

HELCOM Manual on Co-operation in Response to Marine
Pollution within the framework of the Convention on the
Protection of the Marine Environment of the Baltic Sea Area
(Helsinki Convention)

Volume III

Response to pollution incidents on the shore



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1. INTRODUCTION

1.1. Definition of response on the shore

Response on the shore is defined as response to pollution incidents on the shore, involving oil and other harmful substances, and covers:

- response operations carried out on land
- response operations conducted by smaller boats/tugs which are under the same command as operations on the shore
- removal of pollution on the shore
- oiled wildlife response on shore

1.2. Legal basis of the Manual

The cooperation in combating spillages of oil and other harmful substances in the Baltic Sea area is based on the 1992 Helsinki Convention's Articles 13 and 14. The Annex VII of the Convention defines the provisions of response to pollution incidents. Since 1st of July 2014 the Convention has explicitly covered also pollution response co-operation on the shore.

HELCOM Recommendation 28E/12 "Strengthening of Sub-Regional Co-Operation In Response Field" states that the Contracting States integrate shoreline response into national contingency plans, and cooperate by conducting trainings and organising exchange programmes to ensure swift and adequate response capacity and to develop best practices.

The Guideline attached to the Recommendation 28E/12 further defines that "Every sub-region should have adequate equipment and trained personnel to protect the coast, especially vulnerable habitats and areas (coastal and marine Baltic Sea protected areas, HELCOM MPAs) and to ensure immediate and appropriate action on shore. Shoreline response capacity should be addressed and arranged in its complexity within sub-regional agreements between adjacent Contracting States. Such agreements are aimed at ensuring fast and sharp reaction when a second and/or third tier or transboundary pollution accident has occurred.

In accordance with HELCOM Recommendation 31E/6, Contracting Parties shall develop integrated oiled wildlife response plans and apply the guidelines attached to that recommendation. To facilitate cross-border assistance in oiled wildlife response, it is recommended that Contracting Parties designate an authority responsible for oiled wildlife response.

1.3. Relationship to other volumes of the HELCOM Response Manual

Helsinki Convention's Annex VII, Regulation 11 gives a legal status to the HELCOM Response Manual (in the Convention named as "Manual on Co-operation in Combatting Marine Pollution"), in which the Contracting Parties also agree to apply, as far as practicable, the principles and rules included in the HELCOM Response Manual.

Volume I of the HELCOM Response Manual includes details on response cooperation at sea as well as general arrangements like National Contact Points, reporting procedures, oil sampling, financial aspects and procedures for requesting and providing assistance which are applied also for response on the shore.

Volume II covers combating spillages of other harmful substances and can be applied also for response on the shore.

Volume III covers international cooperation on combating spillages of oil and other harmful substances on the shore. The principles defined in Volume I are applied also to pollution response on shore where applicable, but since the response to pollution on the shore differ from pollution response at sea the aspects that are characteristic to shore response are defined in this volume.

1.4. Purpose of the Manual

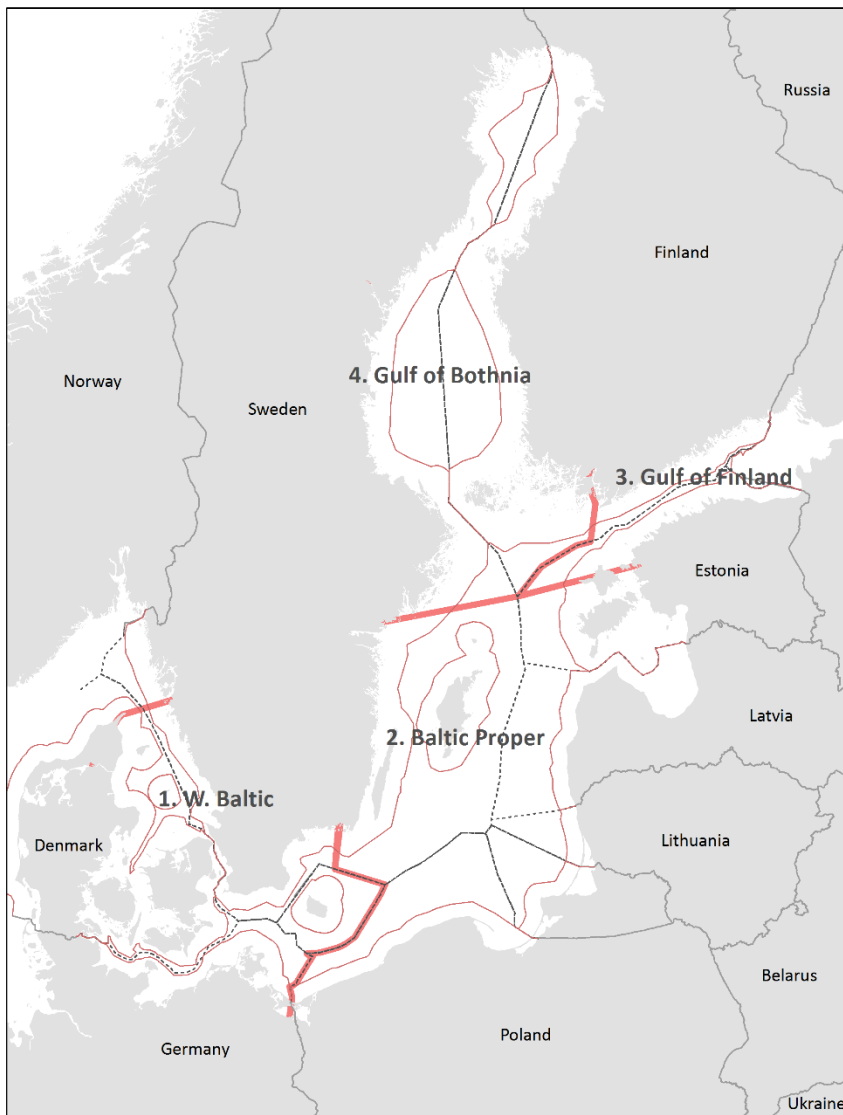
The large number of organisations and the different duties they have in different countries make international cooperation more complex for response on the shore than for response operations at sea. A large scale spill may contaminate several kilometres of shoreline and large amount of birds and fauna may also get contaminated.

