EMSA

European
Maritime
Safety
Agency

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Inventory of EU Member States Oil Pollution Response Capacity

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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 is updating the inventory, as part of the preparations for the next tender for vessels for at-sea oil recovery services.

The inventory contains extensive information on capabilities in the coastal EU 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 multi-purpose vessels 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 accident. 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

1.3.1 Belgian Navy Ready Duty Ships

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. Complete sets oil recovery systems and/or dispersant-spraying gear can be deployed by two "vessels of opportunity" belonging to the Regional Flemish Maritime Administration assisted by tugs of the Belgian Navy. 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 pollutank floating storage units and four Vikospray 2000 dispersant spraying units as well as stock of dispersants. Two vessels belonging to the the Regional Flemish Maritime Administration are capable of deploying the equipment at sea. This equipment is deployed with the assistance of Navy tugs.

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	Anti-pollution Operations Daily Rate
ZEEHOND	Ostend	Tug LOA: 39,50 m, 2 engines 1,766 kw total, crew: 8	Yes	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	Yes	No equipment permanently on-board	Use of floating tanks	

1.3.2 Belgian Navy Ready Duty Vesssels

The Belgian Navy maintains one of three vessels on standby 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 capacity of these vessels used for oil recovery is severely hampered by the lack of storage tanks on-board.

At sea Response Resources: BELGIUM

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	Anti-pollution Operations Daily Rate
A950 VALCKE	Zeebrugge	LOA: 30,68 m, 2 engines 1,240 HP total, crew: 12	Yes	No equipment permanently on-board	0	
A963 STERN	Zeebrugge	LOA: 49,90 m, 2 engines each of 1,810 HP, crew: 13	Yes	No equipment permanently on-board	0	
A996 ALBATROS	Zeebrugge	27,70 m, 1 engine 720 HP crew: 10	Yes	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, 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^3. 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).

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 Sub-regional Contingency Plan between Cyprus, Israel, and Egypt.

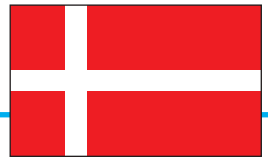
Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	Anti-pollution Operations Daily Rate (€)
ALKYON	Larnaca	Multipurpose vessel, length: 11,40 m, speed: 22 knots		Dispersant sprays, transportation of response personnel, equipment and products		519,76
AMFITRITI	Paphos	Multipurpose vessel, length: 11,40 m, speed: 22 knots		Dispersant sprays, transportation of response personnel, equipment and products		346,51
GORGO	Limassol	Patrol Vessel, length: 7,80 m, speed: 24 knots		Dispersant sprays, transportation of response personnel, equipment and products		346,51
F.8	Agia Napa	Anti-pollution, length: 7,80 m, speed: 20 knots		Dispersant sprays, transportation of response personnel, equipment and products		86,63

- One of the districts offices responsible for minor accidents. The Cyprus National Authorities also have in their possession 1,550 m of open sea boom, 1,850 m of harbour boom, 600 m 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 Cypriot Council of Ministers decision n° 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.

2. PRIVATE RESOURCES

Cyprus Oil Refinery, BP and the cement factories 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

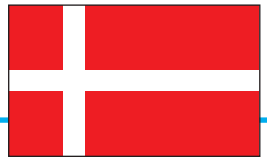
1.1 Specialised anti-pollution vessels

The Royal Danish Navy owns and operates 6 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 (m^3)	Anti-pollution Operations Daily Rate (€)
GUNNAR SEIDENFADEN	Korsor	Offshore supply/Ice class, 12 knots, LOA: 56 m, 16-34 crew	Yes	3 x 200 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 m^3 internal storage, of which 220 m^3 is heated	13,650
GUNNAR THORSEN	Copenhagen	Offshore supply/Ice class, 12 knots, LOA: 56 m, 16-34 crew	Yes	3 x 200 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 m^3 internal storage, of which 220 m^3 is heated	13,650
MARIE MILJO	Korsor	Sea truck class LOA: 29 m, 9 knots, 6 crew	Coastal waters	200 m Ro-boom, 1 x desmi-250 skimmer, 320l HFO grab	60 m^3 unheated internal storage	6,825
METTE MILJO	Copenhagen	Sea truck class, LOA: 29 m, 9 knots, 6 crew	Coastal waters	200 m Ro-boom, 1 desmi-250 skimmer, 320l HFO grab	60 m^3 unheated internal storage	6,825



Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	Anti-pollution Operations Daily Rate
MILJO 101	Korsor	Launch/work boat class, LOA: 16 m, 15 knots	Coastal waters	Built in 1996, 1 mini-max skimmer	No on-board storage	
MILJO 102	Korsor	Launch/work boat class, LOA: 16 m, 15 knots	Coastal waters	Built in 1996, 1 mini-max skimmer	No on-board storage	
MS 201	Korsor	Storage barge, LOA: 24 m			5 x enclosed tanks, 300 m^3 total storage with heating coils but no integrated heat source	
MS 202	Copenhagen	Storage barge, LOA: 24 m			5 x enclosed tanks, 300 m^3 total storage with heating coils but no integrated heat source	
MS 203	Fredrikshavn	Storage barge, LOA: 24 m			5 x enclosed tanks, 300 m^3 total storage with heating coils but no integrated heat source	

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 a large international 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.

At sea Response Resources: ESTONIA

1. GOVERNMENT OWNED OR CHARTERED RESOURCES

1.1 Specialised anti-pollution vessels

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

Board of Border Guard responsible for oil spill combating has:

- 4,900 m of boom for unsheltered waters
- 2,800 m of boom for sheltered waters.

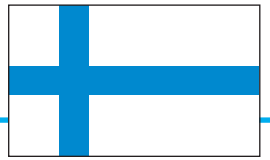
Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	Anti-pollution Operations Daily Rate
PVL-202 KATI (Est BG)	Tallinn	Offshore supply/ ice class, 12 knots, LOA: 40 m, 7 crew		2 x Lori brush skimmer 120 m^3/h.	113	
EVA-316 (EMA) operational from mid- 2006	Summer/ Tallinn Winter/ Pärnu	Offshore supply/Ice class IA, LOA: 60 m Breadth: 12,2 m, Draught: 5 m, Max speed: 15 knots, Sweep with 28,2 m (summer) and 16,2 m (winter)		Lamor Brush skimmers 2 x 200 m^3/h (summer) 2 x 50 m^3/h (winter).	2 x 98 = 196	

2. PRIVATE RESOURCES

The major ports have their own recovery equipment. Muuga the biggest oil port has 3,350 m of oil boom, 1 offshore Lamor brush skimmer, 3 x Lamor Minimax brush skimmers for the port area, 1 boom deployment vessel and three smaller oil combating vessels.

A private contractor based at Pämu has a significant amount of clean-up equipment:

- 8 different skimmers (weir skimmers, drum skimmers, mop skimmers)
- 1,700 m of booms
- 1,500 m absorbent boom
- 1 tug boat
- 5 work boats
- Pressure cleaners
- Boom washing machine and beach cleaning equipment.

