with appropriate means and equipment (booms, skimmers, dispersants, absorbents, etc) in

order to enable immediate intervention and control of any pollution incident.

Stockpiles are located at the majority of the Greek National Port Authorities, which also have in their possession:

- 15,000 m oil containment booms (not including the aforementioned equipment on vessels 401, 413-414-415, 416-417)
- 52 units dispersant application equipment (not including the aforementioned equipment

on vessels 401, 413-414-415, 416-417)

- 34 units skimmers/pumps (not including the aforementioned equipment on vessels 401, 413-414-415, 416-417)
- 13 units beach cleaners (Vacuum equipment: 9 units Powervac Vikoma + 4 Scorvac 10/ trailer 2000 m<sup>3</sup>)
- 4 units Gerni systems (hot water/high pressure cleaners)
- 2,800 barrels chemical dispersants
- 83,000 kg sorbents (rolls, pads, booms, pillows)
- 14,500 kg sorbent wigs



### **1.2 Projects in Progress-other up to date information**

Five oil pollution recovery vessels are to be provided within programmes of the European Community with a total budget of 14.6m euro. Four vessels will be provided through the European Programme "Environment" and the contract has already been signed. The four (4) vessels have already arrived in Lavrio port, but the delivery is not realised yet, due to the delivery control procedures of the followed by the acceptance committee. The main characteristics of these vessels are similar to the ones they have already in possession.

The main points of the specifications are the following:

Type: Anti-pollution Vessel; Construction: Steel; Length: At least 18m; Maximum Operational Speed: At least 9 knots; Minimum Sailing Autonomy: 200 nautical miles; Storage Capacity: At least 25 m<sup>3</sup> of recovered oil; Tanks: Fitted with electric heating elements to facilitate the handling of heavy viscous oil

and also equipped with a boom reel able to hold 250 meters of air inflatable – Open water-oil containment boom, a hydraulic knuckle crane and dispersant spray system.

One larger vessel will be provided through the European Programme "Ports and Urban Development". In this case, the public procurement procedures are in the preparatory stages prior to publishing a public tender. The delivery of this vessel is expected to be completed in 2009.

The main characteristics of this vessel are the following:

Type: Antipollution Vessel for offshore operations, Maximum Operational Speed: At least 13 knots, Sailing ability: up to wind conditions of 8 BF, Minimum Sailing Autonomy: 1,000 nautical miles, Storage Capacity: At least 300 m<sup>3</sup> of recovered oil, Tanks: Fitted with electric heating elements to facilitate the handling of heavy viscous oil and also equipped with boom reel able to hold 900 meters air inflatable, open

water containment boom, hydraulic knuckle crane, dispersant spray system, skimming system(s) with minimum recovery rate of 100 m<sup>3</sup>.

The provision of antipollution means and equipment with financial support of the European Community is expected to be completed by the end of 2009. Within 2009 Greece has already acquired three dispersant spraying systems and seven oil skimmers. Provision of four sea mop skimmers is expected to be completed by the end of 2009, all of them through respective programmes of the European Community.

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### **2. PRIVATE RESOURCES**

EPE owns and operates a number of vessels, the majority of which (15 skimming vessels, one tugboat and a barge) are based at their headquarters in Piraeus (Keratsini port). A further eight stations located in Greece and Cyprus each have a skimming vessel. The company's future plans are to acquire an 800 m<sup>3</sup> oil storage capacity multipurpose supply vessel.





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At sea Response Resources: **ICELAND**

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1. GOVERNMENT OWNED OR CHARTERED  
RESOURCES

**1.1 Specialised anti-pollution vessels**

National authorities do not own, or have under charter, any at sea response vessels. Boom and skimming equipment stockpiles are maintained and,

in the event of a spill, could be installed on an “ad-hoc” chartered vessel(s).

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2. PRIVATE RESOURCES

None



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## 1. GOVERNMENT OWNED OR CHARTERED RESOURCES

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### 1.1 Emergency towing vessels

The Irish Coast Guard operates a fleet of semi-rigid and inflatable boats (rib) around the coast for patrol, transport and assistance to shore units. These may be available to assist in boom deployment.

The IRCG has no emergency towing vessels. However, provision of an emergency towing capability is under consideration with national and international towing, and salvage companies and harbour authorities. IRCG Oil response equipment stockpiles are located at

Killybegs, Dublin and Castletownbere. The IRCG has in place pre-signed contracts with tug owners of vessels of greater than 50 t bollard pull.

### 1.2 Specialised anti-pollution vessels

The IRCG and Shannon Foynes Port Company, in joint ownership, have taken delivery of a Cataglop XLD oil and waste recovery boat. This vessel is 9.90 m LOA and is capable of recovering 2,700 litres of oil to an inboard storage tank. It also can tow a 5 m<sup>3</sup> storage flexible tank for further recovery capacity. However, this vessel is intended for calm/still water conditions e.g. small harbours/marinas. In the event of a sizeable

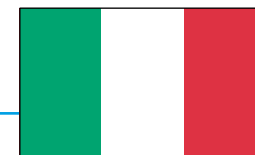
spill occurring, Ireland would look to Bonn Agreement neighbours for assistance in recovery of oil on water. Ireland does not own or have under charter, any specialised anti-pollution vessels. The IRCG has no dedicated specialised oil pollution recovery capability and would look to Bonn Agreement neighbours for assistance in recovery of oil on water.

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## 2. PRIVATE RESOURCES

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Bantry Terminals Limited has a recovery vessel based in Bantry Bay. This is limited to recovery operations in near-shore waters



At sea Response Resources: **ITALY**

1. GOVERNMENT OWNED OR CHARTERED RESOURCES

1.1 Specialised Anti-pollution Vessels

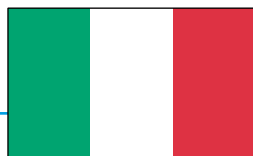
Italian authorities charter anti-pollution vessels. There are 71 specialised response vessels available: 10 vessels

are offshore vessels (S/V: supply vessels); 12 units are superior offshore coastal vessels (U/S) which operate up to ~ 20 nm offshore; and 49 are coastal vessels (B/D). The table below only details the supply vessels (S/V) and the superior offshore coastal vessels (U/S).

Ten of these vessels can operate in open water/high seas. However, none are equipped with sweeping arm oil recovery systems and, whilst some have significant storage capacity, none is heated. Stockpiles are located in different places along the Italian coastline.

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
ACQUA CHIARA	Porto Torres	Supply Vessel; LOA: 64.4 m; draft: 5.1 m	•		1,084	6,528
BONASSOLA	Crotone	Supply Vessel; LOA: 58.95 m; draft: 5.1 m	•		734	6,841
MARTIN PRIMO	Civitavecchia	Supply Vessel; LOA: 47.6 m; draft: 2.8 m	•		715	5,002

\* The information is relevant to 2006. There is no updated data for year 2009.



Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
CAMOGLI DUE	Termoli	Supply Vessel; LOA: 55.47 m; draft: 3.86 m	•		500	6,299
ECOLROMA	Porto Empedocle	Supply Vessel; LOA: 47.2 m; draft: 2.62 m	•		393.8	4,868
MASCALZONE ATLANTICO	Cagliari	Supply Vessel; LOA: 62.47 m; draft: 4.33 m	•		380	5,744
FAVIGNANA	Trapani	Supply Vessel; LOA: 54.5 m; draft: 3.8 m	•		248.2	6,222
FRATELLI NERI	Livorno	Supply Vessel; LOA: 60.2 m; draft: 4.85 m	•		171	6,737
SECOMAR QUATTRO	Ravenna	Supply Vessel; LOA: 43 m; draft: 3.5 m	•		40	5,753
MASCALZONE OCEANICO	Arbatax	U/S; LOA: 45.7 m; draft: 6.8 m	Coastal		216.3	5,744
PICCHIO	Ortona	U/S; LOA: 26.85 m; draft: 2.6 m	Coastal		47.88	3,271
MARFIN III	Cetraro	U/S; LOA: 24 m; draft: 1.6 m	Coastal		106.6	
RANA	Fiumicino	U/S; LOA: 28.3 m; draft: 1.6 m	Coastal		81	2,478
CITTA' DI RAVENNA	Ancona	U/S; LOA: 31.3 m; draft: 4.15 m	Coastal		74.5	4,351



Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
MARFIN V	Gaeta	U/S; LOA: 24 m; draft: 1.6 m	Coastal		70	3,240
IEVOLECO	Corigliano Calabro	U/S; LOA: 27 m; draft: 2.8 m	Coastal		70	3,287
ORION	Monfalcone	U/S; LOA: 30 m; draft: 4.4 m	Coastal		48,5	4,602
ECOLAGUNA 4 F.Z	Venice	U/S; LOA: 36 m; draft: 2.6 m	Coastal		50	
LAMU	Bari	U/S; LOA: 40.3; draft: 2.4 m	Coastal		41.8	3,761
ARMONIA	Naples	U/S; LOA: 36.5 m; draft: 2.75 m	Coastal		41.2	3,080
GENUA	Genoa	U/S; LOA: 29.95; draft: 5.85 m	Coastal		40	4,654

## 2. PRIVATE RESOURCES

The Ministry of Environment agreed a contract with Castalia Ecolmar, in 1998 which expired on 31 October 2004, for the provision of at-sea oil pollution response services. As a consequence, there are presently 71 specialised response vessels located along Italy's 7,500 km of coastline, primarily in areas with a higher risk of accidents and within marine protected areas.

