

**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 1**



**Original September 2001  
(last updated June 2019)**

HELSINKI COMMISSION  
Baltic Marine Environment Protection Commission

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on Co-operation in Response to Marine Pollution****Volume 1**

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**PREFACE**

**The Manual**

The HELCOM Manual on Co-operation in Response to Marine Pollution (in the following the Manual) is applied by the Baltic Sea States in operational co-operation, surveillance activities and combatting exercises since 1983. The present Manual consists of three Volumes; Volume 1 dealing generally with co-operation in combatting marine pollution, Volume 2 dealing specifically with such co-operation in case of spillages of chemicals and Volume 3 dealing with response to pollution incidents on the shore.

The Manual is recommended to be used as guidance when two or more Contracting Parties to the Helsinki Convention participate in a joint action in responding to spillages of oil and other harmful substances, i.e. chemicals.

The Manual should be regarded as practical implementation of the OPRC Convention.

**Volume 1**

Chapters 1-6 are of operational character containing information of use during a combatting operation. This includes information about Contact Points to Contracting Parties, which assistance and under what conditions this can be obtained from other Contracting Parties, information about delimitation of response regions between Contracting Parties, formats for how to exchange information between combatting authorities about a pollution incident/threat hereof, a description of the actual operational co-operation, including command and communication structures as well as guidelines for oil sampling.

Chapters 7-13 are of administrative character. They contain information about co-operation on aerial surveillance, organizational and financial aspects in case of operational co-operation, information on types of combatting exercises, relevant extracts from the Helsinki Convention as well as relevant HELCOM Recommendations and Guidelines.

**Volume 2**

Volume 2 deals only with spillages of chemicals. This volume is intended for use by On-Scene-Commanders.

**Volume 3**

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 from land or smaller boats/tugs which are under the same command as operations on the shore
- clean-up of pollution on the shore
- oiled wildlife response in the above mentioned areas

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A separate Volume 3 of the HELCOM Response Manual is needed as response to pollution incidents on the shore differ from pollution incident response at sea. Response on the shore often involves a more complex network of national and local authorities, contractors and possibly volunteers and are commonly much longer in terms of duration.

However, Volume 1 of the HELCOM Response Manual includes details on response co-operation 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 can also be used for response on the shore. Volume 2 covers combating spillages of other harmful substances which might also be of interest for response on the shore.

### **Detection of illegal discharges**

Matters related to co-operation in investigations of anti-pollution regulations are dealt with by the Helsinki Commission. Although not constituting a part of the co-operation in combatting marine pollution the conduction of aerial surveillance does as one of its main aims have the detection of illegal discharges and the collection of evidence in order to prosecute suspected offenders. More information regarding this issue can be found in the "Guidelines on Ensuring Successful Convictions of Offenders of Anti-pollution Regulations at Sea" (Baltic Sea Environment Proceedings No. 78, 2000).

### **Updating of the Manual**

All three Volumes of the Manual are available on the HELCOM [web-site](#).

The updating of the Manual is the responsibility of the Secretariat of the Helsinki Commission in accordance with information received from the Contracting Parties concerning changes in the organization of their response authorities and/or improvement of their national abilities to combat marine pollution, or in accordance with instructions given by the Response Working Group (as far as they do not concern fundamental revision) or decisions of the Helsinki Commission. The Contracting Parties shall submit their amendments to the meetings of HELCOM RESPONSE. The amendments will be updated by the Secretariat in two months. However, a Contracting Party is requested to immediately inform other Contracting Parties and the Secretariat on substantial changes in their national organization and Contact Points which have an influence on providing and requesting assistance and exchange of information.

In accordance with Regulation 11 of Annex VII of the Helsinki Convention the Contracting Parties agree to apply, as far as practicable, the principles and rules indicated in the Manual.

The Manual was adopted by the Helsinki Commission at its 17th meeting in March 1996 according to HELCOM Recommendation 17/13. A revised version of Volume 1 was approved by HELCOM SEA 3/2001 in May 2001 and a new version of Volume 2 was approved by HELCOM RESPONSE 1/2002 in October 2002. Volume 3 was adopted by the HELCOM Copenhagen Ministerial Meeting in October 2013.

## INTRODUCTION

### Operational and general guidelines for co-operation

The co-operation in combatting spillages of oil and other harmful substances in the Baltic Sea area is based on the Helsinki Convention and HELCOM Recommendations on combatting matters, adopted by the Helsinki Commission.

In accordance with the Helsinki Convention the Contracting Parties shall maintain ability to respond to spillages of oil and other harmful substances into the sea threatening the marine environment of the Baltic Sea area. This ability shall include adequate equipment, ships and manpower prepared for operations in coastal waters as well as on the high seas.

According to the Helsinki Convention the Contracting Parties shall agree bilaterally or multilaterally on those regions of the Baltic Sea Area, in which they should conduct aerial surveillance and take action for combatting or salvage activities whenever a significant spillage of oil or other harmful substance or any incident causing or likely to cause pollution within the Baltic Sea area has occurred or is likely to occur.

In cases where a Contracting Party is not able to cope with a spillage by the sole use of its personnel and equipment, the Contracting Party in question can request combatting assistance from other Contracting Parties starting with those who seem likely also to be affected by the spillage.

The Contracting Parties are advised in addition to this Manual to use the Bonn Agreement Manual on Securing Evidence on Discharges from Ships "Oil Pollution at Sea", as it contains a lot of valuable information for the detection, identification and quantification of oil slicks. Furthermore, reference is made to HELCOM Recommendation 19/16 concerning "Co-operation in investigating violations or suspected violations of discharge and related regulations for ships, dumping and incineration regulations" and to the HELCOM "Guidelines on Ensuring Successful Convictions of Offenders of Anti-pollution Regulations at Sea" (Baltic Sea Environment Proceedings No. 78), describing the co-operation between the Contracting States in the investigation of suspected violations with the overall aim to ensure and enhance the successful conviction of offenders. In addition, the identification of the polluter is of high interest for the responsible operation control authority in case of compensation for expensive clean-up costs and/or serious damage to the marine environment.

