European Maritime Safety Agency

Information Meeting
EMSA NEG/1/2014 – Stand-by Oil Spill Recovery Vessels

Introduction to EMSA's At-sea Oil Recovery Service

January 2014

European Maritime Safety Agency

Background:

- Post Erika (2002: EMSA established)
- Post Prestige (2004: new task Marine Pollution Preparedness & Response)

Decentralised Agency of the European Community

- Own legal identity
- No legislative role
- Technical and operational support

Legal basis

Regulation 1406/2002 as amended (amendment from 2013 – a new task related to offshore installations' spills)

Fields of competence

Maritime safety

Prevention of pollution caused by ships

EMSA's objectives

Maritime security

Response to pollution caused by ships

Response to pollution caused by oil and gas installations

Current EMSA's anti-pollution services

- Network of Stand-by Oil Spill Response Vessels
- CleanSeaNet (CSN) - Oil spill detection system
- Experts

Framework for Service Network of Stand-by Oil Spill Response Vessels

- "Top-up" Member States pollution response capabilities
- "**European Tier**" of resources
- Mobilisation by EMSA **at request of** MS/EFTA/CC or Commission
- **Channelled** through "EU Community Mechanism"
- Emergency Response Coordination Centre (ERCC) managed by DG ECHO (former MIC)
- Under "**operational control**" of the affected coastal State

Scope of the work

Main Objective:
Stand-by At-sea Oil Recovery Service

Contractor to ensure that:

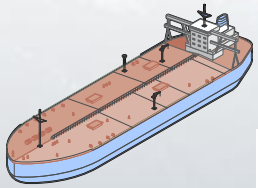
- Vessel undertakes normal commercial activities; and
- At request, transformed & mobilised at short notice for at-sea oil recovery services

Dual Contract Structure

Vessel
Availability
Contract

Incident
Response
Contract

At-sea Oil Recovery Service



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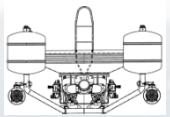

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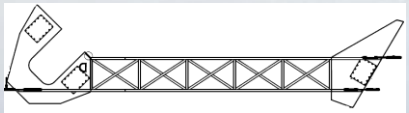