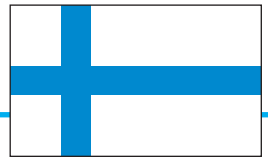


1. GOVERNMENT OWNED OR CHARTERED RESOURCES

1.1 Specialised anti-pollution vessels

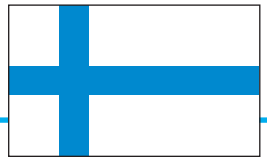
The Finnish oil spill response fleet comprises thirteen government-owned and operated large recovery vessels. It should be noted that none of these vessels are classed to operate outside the Baltic Sea and that requests to send the vessel abroad are evaluated technically on case by case basis. Technical details of Finnish recovery vessels:

Vessel	Operator	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	Anti-pollution Operations Daily Rate (€)
HALLI	Navy	Turku	LOA: 60,5, breadth: 12,4 m, draught: 4,0 m, max speed: 12 knots	Baltic Sea only	2 sweep arms (40 m sweeping width), 3 x 200 metres, 2 m high Ro-Boom & 3 x 200 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 sweeping arms (35 m sweeping width), 4 x 200 metres, 2 m high Ro-Boom	800	14,900
KUMMELI	State Shipping Enterprise (Finstaship)	Savonlinna	LOA: 28,2, 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	
LETTO	State Shipping Enterprise (Finstaship)	Oulu	LOA: 42,7 m, breadth: 12,2 m, draught: 3,8 m, max speed: 12 knots		2 sweeping arms (30 m sweeping width) 3 x 200 metres, 1,5 m high Lamor-Boom)	42,7	5,500



At sea Response Resources: FINLAND

Vessel	Operator	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	Anti-pollution Operations Daily Rate (€)
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) 3 x 200 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: 2,1m, max speed: 7 knots	Coastal	2 sweeping arms (21 m sweeping width)	80	2,700
OILI III	State Shipping Enterprise (Finstaship)	Maarianhamina	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



Vessel	Operator	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	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: 3,8 m, max speed: 12 knots		2 sweeping arms (30 m sweeping width)	198	5,500
SVARTAN	Aland Government	Maarianhamina	LOA: 24 m, 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

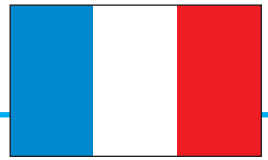
Note: Modification of Tursas' sister vessel UISKO will be completed in autumn 2006. UISKO will have the same dimensions and equipment as TURSAS. UISKO's location not decided yet.

Municipalities also have a number of medium and small-size vessels that can be used in recovery operations. These include 78 specialised oil-combating boats in the 11-20 m 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. Eight of the larger 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 (800 and 1,400 m^3). Total storage capacity of 13 vessels is 3,056 m^3 and total sweeping performance is 15.2 km^2 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.

2. PRIVATE RESOURCES

There are currently no private spill response contractors in Finland.

At sea Response Resources: FRANCE



1. GOVERNMENT OWNED OR CHARTERED RESOURCES

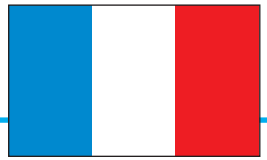
1.1 Emergency towing vessels

Technical details of French Emergency Towing Vessels

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	Anti-pollution Operations Daily Rate
ABEILLE BOURBON	Brest	Emergency towing vessel, LOA: 80 m, crew: 12	Yes	4 engines 16,000 HP 2 propellers	0	
ABEILLE LIBERTE	Cherbourg	Emergency towing vessel, LOA: 80 m, crew: 10	Yes	4 engines 16,000 HP 2 propellers	0	
ABEILLE FLANDRE	Toulon	Emergency towing vessel, LOA: 63,4 m, crew: 10	Yes	4 engines 12,800 HP 2 propellers	0	
ANGLIAN MONARCH*	Dover	Emergency towing vessel, LOA: 63,4 m, crew: 11	Yes	16,340HP	0	
ABEILLE LANGUEDOC	La Pallice	Emergency towing vessel, LOA: 63,4 m, crew: 10	Yes	4 engines 12,800 HP 2 propellers	0	

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

Stockpiles of equipment specifically for these vessels are located in different places along the French coastline such as Dunkerque, Le Havre, Brest, Saint-Nazaire, Nantes, Le Verdon, Bordeaux, Sète, Marseilles 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 (m^3)	Anti-pollution Operations Daily Rate
AILETTE	Toulon	Oil recovery vessel, LOA: 53 m, crew: 10	Yes	2 skimmers, 1 sweeping arm, two 9 m dispersant spraying arms, 300 m high sea booms, 1 Pollutank, 1 transfer pump 300 m^3/h	500	
ALCYON	Brest	Oil recovery vessel, LOA: 53 m, crew: 10	Yes	2 skimmers, 1 sweeping arm, two 9 m dispersant spraying arms, 300 m high sea booms, 1 Pollutank, 1 transfer pump 300 m^3/h	500	
CARANGUE	Toulon	Oil recovery vessel, LOA: 64,6 m, crew: 8	Yes	2 skimmers, two 12 m dispersants spraying arms, high sea booms, 2 pumps two 96 m^3/h transfer pump	480	
ARGONAUTE	Brest	Oil recovery vessel, LOA: 69 m, crew: 9	Yes	2 skimmers, 1 sweeping arm, two 9 m dispersant spraying arms, 300 m high sea booms, 1 Pollutank, 1 transfer pump 300 m^3/h	1,500	

1.3 Support Type vessels

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^3)	Anti-pollution Operations Daily Rate
ELAN	Cherbourg	Support vessel, LOA: 41,5 m	Yes	Not always on ship but can operate DACAMA Foilex skimmer+booms		
CHEVREUIL	Toulon	Support vessel, LOA: 41,50 m	Yes	Not always on ship but can operate DACAMA Foilex skimmer+booms		
GAZELLE	Toulon	Support vessel, LOA: 41,50 m	Yes	Not always on ship but can operate DACAMA Foilex skimmer+booms		

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^3)	Anti-pollution Operations Daily Rate (€)
NEUWERK	Cuxhaven	Ice-breaker/fire-fighting/ emergency tug/lightering/ pollution response, LOA: 78,91 m, breadth: 18,64 m, draught: 5,79 m, max speed: 14 knots, crew: 16	Yes	2 x 15 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)	2006: 1,306/hr
NORDSEA	Wilhelms-haven	Dredger/spill response, LOA: 131,75 m, breath: 23,0 m, draught: 6,88 m, max speed: 13 knots, crew: 21	Yes	2 x 22 m sweep arms, gravity separation system	5,400 (Unheated)	2006: 1,513/hr
MELLUM	Wilhelms-haven	Ice-breaker/emergency tug/ lightering/pollution response, LOA: 80,45 m, breadth: 15,10 m, draught: 5,80 m, max speed: 16 knots, crew: 16	Yes	2 x 15 m sweep arms, suction pumps, grab, 2 x 200 high sea booms, deck storage tanks, oil/water separation unit, 2/4 high sea fenders, crane	910 (Unheated)	2006: 910/hr
SCHARHORN	Kiel	Ice-breaker/fire fighting/ lightering/pollution response, LOA: 56,12 m, breadth: 14,23 m, draught: 4,68 m, max speed: 14 knots, crew: 14	Yes	2 x 13,5 sweep arms, grab, 2 x 200 high sea booms, deck storage tanks, oil/water separation unit, 2/4 high sea fenders, crane	430 (Unheated)	2006: 1,024/hr
BOTTSAND	Rostock	(Scissor-ship) bunkering-disposal vessel/pollution response, LOA: 46,30 m, breadth: 12 m, draught: 3,10 m, max speed: 10 knots, crew: 10	Yes	Twin hull vessel equipped with skimmers, oil/water separation unit	790 (Unheated)	2006: 1,237/hr
EVERSAND	Wilhelms-haven	(Scissor-ship) B-bunkering/ disposal vessel/pollution response, LOA: 48,7 m, breadth: 12 m, draught: 3,5 m, max speed: 10,5 knots, crew: 6	Yes	Twin hull vessel equipped with skimmers, oil/water separation unit	790 (Heated)	2006: 1,237/hr