The following chapters are meant as help to improve the co-operation in response to marine pollution within the Baltic Sea area. They are meant both for On-Scene-Commanders/-Coordinators conducting multinational response operations and for authorities dealing with national and regional contingency planning.

## 1. Information by the Contracting Parties

### 1.1 DENMARK (DK)

#### National Contact Points for spills at sea, on shore and oiled wildlife response

<b>Emergencies (24 hrs)</b>	
<u>Emergency numbers for public use</u>	
Maritime Assistance Service Royal Danish Navy Command	<b>Tel:</b> +45 72 85 03 71 <b>Fax:</b> + 45 72 85 03 84 <b>E-mail:</b> <a href="mailto:mas@sok.dk">mas@sok.dk</a>
<u>Operational contact point on 24 hour duty</u>	
Maritime Assistance Service Royal Danish Navy Command	<b>Tel:</b> : +45 72 85 03 71 <b>Fax:</b> + 45 72 85 03 84 <b>E-mail:</b> <a href="mailto:mas@sok.dk">mas@sok.dk</a>
<b>Inquiries (office hrs)</b>	
<u>Administrative contact point</u>	
Maritime Environment Royal Danish Navy Command Herningvej 30 DK-7470 Karup	<b>Tel:</b> +45 22 87 82 80 (cell) <b>E-mail:</b> <a href="mailto:pol.con.den@mil.dk">pol.con.den@mil.dk</a>

#### Aerial surveillance – responsible authorities

<b>Emergencies (24 hrs)</b>	
<u>Emergency numbers for public use</u>	
Royal Danish Navy Command Naval staff	<b>Tel:</b> +45 72 85 00 00 <b>Fax:</b> +45 72 85 00 76
<u>Operational contact point on 24 hour duty</u>	
Maritime Assistance Service Royal Danish Navy Command	<b>Tel:</b> +45 72 85 03 71 <b>Fax:</b> +45 72 85 03 84 <b>E-mail:</b> <a href="mailto:mas@sok.dk">mas@sok.dk</a>
<b>Inquiries (office hrs)</b>	
<u>Administrative contact point</u>	
Naval Staff National Readiness, Maritime Environment PO Box 1483 Soedalsparken 20 DK-8220 Brabrand	<b>Tel:</b> +45 72 85 03 08 <b>E-mail:</b> <a href="mailto:pol.con.den@mil.dk">pol.con.den@mil.dk</a>

#### Contact points of joint aerial surveillance in the Baltic

<b>Emergencies (24 hrs)</b>	
<u>Emergency numbers for public use</u>	
Royal Danish Navy Command Naval staff	<b>Tel:</b> +45 72 85 00 00 <b>Fax:</b> +45 72 85 00 76
<u>Operational contact point on 24 hour duty</u>	
Maritime Assistance Service Royal Danish Navy Command	<b>Tel:</b> +45 72 85 03 71 <b>Fax:</b> +45 72 85 03 84 <b>E-mail:</b> <a href="mailto:mas@sok.dk">mas@sok.dk</a>
<b>Inquiries (office hrs)</b>	
<u>Administrative contact point</u>	
Naval Staff National Readiness, Maritime Environment PO Box 1483 Soedalsparken 20 DK-8220 Brabrand	<b>Tel:</b> +45 72 85 03 08 <b>E-mail:</b> <a href="mailto:pol.con.den@mil.dk">pol.con.den@mil.dk</a>

## 1. Information by the Contracting Parties

### 1.2 ESTONIA (EE)

#### National Contact Points

<b>Emergencies (24 hrs)</b>	
Joint Rescue Coordination Centre (JRCC TALLINN) Süsta 15 EE-11712 Tallinn <u>new address:</u> Osmussaare 2 EE-13811 Tallinn	<b>Tel:</b> +372 619 1224 (24 hrs) <b>Fax:</b> +372 692 2501 <b>E-mail:</b> <a href="mailto:jrcc@politsei.ee">jrcc@politsei.ee</a>  <b>Inmarsat-C:</b> 581 492480040
<b>Inquiries (office hrs)</b>	
Estonian Environmental Inspectorate Kopli 76 EE-10416 Tallinn	<b>Tel:</b> +372 696 2236 <b>Fax:</b> +372 696 2237 <b>E-mail:</b> <a href="mailto:valve@kki.ee">valve@kki.ee</a>

#### Aerial surveillance – responsible authorities

Police and Border Guard Board Intelligence Management and Investigation Department Aviation Group Väike Sõjamäe 22A 11415 Tallinn Estonia	<b>Tel:</b> +372 6149247 <b>Fax:</b> +372 614 9264 <b>E-mail:</b> <a href="mailto:lennusalk@politsei.ee">lennusalk@politsei.ee</a>
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#### Contact points of joint aerial surveillance in the Baltic

Joint Rescue Coordination Centre (JRCC TALLINN) <u>new address:</u> Osmussaare 2 EE-13811 Tallinn	<b>Tel:</b> +372 619 1224 (alarm) <b>Fax:</b> +372 692 2501 (24 hours) <b>E-mail:</b> <a href="mailto:jrcc@politsei.ee">jrcc@politsei.ee</a>
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## 1. Information by the Contracting Parties

### 1.3 EUROPEAN UNION (EU)

#### Contact Points Emergencies (24/7)

**European Commission** Directorate-General for European Civil Protection and Humanitarian Aid Operations (DG ECHO)

Emergency Response Coordination Centre (ERCC)

Rue de la Loi 86  
B-1049 Brussels  
Belgium

**Duty Officer GSM:** +32-2-29 21112

**Duty Officer Fax:** +32-2-29 86651

**Duty Officer E-mail:** ECHO-ERCC@ec.europa.eu

**European Maritime Safety Agency (EMSA)**

Praça Europa N°4  
Cais do Sodré  
1249-206 Lisbon  
Portugal

**Maritime Support Services (MSS)**

**Duty Officer Tel:** +351 21 1209 415

**Duty Officer Fax:** +351 21 1209 480

**Duty Officer E-mail:**

[MaritimeSupportServices@emsa.europa.eu](mailto:MaritimeSupportServices@emsa.europa.eu)

**Inquiries** (office hrs)

European Commission  
DG ECHO - Unit A4 Civil Protection Policy  
B-1040 Brussels  
Belgium

**Tel:** +32-2-29 84396

**E-mail:** ECHO-A4@ec.europa.eu

EU can support HELCOM countries in preparedness and response to marine pollution mainly through the Union Civil Protection Mechanism ("the Mechanism") and the European Maritime Safety Agency (EMSA).