The partially state-held oil and gas conglomerate, ENI (National Institute for Hydrocarbons), also has an agreement with Castalia Ecolmar.

The two have an agreement to jointly combat oil pollution within coastal waters where ENI activities might constitute a risk to the environment. Under the agreement, the Italian coastline has been divided

into eight areas according to the presence of ENI facilities, the main environmental characteristics and the hydrocarbon type that could be released. For each area, there is a list of Castalia Ecolmar's locally available resources and the contact details of the relevant local authorities. Each area has also been described according to its ecological and oceanographic characteristics and the presence of particular sensitivities.

## 1. GOVERNMENT OWNED OR CHARTERED RESOURCES

### 1.1 Specialised anti-pollution vessels

Latvian Coast Guard Service operates two seaworthy naval vessels and one non-propelled barge, each of them fitted with oil spill response equipment, such as brush type skimmer systems, open sea booms and

submersible skimmers. An additional supply vessel is chartered by the Latvian Coast Guard Service from Ventspils Port Authority. The total oil spill response equipment of the Latvian Coast Guard Service consists of 2,200 m of open sea boom, 120 m of coastal boom, 500 m of harbour boom, 5,400 m of absorbent boom, 6,000 kg of absorbent granules, 4 brush type skimmer

systems for a vessel of opportunity, 3 submersible skimmers, 9 high capacity oil/water transfer pumps, 8 floating oil bags with total capacity of 110 m<sup>3</sup>, 1 dispersant spray system with 2,000 litres of dispersant concentrate, 1 steam generator, 1 oil trawl system. The vessels operated or chartered by the Latvian Coast Guard Service are:

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
A-90 VARONIS	Riga	Navy Vessel; LOA: 59.5 m; breadth: 11.12 m; draft: 3.69 m; speed: 10 knots; crew: 37	Baltic Sea	Two sweeping arms and two Lamor Brush type skimmer box systems 80 m <sup>3</sup> /h each, 800 m of Ro-boom, submersible Desmi Terminator skimmer for viscous oil with Desmi belt cassette and remote control	Stationary tanks with electric heating 100 m <sup>3</sup> Floating oil bags 2x50 m <sup>3</sup>	9,600
KA-14 ASTRA	Ventspils	Rescue Vessel; LOA: 25 m; breadth: 6 m; draft: 12m; speed: 25 knots; crew: 5	Baltic Sea	Two sweeping arms and two Lamor Brush type skimmer box systems 80 m <sup>3</sup> /h each, two recovered oil packing units on board	300 polyethylene bags (0.68 m <sup>3</sup> each)	8,400
SEA BARGE JL-1	Liepaja	Non-propelled steel barge; LOA: 20 m; breadth 5.5 m; draft: 1 m	Baltic Sea	One sweeping arm and one Lamor Brush type skimmer box system 80 m <sup>3</sup> /h, 1,000 m of Ro-boom, submersible Desmi Terminator skimmer with remote control, Oil Trawl system	Stationary tanks 100 m <sup>3</sup> (8 separate tanks)	4,800



At sea Response Resources: **LATVIA**

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
KAPTEINIS ORLE	Ventspils	Hydrographic Vessel; LOA: 23.04 m; breadth: 6.8 m; draft: 3.3 m; speed: 10 knots; crew: 5	Baltic Sea	Supply vessel suitable for deployment of booms and skimmers	None	On agreement conditions
BREMENE *	Riga	Assistance Vessel; LOA: 20.8 m; breadth: 5.58 m; draft: 1.61 m; speed: 8 knots; crew: 2	Coastal	Equipped with Lamor Brush type mini skimmer 20 m <sup>3</sup>	48m <sup>3</sup>	4,800

\* Vessel operated by the Marine and Inland Water Administration.

2. PRIVATE RESOURCES

Vessels operated or chartered by the Latvian Port

Authorities or private companies.

No agreements in place.



At sea Response Resources: **LITHUANIA**

1. GOVERNMENT OWNED OR CHARTERED RESOURCES

1.1 Specialised anti-pollution vessels

The Lithuanian Government owns two specialised anti-pollution vessels. The Navy of the Lithuanian

Armed Forces operates the multipurpose vessel SAKIAI, which is suitable for at-sea operation with storage capacity 228 m<sup>3</sup>. In addition, a number of booms and skimmers are stationed in the Klaipeda State Seaport area. The Lithuanian Coast Guard

operates M/V MADELEINE which is suitable for operation in shallow waters.

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
SAKIAI	Klaipeda	Multipurpose oil response vessel; length: 56.4 m; breadth: 10.5 m; draft: 4.65 m; speed: 9.5 knots; crew: 12	•	Lamor Free Floating Brush Skimmerx2, Terminatorx1, Ro-Boom – 2000; 2x250 m, Pumps Framo TK-5x2; Framo TK-8x1	228	
MADELEINE	During navigation period in the port of Nida. Other time in the port of Klaipeda	Coast Guard Patrol Vessel; length: 22.4 m; breadth: 5.4 m; draft: 1.7 m; speed: 10 knots; crew: 3	Coastal waters	Disk skimmer Vikoma with power pack x1	25 containers with capacity 1 m <sup>3</sup> each	





At sea Response Resources: **LITHUANIA**

2. PRIVATE RESOURCES

There are no private resources in Lithuania, except

at the Butinge offshore oil terminal, where there is some oil response equipment, located on board terminal-serving tugs for local needs. The Butinge

terminal vessel SMIT SULAWESI is suitable for at-sea operation, with Rubber Ro tanks and storage capacity 25 m3.

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m³)	Anti-pollution Operations Daily Rate (€)
SMIT SULAWESI	Butinge terminal by SPM buoy.	SPM maintenance Tug; length: 48.7 m; breadth: 12.02 m; draft: 5.6 m; speed: 12 knots; crew: 10	•	Booms : Ro Boom 1,500: 2x250 m; Lamor ultra light: 1x800 m (storage in Butinge terminal) Skimmers: Desmi-terminator threshold 78-100 m³/h. Pumps: Fire fighting pumps 2x3,000 l/h. Dispersant capacity : Fire fighting pumps with ejector 1x6,000l/h	Oil storage capacity : Rubber Ro tank 1x10 m³, 3x5 m³	



1. GOVERNMENT OWNED OR CHARTERED RESOURCES

1.1 Specialised Anti-pollution Vessels

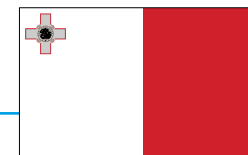
The Ministry of Oil Pollution Response Module and Infrastructure has an all combating vessel which can

respond to oil pollution incidents.

The Ministry of Civil Protection has a multipurpose vessel, tug operated which can be adapted with specialised equipment and respond to oil pollution incidents.

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
MONKA	Valletta	Sea-Truck work boat; LOA: 11.23 m; breadth: 3.18 m; speed: 28 knots; crew: 2	Coastal	Dispersant spraying units, high pressure hot water pumps, heavy oil skimmers, screw pumps with skimming heads, site booms, protection booms, skimmers, absorbent materials.	Flexible Storage Tanks (6 tanks-30 each)	705
AMBJENT	Valletta	Harbour vessel	Coastal	Dispersant spraying units, high pressure hot water pumps, heavy oil skimmers, screw pumps with skimming heads, site and protection booms, skimmers, absorbents	Flexible Storage Tanks (6 tanks-30 each)	705

\* The information is relevant to 2006. There is no updated data for year 2009.