At sea Response Resources: GERMANY

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	Anti-pollution Operations Daily Rate (€)
VILM	Rostock /Lubeck	Lightering/pollution response, LOA: 48,50 m, breadth: 10,2 m, draught: 2,60 m, max speed: 10 knots, crew: 3	Yes	Lightering equipment, 2 sweeping arms	320 (Unheated)	2006: 904.41/hr
KIEL	Kiel	Fire fighting/pollution response, LOA: 48 m, breadth: 9,20 m, draught: 3 m, max speed: 13 knots, crew: 4	Yes	2 x sweep arms, skimmers, auxiliary craft for boom towing	350 (Unheated)	2006: 1,043.63/hr
WESTENSEE	Bremer-haven	Non-motorised catamaran requiring 2 tugs/pollution response, LOA: 48,70 m, breadth: 27,11 m, draught: 4,40 m, max speed: 5 knots, crew: No permanent onboard crew	Yes	Non self propelled unit for recovery in rough seas, skimming system, gravitation separation system	1,960	2006: 2,075/hr
ARKONA	Stralsund	Ice-breaker/fire-fighting/ emergency tug/lightering/ pollution response, LOA: 69,20m, breadth: 15 m, draught: 4,50m, max speed: 13,1 knots, crew: 16	Yes	2 x 15 sweep arms, suction pumps, grab, 2 x 200 high sea booms, deck storage tanks oil/water separation unit, crane, 2/4 high sea fenders	400 (heated)	2006: 1,079/hr
LEYHORN	Norddeich	Supplier/pollution response, LOA: 39,50m, breadth: 8,40 m, draught: 2,10m, max speed: 10,5 knots, crew: 3		2 x sweep arms, skimmers, mobile pump equipment	200 (Unheated)	2006: 619
THOR	Wilhelms-haven	(Scissor-ship) bunkering-disposal vessel/pollution response, LOA: 34,65 m, breadth: 8,20 m, draught: 2,74 m, max speed: 9 knots, crew: 2		Twin hull vessel, equipped with skimming system	280 (Unheated)	2006: 1,572

Federal stockpiles are located to Wilhelmshaven, Cuxhaven, Kiel. State stockpiles are located to Hilgenriedersiel, Husum, Meldorf, Cuxhaven, Stralsund, Heiligendamm, Kiel, Wilhelmshaven, Bremerhaven, Bremen, Lübeck, Flensburg, Hamburg, Brunsbüttel and Kägsdorf.

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 spill response equipment stockpiles. 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.

At sea Response Resources: GREECE

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 (m^3)	Anti-pollution Operations Daily Rate (€)
413	Elefsis	Multipurpose vessel, length: 29,10 m, breadth: 6,2 m, draft: 2,4 m, speed: 15, crew: 8	Coastal	300 m fence type boom (Flexi 1100), skimmer type T-Disk 18B Vikoma, dispersant spray capability	10 (2 x 5 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, crew: 8	Coastal	300 m fence type boom (Flexi 1100), skimmer type T-Disk 18B Vikoma, dispersant spray capability	10 (2 x 5 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, crew: 8	Coastal	300 m fence type boom (Flexi 1100), skimmer type T-Disk 18B Vikoma, dispersant spray capability	10 (2 x 5 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, 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 (2 x 13,5 heated tanks)	602 except cost of the crew
417	Lavrio	Anti-pollution vessel, length:19 m, breadth: 6 m, draft: 1,7 m, speed: 9,5, crew: 7	Coastal	Air inflatable, troil boom A/F 1300, mop skimmer, skimming pump Desmi Dop-160, dispersant spray capability, hydraulic crane	27 (2 x 13,5 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, 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

Twenty four Regional Marine Pollution Combatting Centers (RMPCCs) have been founded in the following Greek ports: Piraeus, Elefsis, Kavala, Thessaloniki, Patra, Chania, Isthmia, Syros, Neapolis Vion, Volos, Pylos, Alexandroupolis, Limnos, Chios, Rhodes, Zakinthos, Igoumenitsa, Iraklio, Thira, Corfu, Lavrio, Mitilini, Preveza and Samos. These centres, which are under the upervision 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 Ports, 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^3)
- 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 vessels have already arrived in Lavrio port, but the delivery is not yet finalised, due to the delivery control procedures followed by the acceptance committee. The main characteristics of these vessels are similar to those already in use.

Main specifications as follows:

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^3 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 2008.

The main characteristics of this vessel are as follows:

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^3 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^3.

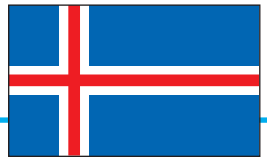
Antipollution means and equipment (booms, dispersant application equipment, skimmers) of total budget 1 m euro, will be provided mainly through programmes of the European Union, which will probably be completed by the end of 2006.

At sea Response Resources: GREECE

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^3 oil storage capacity multipurpose supply vessel.

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	Anti-pollution Operations Daily Rate
AKTAIA x 15	Piraeus	LOA: 18,5 m length	Coastal	Weir skimming Oil and debris skimming with 8,1 m sweep	30	
ARGO	Piraeus	Multi-use spill response vessel	Coastal			
Storage/ separator barge 300	Piraeus		Coastal			
Observer	Piraeus	General-use vessel	Coastal			
Tug	Piraeus		Coastal			
AKTAIA x 8	Igoumenitsa,Volos, Samos, Patra, Rhodos, Syros, Thessaloniki, Volos	LOA: 18,5 m	Coastal	Oil and debris skimming with 8,1 m sweep	30	



At sea Response Resources: ICELAND

1. GOVERNMENT OWNED OR CHARTERED RESOURCES

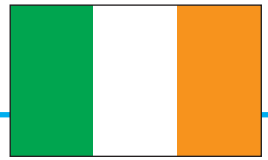
1.1 Specialised anti-pollution vessels

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.

2. PRIVATE RESOURCES

The US Navy facilities at Helguvík and Hvalfjördur have some skimming vessels and other equipment. However, the precise details are not available at present.

At sea Response Resources: IRELAND



1. GOVERNMENT OWNED OR CHARTERED RESOURCES

1.1 Emergency towing vessels

The Irish Coastguard 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. Oil response equipment stockpiles are located at Killybegs, Dublin and Castletownbere. The IRCG has in place pre-signed contracts with tug owners for vessels of greater than 50 t bollard pull.

1.2 Specialised anti-pollution vessels

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.