**The Union Civil Protection Mechanism** aims to strengthen the cooperation between the Union and the Participating States<sup>1</sup> and to facilitate coordination in order to improve the effectiveness of systems for preventing, preparing for and responding to disasters. It covers both civil protection and marine pollution emergencies inside and outside the EU. Upon a request for assistance from a country affected by a marine pollution incident, the Emergency Response Coordination Centre (ERCC)<sup>2</sup> can quickly mobilise pollution response capacity and expertise from the Participating States and EMSA and facilitate their deployment to the affected area. More information on the Mechanism and its tools can be found at: [https://ec.europa.eu/echo/what/civil-protection\\_en](https://ec.europa.eu/echo/what/civil-protection_en)

**The European Maritime Safety Agency** offers five main services, available upon request, to EU Member States, coastal European Free Trade Association (EFTA) Contracting Parties, EU Candidate Countries, and the European Commission, namely:

<sup>1</sup> EU 28, Iceland, the former Yugoslav Republic of Macedonia, Montenegro, Norway, Serbia, and Turkey.

<sup>2</sup> The ERCC is the operational hub of the Union Civil Protection Mechanism. The centre is operated by DG ECHO of the European Commission and is accessible 24 hours a day.

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- With respect to accidental oil spills, the Agency has established a Network of Stand-by Oil Spill Response Vessels around Europe and threestockpiles of stand-alone oil spill response equipment (Ravenna, Italy, Gdansk, Poland and near Aberdeen, UK) providing an European tier of operational resources to support the pollution response mechanisms of the affected coastal State in case of pollution caused by ships as well as by oil and gas installations.
  - In order to detect ship borne oil pollutions at sea, EMSA developed the CleanSeaNet (CSN) near real time satellite oil spill monitoring and vessel detection service.
  - Remotely Piloted Aircraft Systems (RPAS) for oil spill monitoring and detection as well as to support monitoring of sulphur emissions from ships.
  - The "MAR-ICE Network" (Marine Intervention in Chemical Emergencies Network) of chemical experts to support EU coastal States in responding to “chemical spills” at sea by providing information on chemical substances.
  - The MAR-CIS Marine Chemical Information Sheets are datasheets of chemical substances developed by EMSA that contain relevant information for responding to marine spills of hazardous and noxious substances (HNS). These datasheets provide concise information on the substances' physical and chemical properties, handling procedures and emergency spill response procedures, as well as maritime transport requirements for safe transport at sea.
  - EMSA can also make available pollution response experts to provide (on-site / office-based) operational and technical assistance for Oil and HNS incidents.

Further to the 2013 revision of the founding Regulation, EMSA may also provide assistance in case of pollution caused by ships as well as by oil and gas installations affecting those third countries sharing a regional sea basin with the Union.

More information on the EMSA Pollution Detection and Response Services can be found at:  
<http://emsa.europa.eu/operations.html>

### **Procedure to request EMSA’s assistance**

#### ***General***

Emergency requests should be sent to the ERCC of the European Commission preferably through the Common Emergency Communication and Information System for Marine Pollution (CECIS MP)<sup>3</sup>. Alternatively the request can be sent to the ERCC by email or fax.

#### ***Request for EMSA Stand-by Oil Spill Response Vessels***

Detailed procedure to request assistance of EMSA contracted vessels is provided in “EMSA Network of Stand-by Oil Spill Response Vessels - User Guide” distributed to coastal States through the members of the Consultative Technical Group for Marine Pollution Response Preparedness and Response (CTG MPPR) and available in the password protected Pollution Response Services User Group section of the EMSA website.

Description of available vessels, their equipment and performance can be found in the CECIS Marine Pollution resources database and on EMSA website:

<http://emsa.europa.eu/oil-spill-response/oil-recovery-vessels.html>

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<sup>3</sup> CECIS MP is a secure web-based application to facilitate emergency communication among its users. It also contains a database of Member States and EMSA operational response capabilities.

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***Request for EMSA Equipment Assistance Service (EAS)***

Detailed descriptions of the available equipment including its performance can be found in the CECIS Marine Pollution resources database and on EMSA's website: <http://emsa.europa.eu/oil-spill-response/eas-inventory.html>

***Request for satellite images***

Detailed information on the EMSA satellite services can be found at:  
<http://emsa.europa.eu/csn-menu.html>

***Request for MAR-ICE (HNS emergencies)***

Information regarding "MAR-ICE Network" service can be found at:  
<http://emsa.europa.eu/operations/hns-pollution.html>

## 1. Information by the Contracting Parties

### 1.4 FINLAND (FI)

#### competent National Authority for Response to Marine Pollution

Ministry of Interior  Mailing address: PO Box 26, FI-00023 GOVERNMENT, Finland  Visiting address: Kirkkokatu 12, Helsinki	<b>Tel:</b> +358 295 480 171
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#### National 24-hour Operational Contact Points

Command Centre of West Finland Coast Guard District (MRCC Turku)  Mailing address: P.O. Box 16, 20101 Turku, Finland  Visiting address: Juhana Herttuan puistotie 21, Turku	<b>Tel:</b> +358 294 1001 Emergency tel. (24 h.): +358 294 1000 <b>Fax (24 h):</b> +358 294 1019 <b>E-mail:</b> mrcc@raja.fi
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#### Authority Entitled to Request Assistance or to Decide to Render Assistance Requested