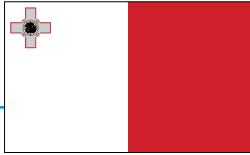


At sea Response Resources: **MALTA**

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
PUPILLA	Valletta	Oil Combating Vessel; LOA: 19.70 m; breadth: 5 m, speed: 10 knots, crew: 4	Coastal	Dispersant boom reel, hydraulic crane	Recoil tank- Dispersant tank	1,762.5

**1.2 Government owned or chartered resources  
(Tug boats)**

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
LIENI	Valletta	Tug vessel; LOA: 28 m; breadth: 3.5 m; speed: 12 knots; crew: 4/5	Coastal	Desmi (50 m <sup>3</sup> ), dispersant tank (12 m <sup>3</sup> )	Flexible Storage Tanks (6 tanks - 30 each)	From 5,200 to 11,500 euro (excluding fuel and oil consumption)
FELICA	Valletta	Tug vessel; LOA: 28.48 m; breadth: 8.81 m; speed : 12.5 knots; crew 4/5	Coastal	Desmi (50 m <sup>3</sup> ), dispersant tank (12 m <sup>3</sup> )	Flexible Storage Tanks (6 tanks - 30 each)	From 5,200 to 11,500 euro (excluding fuel and oil consumption)
MARI	Valletta	Tug vessel; LOA: 32.83 m; breadth: 9.5 m; speed: 13.6 knots; crew: 4/5	Coastal	Dispersant spraying units, high pressure hot water pumps, heavy oil skimmers, screw pumps with skimming heads, site booms, protection booms, skimmers, absorbent materials	Flexible Storage Tanks (6 tanks - 30 each)	From 5,200 to 11,500 euro (excluding fuel and oil consumption)



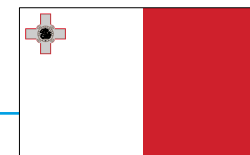
At sea Response Resources: **MALTA**

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
GREZ	Valletta	Tug vessel; LOA: 32.33 m; breadth: 8.3 m; speed: 12.29 knots; crew: 4/5	Coastal	Dispersant spraying units, high pressure hot water pumps, heavy oil skimmers, screw pumps with skimming heads, site booms, protection booms, skimmers, absorbent materials	Flexible Storage Tanks (6 tanks - 30 each)	From 5,200 to 11,500 euro (excluding fuel and oil consumption)
VITORIN	Valletta	Tug vessel; LOA: 32.3 m; breadth: 8.8 m; speed: 13.25 knots; crew: 4/5	Coastal	Dispersant spraying units, high pressure hot water pumps, heavy oil skimmers, screw pumps with skimming heads, site booms, protection booms, skimmers, absorbent materials	Flexible Storage Tanks (6 tanks - 30 each)	From 5,200 to 11,500 euro (excluding fuel and oil consumption)
SEA SALVOR	Valletta	Tug vessel; LOA: 29.95 m; breadth: 10.20 m; speed: 12.50 knots; crew: 4/5	Coastal	Clear spray 50 Dispersant System, inflatable boom (Vikoma 200 m), hydraulic pump type skimmer head, hydraulic power pack & a spade pump.	Flexible Storage Tanks (6 tanks - 30 each)	From 5,200 to 11,500 euro (excluding fuel and oil consumption)

2. PRIVATE RESOURCES

- **Cassar Enterprises:**

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
ST. ROCCO	Valletta	Tug vessel		Oil skimming system, Oil retaining booms Oil absorbing pads and chemicals, Drums for collecting oils, salvage pumps.	Flexible Storage Tanks (6 tanks - 30 each)	1,762.5



At sea Response Resources: **MALTA**

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
SEA WOLF II	Valletta	Tug vessel		Oil skimming system, Oil retaining booms, Oil absorbing pads and chemicals, Drums for collecting oils, salvage pumps.	Flexible Storage Tanks (6 tanks - 30 each)	2,256
BARGE-DUMB 1	Valletta	LOA: 45 m; breadth: 15 m		Oil skimming system, Oil retaining booms, Oil absorbing pads and chemicals, Drums for collecting oils, salvage pumps.	Flexible Storage Tanks (6 tanks - 30 each)	470
BARGE-DUMB 3	Valletta	LOA: 19 m; breadth: 6 m		Oil skimming system, Oil retaining booms, Oil absorbing pads and chemicals, Drums for collecting oils, salvage pumps.	Flexible Storage Tanks (6 tanks - 30 each)	352.5
BARGE-DUMB 1	Valletta	LOA: 16.75 m; breadth: 5.5 m		Oil skimming system, Oil retaining booms, Oil absorbing pads and chemicals, Drums for collecting oils, salvage pumps.	Flexible Storage Tanks (6 tanks - 30 each)	352.5
BARGE-DUMB 1	Valletta	LOA: 12.8 m; breadth: 3.05 m		Oil skimming system, Oil retaining booms, Oil absorbing pads and chemicals, Drums for collecting oils, salvage pumps.	Flexible Storage Tanks (6 tanks - 30 each)	235

VPJ LTD own and operate two vessels which are based in the port of Valletta (MOORSMAN I and MOORSMAN II). These vessels can be fitted with various types of antipollution equipment.



At sea Response Resources: **THE NETHERLANDS**

1. GOVERNMENT OWNED OR CHARTERED RESOURCES

**1.1 Specialised anti-pollution vessels**

Technical details of Dutch pollution response vessels:

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m³)	Anti-pollution Operations Daily Rate (€)
ARCA	Scheveningen	First line Oil Recovery Tanker/ Hydrographic Survey; LOA: 83 m; breadth: 12.8 m; draught: 5.5 m; max speed: 14 knots	•	2 skimmers, 2x100 m boom Ocean Buster SeadarQ oil detection and monitoring.	1,018	
FRANS NEARBOUT	Vlissingen	Buoy tender/2nd Line Oil Recovery Vessel; LOA: 44.4 m; breadth: 10.25 m; draught: 3.1 m; max speed: 14 knots	•	Can be equipped with 1 sweeping arm, power pack and tank container Current Buster	30	
TERSCHELLING	Terschelling	Buoy tender/2nd Line Oil Recovery Vessel; LOA: 44.4 m; breadth: 10.25 m; draught: 3.1 m; max speed: 14 knots	•	Can be equipped with 1 sweeping arm, power pack and tank container Current Buster	30	

At sea Response Resources: **THE NETHERLANDS**

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
ROTTERDAM	Rotterdam	Buoy tender/2nd Line Oil Recovery Vessel; LOA: 44.4 m; breadth: 10.25 m; draught: 3.1 m; max speed: 14 knots	•	Can be equipped with 1 sweeping arm, power pack and tank container, Current Buster	30	
HEIN	Rotterdam	TSHD, 2nd line Oil Recovery Vessel; LOA: 113.01 m; breadth: 18.47 m; draught: 8 m; max speed: 22.2 knots; crew: 12	•	1 sweeping arm (p). 2nd sweeping arm can be mounted	3,653	
RIJNDELTA	Rotterdam	TSHD, 2nd line Oil Recovery Vessel; LOA: 112.9 m; breadth: 18.1 m; draught: 7.2 m; max speed: 11 knots	•	2 sweeping arms (p)	3,548	
WAKER	Den Helder	Emergency Towing Vessel/2nd Line Oil Recovery; LOA: 67.5 m; breadth: 14.55 m; draught: 6.9 m; max speed: 30 knots	•	1 skimmer (sb)	185	
GEOPOTUS 14	Rotterdam	TSHD, 2nd line Oil Recovery Vessel, LOA: 124.3 m; breadth: 20.62 m; draught: 8.6 m; max speed: 15 knots	•	Can be equipped with 1 sweeping arm	7,472	



At sea Response Resources: **THE NETHERLANDS**

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
MELLINA	Ijmuiden	TSHD, 2nd line Oil Recovery Vessel LOA: 95 m; breadth: 20 m; draught: 6 m; max speed: 15 knots	•	1 sweeping arm (p)	3,200	
RIO	Breskens	TSHD, 2nd line Oil Recovery Vessel	•	1 sweeping arm (p)	2,430	
INTER-BALLAST- 1	Breskens	TSHD, 2nd line Oil Recovery Vessel	•	1 sweeping arm (p)	2,600	
ZEEZAND EXPRESS	Harlingen	TSHD, 2nd line Oil Recovery Vessel; speed: 8 knots	Wadden Sea	Can be equipped with 1 sweeping arm	850	
WATERWAY	Rotterdam	TSHD, 2nd line Oil Recovery Vessel; LOA: 97,7 m; breadth: 23 m; draught: 6.6 m; max speed: 13.2 knots	•	Can be equipped with 1 sweeping arm	4,900	
CORNELIA	Rotterdam	TSHD, 2nd line Oil Recovery Vessel; LOA: 112.8 m, breadth: 19.6 m; draught: 7.5 m; max speed: 13.5 knots	•	Can be equipped with 1 sweeping arm	6,392	
COASTWAY	Rotterdam	TSHD, 2nd line Oil Recovery Vessel; LOA: 97.7 m; breadth: 23 m; draught: 6,6 m, max speed: 13.2 knots	•	Can be equipped with 1 sweeping arm	4,900	



At sea Response Resources: **THE NETHERLANDS**

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
LESSE	Dordrecht	TSDH 2nd line oil recovery	•	Can be equipped with 1 sweeping arm	1,538	
AMAZONE	Dordrecht	TSDH 2nd line oil recovery	•	Can be equipped with 1 sweeping arm	2,680	
ALBATROS	Dordrecht	TSDH 2nd line oil recovery	Wadden Sea	Can be equipped with 1 sweeping arm	1,240	
ADELAAR	Dordrecht	TSDH 2nd line oil recovery	Wadden Sea	Can be equipped with 1 sweeping arm	600	

- All skimmers on board the vessels are of the sweeping arm type (inner pontoon carrying the pump; bridge part; outer pontoon) 13.5 or 15 meters length.
- FRANS NAEREBOUT, TERSCHELLING and ROTTERDAM are recovery-assisting vessels that normally handle booms or current buster. All vessels can be fitted with sweeping arm and one or two tank containers.
- WAKER primarily is an emergency towing vessel. It also can be fitted with sweeping arm.