2. PRIVATE RESOURCES

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

1. GOVERNMENT OWNED OR CHARTERED RESOURCES

1.1 Specialised anti-pollution vessels

Italian authorities charter in their 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 nautical miles 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^3)	Anti-pollution Operations Daily Rate (€)
ACQUA CHIARA	Porto Torres	Supply vessel, LOA: 64,4 m, draft: 5,1 m	Yes		1,084	6,528
BONASSOLA	Crotone	Supply vessel, LOA: 58,95 m, draft: 5,1 m	Yes		734	6,841
MARTIN PRIMO	Civitavecchia	Supply vessel, LOA: 47,6 m, draft: 2,8 m	Yes		715	5,002
CAMOGLI DUE	Termoli	Supply vessel, LOA: 55,47 m, draft: 3,86 m	Yes		500	6,299
ECOLROMA	Porto Empedocle	Supply vessel, LOA: 47,2 m, draft: 2,62 m	Yes		393,8	4,868
MASCALZONE ATLANTICO	Cagliari	Supply vessel, LOA: 62,47 m, draft: 4,33 m	Yes		380	5,744
FAVIGNANA	Trapani	Supply vessel, LOA: 54,5 m, draft: 3,8 m	Yes		248,2	6,222
FRATELLI NERI	Livorno	Supply vessel, LOA: 60,2 m, draft: 4,85 m	Yes		171	6,737
SECOMAR QUATTRO	Ravenna	Supply vessel, LOA: 43 m, draft: 3,5 m	Yes		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

At sea Response Resources: ITALY

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	Anti-pollution Operations Daily Rate (€)
CITTA' DI RAVENNA	Ancona	U/S, LOA: 31,3 m, draft: 4,15 m	Coastal		74,5	4,351
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 will expire 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 one vessel which is fitted with oil spill response equipment and one non-propelled barge which is equipped with all types of oil spill response equipment. The other vessel is chartered by the Latvian Coast Guard from Ventspils Port Authority. Latvian Coast Guard technical resources include more than 1,700 m of open sea boom, 1,400 m of absorbent boom, more than 8,000 kg of absorbent granules, 3 oil skimming systems for a vessel of opportunity, 3 Desmi open sea submersible skimmers, 4 high capacity oil transfer pumps, 8 floating oil bags with total capacity of 20 m^3, 1 dispersant spray system with 2,000 litres of dispersant concentrate.

Vessels operated or chartered by the Latvian Coast Guard Service:

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	Anti-pollution Operations Daily Rate (€)
KA-14 ASTRA	Ventspils	Rescue vessel, LOA: 25 m, breadth: 6 m, draft: 1,2 m, speed: 25 knots, crew: 5	Baltic Sea only	Equipped with two sweeping arms and two Lamor Brush type skimmer box systems 80 m^3/h each, two recovered oil packing units on board	300 polyethylene bags (0,68 m^3 each)	350
SEA BARGE JL-1	Liepaja	Non-propelled steel barge, LOA: 20 m, breadth: 5,5 m, draft: 1 m	Baltic Sea only	Equipped with one sweeping arm and one over the side Brush system with pump, 1,000 m Ro-boom, free floating weir skimmer with screw pump, Oil Trawl system	100 (8 separate tanks)	200
KAPTEINIS ORLE	Ventspils	Hydrographic vessel, LOA: 23,04 m, breadth: 6,8 m, draft: 3,3 m, speed: 10 knots	Baltic Sea only	Equipment supply vessel suitable for deployment of booms and skimmers		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-southern part of Riga Bay only	Equipped with Lamor Brush type mini skimmer 20 m^3	48	200/h approximately

* Vessel operated by the Marine and Inland Water Administration.

At sea Response Resources: LATVIA

2. PRIVATE RESOURCES

Vessels operated or chartered by the Latvian Port Authorities or private companies:

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	Anti-pollution Operations Daily Rate
NAS-32	Riga	Oil waste collector, LOA: 18 m, breadth: 4,5 m, draft: 1,6 m, speed:6 knots	Coastal		19	On agreement conditions
VARMA	Riga	Ice breaker, LOA: 84,1 m, breadth: 21,2 m, draft: 6,2 m, speed:18,2 knots, towing capacity: 150 tons bp	Coastal			On agreement conditions
GUNTA	Liepaja	Oil waste collector, LOA:16,85 m, breadth: 4,3 m, draft: 1,24 m, speed:5 knots	Coastal		20	On agreement conditions
KAPTEINIS GRANTS	Liepaja	Hydrographic vessel, LOA: 23,06 m, breadth: 6,8 m, draft: 3,37 m, speed: 10 knots	Baltic Sea only			On agreement conditions
RINDA	Ventspils	Oil waste collector, LOA:17 m, breadth: 4,3 m, draft: 1,37 m, speed:6 knots	Coastal		20	On agreement conditions
RIVA	Ventspils	Oil waste collector, LOA:17 m, breadth: 4,3 m, draft: 1,66 m, speed: 5 knots	Coastal		20	On agreement conditions
SVETE	Ventspils	Oil waste collector, LOA:17 m, breadth: 4,3 m, draft: 1,66 m, speed: 5 knots	Coastal		20	On agreement conditions
DZELME	Ventspils	Dredger, LOA: 63,89 m, breadth: 13,5 m, draft: 3,53 m, speed: 6,5 knots	Baltic Sea only		1,000 (for low viscosity oil)	On agreement conditions

Resources operated by the Latvian larger Port Authorities (Riga, Ventspils, Liepaja) include more than 2,600 m of sea and coastal booms, 4,600 m of adsorbent booms, 1,000 kg of adsorbent granules, 3 skimmers for open sea, 10 bags for collected oil waste with total capacity approximately 50 m^3 .

Resources operated by the Latvian small Port Authorities include more than 400 m of Lamor coastal boom and 5 Lamor brush type miniskimmer systems (20 m^3 /h) with rock cleaner heads. In addition to these there are a number of resources operated by private companies such as oil terminals, bunkering companies, etc.

1. GOVERNMENT OWNED OR CHARTERED RESOURCES

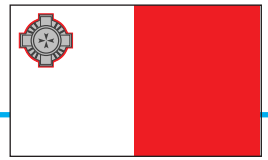
1.1 Specialised anti-pollution vessels

The Lithuanian Government owns two specialised anti-pollution vessels. The Lithuanian Coast Guard operates M/V MADELEINE which is suitable for operation in shallow waters. Klaipeda State Seaport Authority operates the multipurpose vessel SAKIAI, which is suitable for at sea operation with storage capacity 228 m^3. In addition, a number of booms, skimmers, pumps and other accessories are stationed in the Klaipeda State Seaport area. Two dedicated barges and other mobile storage facilities are also available with a capacity of around 200 m^3.

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	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	Yes	Lamor free floating brush skimmer x 2, Terminator x 1, Ro-boom – 2000; 2 x 250 m, Pumps Framo TK-5 x 2; Framo TK-8 x 1	228	
MADELEINE	During navigation period in the port of Nida. Otherwise 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 x 1	25 containers with capacity 1 m^3 each	

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.



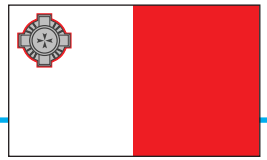
At sea Response Resources: MALTA

1.GOVERNMENT OWNED OR CHARTERED RESOURCES

1.1 Specialised anti-pollution vessels

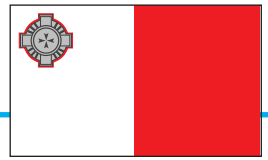
The Oil Pollution Response Module, within the Ministry of Tourism, has oil combating vessels that can respond to oil pollution incidents. The Civil Protection Department, within the Ministry of Justice and Home Affairs, has a multipurpose tug operated vessel that can be adapted with specialised equipment to respond to oil pollution incidents.