Finnish Board Guard / Command Centre of West Finland Guard District (MRCC Turku)  Mailing address: P.O. Box 16, 20101 Turku, Finland  Visiting address: Juhana Herttuan puistotie 21, Turku	<b>Tel:</b> +358 294 1001 Emergency tel. (24 h.): +358 294 1000 <b>Fax (24 h):</b> +358 294 1019 <b>E-mail:</b> mrcc@raja.fi
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#### Aerial surveillance – responsible authority

Finnish Board Guard  P.O Box 3 FI-00131 Helsinki	<b>Tel:</b> +358 295 420 000 <b>Fax:</b> +358 295 411 500 <b>E-mail:</b> rvle.me@raja.fi
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#### Finland's Contact point for joint aerial surveillance in the Baltic

Command Centre of West Finland Guard District (MRCC Turku)  Mailing address: P.O. Box 16, 20101 Turku, Finland  Visiting address: Juhana Herttuan puistotie 21, Turku	<b>Tel:</b> +358 294 1001 Emergency tel. (24 h.): +358 294 1000 <b>Fax (24 h):</b> +358 294 1019 <b>E-mail:</b> mrcc@raja.fi
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#### Response to pollution incidents on the shore (Manual III)

Contact point: Command Centre of West Finland Guard District (MRCC Turku)

## 1. Information by the Contracting Parties

### 1.5 GERMANY (DE)

#### National Contact Points for spills at sea, on shore and oiled wildlife response

<b>Emergencies (24 hrs)</b>	
Central Command for Maritime Emergencies (CCME) Maritimes Lagezentrum (MLZ) Am Alten Hafen 2 D-27472 Cuxhaven	<b>Tel:</b> +49 30 185420 1400 <b>Fax:</b> +49 30 185420 2409 <b>E-mail:</b> <a href="mailto:mlz@havariekommando.de">mlz@havariekommando.de</a>
<b>Inquiries (office hrs)</b>	
Central Command for Maritime Emergencies (CCME) Maritimes Lagezentrum (MLZ) Am Alten Hafen 2 D-27472 Cuxhaven	<b>Tel:</b> +49 30 185420 1400 <b>Fax:</b> +49 30 185420 2409 <b>E-mail:</b> <a href="mailto:mlz@havariekommando.de">mlz@havariekommando.de</a>

For more information on responsibility for counter-pollution measures at sea and on shore, please visit the following link: <https://www.havariekommando.de/EN/home/home-node.html>

#### Aerial surveillance – responsible authorities

<b>Office hours</b>	
Central Command for Maritime Emergencies (CCME) Section 2 c/o WSA Cuxhaven Am Alten Hafen 2 D-27472 Cuxhaven	<b>Tel:</b> +49-30-185420-2400 <b>Fax:</b> +49-30-185420-2408 <b>E-mail:</b> <a href="mailto:Havariekommando@havariekommando.de">Havariekommando@havariekommando.de</a>

For more information on responsibility for counter-pollution measures at sea and on land as well as on oil recovery equipment, please visit the following link:  
<https://www.havariekommando.de/EN/home/home-node.html>

#### Contact points of joint aerial surveillance in the Baltic

<b>Emergencies (24/7)</b>	
Central Command for Maritime Emergencies (CCME) Maritimes Lagezentrum Cuxhaven (MLZ) Am Alten Hafen 2 D-27472 Cuxhaven	<b>Tel:</b> +49-30-185420-1400 <b>Fax:</b> +49-30-185420-2408 <b>Email:</b> <a href="mailto:mlz@havariekommando.de">mlz@havariekommando.de</a>

For more information on responsibility for counter-pollution measures at sea and on land as well as on oil recovery equipment, please visit the following link:  
<https://www.havariekommando.de/EN/home/home-node.html>

## 1. Information by the Contracting Parties

### 1.6 LATVIA (LV)

#### National Contact Points for spills at sea, on shore and oiled wildlife response

<b>Emergencies (24 hrs)</b>	
Maritime Rescue Co-ordination Centre (MRCC Riga) Meldru iela 5a LV-1015 Riga	<b>Tel:</b> +371 67323103 (emergency) <b>Tel:</b> +371 67082070 <b>Tel:</b> +371 29476101 <b>Tel:</b> +371 67082064 (MAS, ISPS) <b>Fax:</b> +371 67320100 <b>Fax:</b> +371 29270690 <b>E-mail:</b> <a href="mailto:sar@mrcc.lv">sar@mrcc.lv</a> (MRCC) <b>E-mail:</b> <a href="mailto:isps1@mrcc.lv">isps1@mrcc.lv</a> (MAS, ISPS) <a href="http://www.mrcc.lv">www.mrcc.lv</a> <b>Inmarsat-C:</b> 580-427502310 (MRCC, MAS, ISPS) InMarsat RescueNet registered user SPOC for Cospas-Sarsat <b>Radio communication/DSC:</b> Constant watch on 2182 kHz, VHF Ch 16, call sign: Riga Rescue Radio. DSC selective call number: 002750100 on 2187,5 kHz and VHF Ch 70 DSC
<b>Spills on shore</b> Duty Officer Emergency Department Operative Management Board State Fire and Rescue Service of Latvia Hanzas iela 5 LV-1045 Riga	<b>Tel:</b> 112 (emergency) <b>Tel:</b> +371 67075954 <b>Tel:</b> +371 29424504 <b>Fax:</b> +371 67075955 <b>E-mail:</b> <a href="mailto:ovp@vugd.gov.lv">ovp@vugd.gov.lv</a> <a href="http://www.vugd.gov.lv">www.vugd.gov.lv</a>
<b>Inquiries (office hrs)</b>	
State Environmental Service Voleru iela 4 LV-1007 Riga	<b>Tel:</b> +371 29544526 <b>Tel:</b> +371 67084200 <b>Fax:</b> +371 67084212 <b>E-mail:</b> <a href="mailto:vvd@vvd.gov.lv">vvd@vvd.gov.lv</a> <a href="http://www.vvd.gov.lv">www.vvd.gov.lv</a>
Maritime Administration of Latvia Trijadibas iela 5 LV-1048 Riga	<b>Tel:</b> +371 67062101 <b>Fax:</b> +371 67860082 <b>E-mail:</b> <a href="mailto:lja@lja.lv">lja@lja.lv</a> <a href="http://www.lja.lv">www.lja.lv</a> <b>SSN/SKLOIS helpdesk</b> <b>Tel:</b> +371 67062120 <b>E-mail:</b> <a href="mailto:helpdesk@sklois.lv">helpdesk@sklois.lv</a> Monday-Friday 08:00-17:00
Transport Accident and Incident Investigation Bureau Brivibas iela 58 LV-1011 Riga	<b>Tel:</b> +371 67686271 <b>Tel:</b> +371 67288140 <b>Fax:</b> +371 67283339 <b>E-mail:</b> <a href="mailto:taiib@taiib.gov.lv">taiib@taiib.gov.lv</a> <a href="http://www.taiib.gov.lv">www.taiib.gov.lv</a>