The Netherlands relies heavily on recovery vessels to combat oil spills at sea and has a relatively large

fleet at its disposal. Five vessels are owned by the government and form what is referred to as the first line of defence. They were designed specifically for oil spill response but can also be used for other purposes (e.g. survey ships and buoy tendering). The ARCA is a tanker class oil recovery vessel that means she is allowed to recover oil with a flash point below 61°C. Vessels forming the second line of defence are mainly hopper dredger vessels that have been slightly modified to accommodate oil recovery equipment. They can be mobilised directly when permanently equipped and the others are ready within six hours; this is mainly because they have to return to port to load the required oil recovery equipment.

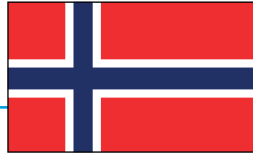
The Netherlands maintains a significant fleet with large recovered oil storage capacity, many of which have sweeping arm oil recovery systems.

## 2. PRIVATE RESOURCES

All TSDHs and the WAKER (ETV) are privately owned and contracted on a 3-5 year basis by RWS Noordzee.

## 3. DAILY RATES (COSTS)

RWS Noordzee will inform Member State requesting assistance on the rates of a vessel at its availability.



1. GOVERNMENT OWNED OR CHARTERED RESOURCES

1.1 Government owned or chartered vessels in operation

Vessel	Location	Operator	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
OLJEVERN 01	West Norway	NCA		No	304 m Expandi 4300, Foxtail VAB 4-9, crane, Bandskimmer (at depot)	90	
OLJEVERN 02	Nordland	NCA		No	304 m Expandi 4300, Foxtail VAB 4-9, crane, Bandskimmer (at depot)	90	
OLJEVERN 03	South-East Norway	NCA		No	304 m Expandi 4300, Foxtail VAB 4-9, crane, Bandskimmer (at depot)	90	
OLJEVERN 04	Troms and Finnmark	NCA		No	304 m Expandi 4300, Foxtail VAB 4-9, crane,	90	
Villa	South-East Norway	NCA		No	Back-up vessel for Oljevern 01 (equipment transferred when outside area)		
VESTFJORD	Troms and Finnmark	NCA		No	Back-up vessel for Oljevern 04 (equipment transferred when outside area)		

At sea Response Resources: **NORWAY**

Vessel	Location	Operator	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
NORD-SYSSEL	Svalbard	NCA		Part.	300 m NO35F, Foxtail VAB 4-9, Power pack, crane	200	
KV SVALBARD	North Norway/ Svalbard	NOCG		Yes	304 m Expandi 4300, 2 x 25 m <sup>3</sup> oilbag, Foxtail VAB 2-6. (From 2009)	800	
KV HARSTAD	North Norway	NOCG	ETV	Yes	300 m NOFI 800S, TransRec 250 (weir skimmer head), Foxtail VAB, Expandi 4300, Emergency offloading pump CCB 150	1,000 (with heating coils)	
KV FARM	North Norway	NOCG	ETV	No	200 m oil boom, Foxtail VAB	150 (with heating coils)	
KV STÅLBAS	North Norway	NOCG		Yes	300 m NOFI 800S, Foxtail VAB 4-9, Foilex TDS, 152 m Expandi 4300		
KV HEIMDAL	North Norway	NOCG	ETV	No	200 m oil boom, Foxtail VAB	150 (with heating coils)	
KV ÅLESUND	South Norway	NOCG		Yes	300 m NOFI 800S, TransRec 250 (weir skimmer head), Foxtail VAB 4-9, Emergency offloading pump CCN 150	800	
KV LEIKVIN	South Norway	NOCG		Yes	304 m Expandi 4300, Foxtail VAB 4-9	700	
KV TOR	South Norway	NOCG	ETV	No	200 m oil boom, Foxtail VAB	150 (with heating coils)	



Vessel	Location	Operator	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
KV NORNEN	South Norway	NOCG	ETV	No	200 m oil boom, Foxtail VAB	150 (with heating coils)	
KV NJÅRD	South Norway	NOCG	ETV	No	200 m NO 450 R, Foxtail VAB 4-9	150 (with heating coils)	

**1.2 Government owned or chartered vessels under development**

Under order, construction, or under planning for outfitting with oil spill response equipment:

Vessel	Location	Operator	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
KV BARENTS-HAV	North Norway/ Svalbard	NOCG		Yes	Will be deployed with booms and skimmers		
KV SORTLAND	North Norway	NOCG		Yes	Will be deployed with booms and skimmers		
KV BERGEN	South Norway	NOCG		Yes	Will be deployed with booms and skimmers		
NOCG NO. 15	TBD	NOCG		Yes	Will be deployed with booms and skimmers		

**1.3 Government owned oil spill response equipment**

The Norwegian Government, through the Ministry of Fisheries and the Norwegian Coastal Administration (NCA), own or operate oil spill response vessels in coordination with local authorities and the Royal Norwegian Coast Guard (NOCG). In addition the

Norwegian preparedness system is based on the use of vessels of opportunity to be chartered for use during actual spill response operations. The vessels of opportunity will be chartered from the substantial fleet of offshore supply vessels, fishing vessels, tugs and ferries or indeed any vessel deemed suitable for oil

spill response operations. Several annual exercises take place in which these vessels are chartered to take part.

The oil spill response equipment for the vessel of opportunity system is stored in NCA equipment depots along the coast. In total, NCA has approx. 43,000 metres



At sea Response Resources: **NORWAY**

of oil booms (heavy-, medium- and lightweight), approx 120 oil skimmers, hydraulic power packs, storage tanks, beach-cleaning equipment, etc stored at all the depots. The 15 main depots are located at: Horten, Kristiansand, Stavanger, Bergen, Fedje, Florø, Solund, Ålesund, Ørlandet, Sandnessjøen, Bodø, Lødingen, Tromsø, Hammerfest, Vadsø and Longyearbyen. At each of these depots there are typically between 800 and 1,000 metres of heavy weight (offshore) oil booms (e.g. NOFI 800S and NO80), between 800 and 1,000 metres of medium weight (coastal) oil booms (e.g. Expandi 4300 and HS600) and a varied collection of skimmers and storage tanks. This equipment is all designed and suitable for at sea response operations. In addition to the main depots there are 9 secondary (intermediate) depots at which NCA owned equipment is stored at the local inter-municipal contingency region. This equipment includes medium weight oil booms (300 – 600 metres) and 1-2 oil skimmers.

In addition, the NCA operates one surveillance aircraft equipped with FLIR, SLAR and IR/UV, and utilises satellite surveillance in selected areas.

**1.4 Municipal owned oil spill response equipment**

The Norwegian municipalities have their own requirement to store and maintain equipment suitable for typical oil spill scenarios within the municipality. In order to achieve a more cost-effective solution to purchasing expensive equipment, and to the upkeep of a desired level of proficiency the municipalities are organised into 34 inter-municipal contingency regions (IUA). The oil spill response equipment available to the IUAs and municipalities is generally smaller, medium- and lightweight booms, smaller oil skimmers, beach-cleaning equipment, etc.

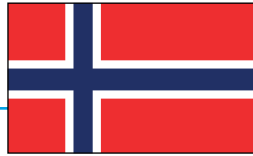
**2. PRIVATE RESOURCES**

According to the Norwegian Pollution Control Act, private parties involved in activities that may result in oil spills must be prepared to respond and recover lost oil. A further aspect of the Norwegian spill preparedness law is that private companies are required to work together in their preparation and response to pollution incidents. In order to meet this co-operation requirement for their exploration

and production operations, the Norwegian oil companies joined in 1978 to create an association now called the Norwegian Clean Seas Association for Operating Companies (NOFO). NOFO is a relatively small organisation with access to a great amount of equipment and manpower. A special pool of large supply vessels, operating between the coast and the offshore areas, provides the necessary vessels. Since July 2001, NOFO's area of responsibility has been widened from the seas around the offshore oil fields to the coastal waters and even to onshore response.

As a result of this overall system, there is no need for, and there are no, private contractors operating specialised oil spill response equipment in Norway. However, once spilled oil comes ashore, private companies/contractors may be called in to augment the inter-community equipment resources.