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	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, LOA: 9 m, breadth: 3,49 m, draft: 0,8 m, speed: 5 knots	Coastal	Dispersant spraying units, high pressure hot water pumps, heavy oil skimmers, screw pumps with skimming heads, site bomms, protection booms, skimmers, absorbent materials	Flexible storage tanks (6 tanks-30 each)	705
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^3)	Anti-pollution Operations Daily Rate (€)
LIENI	Valletta	Tug vessel, LOA: 28 m, breadth: 9,8 m, speed: 12 knots, crew: 4/5	Coastal	Desmi (50cb m), dispersant tank (12 cb m)	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 (50cb m), dispersant tank (12 cb m)	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)
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 and a spate pump.	Flexible storage tanks (6 tanks-30 each)	From 5,200 to 11,500 euro (excluding fuel and oil consumption)

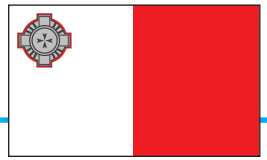


At sea Response Resources: MALTA

2. PRIVATE RESOURCES

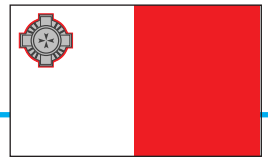
- Cassar Enterprises:

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	Anti-pollution Operations Daily Rate (€)
ST.ROCCO	Valletta	Tug vessel		Can be fitted with following equipment from company's stockpiles: 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
SEA WOLF II	Valletta	Tug vessel		Idem	Flexible storage tanks (6 tanks-30 each)	2,256
BARGE-DUMB 1	Valletta	LOA: 45 m, breadth: 15 m		Idem	Flexible storage tanks (6 tanks-30 each)	470
BARGE-DUMB 3	Valletta	LOA: 19 m, breadth: 6 m		Idem	Flexible storage tanks (6 tanks-30 each)	352.5
BARGE-DUMB 1	Valletta	LOA: 16,75 m, breadth: 5,5 m		Idem	Flexible storage tanks (6 tanks-30 each)	352.5
BARGE-DUMB 1	Valletta	LOA: 12,8 m, breadth: 3,05 m		Idem	Flexible storage tanks (6 tanks-30 each)	235



- FSSL:

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	Anti-pollution Operations Daily Rate
ST. THERESA	Marsaxlokk	Bunker barge, LOA: 75,93 m, breadth: 13 m, draft: 5 m, speed: 15 knots, crew: 8		Oil absorbing materials, absorbent boom, rigid booms, empty drums, shovels.		
ST. ELENA	Marsaxlokk	Bunker barge, LOA: 74,85 m, breadth: 13 m, draft: 5 m, speed: 14 knots, crew: 8		Oil absorbing materials, absorbent boom, rigid booms, empty drums, shovels.		
MT SPIRO F	Valetta	Bunker barge, LOA: 56,35 m, breadth: 10,20 m, draft: 4,14 m, speed: 10 knots, crew: 7		Oil absorbing materials, absorbent boom, rigid booms, empty drums, shovels.		
MT OILFIELD	Valetta	Bunker barge, LOA: 40,27 m, breadth: 7,47 m, draft: 2,50 m, speed: 8 knots, crew: 4		Oil absorbing materials, absorbent boom, rigid booms, empty drums, shovels		
MT OILSTONE	Valetta	Bunker barge, LOA: 40,27 m, breadth: 7,47 m, draft: 2,50 m, speed: 8 knots, crew: 5		Oil absorbing materials, absorbent boom, rigid booms, empty drums, shovels		



At sea Response Resources: MALTA

- Salvu Zammit and Sons:

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	Anti-pollution Operations Daily Rate
BAWA I	Valetta	Bunker barge, LOA: 39,42 m, breadth: 8,10 m, draft: 3 m, speed: 11 knots, crew: 4		Oil absorbing materials, absorbent boom, rigid booms, empty drums, shovels.		
SAN BERT	Gozo	Bunker barge, LOA: 22,66 m, breadth: 5,5 m, speed: 7 knots, crew: 3		Oil absorbing materials, absorbent boom, rigid booms, empty drums, shovels.		
SALVATUR	Gozo	Bunker barge, LOA: 24,5 m, breadth: 5,08 m, speed: 8 knots, crew: 3		Oil absorbing materials, absorbent boom, rigid booms, empty drums, shovels.		

- Island Bunkers:

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	Anti-pollution Operations Daily Rate
GOLDEN BAY	Valetta	Bunker barge, LOA: 33,95 m, breadth: 6,5 m, draft: 2,85 m, speed: 9 knots, crew: 4		Oil absorbing materials, absorbent boom, rigid booms, empty drums, shovels		
ANCHOR BAY	Valetta	Bunker barge, LOA: 72,10 m, breadth: 12,40 m, draft: 4,81 m, speed: 11 knots, crew: 9		Oil absorbing materials, absorbent boom, rigid booms, empty drums, shovels		
MISTRA BAY	Valetta	Bunker tanker, LOA: 86,03 m, breadth: 13,04 m, draft: 5,18 m, speed: 12 knots, crew: 12 Chartered by EMSA for pollution recovery		Re-fitted for EMSA (see page 50)		

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

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 (m^3)	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	Yes	2 skimmers (p) pumps, 2 x 100 m boom	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	Yes	Can be equipped with davits, 2 sweeping arms and powerpack.	80	
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	Yes	Can be equipped with davits, 2 sweeping arms and powerpack.	80	
ROTTERDAM	Rotterdam	Buoy tender/2nd line oil recovery vessel, LOA: 44,4 m, breadth: 10,25 m, draught: 3,1, max speed: 14 knots	Yes	Can be equipped with davits, 2 sweeping arms and powerpack.	40	
HEIN	Rotterdam	Trailing suction hopper dredger, 2nd line oil recovery vessel, LOA: 113,01 m, breadth: 18,47 m, draught: 8 m, max speed: 22,2 knots, crew: 12	Yes	1 skimmer (p),1 skimmer (sb)	3,450	
RIJNDELTA	Rotterdam	Trailing suction hopper dredger, 2nd line oil recovery vessel, LOA: 112,9 m, breadth: 18,1 m, draught: 7,2 max speed: 11 knots	Yes	2 skimmers (p)	3,548	

At sea Response Resources: THE NETHERLANDS

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	Anti-pollution Operations Daily Rate
WAKER	Den Helder	Emergency towing vessel/2nd line oil recovery vessel, LOA: 67,5 m, breadth: 14,55 m, draught: 6,9 m, max speed: 30 knots	Yes	1 skimmer (sb)	185	
GEOPOTUS 14	Rotterdam	Trailing suction hopper dredger, 2nd line oil recovery vessel, LOA: 124,3 m, breadth: 20,62 m, draught: 8,6 m, max speed: 15 knots	Yes	Can be equipped with davits, 2 sweeping arms and powerpack	7,472	
MELLINA	Ijmuiden	Trailing suction hopper dredger, 2nd line oil recovery vessel, LOA: 95 m, breadth: 20 m, draught: 6 m, max speed: 15 knots	Yes	1 skimmer (p)	3,200	
RIO	Breskens	Trailing suction hopper dredger, 2nd line oil recovery vessel	Yes	1 skimmer (p)	2,430	
INTER-BALLAST- 1	Breskens	Trailing suction hopper dredger, 2nd line oil recovery vessel	Yes	1 skimmer (p)	2,600	
ZEELAND EXPRESS	Harlingen	Trailing suction hopper dredger, 2nd line oil recovery vessel, speed: 8 knots	Wadden Sea	Zeeland Express has a set comprising a small boom; outrigger; skimmer. It can also be equipped with a small sweeping arm	850	
WATERWAY	Rotterdam	Trailing suction hopper dredger, 2nd line oil recovery vessel, LOA: 97,7 m, breadth: 23 m, draught: 6,6 m, max speed: 13,2 knots	Yes	Can be equipped with davits, 2 sweeping arms and powerpack	4,900	