### Aerial surveillance – responsible authorities

<b>Emergencies</b>	
Maritime Rescue Coordination Centre (MRCC Riga) Meldru 5a LV-1015 Riga	<b>Tel:</b> +371 67323103 (emergency), +371 67082070 +371 29476101 <b>Fax:</b> +371 67320100 <b>E-mail:</b> <a href="mailto:sar@mrcc.lv">sar@mrcc.lv</a> <b>Inmarsat-C:</b> 581-427518510 <b>Inmarsat-C:</b> 581-427502310
<b>Inquiries (office hrs)</b>	
State Environmental Service Voleru 2 LV-1007 Riga	<b>Tel:</b> +371 29544526, +371 67408166 <b>Fax:</b> +371 67465888 <b>E-mail:</b> <a href="mailto:laura.mazmaca@vvd.gov.lv">laura.mazmaca@vvd.gov.lv</a>

Latvian link: <http://www.mrcc.lv>

### Contact points of joint aerial surveillance in the Baltic

<b>Emergencies</b>	
Maritime Rescue Coordination Centre (MRCC Riga) Meldru 5a LV-1015 Riga	<b>Tel:</b> +371 67323103 (emergency), +371 67082070 +371 29476101 <b>Fax:</b> +371 67320100 <b>E-mail:</b> <a href="mailto:sar@mrcc.lv">sar@mrcc.lv</a>

Latvian link: <http://www.mrcc.lv>

## 1. Information by the Contracting Parties

### 1.7 LITHUANIA (LT)

#### National Contact Points

<b>Emergencies (24 hrs)</b>	
Maritime Rescue Co-ordination Centre of Lithuania Naujoji uosto str. 24 LT-92244 Klaipeda	<b>Tel:</b> +370 46 391257, +370 46 391258 <b>Fax:</b> +370 46 391309 <b>E-mail:</b> <a href="mailto:mrcc@mil.lt">mrcc@mil.lt</a> <b>Radio:</b> VHF - 16 channel - Klaipeda RESCUE MF - 2182 kHz - Klaipeda RESCUE DSC - Channel 70 and 21875 KHz- MMSI 002770330 Airband -121,5 MHz - Klaipeda RESCUE Inmarsat – C: 427799011
<b>Inquiries (office hrs)</b>	
Klaipeda Regional Environmental Protection Department of the Ministry of Environment Birutes str. 16 LT-92003 Klaipeda	<b>Tel:</b> +370 46 314547, +370 46 341607 <b>Fax:</b> +370 46 380903, +370 46 341610 <b>E-mail:</b> <a href="mailto:rastine@klrd.am.lt">rastine@klrd.am.lt</a>

For more information on responsibility for counter-pollution measures at sea and on land as well as on oil recovery equipment, please visit the following link: [http://www.msa.lt/eng/helcom\\_information.htm](http://www.msa.lt/eng/helcom_information.htm)

#### Aerial surveillance – responsible authorities

Raimondas Satkauskas Marine Environment Protection Agency Environmental Protection Department of Klaipeda Region Zalgirio St.11 a LT-93251 Klaipeda	<b>Tel:</b> +370 46 341607 <b>Fax:</b> +370 46 341610 <b>E-mail:</b> <a href="mailto:r.satkauskas@klrd.am.lt">r.satkauskas@klrd.am.lt</a>
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#### Contact points of joint aerial surveillance in the Baltic

Raimondas Satkauskas Marine Environment Protection Agency Environmental Protection Department of Klaipeda Region Zalgirio St.11 a LT-93251 Klaipeda	<b>Tel:</b> +370 46 341607 <b>Fax:</b> +370 46 341610 <b>E-mail:</b> <a href="mailto:r.satkauskas@klrd.am.lt">r.satkauskas@klrd.am.lt</a>
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## 1. Information by the Contracting Parties