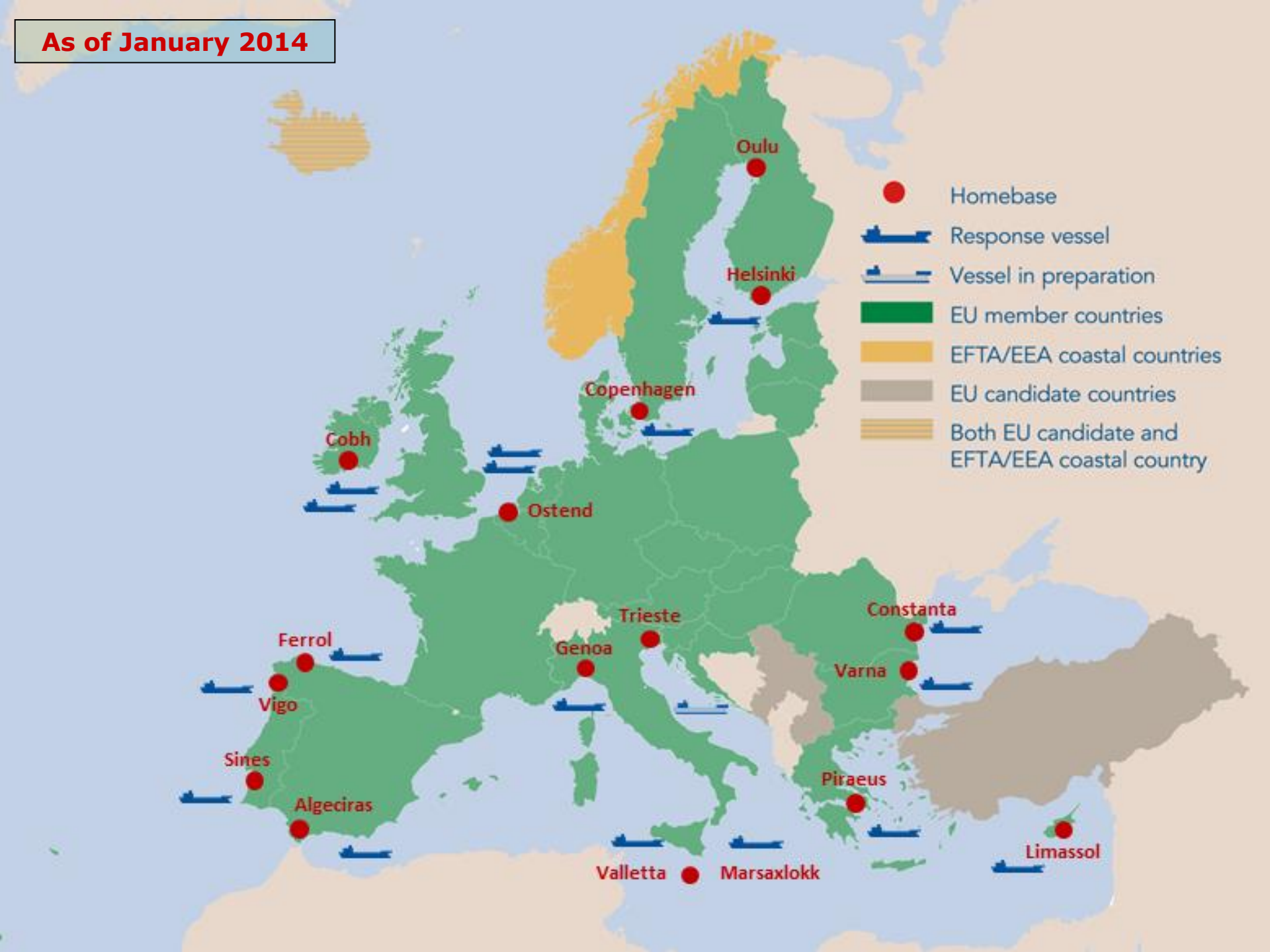
- Between EMSA and the Contractor
  - 4 Years + Renewable once = Maximum 8 years total
- It **secures**:
  - **Requirements** for vessel(s), equipment and crew
  - Stand-by / **availability**
  - Drills and **participation** in exercises
  - **Mobilisation time**
  - **Mandatory** use of the **I**ncident **R**esponse **C**ontract

Pre-fixed contract with pre-set conditions & tariffs:

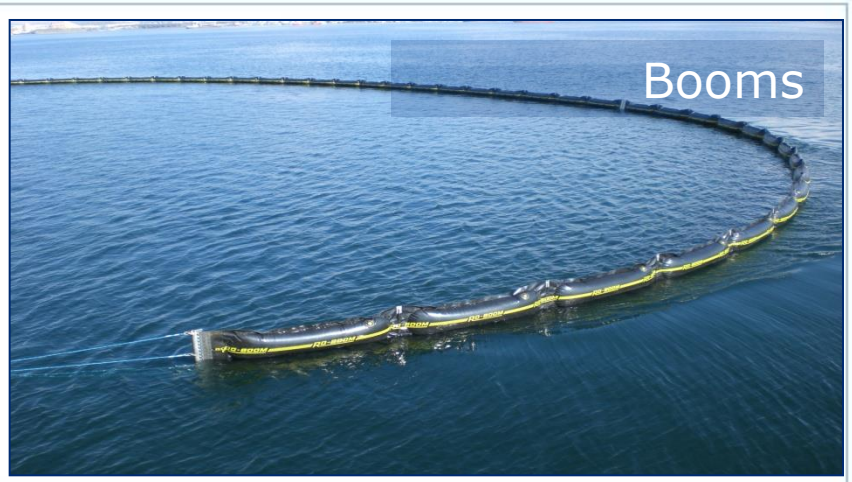
- Between the requesting coastal State and contractor
- Avoid unnecessary high tariffs vs. vessel of opportunity
- 1 Model Contract for 20+ different legal systems