Pollution on the shore may be of such a magnitude that the national response resources are not adequate for effective counter pollution measures on the shore. Also experts and other special competence might be needed in order to carry out the on shore response as efficiently as possible. In addition, the amount of specialised shore clean up material in the national depots might not be enough and international assistance is needed. In order to be prepared for this kind of situations it is essential that effective mechanisms for international assistance between the Helsinki Convention Contracting Parties for pollution incidents on the shore are well established and ready to operate efficiently. Contracting Parties are encouraged to make assessments of the limits of national capacity.

This manual does not cover response techniques nor mapping of the oiled shore. More detailed guidelines for wildlife response can be found in the guidelines attached to recommendation 31E/6.

1.5. Response cooperation zones in the Baltic Sea

The response cooperation zones are shown in the map below.



2. CONTINGENCY PLANNING

The Contracting Parties should set up or integrate structures for response on the shore at appropriate levels of its existing emergency command, control and coordination structure. Besides facilitating national response operations (i.e. those carried out by one Contracting Party only), such structures facilitate international assistance between the Contracting Parties in the field of response on the shore.

Response on the shore often involves a complex network of national and local authorities, contractors and possibly volunteers and has often much longer duration than the response operations at sea.

The Contracting Parties should plan how the international assistance regarding on the shore response is integrated in the national response structure and should pay special attention to the following aspects:

- Identifying all pollution response actors and making them aware of their responsibilities in shore response actions which include international assistance.
- Prepare how to ensure that the whole personnel is properly trained and has adequate knowledge, understanding, language skills and physical condition to safely perform the task.

- Preparation of Country fact sheets to inform the assisting Parties on the national regulations concerning health and safety aspects, legal rights and restrictions that concern the responders, national organizational structure.
- Identifying liaison officers able to communicate with the assisting Party personnel in a language known to them.
- Consider, as appropriate, international cooperation and resources needed for oiled wildlife response.

Information for each Contracting Party is included in the Country fact sheets included in the Annex 2.

3. JOINT COMBATING OPERATIONS FOR RESPONSE ON THE SHORE

3.1. Request for international assistance

Request for assistance from a Contracting Party shall be made (c.f. HELCOM Response Manual Volume I, Chapter 4 Requesting and Providing Assistance) by the competent authority of the requesting Party and addressed to the competent authority of another Contracting Party (assisting Party). The contact details of the competent authorities are included in the HELCOM Response Manual Volume I, Chapter 1.

Requests shall be made using the POLREP format. When writing the POLREP, the requesting Party should identify as precisely as possible the specific tasks to which international assistance is needed.

If an offer for on the shore response assistance is accepted by the competent authority of the requesting Party, this Party shall:

- inform the competent authority of the assisting Party on the tasks of the units of the assisting Party.
- keep close contact with the command organizations of the assisting parties in order to secure that assisting Party units can be integrated in the response structure of the requesting Party.

The requesting Party will carry out these tasks for the whole duration of the international cooperation phase of the on the shore response operation.

3.2. International response operations

The command structure for response operations at sea, described in HELCOM Response Manual Volume I, might differ from the command structure for response operations on the shore. Due to this the Contracting Parties shall fill in a national Country fact sheet (Annex 2) in order to inform other Contracting Parties on the command structures for response operations on the shore including oiled wildlife response.

The requesting Party shall, inter alia:

- ensure that contingents of units of the assisting and requesting Party may operate under the same command, if so agreed;
- give administrative, logistic and other necessary support to assisting Party units;
- facilitate the cross-border movement of responders, experts, equipment, oily waste and oiled animals when appropriate ;
- give clearly defined tasks;
- keep the assisting Party well-informed of the overall situation.

The assisting Party is entitled to send liaison officers. The assisting Party's units/teams shall be led by a team leader. The team leaders of the assisting Party and the liaison officer shall keep each other well informed on the teams' tasks and their progress. Additional information about the integration of liaison officers can be found in HELCOM Response Manual Volume I, Chapter 5 under heading "Guidelines for liaison".

The requesting Party has to provide means for communication between the competent authority of the assisting Party, the liaison officers and the units.

If the assistance is rendered in the form of equipment or units that are not operationally self-contained, it is the responsibility of the Response Commander to assign the equipment or units in the combating operation.

When operating in border areas, the competent authorities of the bordering countries shall exchange information and strive to agree on priority of operations.

4. EXERCISES ON THE SHORE

4.1. An Exercise Framework for BALEX on the Shore

HELCOM has a long tradition of multinational exercises to test and train the cooperation in response to marine pollution at sea. However, with few exceptions the response to pollution on the shore has not been part of the HELCOM exercise programme, in spite of the fact that pollution at sea in most cases also will reach the shore.

An operation on the shore involves a multitude of actors that have different roles, organisational principles, procedures, decision-making structures, cultures and languages. This makes coordination and cooperation challenging even in a purely national context. Furthermore, each HELCOM Contracting Party has its own specific national legal and administrative framework, affecting how operations on the shore are conducted, resulting in considerable challenges to any coordinated, multinational effort. These challenges are further accentuated if the cooperation with operations at sea is added.

Operations for combating pollution on the shore are predominately national. Most of the Contracting Parties have access to a variety of national resources, including volunteer organisations, which they may call upon. Still, for large-scale incidents on the shore, national preparedness and national resources will not always suffice and multinational support may need to be requested. In such events it is essential that effective mechanisms, together with common procedures and a common terminology, have been established and tested.

The overall operational maturity is quite low regarding multinational, large-scale operations on the shore. Exercises can therefore have an important role in the development of the local, national and multinational capabilities for operations on the shore.

4.2. Types of exercises

In accordance with the HELCOM RESPONSE Manual, VOL I, chapter 10, the following types of exercises for the combating of pollution on the shore have been agreed upon:

- Synthetic Exercise/table-top exercise (on the shore)
- Functional Exercise, including Alarm Exercise (on the shore)
- Equipment Exercise (on the shore)
- Operational Exercise (on the shore)
- State-of-the-art Exercise (on the shore)

All exercise types may be conducted as *combined*, involving both at sea and on the shore operations. They may focus on one or several of the categories strategic/operational decision-makers, staff, experts or operational units.