At sea Response Resources: THE NETHERLANDS

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	Anti-pollution Operations Daily Rate
CORNELIA	Rotterdam	Trailing suction hopper dredger, 2nd line oil recovery vessel, LOA: 112,8 m, breadth: 19,6 m, draught: 7,5 m, max speed: 13,5 knots	Yes	Can be equipped with davits, 2 sweeping arms and powerpack	6,392	
COASTWAY	Rotterdam	Trailing suction hopper dredger, 2nd line oil recovery vessel, LOA: 97,7 m, breadth: 23 m, draught: 6,6 m, max speed: 13,2 knots	Yes	Can be equipped with davits, 2 sweeping arms and powerpack	4,900	
BARGE 1	Rotterdam		Yes	1 skimmer (sb)	2,600	

- All skimmers on board the mentioned vessels are of the sweeping arm type (inner pontoon carrying the pump; bridge part; outer pontoon) 13,5 or 15 meters length.

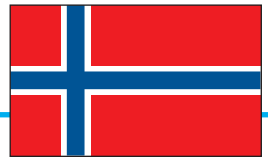
- FRANS NAEREBOUT, TERSCHELLING and ROTTERDAM are recovery-assisting vessels that normally handle booms or current buster. All vessels can be fitted with sweeping arm and two tank containers.

- WAKER primarily is 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 (except the ROTTERDAM) 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). 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 within six hours of a spill, and 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.

* Not presently under contract but could be available on an "ad-hoc" basis if operating in suitable area at the time of an incident.

2. PRIVATE RESOURCES

No information available at the present time.

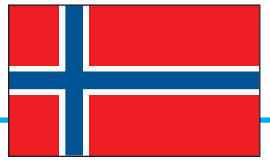


At sea Response Resources: NORWAY

1. GOVERNMENT OWNED OR CHARTERED RESOURCES

1.1 Government owned or chartered vessels in operation

Operator	Vessel	Location	Type / details	Offshore operations	Equipment	Recovered Oil Storage Capacity (m^3)	Daily rate
NCA	Oljevern 01	West Norway		No	304 m Expandi 4300, Foxtail VAB 4-9, crane, Bandskimmer (at depot)	90	
NCA	Oljevern 02	Nordland		No	304 m Expandi 4300, Foxtail VAB 4-9, crane, Bandskimmer (at depot)	90	
NCA	Oljevern 03	South-East Norway		No	304 m Expandi 4300, Foxtail VAB 4-9, crane, Bandskimmer (at depot)	90	
NCA	Oljevern 04	Troms and Finnmark		No	304 m Expandi 4300, Foxtail VAB 4-9, crane	90	
NCA	Villa	South-East Norway		No	Back-up vessel for Oljevern 01 (equipment transferred when outside area)		
NCA	Vestfjord	Troms and Finnmark		No	Back-up vessel for Oljevern 04 (equipment transferred when outside area)		
NCA	Nordsyssel	Svalbard		Part	300 m NO35F, Foxtail VAB 4-9, Power pack, crane	200	
NoCG	KV Tromsø	North Norway		Yes	300 m NOFI 800S, TransRec 250 (weir skimmer head), Foxtail VAB 4-9, 304 m Expandi 4300, emergency offloading pump CCN 150	800	
NoCG	KV Malene Østervold	North Norway		Yes	300 m NOFI 800S, Foxtail VAB 4-9, Foilex TDS	200	
NoCG	KV Ålesund	South Norway		Yes	300 m NOFI 800S, TransRec 250 (weir skimmer head), Foxtail VAB 4-9, emergency offloading pump CCN 150	800	
NoCG	KV Eigunn	South Norway		Yes	300 m NOFI 800S, Foilex TDS, Foxtail VAB 8-14	700	
NoCG	KV Lafjord	South Norway		Yes	300 m NOFI 800S, Foilex TDS, Foxtail VAB 8-14	800	
NoCG	KV Harstad	North Norway	ETV	Yes	300 m NOFI 800S, TransRec 250 (weir skimmer head), Foxtail VAB, Expandi 4300. Emergency offloading pump CCB 150	1000 (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:

Operator	Vessel	Location	Type / details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	Daily rate
NoCG	KV Svalbard	North Norway/ Svalbard	ETV	Yes	304 m Expandi 4300, Foxtail VAB 4-9,	25 (oil bag)	
NoCG	5 vessels, names not decided (from 2005)	Entire coastline (near shore operations)		No	200 m oil boom, Foxtail VAB	150 (with heating coils)	

1.3 Government owned oil spill response equipment

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

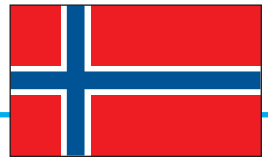
The oil spill response equipment for the vessel of opportunity system is stored in NCA equipment depots along the coast. In total, NCA has approx. 43,000 metres of oil booms (heavy-, medium- and lightweight), approx 120 oil skimmers, hydraulic power packs, storage tanks, beach-cleaning equipment etc stored in all the depots. The 15 main depots are located at; Horten, Kristiansand, Stavanger, Bergen, 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.

At sea Response Resources: NORWAY



2. PRIVATE RESOURCES

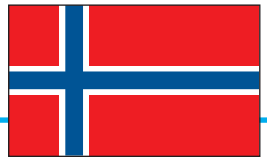
According to the Norwegian Pollution Control Act, private parties involved in activities that may result in oil spills must be prepared to respond and recover lost oil. A further aspect of the Norwegian spill preparedness law is that private firms are required to work together in their preparation and 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, manpower and a special pool of large supply 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 is that these vessels are not dedicated to oil spill response, but carry out regular tasks (supply, etc) for the operator on 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 are as follows:

Name	Home port	LOA	HP	GT
ACTIVE GIRL	Stavanger	80,8	6,000	2,562
STRIL BORG	Stavanger	74,9	14,738	2,955
STRIL POWER *	Stavanger	74,9	14,738	2,926
NORMAND MJOLNE	Mongstad	83,6	17,932	3,385
NORMAND DRAUPNE	Mongstad	83,5	17,932	3.385
TROMS SKARVEN	Mongstad	79,7	13,200	3,149
NORTHERN CLIPPER	Mongstad	82,5	9,598	2,978
SKANDI ADMIRAL	Mongstad	83,3	21,588	4,370
HAVILA RUNDE *	Mongstad	69,0	6,912	2,017

Name	Home port	LOA	HP	GT
TROMS TITAN	Mongstad	72,5	11,990	2,535
BOURBON HIDRA	Kristian-sund	83,0	n/a	3,120
SKANDI SOTRA	Kristian-sund	83,9	9,924	3,482
OCEAN SKY	Kristian-sund	64,5	7,040	1,314
VIKING PRINCE	Træna	64,5	7,040	1,322
SKANDI STOLMEN	Træna	67,0	5,452	1,969
SKANDI STORD *	Træna	73,5	15,000	2,656
STRIL POSEIDON	Kristian-sund	91,4	n/a	4,785
HAVILA TROLL	Bergen	92,4	n/a	4,537



At sea Response Resources: NORWAY

Those vessels in the table marked by an asterisk (*) carry NOFO pollution response equipment on board. All NOFO vessels participate in annual exercises in order to maintain their NOFO contingency role. 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 (Statoil), and the oil terminal at Sture north of Bergen (Norsk Hydro) all have oil spill response equipment and vessels suitable for nearshore response operations. In addition they have a limited amount of dispersants. At the offshore oil production installations, dispersants and oil recovery equipment are available as in-field (first line) response resources and are stored on-board rescue vessels, etc.