IRC: Some key provisions

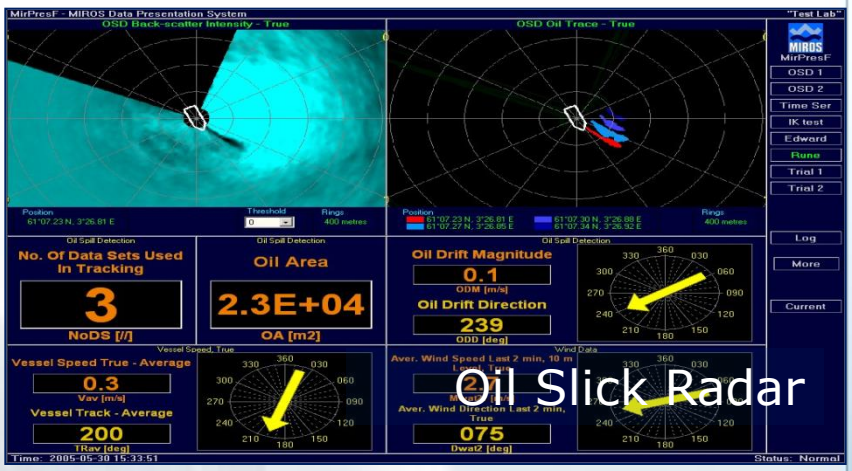
- Clear allocation of **responsibilities** during operation
  - Under operational command of the MS (SOSC)
  - National officer on board
  - Safety responsibility: Master (Final)
- **Period**: 21 Days: "window of opportunity" / economic commitments of operator
- **Costs**
  - 2 daily rates (operation/stand-by)
  - Operational costs (fuel)
  - Cleaning
- **Renewal possible under same conditions**


As of January 2014
Oulu
Helsinki
Copenhagen
Cobh
Ostend
Trieste
Genoa
Ferrol
Vigo
Sines
Algeciras
Constanta
Varna
Piraeus
Limassol
Valletta
Marsaxlokk
Homebase
Response vessel
Vessel in preparation
EU member countries
EFTA/EEA coastal countries
EU candidate countries
Both EU candidate and EFTA/EEA coastal country

Type of vessels



Type of equipment



Tankers - Advantages

- Large storage capacity – (EMSA largest is 7,400m^3)
- Prepared to deal with oil (heating, filling, discharging)
- Flexibility for decanting
- Flashpoint
- Unrestricted sea-going service

Tankers - Disadvantages

- Space on deck
- Speed
- Low speed
- Manoeuvrability
- Crew number
- Accommodation

Offshore Supply Vessels - Advantages

- Deck Space
- Equipment Deployment
- Less pre-fitting for installing equipment
- Manoeuvrability and Low Speed
- Speed
- Visibility
- Accommodation for EMSA, liaison officers

Offshore Supply Vessels - Disadvantages

- Storage capacity limited to 1,000 – 1,500m3
- Bad weather – swell washes the aft with oil (slippery)
- Good weather – dirty equipment – oil spreads quickly
- Flashpoint
- Significant pre-fitting (e.g. piping and heating

Setting-up the Service

Preparatory Phase

- Purchase/transfer of oil spill response equipment
- Pre-fitting the vessel for equipment installation
- Crew Training

Stand-by Phase

- Vessel available to respond
- Drills and Exercises
- Mobilisation (24 hrs.)

Preparatory Phase: Challenges

- Pre-fitting, conversion works
- Purchase/transfer and installation of OPR equipment
- Mobilisation Plan, Operational Procedures
- Crew Training
- Certification by Classification Society (Class Notation)
- Acceptance Test

Stand-by Phase: Drills

Quarterly - 4 times a year

Scope:

- To verify the level of readiness of vessels, crews and response equipment
- To train crews in oil pollution response: equipment operation, co-operation with other units at sea etc.