Due to the differences in exercise maturity between on the shore and at sea capabilities, but also due to the fact that combined exercises will result in an increased complexity regarding the planning and direction of

the exercise, *most* exercises will be *either* at sea *or* on the shore for the foreseeable future. Simulation may in some cases be used to introduce specific aspects of combined operations. However, when testing the overall HELCOM RESPONSE system, combined exercises should be used. These could be limited table-top or functional exercises in the beginning, aimed at developing coordinating procedures, technologies and terminology. In the long run, large-scale combined operational exercises could be used to train and test the overall HELCOM RESPONSE system and its operational capabilities.

The exercises can be carried out at different levels:

- Multilateral cross-border exercise
- Bilateral cross-border exercise
- National exercise
- Sub-national exercise
- Local exercise

Exercises at the local, sub-national and national levels will develop the ability to participate in exercises and operations at the bilateral and multilateral levels. Given the predominately national character of operations on the shore, Contracting Parties are invited to submit standard exercises for the training of especially important capabilities, functions and procedures to a HELCOM repository. These exercise templates would be made available to the Contracting Parties.

In multinational exercises, a list of available, national resources for combating pollution on the shore is used by the host nation to identify what resources to request. While this would train the procedures for the request and reception of assistance, it would also raise the awareness and preparedness among available resources regarding when and under what circumstance they would be in demand.

The exercise type is chosen based on the objectives of the exercise and on the specific needs and capabilities of the host nation. Table-top exercises are useful and cost-effective alternatives when exploring and developing procedures or when training basic skills such as for instance procedures for cooperation. Functional exercises, that may be repeated until the aims are achieved, are useful for testing and training limited functionalities while simulating the surrounding environment. Equipment exercises offer an opportunity to learn about and develop procedures for specific equipment, involving a limited group of concerned. Operational exercises, possibly with a simulated environment, are useful for instance when testing or training more complex cooperative abilities or the coordination of several different actors. State-of-the-art exercises, finally, are useful to demonstrate and disseminate new methods or procedures to a larger group of Contracting Parties and participating organisations.

4.3. Frequency of exercises

Multi- and bilateral exercises on the shore – of different types and at different levels – are carried out whenever a Contracting Party identifies a need or when called for in the HELCOM RESPONSE Exercise Plan (HREP) (c.f. a dedicated section under Chapter 10 of Volume I of the HELCOM Response Manual). However, to keep up the momentum in the development of the co-operation in response to marine pollution on the shore HELCOM should have at least one multinational exercise (shore or combined) every year. This exercise may be table-top, functional or operational, depending on the objectives of the exercise and the capabilities and resources of the host nation. It is normally preceded by preparatory exercises at the national, sub-national and/or local levels in the host country, training for instance basic procedures and coordination functions.

Although hosting an on the shore exercise is voluntary, it is recommended that the host nation responsibility rotates among the HELCOM countries. This ensures that the knowledge and capability to lead on the shore operations are evenly distributed and that the specific local conditions for on the shore operations (geographical, legal, organisational, etc.) of all Contracting Parties are high-lighted.

4.4. Participation

A broad participation is generally desirable for an on the shore exercise as this reflects the situation in an actual operation. However, exactly what organisations that are invited will differ from host nation to host nation

depending on available national capabilities and the local administrative and legal frameworks. Furthermore, if the aim of the exercise is narrow, for instance to train a specific function or capability, it may be more appropriate to simulate a number of participants instead.

Oiled wildlife response together with the initial clean-up operations on the shore are important components in most on the shore response operations. In many countries volunteer organisations have a vital role in these tasks. Hence, they need to be included early on in the planning process for on the shore exercises. The potential role of experts, for instance from the European Union, is acknowledged. The exercises need to be designed so that the role of such experts is reflected and possibly included. The experts' role and advice could be simulated or represented by real experts participating in the exercise.

All HELCOM exercises are opportunities to learn. Those Contracting Parties, and those major organisations with roles in combating pollution on the shore, that are not participating in the HELCOM exercise are invited to observe. When possible and appropriate, representatives from other Contracting Parties and from major organisations are also invited to observe non-HELCOM bilateral, national or sub-national on the shore exercises.

To participate in an on the shore exercise present a number of practical challenges, including for instance logistics, customs and clearances. The invitation to participate in an exercise should be sent out at least three months before the start-up meeting in the planning process. If the exercise involves the cross-border transfer of materiel and functions the start-up meeting should be no later than nine months before the start of the exercise.

4.5. Planning and evaluation

Organisation

The host nation is responsible for the planning and direction of the exercise, with the support from the participating countries and organisations and with the HELCOM RESPONSE Group (possibly represented by a working group) having the final decision on the aims, scenario, and design.

Exercises should be planned as a project with well-defined boundaries and adequate resources. The use of a project management model is recommended.

Several things should be clarified before starting the actual exercise planning, such as:

- mandate
- overall aim
- budget
- resources
- project group/roles for the planning, direction and evaluation of the exercise
- timeframes/duration

The Host Nation is furthermore responsible for compiling an overall exercise report in accordance with section 10.2 in the Manual Vol I.

Planning process

Each multilateral and bilateral HELCOM exercise should have clear overall aims stated in the HREP. The exercise planning is based on these overall aims, taking into consideration the needs and aims of the individual participating organisations.

A start-up meeting is held 9 to 12 months ahead of the exercise, depending on its type and size. At this meeting information is given to all exercise participants about the overall aims and other preconditions. The meeting can be carried out via skype or video conferencing to save time and other resources.

Exercise planning is done through a series of one to three (depending on the type and complexity of the exercise) planning conferences. These are prepared and led by the host nation (if a multi- or bilateral

exercise). All countries and major organisations that are going to participate in the exercise are invited to the planning conferences. *However, it should be understood and accepted that not all organisations will be able to participate.* In large and complex exercises, the participants in the planning conferences may be divided into working groups focusing for instance on staff exercises, wildlife response exercises etc.