### 1.8 POLAND (PL)

#### National Contact Points

<p><b>Maritime Rescue Coordination Center (MRCC Gdynia)</b> Maritime Search and Rescue Service ul. Hryniewickiego 10 P.O. Box 375 81-340 Gdynia</p>	<p>Tel./fax: +48 58 620 55 51 Tel./fax: +48 58 621 68 11 Tel./fax: +48 58 661 01 96 Fax: +48 660 76 40 Mobile phone: +48 505 050 971 e-mail: <a href="mailto:polratok.1@sar.gov.pl">polratok.1@sar.gov.pl</a></p>
<p><b>Cooperative Coordination Center (MRSC Świnoujście)</b> ul. Władysława IV 7 72-600 Świnoujście</p>	<p>Tel.: +48 91 321 49 17 Tel./fax: +48 91 321 59 29 Mobile phone: +48 505 050 969 e-mail: <a href="mailto:polratok.2@sar.gov.pl">polratok.2@sar.gov.pl</a></p>
<p><b>Radio channels monitored by MRCC and MRSC</b></p>	<p>VHF ch. 16, 11- communication system of SAR Service (70 DSC), (74 DSC) - communication system of SAR Service</p>
<p><b>Maritime Office in Szczecin</b></p> <p>Ul. Władysława IV 7 72-600 Świnoujście</p> <p>Pl. Batorego 4 70-207 Szczecin</p> <p>Maritime Environmental Protection Inspectorate Ul. Jana z Kolna 9, 71-603 Szczecin</p>	<p>EMERGENCY:</p> <p>Duty Officers in Świnoujście: Mob.: +48 605 686 765 Tel.: +48 91 321 62 03 internal no. 589 Fax: +48 91 321 67 70 e-mail: <a href="mailto:swinoujscietraffic@ums.gov.pl">swinoujscietraffic@ums.gov.pl</a></p> <p>Duty Officers in Szczecin: tel. + 48 91 433 06 97 tel. + 48 91 440 35 10 fax: + 48 91 488 12 89</p> <p>INQUIRIES: tel. + 48 91 440 34 00 fax: + 48 91 434 46 56 E-mail : <a href="mailto:sekretariat@ums.gov.pl">sekretariat@ums.gov.pl</a></p> <p>tel. + 48 91 440 35 33, + 48 91 440 34 85 fax: + 48 91 433 27 00 E-mail : <a href="mailto:ios@ums.gov.pl">ios@ums.gov.pl</a></p>
<p><b>Maritime Office in Gdynia</b> Ul. Chrzanowskiego 10 81-338 Gdynia</p> <p>Maritime Environmental Protection Inspectorate</p>	<p>EMERGENCY (VTS ZATOKA): Tel : +48 58 3553610 Tel : +48 58 3553611 Tel: +48 58 3553612 Tel: +48 58 6216162 Fax : +48 58 6205328 Fax: +48 58 6205363</p> <p>INQUIRIES: Tel: +48 58 620 6911 Fax: +48 58 620 6743 E-mail : <a href="mailto:umgdy@umgdy.gov.pl">umgdy@umgdy.gov.pl</a></p> <p>Tel: +48 58 3553345, +48 58 3553349; +48 58 3553347 Fax: +48 58 620 6743 E-mail: <a href="mailto:umgdy@umgdy.gov.pl">umgdy@umgdy.gov.pl</a>, <a href="mailto:ios@umgdy.gov.pl">ios@umgdy.gov.pl</a></p>

<p><b>Maritime Office in Słupsk</b> ul. H. Sienkiewicza 18 76 -200 Słupsk</p> <p>Maritime Environmental Protection Inspectorate</p>	<p>EMERGENCY: Duty Officers in Słupsk: Tel./fax : +48 59 814 6204 Tel.: +48 59 814 45 33 Tel.: +48 59 814 48 89 e-mail: <a href="mailto:slupsk-traffic@umsl.gov.pl">slupsk-traffic@umsl.gov.pl</a></p> <p>Tel.: +48 59 8474 214 Fax: +48 59 8474 255 E-mail : <a href="mailto:ios@umsl.gov.pl">ios@umsl.gov.pl</a></p>
<p>Ministry of Maritime Economy and Inland Navigation Department for Maritime Economy ul. Nowy Swiat 6/12 00-400 Warsaw</p>	<p>Tel : +48 22 583 8570 Fax : +48 22 583 8571 e-mail: <a href="mailto:sekretariatDGM@mgm.gov.pl">sekretariatDGM@mgm.gov.pl</a></p>

For more information on responsibility for counter-pollution measures at sea as well as on oil recovery equipment, please visit the following links:

<http://www.sar.gov.pl>

<http://www.ums.gov.pl>

<http://www.umgdy.gov.pl>

<http://www.umsl.gov.pl>

<http://www.mgm.gov.pl>

#### **Aerial surveillance – responsible authorities**

<p>Maritime Office in Gdynia Ul. Chrzanowskiego 10 PL-81 338 Gdynia</p>	<p><b>Tel:</b> +48 (58) 355 36 10, +48 (58) 35536 11 <b>Fax:</b> +48 58 620 53 28, +48 58 620 53 63 E-mail: <a href="mailto:vts.centrum@umgdy.gov.pl">vts.centrum@umgdy.gov.pl</a></p>
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Polish link: [http://www.umgdy.gov.pl/?page\\_id=1537](http://www.umgdy.gov.pl/?page_id=1537)

#### **Contact points of joint aerial surveillance in the Baltic**

<p>Maritime Office in Gdynia Ul. Chrzanowskiego 10 PL-81 338 Gdynia</p>	<p><b>Tel:</b> +48 58 21 61 62 (24 hours) +48 58 20 58 25 <b>Fax:</b> +48 58 20 67 43</p>
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Polish link: <http://osc.ums.gov.pl/modules.php?name=Sections&op=viewarticle&artid=23>