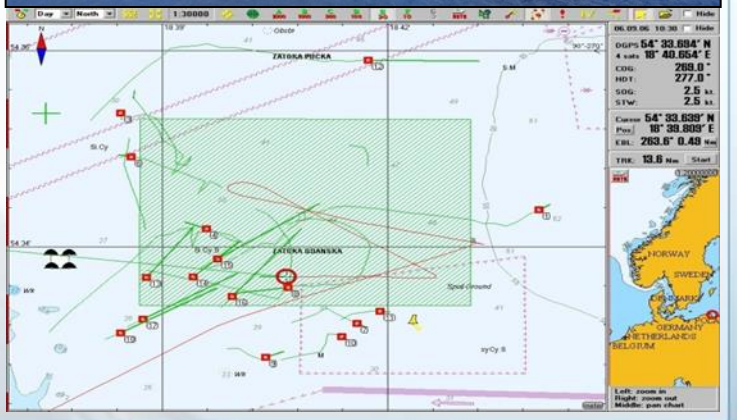
Stand-by Phase: Exercises

Type:

- Notification
- Operational (10 days/year)

Scope:

- Integration of EMSA vessels in Command and Control Structures
- Co-operation with participant Units
- Internal and External level of Coordination



Financial Elements

- **Preparatory Phase** - Pre-financing available from EMSA
  1) Oil Spill Response Equipment
     - Purchasing - Pre-financing up to 100 %
  2) Pre-fitting Vessels (e.g. for equipment installation)
     - Pre-financing up to 80 %
     - Remaining 20% paid when vessel operational/stand-by phase

- **Stand-by phase**
  3) Vessel Availability Fee (covers drills)

- **Additional Payments**
  4) At-sea Exercises: Daily rate + Fuel
  5) Pollution Response Incident: Daily rate + Fuel

AEGEAN SEA — NETWORK OF STAND-BY OIL SPILL RESPONSE VESSELS - INFO SHEET

CONTRACTOR
Environmental Protection Engineering (EPE)

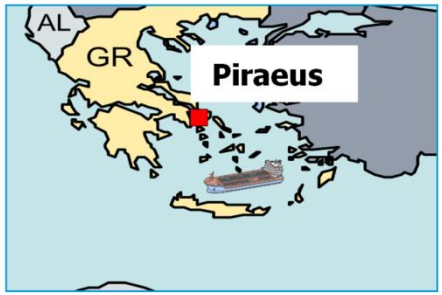
CONTRACTED VESSEL(S)
Aktea OSRV, Aegis I

AREA OF ECONOMIC OPERATION
Aegean sea/Greek islands

STOCKPILE LOCATION
Piraeus, Greece

NUMBER OF VESSELS TO BE MOBILISED
1

MOBILISATION TIME
Within 20 hours



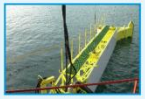
ABOUT THE SERVICE

The arrangement includes a tanker, Aktea OSRV, trading in Greek waters and a stockpile permanently installed onboard. The second vessel, Aegis I, is a back-up vessel equipped with a boom and a skimmer.

Environmental Protection Engineering is one of the major companies in the field of environmental protection in Greece and the wider area of the Eastern Mediterranean, with a variety of activities: marine pollution response, wreck removal, waste management, remediation and handling of polluted or destroyed cargoes.

EQUIPMENT STOCKPILE

Sweeping arms
Two Koseq rigid sweeping arms (15 m) with weir skimmer
Boom
Markleen single point inflation, 2x250 m (Uniboom X-1900)
Desmi heavy duty boom, 2x250 m (Ro-Boom 2000)
Skimmer
Foilex weir skimmer (TDS 250)
High-capacity Offshore Multiskimmer (Normar 250 TI)
Desmi weir/brush/disc skimmer (Tarantula)
Slick detection
Seadarq oil slick detection system
Additional equipment: Gas detector, Mini Lab, etc.


Sweeping arm


Foilex skimmer


Markleen boom


Normar Multiskimmer

ABOUT THE VESSEL - Aktea OSRV


The Aktea OSRV's commercial activity is oil trading.