In the first planning conference, the development of the aims/sub-aims of the specific exercise is begun. These aims need to be concrete and measurable/observable, describing what is to be achieved. Each aim has one or several indicators and criteria for success attached to it. Each participating actor is encouraged to develop their own exercise aims. This can be done in-between planning conferences one and two. During that time the lead nation (or a multiorganisational/multinational working group) continues developing the aims, scenario and design of the exercise.

At the second planning conference the aims, including the aims of the participating organisations, are decided. Furthermore, the scenario and exercise design are finalised.

The last planning conference deals with the practical aspects of the exercise, including transports, logistics, timeline of simulated actions/reactions etc. The exercise documentation (exercise plan, exercise management plan, evaluation plan etc.) is finalised.

The planning process above is suited for a large-scale exercise. For smaller exercises, for instance a table-top exercise with a limited scenario, it needs to be revised and down-sized. This can be done by reducing the number of planning conferences, by using telephone video conferences and by compressing the planning timeline.

An especially important aspect in the planning of exercises on the shore are the practical issues regarding cross-border passing, customs, insurances and logistics. These issues are more complex and in many cases more sensitive in operations on the shore than in operations at sea. However, exercises that reflect the potential real needs of the host nation may help pave the way for the request and use of these also in a real crisis situation.

Evaluation

Evaluation is a vital tool for determining the fulfilment of the exercise aims but also the efficiency of the exercise. The evaluation provides input for the improvement of the concepts and procedures for response operations as well as for the improvement of the design, planning and direction of future exercises. The conclusions from the evaluation are used to update the HELCOM RESPONSE Manual, including the chapter on exercises, and as an input when discussing aims and design of future exercises.

An Exercise Evaluation Team (EET) is established at the start of the exercise project to form an integral part of the exercise organisation. The EET gives advice on the planning of the exercise, to ensure that the exercise design allows for the measurements and observations needed in the evaluation.

In a national or sub-national exercise, the EET is in most cases made up by national experts and analysts. They normally report to the authority leading the exercise. The host nation is invited to report a summary of the most important lessons and conclusions to the HELCOM RESPONSE Group. In a bi-lateral exercise, the EET is normally made up by representatives from both participating countries.

In a multinational exercise, a multinational EET is preferred. For regularly reoccurring exercises the EET consists of representatives from the preceding, current and succeeding host nation. This will help improving the implementation of conclusions. The EET in a multinational exercise reports to the HELCOM RESPONSE Group.

Evaluations need to be well prepared. A precondition for good evaluations are well defined aims. Measurement points as well as measurement criteria, based on the indicators of the exercise aims, are analysed and decided in advance by the EET. Generally the evaluation will focus on the exercise sub-aims and on the exercise efficiency.

The EET will have a group of observers following the exercise, observing and measuring the predefined indicators. Furthermore, each exercise should arrange an after-exercise review session for a hot wash-up of comments on both the exercise design and the exercise results. The analysed results from a multinational HELCOM exercise on the shore should be submitted to the HELCOM RESPONSE Group in a written report no later than two months after the end of the exercise.

The report should, as a minimum, cover the following items:

(1) Description of the exercise

- aims and sub-aims
- what strategic development objective(s) it supports
- scenario
- design
- names of participating Parties and organisations with a description of participating units and items from each Party/organisation
- date and period of exercise
- a short description of the planning and preparation of the exercise, including relevant references
- a brief description of the main events and other important factors influencing the exercise (such as for instance weather)
- a brief description of the resources committed to the different phases of the exercise (planning, execution and evaluation)

(2) Evaluation design

- overall focus of the evaluation
- analysis of the exercise aims, development of indicators and criteria of success, identification of measurement/observation points.

(3) Evaluation of exercise aim

- aim 1
 - Measurements/observations
 - Analysis
 - Conclusions
- aim 2
 - Measurements/observations
 - Analysis
 - Conclusions

(4) The After Action Seminar

A brief summary of comments received at the After Action Seminar.

- on the planning, preparation, design and direction of the exercise
- on the fulfilment of the aims: were they fulfilled and how/why (why not)
- any other comments of value to the future development of operations and exercises

(5) Analysis and conclusions

- fulfilment of the aims, and what remains
- efficiency of the planning, preparation, design and direction of the exercise
- analysis of any focus areas especially pointed out by the HELCOM RESPONSE Group and not included in the aims (e.g. command, coordination etc.)

- suggestions and recommendations on how to improve exercises in the future
- suggestions and recommendation on how to improve operational procedures and the HELCOM RESPONSE Manual

Annex 1 List of specialized on shore equipment that can be sent to assist other Contracting Parties.

ON THE SHORE OIL RECOVERY EQUIPMENT IN DENMARK

EQUIPMENT		TOTAL PRICE Euro/unit
Mechanical recovery		
Oil skimmer	DESTROIL skimmer 210	1
	KOMARA miniskimmer	10
	SEA 50 skimmer	1
	Skimmer head	9
Oil Mop Skimmers	OILMOP OM 260 DP	5
Coastal boom		
	EXPANDI 25 m	17
	NOFI 350 EP 25 m	125
	RO-BOOM, COASTAL 80 m	14
	RO-BOOM, OCEAN 200 m	3
	TROILBOOM 1100 25 mr	46
Protection sleeves		
Personnel equipment		
Other		
Oil Containers	400 ltr container	8
	5 m3 float container	2
	10 m3 float container	3
	50 m3 float container, DUNLOP	1

ON THE SHORE OIL RECOVERY EQUIPMENT IN ESTONIA

EQUIPMENT		TOTAL	PRICE
			Euro/unit
Mechanical recovery			
Oil skimmer	Free floating skimmer "Minimax" 12 W/S	7	35 000
	Minimax 20 W/S	4	50 000
	Minimax 30 W/P	1	60 000
	Õli pump GT A30	1	
	Õli pump GT A20	4	
Coastal boom			
	The Foam Filled Oil Boom 750mm	700 m	28 000
	The Foam Filled Oil Boom 500 mm	900 m	31 500
	Anchoring equipment	85	3 741
Personnel equipment			
	Container with personnel equipment and basic hand tools for 50 persons for 7 day	1	50 000
Other			

ON THE SHORE OIL RECOVERY EQUIPMENT OF EUROPEAN UNION

Neither the European Commission (DG ECHO) nor the European Maritime Safety Agency (EMSA) has equipment for shoreline response to oil pollution.