NOFO has created a pool of vessels available for pollution response. It is important to note that these vessels are not dedicated to oil spill response, but carry out regular tasks (supply, etc) for the operator on



At sea Response Resources: **NORWAY**

a daily basis. If an incident should occur, the NOFO members have committed themselves, without further negotiation, to make these vessels available to NOFO, even if the vessel in question is scheduled for other tasks. Vessels currently in the NOFO pool (May 2008) are as follows:

Vessel	Location	Operator
ARIES GIRL	Stavanger	Conoco Philips
BOURBON TOPAZ	Kristiansund	StatoilHydro
FAR STAR	Mongstad	StatoilHydro
HAVILA RUNDE	Troll / Oseberg	StatoilHydro
HAVILA TROLL	Troll / Oseberg	StatoilHydro
NORMAND DRAUPNE	Mongstad	StatoilHydro
NORMAND SKIPPER	Traener	StatoilHydro
OCEAN PRINCE	Traener	StatoilHydro
OCEAN SKY	Kristiansund	Shell
SKANDI ADMIRAL	Mongstad	StatoilHydro

Vessel	Location	Operator
SKANDI SOTRA	Kristiansund	StatoilHydro
SKANDI STOLMEN	Traener	StatoilHydro
SKANDI STORD	Traener	StatoilHydro
STRIL PIONER	Mongstad	StatoilHydro
STRIL POSEIDON	Haltenbanken	StatoilHydro
STRIL POWER	Balder / Jotun	Exxon Mobil
STRILMØY	Stavanger	Exxon Mobil
VIKING AVANT	Kristiansund	StatoilHydro
VIKING ENERGY	Mongstad	StatoilHydro

The vessels STRIL POSEIDON, HAVILLA TROLL, HAVILLA RUNDE and STRILMØY carry NOFO pollution response equipment on board. In the Barents Sea, the equipment and vessels will be changed based on the activity in the area. All NOFO vessels participate in annual exercises in order to maintain their NOFO contingency role.

For further details about NOFOs resources, see <http://www.nof.no/>

The private resources available in Norway are belonging to the approx. 80 private companies that have received contingency requirements from the authorities. The number includes the offshore

operating companies, refineries and oil terminals. The offshore operating companies own the Norwegian Clean Seas Association for Operating Companies.

The oil refineries at Slagentangen in the Oslofjord (Exxon/Mobile), and Mongstad north of Bergen (StatoilHydro), and the oil terminal at Sture north



At sea Response Resources: **NORWAY**

of Bergen (StatoilHydro) all have oil spill response equipment and vessels suitable for near shore response operations. In addition they have a limited amount of dispersants.

At some of the offshore oil production installations, dispersants and oil recovery equipment are available as at-field (first line) response resources and are stored on-board rescue vessels, etc. at the oil fields.

NOFO maintains an inventory of equipment which is designated for offshore use. In total, NOFO have 14 offshore recovery systems, each consisting of 400 m heavy weight (offshore) booms and one TransRec 350 oil skimmer. The TransRec skimmer can work with either a weir or a HiWax skimmer head. This equipment is stored at 5 depots located in; Stavanger, Mongstad, Kristiansund, Træna and Hammerfest. To mobilise the equipment on vessels,

NOFO maintains a list of dedicated vessels that may be called upon for oil spill response operations, all built according to the OilRec classification and the NOFO standard (regarding recovered oil capacities and equipment connections). In total, some 20-30 vessels are currently available in the NOFO pool.

Furthermore, NOFO maintains dispersant preparedness via a location in mid-Norway (Haltenbanken).



1. GOVERNMENT OWNED OR CHARTERED RESOURCES

1.1 Specialised anti-pollution vessels

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
KAPITAN POINC	Gdynia	Multipurpose Vessel; length: 53.40 m; breadth: 13.60 m; speed: 13 knots; crew: 10	•	Two sweeping arms, Brush system Lamor max 2x140 m <sup>3</sup> /h, free floating Terminator skimmer 100 m <sup>3</sup> /h with disc and belt adaptor for heavy oils, hydraulic crane	512	
ZODIAC	Gdansk	Oil Recovery vessel, length: 61.30 m; breadth: 10.80 m; speed: 13 knots; crew: 12	•	Two sweeping arms, Brush system Lamor max 2x80 m <sup>3</sup> /h, deck crane 7 tons	2x36	
CZESLAW II	Swinoujscie	Oil Recovery Vessel; length: 21.99 m; breadth: 6.01 m; speed: 9 knots; crew: 5		Two sweeping arms, Brush system Lamor max 2x20 m <sup>3</sup> /h, small crane	20	



At sea Response Resources: **POLAND****1.2 Projects in progress - other Information**

There are also different types of specialised antipollution equipment in Poland such as: approximately 7,000 m of different types of booms; 15 skimmer units; 7 different types of specially designed trawling nets for heavy oils; 1 Mini Vac System; small spraying equipment; storage facilities as portable and floating tanks; cargo transfer pumps and auxiliary equipment for heavy oil pumping as steam rings and water flanges.

At present, there are two investment projects aimed at upgrading the oil pollution response capacity in Poland:

1) A long term project for the development of national resources approved by the Polish government in 2000. This project includes:

- the building of a new base in Swinoujscie. The new oil spill response equipment will be made available in the first quarter of 2009
- the building of two rescue vessels mainly designed for SAR missions, but also to be used for oil pollution response

Completion date for the aforementioned project is expected to be by the end of 2008. Two vessels will enter into the service by mid 2009.

2) A short term project for the purchase of new equipment including: 900 m of booms, 3 skimmers, trawling nets and a number of temporary storage tanks, with two floating of 50 m<sup>3</sup> each, was delivered at the end of May 2006.

Assistance could be rendered.

The table below presents the assistance capability that can be offered by Poland in case of emergency on request. This includes oil spill response equipment, auxiliary equipment and trained crews.

Name	Description	Operating Area	Quantity	Anti-pollution Operations Daily Rate (t/d)
KAPITAN POINC	Multipurpose vessel	Open sea	1	2800/h
RO-BOOM 1500	High sea inflatable booms on reels, inflating/deflating equipment power pack; Height – 150 cm; Section length – 300 m	Open sea	8	400/h/section
DESMI Terminator	High capacity weir skimmer with complete hoses and power pack; Capacity – 100 m <sup>3</sup> /h; Disc adaptor for light oils – 40 m <sup>3</sup> /h; Belt adaptor for heavy oils	Open sea	2	200/h
RO-Tank	Floating tank – 50 m <sup>3</sup>	Open sea and costal waters	2	100/h



At sea Response Resources: **POLAND**

Name	Description	Operating Area	Quantity	Anti-pollution Operations Daily Rate (€)
GP-900	Solid buoyancy booms on trailers; Height – 90 cm; Section length – 100 m	Costal waters	24	50/h/section
RO-MOP OM 140D	Mop skimmer equipped with the tank; Capacity – 5 t/h	Costal waters	8	Tbd.

**2. PRIVATE RESOURCES**

The Oil and Gas Exploration and Production Co. Ltd. is the only firm in Poland performing exploration and production of crude oil in the Baltic Sea. "Petrobaltic Co., Ltd has sufficient equipment including oil booms (1,000 m), small capacity skimmers and technical support in order to provide additional support

in the event of an accident. "Petrobaltic" has also five (5) vessels (SANTA BARBARA, GRANIT, BAZALT, APHRODITE and VIVERO) located in Gdansk. As the largest oil terminal in Poland the Oil Terminal located in the northern port in Gdansk, "NAFTOPORT", has its own response system based

on cooperation with commercial rescue units as Harbour Fire Brigade "FLORIAN" Ltd, and Maritime Fire and Rescue Brigade. Both units own equipment including: 4,500 meters of different type of booms, two high capacity skimmers, cargo transfer pumps and five (5) fire fighting vessels. A number of small harbour tugboats are also available.

At sea Response Resources: **PORTUGAL**

### 1. GOVERNMENT OWNED OR CHARTERED RESOURCES

#### 1.1 Specialised anti-pollution vessels

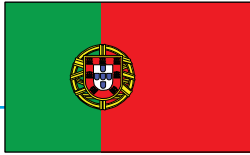
The Port Authority and Navy own vessels used for oil spill response in sheltered coastal areas. Stockpiles are located in all ports. The Navy has stockpiles

located at Leixões, Lisbon, Setúbal, Faro, Ponta Delgada and Funchal.

The Navy also owns equipment for anti-pollution response, such as: a mobile operation centre (1); marine barrier (3,500 m); port barrier (4,600 m); various pumps

(32); absorbent products (3,500 m); portable tanks (41); various recuperators (43); detection, protection, cutting and cleaning equipment (13); transport and handling means (22); repair container (1).