IMO Number: 8801321
Flag State: Greece
Port of Registry: Piraeus
Type: Oil Tanker
Built: 1989
Length: 78.50 m
Breadth: 12.60 m
Max Draft: 6.20 m
DWT: 2500 Ton
Gross Tonnage: 1646 Ton
Storage capacity: 3000 m³
Heating capacity: 3000 kW
Pumping capacity: 1000 m³
Flash Point: < 60°C
Propeller: Contrllable Pitch Propeller
Bow Thruster: Yes
Max. speed: 12.6 knots
Classification Society: Lloyds Register

NETWORK OF STAND-BY OIL SPILL RECOVERY VESSELS - INFO SHEET

ABOUT THE VESSEL - Aegis I


The Aegis I is an offshore supply vessel



IMO Number: 7392957
Flag State: Greece
Built: 1985
Type: Supply Vessel
Length: 61.50 m
Breadth: 11.50 m
Max. Draft: 3.50 m
DWT: 1023 Tons
Gross Tonnage: 1274 Tons
Storage capacity: 997 m³
Flash Point: > 60°C
Propeller: 2 x Controllable Pitch Propeller
Bow Thruster: Yes
Max. speed: 12.7 knots
Classification Society: DNV

1 2

ADVANTAGES OF RESPONSE SYSTEMS

- State of the art equipment which provides good effectiveness for pollution response
- Flexibility of the response systems allows different operational configurations
- Sweeping arms tailored for recovery of heavy viscous oil

EMSA's vessel network provides a service across the European coastline. For more information, visit the EMSA web site and consult the related brochure: 'Supporting Coastal States: Service Network of Stand-by Oil Spill Response Vessels', or watch the video 'Oil Spill Response Services, Video 2009'

Name	Type	Area of Economic Operation and Equipment Depot	Tank Capacity (m³)
Kontio	Icebreaker	Baltic Sea North Oulu and Helsinki, Finland	2033
OW Copenhagen	Chemical Product Tanker	Baltic Sea South Copenhagen, Denmark	4487
DC Vlaanderen 3000	Suction Hopper Dredger	North Sea Ostend, Belgium	2744
Interballast III	Suction Hopper Dredger		1886
Forth Fisher*	Product Tanker		4754
Galway Fisher*	Oil Tanker	Atlantic Cobh, Ireland	4754
Mersey Fisher*	Product Tanker		5028
Sara	Oil Tanker	Atlantic/Channel Portland, the UK	6658
Ria de Vigo	Supply Vessel	Atlantic Vigo, Spain	1522
Bahia Tres	Product Tanker	Atlantic Sines, Portugal	7413
Bahia Uno	Product Tanker	Mediterranean West Algeciras, Spain	3800
Monte Anaga	Oil Tanker	Mediterranean West Algeciras, Spain	4069
Salina Bay	Oil Tanker	Mediterranean West La Spezia, Italy	2800
Balluta Bay	Oil Tanker	Mediterranean Central Valletta, Malta	2192
Santa Maria	Oil Tanker	Mediterranean Central Valletta, Malta	2421
Aktea OSRV	Oil Tanker	Mediterranean East Piraeus, Greece	3000
Aegis I**	Supply Vessel		997
Alexandria	Oil Tanker	Mediterranean East Limassol, Cyprus	7458
Enterprise	Supply Vessel	Black Sea Varna, Bulgaria	1374
GSP Orion	Supply Vessel	Black Sea Constanta, Romania	1334

Note:
* This is a pool of three similar sized tankers from which two can be mobilised simultaneously.
** Aegis I is a back-up vessel equipped with boom and skimmer systems.

EMSA

EUROPEAN MARITIME SAFETY AGENCY

QUALITY SHIPPING, SAFER SEAS, CLEANER OCEANS

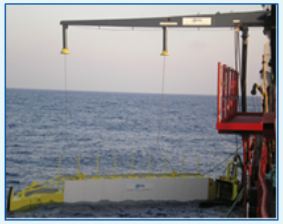
SWEEPING ARMS | EMSA OIL SPILL RESPONSE EQUIPMENT

KOSEQ SWEEPING ARM SYSTEM

Remark: The information is based on the manufacturer's documentation

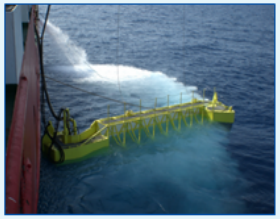
GENERAL DESCRIPTION

The Koseq rigid sweeping arm system consists of a sweeping arm structure with foldable ends, oil transfer pumps, ancillaries, control panel, oil and hydraulic hoses, crane and hydraulic power pack.