## 1.9 RUSSIA (RU)

### National Contact Points

<b>Emergencies (24 hrs)</b>	
Baltic branch «Marine Rescue Service» 1, Elevatornaya Ploshchadka St. Petersburg, 198096	<b>Tel:</b> +7 812-784 02 20 (office hrs), +7 812-784 98 08 <b>Fax:</b> +7 812 784 07 55 <b>E-mail:</b> <a href="mailto:info_balt@morspas.com">info_balt@morspas.com</a> <b>E-mail:</b> <a href="mailto:od_balt@morspas.com">od_balt@morspas.com</a> (officer on duty) <b>Web address:</b> <a href="http://morspas.com/balt">http://morspas.com/balt</a>
Maritime Rescue Coordination Centre (MRCC St.Petersburg) 10, Gapsal'skaya Street, St. Petersburg, 198035	<b>Tel:</b> +7 812-327 41 47/718 89 95 (office hrs), +7 812-718 89 45 (Head) +7 812-495 89 95 (24 hrs) <b>Fax:</b> +7 812-327 41 46 <b>Telex:</b> 121512 RCC RU <b>Inmarsat-C:</b> 492 509 012 <b>Inmarsat-Mini-M:</b> 761 319 893 <b>E-mail:</b> <a href="mailto:mrcc@mail.pasp.ru">mrcc@mail.pasp.ru</a>
Maritime Rescue Coordination Centre (MRCC Kaliningrad) 59, Portovaya Str., Kaliningrad, 236039	<b>Tel</b> +7 4012-53 84 70/53 81 53 (office hrs), <b>Tel</b> +7 4012-63 24 43 (24 hrs) <b>Fax:</b> +7 4012-64 31 99 <b>Telex:</b> 262193 MRCC RU <b>Inmarsat-Mini-M:</b> 762 830 387 <b>E-mail:</b> <a href="mailto:mrckld@pasp.ru">mrckld@pasp.ru</a>
<b>Inquiries</b>	
Federal State Budgetary Institution «Marine Rescue Service» (MRS) 3/6, Petrovka Street, Moscow, 125993	<b>Tel:</b> +7 495 626 18 08 (office hrs), +7 495 626 18 07 (office hrs) + 7 495 626 10 52 (24 hrs) <b>Fax:</b> +7 495 626 18 09 <b>E-mal:</b> <a href="mailto:info@morspas.com">info@morspas.com</a> <b>Web address:</b> <a href="http://www.morspas.com">www.morspas.com</a>

## 1. RESPONSIBILITY FOR COUNTER-POLLUTION MEASURES AT SEA AND ON LAND

Federal State Budgetary Institution «Marine Rescue Service» (MRS) together with the Baltic branch forms a functional subsystem of forces and means being a part of unified State Structure of oil response and recovery in case of emergency situations.

MRS is a federal state institution subordinate to the Federal Agency of Maritime and River Transport which in its turn is subordinate to the Ministry of Transport of the Russian Federation.

MRS is an organization responsible for practical fulfillment of the Russian Federation obligation in accordance with conventions for search and rescue of distressed people at the sea, rendering

assistance for the distressed vessels, oil spill preparedness and response, as well as several intergovernmental bilateral agreements in the field of oil spill combating.

Baltic branch «Marine Rescue Service» is an official representative of MRS in the Baltic Sea.

### 1.1. ORGANIZATION

The levels of oil spill contingency planning determines in accordance with the rules and regulations assigned by the legislation of the Russian Federation:

The levels of national oil spill response are identified by:

- Federal Plan;
- Regional (basin) Plan;
- Objective Plans.

Depending on the volume of spilled oil for the Objective Plans at sea the following emergency situations of the proper categories can be identified:

- Local – the initial volume of oil spill till 500 tons (determines by the specially appointed Federal Authority of the executive power in the sphere of environment protection) ;
- Regional – the volume of oil spill from 500 till 5 000 tons;
- Federal - the volume of oil spill over 5 000 tons.

(1) Baltic branch «Marine Rescue Service» is responsible for oil spill combating in the open sea.

(i) The local authorities are responsible for oil pollution combating on the beaches and on the coastlines.

(ii) The Harbor Master is responsible for oil pollution combating in the port and harbor areas.

(iv) The oil and/or chemical spill combating action is initiated by MRS or by polluter or by operator of the port area in which the oil/chemical pollutant has been found – after giving notification.

### 1.2. GENERAL COMBATTING POLLUTION POLICY

For combating oil/chemical pollution at the sea the Russian combating pollution policy is based on two different approaches. The first, as priority, is to collect oil mechanically by any available skimmers and/or absorbents. The second is to use dispersants or bioproducts which is strongly limited and requires written permission from the Federal Supervisory Natural Resources Management Service, the Federal Agency for Fishery and the Federal Service for the Oversight of Consumer Protection and Welfare.

### 1.3. PREPAREDNESS

Baltic branch «Marine Rescue Service» provides oil pollution preparedness at the Russian response zone of the Baltic Sea. General Director of Baltic branch «Marine Rescue Service» acts as On-Scene Commander during the oil spill response operation at sea.

SMPCSA, if its own forces are not sufficient and pollution seems to be sever, can request the international assistance throughout the Ministry of Transport of the Russian Federation.

The combating operations are performed accordingly to the Regional Oil Spill Contingency Plan in the Russian Area of responsibility at the Baltic Sea which was approved and implemented in 2005.