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
PORTO VIANA	Viana do Castelo	LOA: 12 m	Coastal	Boom and external Lori brush system	30	
PORTO LIMPO	Viana do Castelo	LOA: 13.5 m	Coastal	Collecting barge with crane	27	
PRAIA DA MEMORIA	Leixões	LOA: 26 m	Coastal	Collecting barge	200	
PRAIA DE MOLHE	Leixões	LOA: 8.33 m	Coastal	Skimmer (40 t/h)		
RIA LIMPA	Aveiro	LOA: 12.5 m	Coastal	Skimmer and external flotation tanks	27	
RIA AZUL	Aveiro	LOA: 12 m	Coastal	Skimmer and tanks		
RIO LIMPO	Figueira da Foz	LOA: 12.5 m	Coastal	Skimmer and external flotation tanks	27	
ENCHENTE	Lisbon	LOA: 18 m	Coastal	Boom and oil recovery system	30	
VAZANTE	Lisbon	LOA: 9 m	Coastal	Boom and external lori brush system	8	
LAIBEQUE	Lisbon	LOA: 14.6 m	Coastal	Multipurpose		



At sea Response Resources: **PORTUGAL**

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
AMETISTA	Lisbon	LOA: 18 m	Coastal	Hydraulic crane		
ALCAMÉ	Lisbon	LOA: 7.5 m	Local	Opening bow		
GOLFINHO DO SADO	Setubal	LOA: 12.7 m	Coastal	Lori brush system	7	
LONTRA DO SADO	Setubal	LOA: 6.5 m	Coastal	Skimmer		
ALFA	Sines	LOA: 10 m	Local	Boom storage and deployment		
PRAIA AZUL	Sines	LOA: 10 m	Local	Lori brush system	2.2	
MARÉ AZUL	Sines	LOA: 15.5 m	Coastal	Lori brush system	15	
MAR LIMPO	Sines	LOA: 15 m	Coastal	Oil mops	18	
OMEGA	Sines	LOA: 7.7 m	Local	Boom storage and deployment		

**1.2 Projects in progress-any other up to date information**

The Portuguese Navy are planning the construction of 2 marine patrol vessels which can act as anti-pollution vessels, and which will be equipped with marine barriers and a Transrec recuperator enabling dynamic collection (200 m<sup>3</sup> product storage capacity).

**2. PRIVATE RESOURCES**

There are no known private contractors for at sea response in Portugal. Nevertheless, private oil terminals and oil handling facilities own limited equipment to respond to small spills.



At sea Response Resources: **ROMANIA**

**1. GOVERNMENT OWNED OR CHARTERED RESOURCES**

Limited stockpiles of equipment for at-sea response are held by the National Agency for Search & Rescue

Constanta, the National Maritime Port Administration in Constanta. Their response equipment includes booms, skimmers, oil storage facilities, pumps and auxiliary vessels. The Border Police and Romanian

Navy can also provide a range of vessels and personnel to support the response if needed.

**1.1 Specialised anti-pollution vessels**

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
HERCULES	Constanta	Multipurpose vessel; LOA 61.74 m; draft: 6.5 m; power: 2x3300 CP; crew: 16	Yes	1,200 m RO-BOOM 1500; DESMI TERMITE skimmer-1 pc; DESMI TERMINATOR-1pc; ENVIROPEAT absorbent product-1,600 kg; fire-fighting pumps; ice-breaker	0	37,244
MARINA 1	Constanta	Hydrographical vessel; LOA: 30 m; draft: 2.2 m; power: 948 CP; crew: 6	Yes	Sampling	0	5,000
SAFIR RUBIN CRISTAL	Constanta	OPR dedicated boats; LOA: 18.47 m; draft: 1.5 m; power: 2x425CP; crew: 4	Coastal	Transportation of response personnel, equipments and products; ENVIROPEAT absorbent product-800 kg	0	5,723



At sea Response Resources: **ROMANIA**

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
CANARA	Constanta	Self propelled residues collector; LOA: 55.6 m; draft: 2.9 m; crew: 5	Coastal		450 for liquids	311/hour
101	Constanta	Non-propelled steel barge tank; LOA: 60.3 m; draft: 3.4 m; crew: 1	No	Settling tank; 450 pcs. absorbent pads; Absorbent Product MIXSORB-300 kg	940 for liquids; 12 for solid residues	8/ton
NICOLAE ZEICU	Constanta	Oil recovery vessel; crew: 4	No	LAMOR brush skimmer; 200 m inflatable booms	114 for liquids	351/hour
DEPOL 3 DEPOL 5 DEPOL 9 DEPOL 10	Constanta	Oil waste collector; crew: 3	No		20 for liquids/each; 4 for solid residues	63/hour
STEAUA DE MARE1	Midia	Fishing vessel; LOA: 25.8 m; draft: 2.91m; crew: 7	Coastal waters	Used for transport and deploying booms		4,100



At sea Response Resources: **ROMANIA**

**1.2 Other Resources**

Resources operated by Romanian SAR Agency and Maritime Port Administration also include different types of specialised antipollution equipment, such as:

- 3,300 m sea boom type RO-BOOM 1300
- 2,000 m coastal boom type RO-BOOM 1500
- 1,700 m off-shore floating booms C 600
- 1,000 m floating booms COURTAİN
- 10 storage tanks for oil recovered (25 cm each)
- 2 pcs DESMI TERMINATOR Weir skimmer 130 mc/h
- 5 pcs DESMI TERMITE Weir skimmer 20 mc/h
- 4,700 kg biodegradable absorbent products
- 350 absorbent pads

**2. PRIVATE RESOURCES**

In addition to these, there are a number of resources operated by private companies and the local oil industry (oil terminal, oil handling facilities) who own limited equipment to respond to small spills. There are some private contractors, representatives of some foreign specialized response companies that could provide, on request, equipment for open sea response actions.



## 1. GOVERNMENT OWNED OR CHARTERED RESOURCES

### 1.1 Specialised anti-pollution vessels

The response authorities are the “shore sea safeguarding team” (part of the Ministry of Environment and of Physical Planning), for smaller antipollution operations, and “civil protection” (part of the Ministry of Defence) for larger oil pollution response operations. At this time, the “shore sea safeguarding team” has an ecology craft (KP-271),

which is 13 m long, 5 m bread, speed 4 knots, with 200 m booms, at present with no storage capacity.

The Combating team has available two skimmers with total capacity of 30 m3. The “shore sea safeguarding team” also has a boat KP-613 with technical features: LOA: 6m; breadth: 2.95; speed: 22 knots; used for on-scene surveillance and assistance. For larger pollution incidents civil protection has 4 towing vessels, one with combating equipment. Overall oil spill combating

equipment available comprises: 3,000 m ocean boom; 750 m booms; 3 oil skimmers with 24 m3 storage capacity; absorbents and other various equipment.

For aerial surveillance there are 3 airplanes available with no remote sensing equipment.

## 2. PRIVATE RESOURCES

Adria-Tow has 4 towing vessels which are made available to civil protection.





At sea Response Resources: **SPAIN**

1. GOVERNMENT OWNED OR CHARTERED RESOURCES

1.1 Emergency towing vessels/Oil pollution vessels

Spanish authorities have a fleet of 15 tugs, 11 owned by the Ministry of Development and 4 under contract with private companies, for emergency towing (ETVs), SAR (Search and Rescue) and Oil Spill Response purposes. They all have a self operating crane to load and unload anti-pollution equipment, and they have

their own respective booms and skimmers ready to load. Four units are equipped with sweeping arms.

DON INDA, CLARA CAMPOAMOR, PUNTA MAYOR, LUZ DE MAR, and MIGUEL DE CERVANTES are the units having dedicated storage tanks for recovered products with heating coils. The rest of the fleet have open decks that make them suitable to deploy booms in recovery operations, but their storage capacity is limited.

55 fast response vessels of a smaller size (15 and 21 m length) and 1 patrol boat (32 m length) are positioned along the coastline for SAR activities. They are currently used as auxiliary units to tender booms and help the tugs in response operations. A list of the tug boats is provided below. The geographical distribution of these vessels can vary depending on season and needs. The total number of skimmers is 60 units. There are also 59 portable tanks of 10 m<sup>3</sup> capacity each and 16 portable tanks of 7.5 m<sup>3</sup> each.