ON THE SHORE OIL RECOVERY EQUIPMENT IN FINLAND

EQUIPMENT	TOTAL	PRICE Euro/unit
Mechanical recovery		
Oil skimmer		
Skimmer Tarwell BS400	1 pcs	
minimax 25 skimmer	1 pcs	
minimax 50 skimmer	1 pcs	
mobs skimmer, winter collector	1 pcs	
oil recovery bucket OBS	1 pcs	
oil recovery bucket TBS 1500	1 pcs	
komara disk skimmer	3 pcs	
coastal recovery container (minimax 12)	4 pcs	
Foxtail skimmer	4 pcs	
minimax 12 skimmer	4 pcs	
Desmi skimmer	5 pcs	
miniskimmer BS 400	6 pcs	
oil recovery bucket LRB 150	6 pcs	
mabs skimmer, winter collector	2 pcs	
oil recovery bucket LRB-300	2 pcs	
Rock cleaner brush collector	2 pcs	
Boats		
Fk class - workboat with recovery equipment	24 pcs	
Ek class - workboat with recovery equipment	7 pcs	
E or F class workboat without recovery equipment	33 pcs	
Storage		
towable 15m ³ sacks	3 pcs	
towable 10m ³ sacks	11 pcs	
tank, 1m ³ , plastic	5 pcs	
tank, 2m ³ , aluminium	4 pcs	
oil sack (600l)	335 pcs	
tank, 1,5m ³ , metal frame	3 pcs	
tank, 2m ³ , aluminium	3 pcs	
Coastal boom		
coastal boom 500	800 m	
coastal boom 900	8000 m	
Rolate 750	900 m	
coastal boom 850	600 m	

Markleen 900	600 m
boom 700	625 m
boom 370	50 m
tate 900	500 m
Troilboom GB900	500 m
absorbion boom	5500 m
boom 750	450 m
TATE 750	450 m
curtain boom 1100	3600 m
Sub Rabid 900	300 m
boom 1000	100 m
AKI 900	1000 m
boom 900	10000m
fence boom 1100	1200 m
	12000
coastal boom 1200	m
boom 350	125 m
Expandi 1200	1800 m
tate 100	1800 m
Rolate sik-sak 900	200 m
flexi 1000	250 m
fence boom 1200	2500 m
tate 1000	2700 m
lamor 900	2775 m
	2x150
Nofi Boombag	m

Protection sleeves

coast protection fabric	1500 m
absorbion pellets	70 m3

Personnel equipment

Equipment container 100 persons	1 pcs
Equipment container 25 persons	1 pcs

other

oil separator	1 pcs
steambox	1 pcs
towable container, 100m3	1 pcs
Oilseparator 10m3	2 pcs
Oilseparator 5m3	2 pcs
Recovery container	2 pcs
Recovery container with TATE etc	2 pcs

ON THE SHORE OIL RECOVERY EQUIPMENT IN GERMANY

EQUIPMENT		TOTAL	PRICE Euro/unit
Mechanical recovery			
Oil skimmer	Foxtailskimmer on trailer with diesel engine	17	
	Floating suction shovel, used with hose pump	58	
	Foilex TDS 200 pump skimmer, with diesel-hydraulic power pack, hose reel 50m	2	
	GT 180 pump skimmer, with diesel-hydraulic power pack, hose reel 50m	9	
	Foilex Mini Skimmer, used with hose pump	10	
	Lamor LWS 50 pump skimmer, with diesel-hydraulic power pack, hose reel 50m	3	
	Brush-adaptor for GT 185	3	
	Walosep W1 pump skimmer, with diesel-hydraulic power pack, hose reel 50m		
	Weir Skimmer "Öltrog Maxi", used with hose pump	23	
Water injection flange	Lamor water injection flange DN 100	3	
Hoses	Hose adaptors for vacuum trucks	10	
	Oil hose, DN 50, 50m in box	22	
	Oil hose for vacuum truck, DN 75, 50m, with adaptors	7	
Vacuum tanks	Vakuum tank for Hägglunds multilift system, with diesel engine, F8083A	7	
	Vakuum tank for Hägglunds multilift system, with diesel engine, ASA 1000	7	
ATV	Polaris Ranger 800 HD with trailer	3	
	Argo Avenger with trailer	3	

	All terrain fork lift - Moffet M8	17
	Hägglunds all terrain vehicle, chain driven	14
	Hägglunds multilift container with crane	14
	Hägglunds multilift container for transportation and swimming	28
	Hägglunds multilift container for transportation	42
	All terrain truck TATRA Phoenix with crane an multilift system, payload 17t	3
Boats	Aluminium boat Faster 650 CAT on trailer	9
	Sea How Mini Bagger, Sweeping arm for Faster 650 CAT	9
Pumps	Transfer pump (archimedic screw) - Wangen 80.3	5
	Transfer pump (archimedic screw) - Wangen 90.3	2
	Transper pump (lobe pump) - Börger FL 518	2
	Peristaltic/hose pump with diesel engine DEPA/ELRO M20D, DN 50	39
Storage tanks	Flexible foldable fluid container 15m ³	82
	Flexible foldable fluid container 7m ³	15
	Flexible foldable fluid container 10m ³	2
Coastal boom		
Absorbent	Absorbentboom with skirt, 100m	1.100m
	Absorbentboom, 100m	1.800m
Inflatable	RO-Boom 1000, inflatable, 100m	400m
	Hydrotechnik 850 LI, inflatable, 100m	2.600m
Solid flotation	Balear 333, solid flotation, 100m	1.800m
	Balear 323, solid flotation, 100m	925m
	Hydrotechnik HT 900, solid flotation, 100m	1.600m
	Finnboom 900, solid flotation, 100m	400m