The sweeping arm system is supplied with an integrated weir skimmer and centrifugal pump with screw impeller, Marflex MSP150-63, pre-installed with a hot water current radial system to facilitate pumping of high viscosity oil. A brush cassette with a movable debris screen can also be used for the recovery of high viscosity oil. The system is equipped with a remotely controlled self-cleaning grating to prevent debris to obstruct the skimmer and the pump.

The oil collecting system consists of two sweeping arms, with a total length of either 12 or 15 meters. The sweeping arm is launched by means of a crane or davit on the vessel. Two Lagendijk cranes specially designed for this purpose, are most commonly used to operate the sweeping arms.



The oil/water mixture is guided along the bulkheads of the sweeping arm and the side of the vessel via an adjustable debris screen to the oil collecting chamber of the inner pontoon, from which it is removed by a hydraulically driven portable submersible cargo oil pump and discharged into the oil collecting tanks via a flexible hose.

The vessel equipped with the sweeping arms is capable to remove oil from the sea up to Beaufort 5. The current between vessel and oil slick must be up to 2 knots and the forward speed of the vessel should be maximum 4 knots.

KEY CHARACTERISTICS:

- Rigid sweeping arm with length of 12/15 m with a foldable end
- Lifting crane/davit
- Weir skimmer module with a centrifugal pump using a hot water radial system
- Brush skimmer module with a PDAS pump
- Remotely controlled debris screen

TECHNICAL SPECIFICATIONS – 12 /15 METER SWEEPING ARM			
Overall Length	12074/15115 mm	Operational temperature	-20°C to 60°C
Overall Width	3412/3330 mm	Operational window	up to Beaufort 5
Overall Height	1900/3335 mm	Recovery speed	up to 4 knots
Weight	4300/4800 kg	Deployment time	approx. 10 min. each arm

FOR MORE INFORMATION: www.emsa.europa.eu

EMSA SWEEPING ARMS | EMSA OIL SPILL RESPONSE EQUIPMENT

KOSEQ SWEEPING ARM SYSTEM

Remark: The information is based on the manufacturer's documentation

WEIR SKIMMER MODULE

The weir module consist of an oil collection chamber fitted with a pump. The height of the oil collecting chamber can be adjusted in order to optimise the flow to the pump. The optimal height depends on oil viscosity, thickness of the layer etc.

For the operation with the weir skimmer module each sweeping arm is fit with a centrifugal screw impeller pump MSP 150/63 which has a discharging capacity of 300 m³ per hour.

BRUSH SKIMMER MODULE

This skimmer consists of an aluminium oil collection chamber, brush belt and a pump. The height of the collection chamber can be adjusted.

For the operation with the brush skimmer module, each sweeping arm is fit with a Desmi DOP 250 pump which has a discharging capacity of 125 m³ per hour.

POWER PACK

The Marflex type DHP-120 Explosion proof Zone 2 power pack is a compact diesel engine driven hydraulic unit.

TECHNICAL SPECIFICATIONS:

Length:	2200 mm
Width:	1200 mm
Height:	2025 mm
Weight:	2200 kg
Rated power:	76.5 kW at 2400 rpm
Max. pressure:	320 bar
Hydraulic oil flow :	120 l/min
Fuel tank:	400 l
Fuel consumption:	0.26 l/kW/h

This system is available on board the EMSA Contracted Vessels in following variations:

Name	Length	Skimmer	Crane (2x)	Power pack (2x)	Flash point* Ex Class
Forth Fisher Galway Fisher Mersey Fisher	15 m	Weir/brush	Lagendijk	Marflex DHP-120	Zone 2
	15 m	Weir		Marflex DHP-120	Zone 2
Sara	15 m	Weir/brush	Lagendijk	Hydraulic power provided by the vessel	N.A.
DC Vlaanderen	12 m	Weir	Veegarmen	Hydraulic power provided by the vessel	N.A.
Interballast III	12 m	Weir	Veegarmen	Hydraulic power provided by the vessel	N.A.
Salina Bay	12 m	Weir	Lagendijk	Marflex DHP-120	Zone 2
Balluta Bay	12 m	Weir	Lagendijk	Marflex DHP-120	Zone 2
Santa Maria	15 m	Weir	Lagendijk	Marflex DHP-120	Zone 2
Aktea OSRV	15 m	Weir	Lagendijk	Marflex DHP-120	Zone 2

* Depending on the location of the equipment on board, the vessel may be classified with a flashpoint above or below 60°C.