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
DON INDA		Spill Response/ Multipurpose LOA: 80 m; draft: 6.5 m		Sweeping arms with weir skimmer, Transrec with weir and drum skimmers, 300 m boom	1,750	
CLARA CAMPOAMOR		Spill Response/ Multipurpose; LOA: 80 m;  draft: 6.5 m		Sweeping arms with weir skimmer, Transrec with weir and drum skimmers, 300 m boom	1,750	
LUZ DE MAR		Spill Response/ Multipurpose; LOA: 56 m; draft 5.5m		Sweeping arms with weir skimmer, Noren skimmer system with weir and brush skimmers	287	



At sea Response Resources: **SPAIN**

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (t/d)
MIGUEL DE CERVANTES		Spill Response/ Multipurpose; LOA:56 m; draft 5.5 m		Sweeping arms with weir skimmer, Noren skimmer system with weir and brush skimmers	287	
ALONSO DE CHAVES		Multipurpose/Fire fighting; LOA: 57 m; draft: 5.5 m		Disk skimmer		
PUNTA MAYOR		Spill Response/ Multipurpose; LOA: 60 m; draft: 4.6 m		Side boom and weir skimmer	240	
PUNTA SALINAS		Multipurpose/Fire fighting; LOA: 63 m; draft: 5.5 m				
MARÍA DE MAEZTU		Multipurpose/Fire fighting; LOA: 40 m; draft: 4.2 m				
MARÍA ZAMBRANO		Multipurpose/Fire fighting; LOA: 40 m; draft: 4.2 m				



At sea Response Resources: **SPAIN**

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (t/d)
MARÍA PITA		Multipurpose/Fire fighting; LOA: 40 m; draft: 4.2 m				
MARTA MATA		Multipurpose/Fire fighting; LOA: 40 m; draft: 4.2 m				
V.B. ANTARTICO		Multipurpose/Fire fighting; LOA: 55 m; draft: 4.8 m				
REMOLCANOSA CINCO		Multipurpose/Fire fighting; LOA: 43 m; draft: 5 m				
IBAIZABAL UNO		Multipurpose/Fire fighting; LOA: 37 m; draft: 4.5 m				
BOLUDA MISTRAL		Multipurpose/Fire fighting; LOA: 36 m; draft: 4.5 m				



At sea Response Resources: **SPAIN**

Spanish authorities have a fleet of three fixed wing aircraft CASA CN-235, especially configured for oil spill detection. In addition, they have a fourth smaller fixed wing aircraft.

Stockpiles are located in 6 different places along

the Spanish coastline: Santander, A Coruña, Sevilla, Cartagena, Castellón y Tenerife.

**1.2 Projects in Progress - Other information**

There is one new unit under construction, which will be delivered before the end of 2008, with sweeping

arms and dedicated heating storage tanks (3,100 m<sup>3</sup>). This is an oil recovery vessel.

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**2. PRIVATE RESOURCES**

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No information available at present.

At sea Response Resources: **SWEDEN**

### 1. GOVERNMENT OWNED OR CHARTERED RESOURCES

Technical details of Swedish offshore response vessels: stockpiles are located at Harnosand, Djuro, Slite, Karlskrona, Helsingborg and Goteborg. The Swedish Coast Guard will be provided with three new ocean going ships for ETOW (100 tons bp),

emergency lightering, fire fighting and oil recovery purposes (1,000 tons storage capacity). One of the vessels will also be designed for response to HNS. The three (3) vessels are length 81 m, breadth 16 m, depth 5 m and speed 16 knots. Two vessels will operate in the Baltic Sea and one on the West coast. The first ship will be delivered in April 2009 and the

second one in October 2009 and the third in 2010. Three new remote sensing aeroplanes for surveillance has been delivered in 2008. Furthermore, the Swedish Coast Guard have ordered 4 new response vessels to be delivered 2011 – 2012. They will have the following particulars: LOA: 50 m; breadth: 10.4 m; draft: 3.0 m; speed: 16 knots and a storage capacity of 250 tons.

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
KBV 004	Umea	Patrol/Fishery Surveillance/ Pollution response; LOA: 35.5 m; breadth: 8 m; draught: 2.8 m; max speed: 11 knots; crew: 4	•	Sweeping arm, Lamor brush skimmer, Fox tail, two free-floating skimmers, 300 m boom	40 + 2x100 m <sup>3</sup> oil bags	16,362.6 + 3% annually for 2007 and 2008. (This should be added for all figures below)
KBV 005	Härnösand	Patrol/Fishery Surveillance/ Pollution response; LOA: 45.5 m; breadth: 10.5 m; draught: 3.7 m; max speed: 15 knots; crew: 7	•	Sweeping Arms, Lamor brush skimmers, two free-floating skimmers, 300 m boom	233 + 100 m <sup>3</sup> oil bags	16,899.4
KBV 010	Djuro	Patrol/Fishery Surveillance/ Pollution response, LOA: 46.1 m; breadth: 8.6 m; draught: 3.7 m; max speed: 13 knots, crew: 6	•	Sweeping Arms, Lamor brush skimmers, two free-floating skimmers, 300 m boom	212 + 100 m <sup>3</sup> oil bags	15,544.5



At sea Response Resources: **SWEDEN**

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
KBV020	Vänersborg	Patrol/Fishery Surveillance/ Pollution response; LOA: 27.3 m; breadth: 9.2 m; draught: 1,7 m; max speed: 22 knots; crew: 4	no	Sweeping Arms, Lamor brush skimmers, two free- floating skimmers, 300 m boom	180 m <sup>3</sup> oil bags	14,189.4
KBV 044	Skarhamn	Pollution Response; LOA: 25 m; breadth: 6 m; draught: 1.7 m; max speed: 10 knots; crew: 5	no	Sweeping Arms, Lamor brush skimmers, two free- floating skimmers, 300 m boom	110 m <sup>3</sup> oil bags	14,189.4
KBV 045	Gavle	Pollution Response; LOA: 36.4 m; breadth: 7.3 m; draught: 3.7 m; max speed: 10.5 knots; crew: 5	•	Sweeping Arms, Lamor brush skimmers, two free- floating skimmers, 300 m boom	150 + 110 m <sup>3</sup> oil bags	14,189.4
KBV046	Sodertalje	Pollution Response; LOA: 36.4 m; breadth: 7.3 m; draught: 3.7 m; max speed: 10.5 knots; crew: 5	•	Sweeping Arms, Lamor brush skimmers, two free- floating skimmers, 300 m boom	150 + 110 m <sup>3</sup> oil bags	14,189.4

At sea Response Resources: **SWEDEN**

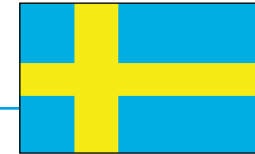
Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
KBV047	Kalmar	Pollution Response; LOA: 36.4 m; breadth: 7.3 m; draught: 3.7 m; max speed: 10.5 knots; crew: 5	•	Sweeping Arms, Lamor brush skimmers, two free- floating skimmers, 300 m boom	150 + 110 m <sup>3</sup> oil bags	12,834.4
KBV048	Helsingborg	Pollution Response; LOA: 36.4 m; breadth: 7.3 m; draught: 3.7 m; max speed: 10.5 knots; crew: 5	•	Sweeping Arms, Lamor brush skimmers, two free- floating skimmers, 300 m boom	150 + 110 m <sup>3</sup> oil bags	12,834.4
KBV049	Slite	Pollution Response; LOA: 36.4 m; breadth: 7.3 m; draught: 3.7 m; max speed: 10.5 knots; crew: 5	•	Sweeping Arms, Lamor brush skimmers, two free- floating skimmers, 300 m boom	150 + 110 m <sup>3</sup> oil bags	14,189.4
KBV050	Kungshamn	Pollution Response; LOA: 38 m; breadth: 8.5 m; draught: 2.4 m; max speed: 9 knots; crew: 5	•	Sweeping Arm, Lamor brush skimmer, two free- floating skimmers, 300 m boom	190 + 110 m <sup>3</sup> oil bags	14,189.4



At sea Response Resources: **SWEDEN**

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m <sup>3</sup> )	Anti-pollution Operations Daily Rate (€)
KBV051	Goteborg	Pollution Response; LOA: 38 m; breadth: 8.5 m; draught: 2.4 m; max speed: 9 knots; crew: 5	•	Sweeping Arm, Lamor brush skimmer, two free-floating skimmers, 300 m boom	190 + 110 m <sup>3</sup> oil bags	14,189.4
KBV181	Slite	Patrol/Fishery Surveillance/ Pollution response; LOA: 56 m; breadth: 10.2 m; draught: 5.3 m; max speed: 15 knots; crew: 11	•	One side brush skimmer advancing system with sweeping arm, two free-floating skimmer, 300 m boom	50 m <sup>3</sup> oil bags	24,492.7
KBV201	Karlskrona	Patrol/Fishery Surveillance/ Pollution response; LOA: 52 m; breadth: 8.6 m; draught: 2.8 m; max speed: 22 knots; crew: 9	•	Sweeping Arm, Lamor brush skimmer, two free-floating skimmer, 300 m boom	104 + 110 m <sup>3</sup> oil bags	22,166.1
KBV202	Simrishamn	Patrol/Fishery Surveillance/ Pollution response; LOA: 52 m; breadth: 8.6 m; draught: 2.8 m; max speed: 22 knots; crew: 9	•	Sweeping Arm, Lamor brush skimmer, two free-floating skimmer, 300 m boom	104 + 110 m <sup>3</sup> oil bags	22,166.1





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At sea Response Resources: **SWEDEN**

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**2. PRIVATE RESOURCES**

There are no known privately-owned resources for at-sea response in Sweden. Unlike its neighbours, Norway and Denmark, Sweden does not have

any offshore oil production in the North Sea. For this reason, it does not have the availability of private sector spill response capability from the oil industry.



At sea Response Resources: **UNITED KINGDOM**

The United Kingdom (UK) has a highly developed OPRC arrangement, the key factor being co-operation with industry. This includes a requirement for all medium to major UK ports and harbours to maintain comprehensive Marine Pollution Preparedness and Response Contingency Plans that are approved and continuously reviewed by the UK's Maritime and Coastguard Agency (MCA).