	Hydrotechnik HT 600, solid flotation, 100m	600m
	Flexiboom MP 900, solid flotation, 100m	400m
Beach sealing boom	Beach sealing boom, inflatable, 100m	930m
Transportation		
Trailer	20 ft container for transportation of mechanical shoreline clean-up equipment	12
Trailer	Trailer for 20 ft container	10
	Trailer with multilift system	2
Personnel protection equipment		
	20 ft container with personnel equipment for 50 persons and basic hand tools	11
Other		
Mobile road	Mobile road 200m	11
	Illumination set of two powermoon	20
Handheld radio	Wireless handheld radio (digital)	116
High pressure cleaner	High pressure cleaner on trailer with water tank	14
	High pressure cleaner in frame	15
Power packs	Trailer with electricity generator powered by a diesel engine	10
	Diesel-hydraulic power pack to operate skimmers or pumps	6

ON THE SHORE OIL RECOVERY EQUIPMENT IN LATVIA

EQUIPMENT		TOTAL	PRICE
			Euro/1 unit
Mechanical recovery			
Oil skimmer	Storz C-Ms	3	8 500
	DESMI RO-CLEAN OM 140 D	4	10 000
Movable reservoir for chemicals		10	3 000
The kit of chemicals collection		15	5 000
The pump of chemicals	GUP 3-1.5	2	7 500
	TUP 3 -1.5C	3	6 500
	AP 12	5	3 000
	Albert Ziegler	5	2 500
Boats	Aluminium boat	3	23 000
Boom absorbtion			
	SPC ENV 810, meters	1500	1 500
	Absorbents International, meters	2784	1 750
	Sancosorb, meters	100	2 300
Oil product collecting container with equipment:		1	111 400
	Special container from metal		
	Containment boom, meter	200	
	Absorbtion boom, metre	100	
	Oil skimmer DESMI	1	
	Husky portable self supporting tank	1	
	DESMI Troiltank 2000	1	

ON THE SHORE OIL RECOVERY EQUIPMENT IN LITHUANIA

Information could not be delivered.

ON THE SHORE OIL RECOVERY EQUIPMENT IN POLAND

Note:

1. The equipment listed below is owned by the SAR Service, and it is intended to be used on coastal waters in order to support from the sea and top up the operations of Crisis Management services conducting the clean-up operations on the shore.
2. The SAR Service has no procedures for sending shoreline equipment internationally, so there is no information on prices to be included on the list. Each request would have to be calculated individually taking into account the logistics of shipping to the requesting country.

EQUIPMENT	TOTAL PRICE Euro/unit
Mechanical recovery	
Oil skimmer	
Desmi Ro-Mop OM 140	8 pcs
Vikoma Komara 12k disc	3 pcs
Lamor Minimax 12 brush	1 pcs
Lamor Minimax 30 brush	1 pcs
Storage	
FastTank Portable PVC Tank, 5m3	20 pcs
Towable Rubber Desmi RoTank 10m3	7 pcs
Towable Rubber Desmi RoTank 50m3	2 pcs
Towable PVC Markleen Tank 25m3	1 pcs
Coastal boom	
1100mm Expandi self inflatable oil boom	800m
900mm Lamor HDB rubber oil boom	300m
900mm Desmi Troilboom GP900 oil boom	2400m
750mm Flexi oil boom	150m
Protection sleeves	
none	
Personnel equipment	
oil protection suit	250 pcs
Other	
Elastec MiniVac Portable Vaccum Unit	1 pcs
Elastec SmartAsh Incinerator (barell burner)	1 pcs
Desmi ScanTrawl Mini	8 pcs

ON THE SHORE OIL RECOVERY EQUIPMENT IN RUSSIA

Information could not be delivered.

ON THE SHORE OIL RECOVERY EQUIPMENT IN SWEDEN

EQUIPMENT		TOTAL	PRICE Euro/unit
Mechanical recovery			
Oil skimmer	Unisep F560S	6	20 000
	Multiskimmer MS10	6	26 700
	Sala roll pump	6	23 400
	Vicoma transferpump	2	11 200
	Adomat transferpump V190 D Lobe	2	11 200
	Brushskimmer Lamour	2	20 000
ATV	Polaris 6x6 with boogietrailer	2	14 500
Boats	Aluminium boat 600 on trailer	1	33 400
	Aluminium boat 520 on trailer	2	28 900
	Motorised aluminium working platform	6	7 800
Coastal boom			
	750mm oil boom, 100 meters	2	7 900
	500mm oil boom, 100 meters	4	7 400
	350mm oil boom, 100 meters	1	6 800
	Anchoring equipment	12	500
Protection sleeves			
	1 20 ft container with 2700 meters of protection sleeves for shore protection	1	53 400
Personnel equipment			
	120 ft container with personnel equipment for 50 persons and basic hand tools	1	44 500

Annex 2 Country fact sheets

Country fact sheet includes static information (items 1-7) and accident specific information (item 8).

In the accident specific part following information should be included

Updated emergency situation

- Brief description of the situation: What are the problems? International teams already in the country?
- Safety and security. (Specific hazards)

National disaster response structure

- Brief description of the response structure. From national, regional down to local emergency command and control structure
- Communication
- Coordination system of the international assistance

Other specific information

- Other specific information for instance if there are any sensitive issues (political, financial, cultural or religious)
- Relevant web resources

Denmark

1.	Country	Denmark
	Authority	Ministry of Defence
2.	Type of capacity	Marine pollution Capacity Shoreline
3.	General Handling requests	DEMA is the Danish National Focal Point for international Shoreline response. DEMAs has a 24/7 duty officer.
4.	Financial and logistical arrangements	DEMA has no budget for international operations and all expenses must be covered externally. Generally all costs associated with the operation are expected to be covered by the nation requesting assistance.
5.	Time of availability for departure	Approximately 12 hours after the acceptance of the offer
6.	Location of asset	Thisted, Herning, Haderslev, Naestved and Bornholm
	Location of mobilisation	Herning and Naestved
7.	Contact person	
	Operational contact point	DEMA Duty Officer +45 45 90 60 00, brs@brs.dk
8.	<u>Blanc part</u>	