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 deploy the equipment, 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. NOFO has recently (March 2004) decided to change and upgrade the current equipment inventory by purchasing new skimmers and oil booms. Furthermore, NOFO maintains dispersant preparedness via a location in mid-Norway (Draugen).

At sea Response Resources: POLAND

1. GOVERNMENT OWNED OR CHARTERED RESOURCES

1.1 Specialised anti-pollution vessels

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	Anti-pollution Operations Daily Rate
KAPITAN POINC	Gdynia	Multipurpose vessel, length: 53,40 m, breadth: 13,60 m, speed: 13 knots, crew: 10	Yes	Two sweeping arms, Brush system Lamor max 2 x 140 m^3/h, free floating Terminator skimmer 100 m^3/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	Yes	Two sweeping arms, Brush system Lamor max 2 x 80 m^3/h, deck crane 7 tons	2 x 36	
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 x 2 x 20 m^3/h, small crane	20	

1.2 Projects in progress - other information

There are also different types of specialised antipollution equipment such as: approximately 7,000 m of different types of booms, 15 skimmer units, 7 different types of specially designed trawling nets for heavy oil, 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 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.

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 tanks of 50 m^3 each. The contract is already signed and new equipment was delivered by the end of May 2006.

3) A short term project for new equipment designated for sheltered and shallow waters response including: low draught working boats with bow brush collectors, small skimmers for heavy oil and small skimmers for medium and light products as well. Total cost of the investment is about € 2 million and is expected to be completed by the end of 2007.

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, skimmers and technical support in order to provide additional support in the event of an accident. Petrobaltic has also five 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 fire fighting vessels. A number of small harbour tugboats are also available.

1. GOVERNMENT OWNED OR CHARTERED RESOURCES

1.1 Specialised anti-pollution vessels

Port Authority and Navy owned 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, Funchal. The Navy also owns equipment for anti-pollution response, such as: a mobile operation centre (1), marine barrier (3,300 m), port barrier (5,000 m), various pumps (32), absorbent products (3,500 m), pliable tanks (40), various recuperators (40), detection, protection, cutting and cleaning equipment (13), transport and handling means (20), collecting barges (4), recovery system (1), repair container (1).

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	Anti-pollution Operations Daily Rate (€)
PORTO VIANA	Viana do Castelo	LOA: 12 m	Coastal	Boom and external lori brush system	30	394.1/h
PORTO LIMPO	Viana do Castelo	LOA: 10 m	Coastal	Boom and external lori brush system		225.2/h
PRAIA DE MEMORIA	Leixoes	LOA: 26 m	Coastal	Collecting barge	200	6,972
PRAIA DE MOLHE	Leixoes	LOA: 8,33 m	Coastal	Skimmer (40 t/h)		4,392.3
RIA LIMPA	Aveiro	LOA: 12,5 m	Coastal	Skimmer and external flotation tanks	27	2,775.5
RIA AZUL	Aveiro	LOA: 12 m	Coastal	Skimmer and tanks		4,856.8
RIO LIMPO	Figueira da Foz	LOA: 12,5 m	Coastal	Skimmer and external flotation tanks	27	2,604
ENCHENTE	Lisbon	LOA: 18 m	Coastal	Boom and oil recovery system	30	6,240
VAZANTE	Lisbon	LOA: 9 m	Coastal	Boom and external lori brush system	8	3,768
TARAMBOLA	Lisbon	LOA: 10 m	Coastal	Boom, skimmer, crane	5	230/h
AMETISTA	Lisbon	LOA: 18 m	Coastal	Hidraulic crane		220/h
ALCAME	Lisbon	LOA: 8 m	Local	Opening bow		60/h
GOLFINHO DO SADO	Setubal	LOA: 12 m	Coastal	Lori brush system	7	160.5/h
LONTRA DO SADO	Setubal	LOA: 6,5 m	Coastal	Skimmer		475.5/h
ALFA	Sines	LOA: 8 m	Local	Boom storage and deployment		23.3/h

At sea Response Resources: PORTUGAL

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	Anti-pollution Operations Daily Rate (€)
PRAIA AZUL	Sines	LOA: 10 m	Local	Lori brush system		4,276.8
MAR AZUL	Sines	LOA: 15 m	Coastal	Lori brush system		12,762.8
MAR LIMPO	Sines	LOA: 15,5 m	Coastal	Oil mops	30	10,997.7

1.2 Projects in progress - Other up-to-date information

The Portuguese Navy is planning the construction of two marine patrol vessels which can act as anti-pollution vessels, and which will be equipped with marine booms and a Transrec recuperator enabling dynamic collection (200 m^3 product storage capacity). These vessels cost € 50,000,000 each.

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: SLOVENIA

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 a vessel (KP-271), which is 13 m long 5m breadth, speed 4 knots, with 200 m booms, but at present with no storage capacity. Combatting team has available two skimmers with total capacity of 30 m^3. The ''shore sea safeguarding team" has also a boat (KP-613). Its specifications: LOA: 6m, Breadth: 2, 95, speed: 22 knots, used for on-scene surveillance and assistance. For larger pollution incidents civil protection has 3 towing vessels, one with combating equipment. Overall combating equipment available comprises: 900 m ocean boom, 3 oil skimmers with 24 m^3 storage capacity, absorbents and other various equipment. For aerial surveillance there are 3 airplanes available but without remote sensing equipment.

2. PRIVATE RESOURCES

Adria-Tow has 3 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 14 tugs, 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. The latest two units added to the fleet are equipped with sweeping arms.
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 has open decks that make them suitable for deploying booms in recovery operations, but their storage capacity is limited.

45 fast response vessels of a smaller size (15 and 20 m) 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. Geographical distribution of these vessels is variable depending on season and needs. The total number of skimmers is 60 units.There are also 59 portable tanks of 10 m^3 capacity each and 16 portable tanks of 7,5 m^3 each.