One of the UK's primary at sea response capabilities is a dispersant capability. Oil dispersant can be delivered by two Lockheed Electra L188 aircraft and each aircraft capable of delivering up to 15 tonnes of dispersant.

A 16,000 tonne oil slick can be treated in 48 hours, drawing on dispersants held in eleven government stockpiles strategically located around the UK. Scientific and monitoring support, along with rapid liaison with other Government departments, forms part of the UK's response. This allows rapid determination on whether chemical dispersion is appropriate for a given scenario and also allows on-going efficacy assessments during operations.

The United Kingdom's response capability, within its Pollution Control Zone is risk based. The risk assessment is subject to continuous updating based on several criteria which include an annual survey of reported discharges attributed to vessels and offshore installations (ACOPS) and continuous monitoring of vessel trading and traffic patterns in UK waters. As a result, robust preventative measures have been established and include:

- A Cessna F406 and a Cessna 404 surveillance aircraft provide 600 hours of surveillance patrols per year and monitor more than 32000 square miles of the sea surface by side looking airborne radar. This system can detect oil pollution 20 miles either side of the of the aircraft's track.
- The stationing of 4 government-funded Emergency Towing Vessels at strategic locations around the UK. These ships are required to exert a minimum bollard pull of 130 tonnes and are on short notice

to respond to marine casualties. They are fitted with FiFi standard fire fighting equipment and carry salvage equipment on board which conforms to the standard set by the Government. All four ETVs also have counter pollution equipment on board, although their primary functions are salvage and towing. One of the ETVs, based in the Dover Straits, is shared with France on both a funding and operational basis.

- To provide an enhanced towing and salvage capability the MCA has put in place the Coastguard Agreement for Salvage and Towing (CAST). CAST is a standing agreement with the operators of tugs and other vessels capable of assisting MCA with towage, salvage or other work related to the saving of life, property or environmental protection. It enables the rapid deployment of suitable vessels under MCA control with pre-agreed terms and conditions of service.



At sea Response Resources: **UNITED KINGDOM**

- A robust working relationship with towing and salvage brokers also gives rapid access to resources that may be available on the commercial market.
- Current satellite surveillance includes a shared programme with the German, Belgian and Netherlands authorities covering the Southern North Sea and Dover Straits. Any future satellite surveillance programme will also be targeted on a defined area.
- A robust and decisive command and control system encompassing the Secretary of State's Representative for Maritime Salvage and Intervention (SOSREP) function

The MCA maintains a stockpile of counter pollution and salvage equipment on behalf of the UK Government. Oil recovery equipment includes;

- Ro- skim 1500 single –ship recovery system
- three scan trawls systems
- three heavy oil skimmers

- weir skimmer
- oleophillic disc skimmers

In addition to at sea oil recovery equipment, the stockpile also includes booming and temporary storage, ship-to-ship transfer packages, inert gas generation and hazardous & noxious substance response equipment.

In addition to the contingency planning arrangements for ports and harbours, similar requirements are placed on UK continental shelf operators. All offshore installations have aerial surveillance and/or dispersant spraying resources. These installations are also required by Government to have Tier 3 contractual arrangements with Briggs Marine Environmental Services and/or Oil Spill Response Limited.

The United Kingdom Government has a Tier 3 hazardous and noxious substances response team able to respond at short notice to marine casualties.

Oil recovery capability is a requirement for several offshore operators. Through OPRC and government/industry understandings vessels with this capability can be made available. Such vessels include:

- GRAMPIAN FAME – Aberdeen Port
- FORTH GUARDSMAN – Leith Port
- GRAMPIAN FRONTIER – Lerwick Port
- SEFTON SUPPORTER – Liverpool Port
- CLWYD SUPPORTER – Liverpool Port
- ANGELGARTH – Milford Port
- MILLGARTH – Milford Port

Through the highly developed regional OPRC arrangements under the Bonn Agreement, substantial resources, including oil recovery ships, can be made available for use in the UK pollution control zone.

Additionally, through the civil protection arrangements of the European Community further resources can be made available from maritime Member States.

At sea Response Resources: **EMSA Contracted Vessels**

At European level, at sea oil recovery is the most appropriate operational response option to be undertaken by the Agency in order to “top-up” the resources of Member States.

Some of the main technical features of the current EMSA vessels are described below:

**Oil/Product Tankers**

Name	Type	Operational Area and Equipment Depot	Tank Capacity (m <sup>3</sup> )	L.O.A. (m)	Breadth (m)	Draught (m)	Oil Spill Recovery Equipment
Aktea OSRV	Oil Tanker	Aegean Sea Piraeus, Greece	3,000	78.78	12.60	4.87	1 Set of Rigid Sweeping Arms 1 Set of Weir Skimmer 1 Set of Oil Booms (500m) 1 Set of Oil Detection Radar System
Forth Fisher	Product Tanker	Atlantic Coast Cobh, Ireland	4,754	91.00	15.58	5.10	1 Set of Rigid Sweeping Arms 2 Sets of Weir Skimmer 2 Sets of Oil Booms (250m each) 2 Sets of Oil Detection Radar System
Galway Fisher	Product Tanker		4,754	91.00	15.58	5.10	
Mersey Fisher	Product Tanker		5,028	91.40	15.50	6.02	

At sea Response Resources: **EMSA Contracted Vessels****Bunker Vessels**

Name	Type	Operational Area and Equipment Depot	Tank Capacity (m <sup>3</sup> )	L.O.A. (m)	Breadth (m)	Draught (m)	Oil Spill Recovery Equipment
Salina Bay	Bunker Vessel	Mediterranean Sea La Spezia, Italy	2,800	74.70	13.10	5.53	1 Set of Rigid Sweeping Arms 1 Set of Weir Skimmer 1 Set of Oil Booms (500m) 1 Set of Oil Detection Radar System
Mistra Bay	Bunker Vessel	Mediterranean Sea Valetta, Malta	1,805	86.03	13.04	5.19	1 Set of Rigid Sweeping Arms 1 Set of Weir Skimmer 1 Set of Oil Booms (500m) 1 Set of Oil Detection Radar System
Santa Maria	Bunker Vessel	Mediterranean Sea Valetta, Malta	2,421	93.1	14.5	6.82	1 Set of Rigid Sweeping Arms 1 Set of Weir Skimmer 1 Set of Oil Booms (500m) 1 Set of Oil Detection Radar System
Galp Marine	Bunker Vessel	Atlantic Coast Sines, Portugal	3,023	82.98	12.50	5.00	1 Set of Rigid Sweeping Arms 1 Set of Brush Skimmer 1 Set of Oil Booms (500m) 1 Set of Oil Detection Radar System
OW Aalborg	Bunker Vessel	Baltic Sea Copenhagen and Skagen, Denmark	4,360	90.50	14.60	5.30	2 Sets of Flexible Sweeping Arms 2 Sets of Brush Skimmer 2 Sets of Arctic Skimmer
OW Copenhagen	Bunker Vessel		4,360	90.50	14.60	5.30	2 Sets of Oil Booms (400m + 500m) 2 Sets of Oil Detection Radar System
Bahia Tres	Bunker Vessel	Mediterranean Sea Algeciras, Spain	7,413	99.80	18.00	7.00	1 Set of Rigid Sweeping Arms 1 Set of Weir/Brush Skimmer 1 Set of Oil Booms (500m)
Bahia Uno	Bunker Vessel		3,800	71.01	15.60	5.80	1 Set of Oil Detection Radar System



At sea Response Resources: **EMSA Contracted Vessels**

**Other Vessels**

Name	Type	Operational Area and Equipment Depot	Tank Capacity (m <sup>3</sup> )	L.O.A. (m)	Breadth (m)	Draught (m)	Oil Spill Recovery Equipment
GSP Orion	Supply Vessel	Black Sea Constanta, Romania	1,334	67.40	16.80	6.20	1 Set of Rigid Sweeping Arms 1 Set of Weir/Brush Skimmer 1 Set of Oil Booms (500m) 1 Set of Oil Detection Radar System
Ria de Vigo	Supply Vessel	Bay of Biscay Vigo, Spain	1,522	68.00	13.50	6.80	1 Set of Rigid Sweeping Arms 1 Set of Weir Skimmer 1 Set of Oil Booms (500m) 1 Set of Oil Detection Radar System
Interballast III	Dredger	North Sea Ostend, Belgium	1,886	70.00	13.20	5.40	2 Sets of Rigid Sweeping Arms 2 Sets of Weir Skimmer 2 Sets of Oil Booms (500m) 2 Sets of Oil Detection Radar System
DC Vlaanderen-3000	Dredger		2,744	89.20	14.00	6.30	





European Maritime Safety Agency (EMSA)  
Cais do Sodré  
1249-206 Lisbon, Portugal  
website: <http://www.emsa.europa.eu>

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