Estonia

1.	Country	Estonia
	Authority	Estonian rescue Board
2.	Type of capacity	Capacity in liquidation of sea coast pollution (shoreline)
3.	General Handling requests	<p>Ministry of the Interior (Information Monitoring Department) is the Estonian National Focal Point for requesting and providing international response assistance.</p> <p>Ministry of Interior collaboration with Ministry of Foreign Affairs and Estonia Rescue Board are decided international response assistance related questions.</p> <p>(An exception are contractual partners: Latvia, Lithuania, Finland, Sweden)</p>
4.	Financial and logistical arrangements	It is reached a contractual agreement
5.	Time of availability for departure	The decision to response adopted by the 6 hours from the arrival of a request for assistance and 24 hours after the acceptance of the offer.
6.	Location of asset	Response depots around the country
	Location of mobilisation	Logistics center in Kose
7.	Contact person	-
	Operational contact point	Ministry of the Interior (Information Monitoring Department) +372 612 3110, opinfo@siseministeerium.ee
8.	Blanc part	

European Union

Neither the European Commission (DG ECHO) nor the European Maritime Safety Agency (EMSA) has equipment for shoreline response to oil pollution.

Finland

9.	Country	FINLAND
	Authority	Responsibility for the on shore response: Rescue Service Districts
10.	Type of capacity	Marine pollution capacity Shoreline
11.	General requests Handling	Finnish Environment Institute (SYKE) is the Finnish National Focal Point for requesting and providing international marine oil and chemical response assistance. SYKE has 24/7 duty officer who is authorized to decide on international response assistance related questions
12.	Financial and logistical arrangements	Financial arrangements for receiving assistance: The invoice for the cost of the assistance should be sent to either SYKE or to Rescue Services depending on which is the leading authority in the accident in question. This will be verified case by case. Financial arrangements for providing assistance: No special arrangements, principles of HELCOM Response manual volume 1 will be followed. Logistical arrangements depend on the location of the equipment
13.	Time of availability for departure	Equipment for on shore response is located in tens of depots around Finland, thus the mobilisation time varies.
14.	Location of asset	Response depots around the country
	Location of mobilisation	
15.	Contact person	
	Operational contact point	SYKE duty officer via MRCC Turku – see of HELCOM Response manual volume 1
16.	<u>Blanc part</u>	

Germany

1.	Country	Germany
	Authority	CCME – Central Command for Maritime Emergencies
2.	Type of capacity	Marine pollution capacity at sea and on shore, emergency towing, firefighting at sea, medical assistance at sea
3.	General Handling requests	<p>The Central Command for Maritime Emergencies is responsible for managing maritime accidents. This involves response to oil and HNS spills at sea and at the shoreline, firefighting and medical assistance and emergency towing at sea, the assignment for a place of refuge and aerial surveillance. CCME is the national focal point for all maritime incidents, 24/7 on duty and contact point for the national single window. All international requests regarding maritime incidents are handled by CCME.</p> <p>For oil spill response Germany has 7 high sea going vessels and 13 vessels for near shore operations. For HNS response in toxic atmosphere 5 vessels are suitable. For shore line cleanup operations there are 11 main warehouses with various equipment for mechanical and manual shoreline cleanup. These warehouses are operated by the coastal administration and the Federal Agency for Technical Relief. Transportation of the equipment is ensured by suitable trucks with trailer.</p>
4.	Financial and logistical arrangements	CCME has governmental funding to cover the costs of the necessary preparedness to carry out its mandate, but has no budget for international operations. CCME is not prepared to send any shoreline pollution clean-up teams to a foreign country. This can only be organized on a single case decision by the German government in cooperation the Federal Agency for Technical Relief. Equipment can be sent via international request through Helcom, Bonn-Agreement or CECIS. The costs have to be covered by the requester. Transportation arrangements for assistance in a foreign country are not in place and have to be organized after the request.
5.	Time of availability for departure	As there are no arrangements for international assistance for shoreline clean-up in place, there is no guaranteed departure time available. This time depends on the organizational part of the equipment request and will take one or two days. The equipment itself can be made available in the warehouses within a few hours.
6.	Location of asset	11 warehouses along the German coastline of North Sea and Baltic Sea (Norden, Nordenham, Bremerhaven, Cuxhaven, Hamburg, Husum, Meldorf, Kiel, Lübeck, Rostock, Stralsund).
	Location of mobilisation	See above

7.	Contact person	CCME - Maritime Emergency Reporting and Assessment Centre (24/7) – Duty officer
	Operational contact point	CCME – Maritime Emergency Reporting and Assessment Centre (24/7) - +49 (0)30 185420 – 1400 mlz@havariekommando.de
8.	<u>Blanc part</u>	

Latvia

1.	Country	Latvia
	Authority	State fire and rescue service, Maritime Rescue Coordination Centre
2.	Type of capacity	According to annex (On – shore equipment template of Latvia)
3.	General Handling requests	Support for transportation to the disaster site
4.	Financial and logistical arrangements	The alignment with Interior ministry and Cabinet of Ministers.
5.	Time of availability for departure	2-5 days
6.	Location of asset	Latvia (city Ogre, Liepaja, Daugavpils, Riga)
	Location of mobilisation	Latvia, Riga, Maskavas street 5
7.	Contact person	Igors Urbanovics, Ivars Nakurts (State and rescue service of the Latvia, Civil protection department, tel.: +371 67075843, e-mail: igors.urbanovics@vugd.gov.lv , inars.nakurts@vugd.gov.lv)
	Operational contact point	State and rescue service of the Latvia, Operational management department, tel.: +371 67075955, e-mail: ovp@vugd.gov.lv
8.	<u>Blanc part</u>	

Lithuania

Information could not be delivered.