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	Anti-pollution Operations Daily Rate
V.B. ANTARTICO		Multipurpose/fire fighting, LOA: 55 m, draft: 4,8 m				
ALONSO DE CHAVES		Multipurpose/fire fighting, LOA: 57 m, draft: 5,5 m				
BOLUDA MISTRAL		Multipurpose/fire fighting, LOA: 36 m, draft: 4,5 m				
IBAIZABAL DOS		Multipurpose/fire fighting, LOA: 37 m, draft: 4,5 m				
IBAIZABAL UNO		Multipurpose/fire fighting, LOA: 37 m, draft: 4,5 m				
IBAIZABAL TRES		Multipurpose/fire fighting, LOA: 37 m, draft: 4,5 m				
RIA DE VIGO		Multipurpose/fire fighting, LOA: 68 m, draft: 5,9 m				
PUNTA MAYOR		Spill response/multipurpose, LOA: 60 m, draft: 4,6 m			240	
PUNTA SALINA		Multipurpose/fire fighting, LOA: 63 m, draft: 5,5 m				
REMOLCANOSA CINCO		Multipurpose/fire fighting, LOA: 43 m, draft: 5 m				
REMOLCANOZA OCHENTA		Multipurpose/fire fighting, LOA: 57 m, draft: 5,5 m				

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	Anti-pollution Operations Daily Rate
SERTOSA DIECIOCHO		Multipurpose/fire fighting, LOA: 36 m, draft: 4,5 m				
LUZ DE MAR		Spill response/multipurpose, LOA: 56 m, draft: 5,5 m			287	
MIGUEL DE CERVANTES		Spill response/multipurpose, LOA: 56 m, draft: 5,5m			287	

Stockpiles are located in different places along the Spanish coastline.

1.2 Projects in progress - Other information

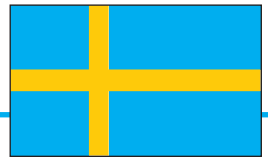
There are two new units under construction, which will be delivered in 2006, with sweeping arms and dedicated heating storage tanks (1,750 m^3 each). These are multipurpose vessels (Tug/Sar/Spill/Recovery).

There is also a contract for three fixed wing aircraft especially configured for oil spill detection. The first one will enter into operation mid-2007.

2. PRIVATE RESOURCES

No information available at present.

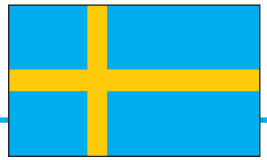
At sea Response Resources: SWEDEN



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 two new ocean going ships for ETOW (100 tons bp), emergency lightering, fire fighting and oil recovery purposes (1,000 tons storage capacity). The two vessels are length 79 m, breadth 16 m, depth 5 m and speed 16 knots. One will operate in the Baltic Sea and one on the West coast. The first ship will be delivered in April 2008 and the second one in October 2008. Three new remote sensing aeroplanes for surveillance will be delivered in 2007.

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	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	Yes	Sweeping arm, Lamor brush skimmer, Fox tail, two free-floating skimmers, 300 m boom	40 + 2 x 100 m^3 oil bags	16,362.6
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	Yes	Sweeping arms, Lamor brush skimmers, two free-floating skimmers, 300 m boom	233 + 100 m^3 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	Yes	Sweeping arms, Lamor brush skimmers, two free-floating skimmers, 300 m boom	212 + 100 m^3 oil bags	15,544.5
KBV022	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^3 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^3 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	Yes	Sweeping arms, Lamor brush skimmers, two free-floating skimmers, 300 m boom	150 + 110 m^3 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	Yes	Sweeping arms, Lamor brush skimmers, two free-floating skimmers, 300 m boom	150 + 110 m^3 oil bags	14,189.4



At sea Response Resources: SWEDEN

Vessel	Location	Type / Details	Offshore Operations	Equipment	Recovered Oil Storage Capacity (m^3)	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	Yes	Sweeping arms, Lamor brush skimmers, two free-floating skimmers, 300 m boom	150 + 110 m^3 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	Yes	Sweeping arms, Lamor brush skimmers, two free-floating skimmers, 300 m boom	150 + 110 m^3 oil bags	12,834.4
KBV049	Slite	Pollution response, LOA: 36,6 m, breadth: 7,3 m, draught: 3,7 m, max speed: 10,5 knots, crew: 5	Yes	Sweeping arms, Lamor brush skimmers, two free-floating skimmers, 300 m boom	150 + 110 m^3 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	Yes	Sweeping arm, Lamor brush skimmer, two free- floating skimmers, 300 m boom	190 + 110 m^3 oil bags	14,189.4
KBV051	Goteborg	Pollution response, LOA: 38 m, breadth: 8,5 m, draught: 2,4 m, max speed: 9 knots, crew: 5	Yes	Sweeping arm, Lamor brush skimmer, two free-floating skimmers, 300 m boom	190 + 110 m^3 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	Yes	One side brush skimmer advancing system with sweeping arm, two free-floating skimmer, 300 m boom	50 m^3 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	Yes	Sweeping arm, Lamor brush skimmer, two free-floating skimmer, 300 m boom	104 + 110 m^3 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	Yes	Sweeping arm, Lamor brush skimmer, two free-floating skimmer, 300 m boom	104 + 110 m^3 oil bags	22,166.1

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 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 aircraft, guided and monitored by specialist surveillance aircraft. A 16,000 tonne oil slick can be treated in 48 hours, drawing on dispersant held in government stockpiles. Scientific and monitoring support, along with rapid liaison with other Government departments, forms part of this package. 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 the UK 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 and continuous monitoring of vessel trading and traffic patterns in UK waters. As a result, robust preventative measures have been established and include:

- Regular, routine aerial surveillance patrols.
- 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.
- 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. Suitable vessels would need to be chartered in for deployment at sea. In addition to at sea oil recovery, booming and temporary storage, the stockpile also includes 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 SUPPORTER – Aberdeen Port
BRITISH SHIELD – Aberdeen Port
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
HAVEN HORNBILL – Harwich 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.

EMSA 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.

Under the EMSA arrangement, the contractors will offer at-sea oil recovery services within first half of 2006. The contracts may be renewed for an additional period of 3 years.

Taking into account the large sea areas that have to be covered and the need for rapid arrival on site, the Agency is organizing the second round of the call for tender in 2006 to build up the response capacity as planned.

Some of the main technical features of the ''first round EMSA vessels" are as below mentioned:

Vessel	TINKA	BREEZE	OPHELIA	KASLA	OTILIA	ILE-DE-BRÉHAT	MISTRA BAY
IMO Number	7126152	7427659	8010427	7347500	8813697	9247053	8009430
Operational date	30/06/2006	31/03/2006	30/06/2006	30/06/2006	31/03/2006	31/03/2006	31/03/2006
Call sign	LAUF5	LASV5	LATF5	LAQQ5	OVIP2	F.O.U.C.	9HQO7
Heated Oil storage capacity (m^3)	1,800	2,005	6,936	8,639	9,889	4,000	1,805
Oil Spill Response Equipment	Two flexible sweeping arms with brush skimmer, heavy duty booms, Weir skimmers, high capacity discharging pumps, slick detection system (Sea Darq BV). Flex arms are available only in Baltic vessels. The vessels are equipped with brush and arctic skimmer					ILE-DE-BRÉHAT and MISTRA BAY are equipped with rigid sweeping arms and weir skimmer.	
Length (m)	84,05	74,9	106,2	124,39	105	123,9	86,03
Breadth (m)	13,72	14	15,99	17,6	18	23,4	13,04
Draugth (m)	5,3	5,7	7,17	6,28	7,925	8,016	6,29
Max Speed (kn)	13	13,5	14,5	14,5	13,5	15,4	12
Flag	Norwegian/NIS	Norwegian/NIS	Norwegian/NIS	Norwegian/NIS	Denmark/DIS	French	Maltese
Min Crew	24h crew members with spill response coordinator						
Classification Society	GL	GL	GL	GL	GL	BV	LR

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