FOR MORE INFORMATION: www.emsa.europa.eu

Stand-by Oil Spill Response Vessels

- Main
- Background
- Contractor Information
- Vessel Inventory
- Vessel Technical Specifications
- Pollution Preparedness and Response Documents
- Action Plans
- Inventories
- Manual & Guidelines
- Reports
- Services

Network of Stand-by Oil Spill Response Vessels and Equipment (Handbook 2012)

(0 votes)

Tags OPR

Published 17.04.2012 *Updated* 07.07.2012

Handbook EMSA Vessels Network & Equipment (2012)

Related Documents

- Network of Stand-by Oil Spill Response Vessels and Equipment (Handbook 2012)
- Network of Stand-by Oil Spill Response Vessels: Drills and Exercises. Annual Reports
- Network of Stand-by Oil Network of Stand-by Oil Handbooks
- Effective At-Sea Pollution Response [leaflet]

Related Videos

Network of Response Vessels: Quick facts

Number of vessels which can be mobilised simultaneously: 17

Average storage capacity per vessel for recovered oil: 3.674 m3

Network storage capacity, if 17 vessels are mobilised >62.467 m3

Number of related equipment stockpiles: 15

Mobilisation time (vessel ready to sail to site) after signature of Incident Response Contract: 24 hours

Mobilisation procedure:

-Member States request assistance via the MIC

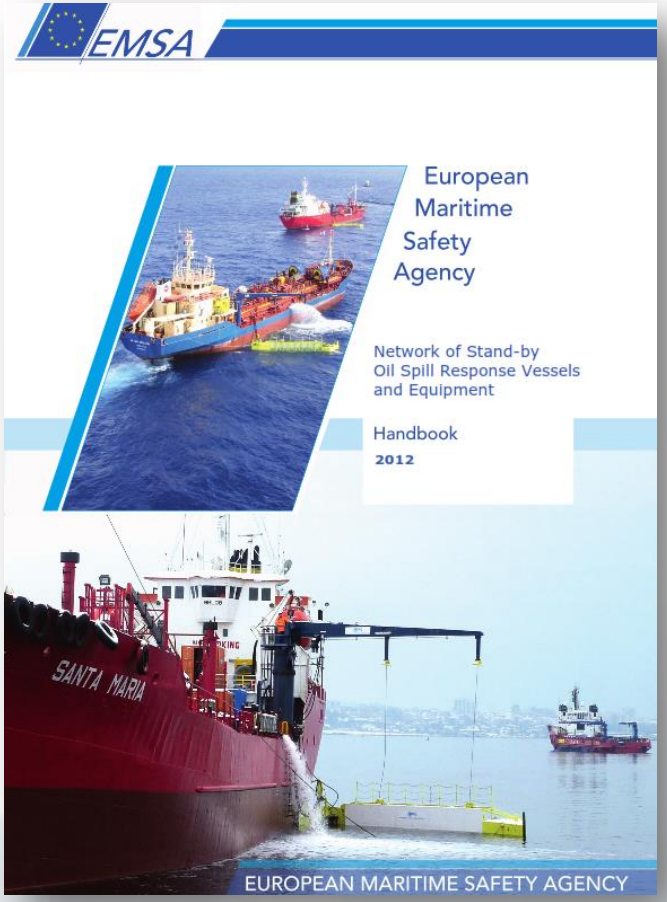
-Member States have operational control of the vessel during the incident

Number of regional or national at-sea exercises in which EMSA vessels were involved (2011): 11

Ask EMSA

Advanced Search

Thank you for your attention



Further information:

http://www.emsa.europa.eu/operations/marine-pollution/network-of-stand-by-oil-spill-response-vessels