Poland

1.	Country	Poland
	Authority	Maritime Search and Rescue Service (SAR) Maritime Office Local administration (Voiveodship, Voivodship Inspectorate of Environmental Protection,Crisis Management Centers)
2.	Type of capacity	Marine Pollution Capacity Shoreline (SAR)
3.	General Handling requests	SAR together with the Maritime Authorities are responsible for dealing with marine pollution from the sea to the shoreline. SAR has 9 depots equipped with costal booms, small skimmers and portable tanks, terrain vehicles and with some limited manpower. SAR is prepared to conduct only local small scale shoreline pollution incidents. SAR is not prepared to send any shoreline pollution clean-up teams or equipment internationally.
4.	Financial and logistical arrangements	SAR has governmental funding to cover the costs of the necessary preparedness to carry out its mandate, but has no budget for international operations. As mentioned above SAR is not prepared to send any shoreline pollution clean-up teams or equipment internationally.
5.	Time of availability for departure	n/a
6.	Location of asset	Trzebiez (Szczecin Lagoon), Dziwnow, Kolobrzeg, Darlowo, Ustka, Leba, Wladyslawowo, Swibno, Sztutowo,
	Location of mobilisation	
7.	Contact person	
	Operational contact point	Maritime Rescue Coordination Center Duty Officer in Gdynia +48 58 620 55 51 or +48 505 050 971 or polratok.1@sar.gov.pl
8.	Blanc part	

Russia

Information could not be delivered.

Sweden

1.	Country	SWEDEN
	Authority	MSB, Swedish Civil Contingencies Agency
2.	Type of capacity	Marine pollution capacity Shoreline
3.	General Handling requests	<p>MSB is the Swedish National Focal Point for international response, with the exception for marine pollution. Consequently, MSB has a well-developed system of preparedness with adequate equipment stored in warehouse, a roster of 1 700 trained experts for rapid mission deployment, and an organization at HQ for management and administration, including a 24/7 function.</p> <p>Consequently, there's an organizational preparedness to handle any incoming request, regardless of the time of day.</p>
4.	Financial and logistical arrangements	<p>MSB has governmental funding to cover costs for the necessary preparedness to carry out its mandate, but has no budget for international operations. All operations have to be externally funded, generally by the Participating State requesting support. In case of operations in DAC-countries, funds can generally be retained by the Government or through the Swedish International Development Agency.</p> <p>The MSB warehouse, located in Kristinehamn, is well stocked and organized, the equipment maintained and serviced on a regular basis. It lays next to a major highway, which facilitates the transport of equipment by truck, either straight to the final destination or to the closest available airport or seaport. MSB has a well-developed cooperation with Örebro Airport, which is MSB's hub for international operations. Örebro Airport is accessible for cargo transportation and certified for heavy-lift ramp-loading aircraft.</p> <p>MSB has an extensive cooperation with national and international cargo flight companies and has framework agreements for these flights, procured on the international market. Furthermore, MSB has also a well-established cooperation with the Swedish Armed Forces giving MSB access to cargo flights at high quality but at low cost.</p>
5.	Time of availability for departure	12 hours after the acceptance of the offer
6.	Location of asset	Härnösand, Stockholm, Oskarshamn, Slite, Gothenburg

	Location mobilisation of	MSB warehouse in Kristinehamn
7.	Contact person	
	Operational contact point	MSB Duty Officer tib@msb.se or +46 54 150 150
8.	<u>Blanc part</u>	-

Annex 3 Nomenclature to be used when describing the oiling of the shore

The common terminology to be used when describing the pollution on shore in POLINF or POLFAC report. This terminology should be used also when describing the status of shore pollution to the assisting teams in situational briefings.

Terminology is based on the POLSCALE report.

Oil character / Debris type

- a) Fresh - unweathered, low viscosity oil.
- b) Mousse ("Chocolate Mousse") - emulsified oil (oil and water mixture).
- c) Tar Balls or patties - discrete balls or patties on a beach or adhered to rock or coarse sediment shoreline. Tar ball diameters are generally <0.1m and patties are 0.1m to 1m.
- d) Tar - weathered coat or cover of tarry, almost solid consistency.
- e) Surface Oil Residue - consists of non-cohesive, oiled, surface sediments, either as continuous patches or in coarse sediment interstices.
- f) Asphalt Pavement cohesive mixture of oil and sediments
- g) Debris - can consist of logs, vegetation, rubbish or general debris including spill response items like sorbents, booms

Categories of oil coverage

- a) Continuous: >90%
- b) Broken: 51 - 90%
- c) Patchy: 11 - 50%
- d) Sporadic: 1 - 10%
- e) Trace: <1%

Categories of oil thickness

- a) Pooled or Thick oil - generally consists of fresh oil or mousse accumulations > 1 cm thick.
- b) Cover - between > 0.1 cm and 1 cm thick.
- c) Coat - between > 0.01 cm and 0.1 cm thick coating. It can be scratched off with fingernail on coarse sediments or bedrock.
- d) Stain - < 0.01 cm thick. It cannot be scratched off easily on coarse sediments or bedrock.
- e) Film - transparent or translucent film or sheen

Categories of degrees of shoreline oiling

- a) Very Light
- b) Light
- c) Moderate
- d) Heavy
- e) Very Heavy
- f) No oil

Types of Shoreline Materials

- a) Bedrock outcrops
- b) Boulder (>256 mm dia.)
- c) Shingle or Cobble (50 - 256 mm dia.)
- d) Gravel (2- 50 mm dia,)

- e) Sand (0.06-2 mm dia,)
- f) Mud / Silt / Clay (<0.06 mm dia.)
- g) Manmade


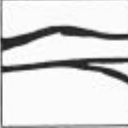


















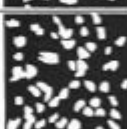


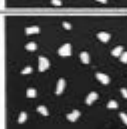


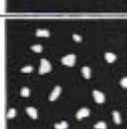
Categories of slope of the shoreline

- a) Low <30 degrees
- b) Medium 31 - 60 degrees
- c) High >60 degrees

Wave exposure of the shoreline

- a) High: when the shoreline is entirely exposed to the action of the waves coming from the sea.
- b) Medium: when the shoreline is partly exposed to the waves and partly sheltered
- c) Low: when the shoreline is not directly exposed to the action of the waves coming from the open sea (sheltered shoreline).

Visual aid for estimating oil scatter on the shore

Categories of oil coverage					Symbols & Abbreviations
Trace > 0 - < 1%					~ TR
Sporadic 1 - 10%	10%				••••• SP
	20%				
Patchy 11 - 50%	30%				///// PT
	40%				
	50%				
Broken 51 - 90%	60%				••••• BR
	70%				
	80%				
	90%				
Continuous 91 - 100%					■ CN

(Adapted from OWENS & al., 1994.)