<b>EQUIPMENT</b>	<b>TOTAL</b>	<b>APPROXIMATE DAILY RATE</b>
<b>1. Oil recovery vessels</b>		
1.1. m/v YASNYI – supply vessel, 7200 hp, Length 82 m, Capacities 300 m <sup>3</sup> , 70 m <sup>3</sup> /h	1	13000 USD/UNIT
1.2. t TOPAS - tug/salvage, 4000 hp, Length 59 m, Capacities 120 m <sup>3</sup> , Bollard Pull 35 t, Brake holding on 1-st layer 40 t	1	7000 USD/UNIT
1.3. Rescue boom speed boats of “HARDING 1500” type, Length 15 m	3	2000 USD/UNIT
1.4. “NMS” – special vessel for , Length 17,7 m	3	1000 USD/UNIT
1.5. “KARAT” – oil and garbage recovery vessel, Length 8 m	1	700 USD/UNIT
1.6. “KARAT-2” – boom defence installation boat, Length 7,5 m	1	700 USD/UNIT
1.7. “KIT”, “Pribreshny” – environmental protection vessels, Length 33.6 m	2	2500 USD/UNIT
1.8. «SPRUT-2» - non-propelled craft for salvage operation, Length 28.6 m	1	1800 USD/UNIT
1.9. “VYBORG” – tug, Length 32 m	1	3000 USD/UNIT
1.10. “PORTOVYY-1” – tug, Length 21,5 m	1	2200 USD/UNIT
1.11. “GENNADY KOGUKHOV” - boom-setting vessel, Length 19,8 m	1	5000 USD/UNIT
1.12. “EVGENY MOROZOV” - boom-setting vessel, Length 19,8 m	1	5000 USD/UNIT
1.13. “VODOLAZ LITVIN” – diving boat, 27,2 m	1	5000 USD/UNIT
1.14. “VODOLAZ CHABANENKO” – diving boat, 27,2 m	1	5000 USD/UNIT
1.15 “VODOLAZ GRICAY” – diving boat, 27,2 m	1	5000 USD/UNIT
1.16. “VODOLAZ-6” – sea diving vessel, Length 18 m	1	4000 USD/UNIT
1.17. “ALPHARD” – oil spill response boom setting vessel, Length 27,8 m	1	5000 USD/UNIT
1.18. “ALLOT” – oil spill response boom setting vessel, Length 19,5 m	1	3000 USD/UNIT
1.19. “ARNEB” – oil spill response boom setting vessel, Length 19,5 m	1	3000 USD/UNIT
1.20. “EKO-1” – catamaran, equipment vessel-carrier, Length 25,9 m	1	3000 USD/UNIT
1.21. “SPASATEL KAREV” – multifunctional rescue vessel, Length 73 m	1	16000 USD/UNIT
1.22. “BALTIKA” – multifunctional rescue vessel, Length 76 m	1	20000 USD/UNIT
1.23. “IGOR ILYIN” – multifunctional rescue vessel, Length 45 m	1	10000 USD/UNIT
1.24. “BALTIYSKY ISSLEDOVATEL” – multifunctional rescue vessel, Length 65,5 m	1	20000 USD/UNIT

## 1. Information by the Contracting Parties

### 1.10 SWEDEN (SE)

#### National Contact Points for spills at sea, on shore and oiled wildlife response

<b>Emergencies (24 hrs)</b>	
Swedish Coast Guard, NCP	<b>Tel:</b> +46 776 70 60 00 (24 hours) <b>Fax:</b> +46 31 297 395 (24 hours) <b>E-mail:</b> <a href="mailto:lc@coastguard.se">lc@coastguard.se</a>
<b>Inquiries (office hrs)</b>	
<b>Spills at sea</b> Swedish Coast Guard, Headquarter Stumholmen SE-371 23 Karlskrona	<b>Tel:</b> +46 776 70 70 00 <b>Fax:</b> +46 455 105 21 <b>E-mail:</b> <a href="mailto:registrator@coastguard.se">registrator@coastguard.se</a>
<b>Spills on shore</b> Swedish Civil Contingencies Agency MSB Duty Officer	<b>Tel:</b> +46 54 150 150 <b>Fax:</b> +46 10-240 56 00 <b>E-mail:</b> <a href="mailto:tib@msb.se">tib@msb.se</a>
<b>MAS Maritime Assistance Service operational contact point 24 hours</b>	
Joint Rescue Coordination Centre (JRCC Sweden) Swedish Maritime Administration / JRCC P.O. Box 5158 S-426 05 Västra Frölunda	<b>Tel:</b> +46 31 69 90 50 (24 hours) <b>Fax:</b> +46 31 64 80 10 (24 hours) <b>Email:</b> <a href="mailto:jrcc@sjofartsverket.se">jrcc@sjofartsverket.se</a>
<b>Inquiries MAS (office hrs)</b>	
The Swedish Transport Agency Transportstyrelsen S-601 73 Norrköping	<b>Tel:</b> + 46 771-503 503 <b>Fax:</b> + 46 11-18 52 56 <b>Email:</b> <a href="mailto:kontakt@transportstyrelsen.se">kontakt@transportstyrelsen.se</a>

For more information on responsibility for Maritime Assistance Service (MAS), please visit the following link: <https://www.transportstyrelsen.se/en/shipping/Accidents--near-misses/Maritime-Assistance-Service-MAS/>

#### Aerial surveillance – responsible authorities

Swedish Coast Guard Headquarters Box 536 SE-371 23 Karlskrona	<b>Tel:</b> + 46 455 35 34 00 <b>Fax:</b> + 46 455 105 21 <b>E-mail:</b> <a href="mailto:registrator@coastguard.se">registrator@coastguard.se</a>
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Swedish link: <https://www.kustbevakningen.se/en/supplies-technology/aircraft/>

#### Contact points of joint aerial surveillance in the Baltic

<b>Administrative contact Point (for inquiries, office hours)</b>	
Swedish Coast Guard Flight Command Pilotgången 4 SE-611 92 Nyköping	<b>Tel:</b> + 46 155 46 71 00 <b>Fax:</b> + 46 155 28 63 73 <b>E-mail:</b> <a href="mailto:flygkoordinator@coastguard.se">flygkoordinator@coastguard.se</a>
<b>Emergencies (24/7)</b>	
Swedish Command Center Gothenburg Käringberget 426 76 Västra Frölunda	<b>Tel:</b> +46 31 727 91 00 <b>Fax:</b> +46 31 29 73 95 <b>E-mail:</b> <a href="mailto:lc@coastguard.se">lc@coastguard.se</a>

Swedish link: <https://www.kustbevakningen.se/en/about-us/contact-us/>

## **2. RESPONSE REGIONS**

### **2.1. AREAS OF NATIONAL RESPONSIBILITIES**

According to Regulation 4, Annex VII of the Helsinki Convention and HELCOM Recommendation 2/7 concerning the Delimitation of Response Regions for Combatting Marine Pollution, the Contracting Parties are obliged, *inter alia*, to agree bilaterally or multilaterally on those regions of the Baltic Sea in which they will conduct aerial surveillance activities and take action for combatting and salvage activities. As a principle the response regions should coincide with the boundaries of the Exclusive Economic Zones, where applicable.

### **2.2. SUB-REGIONAL AGREEMENTS**

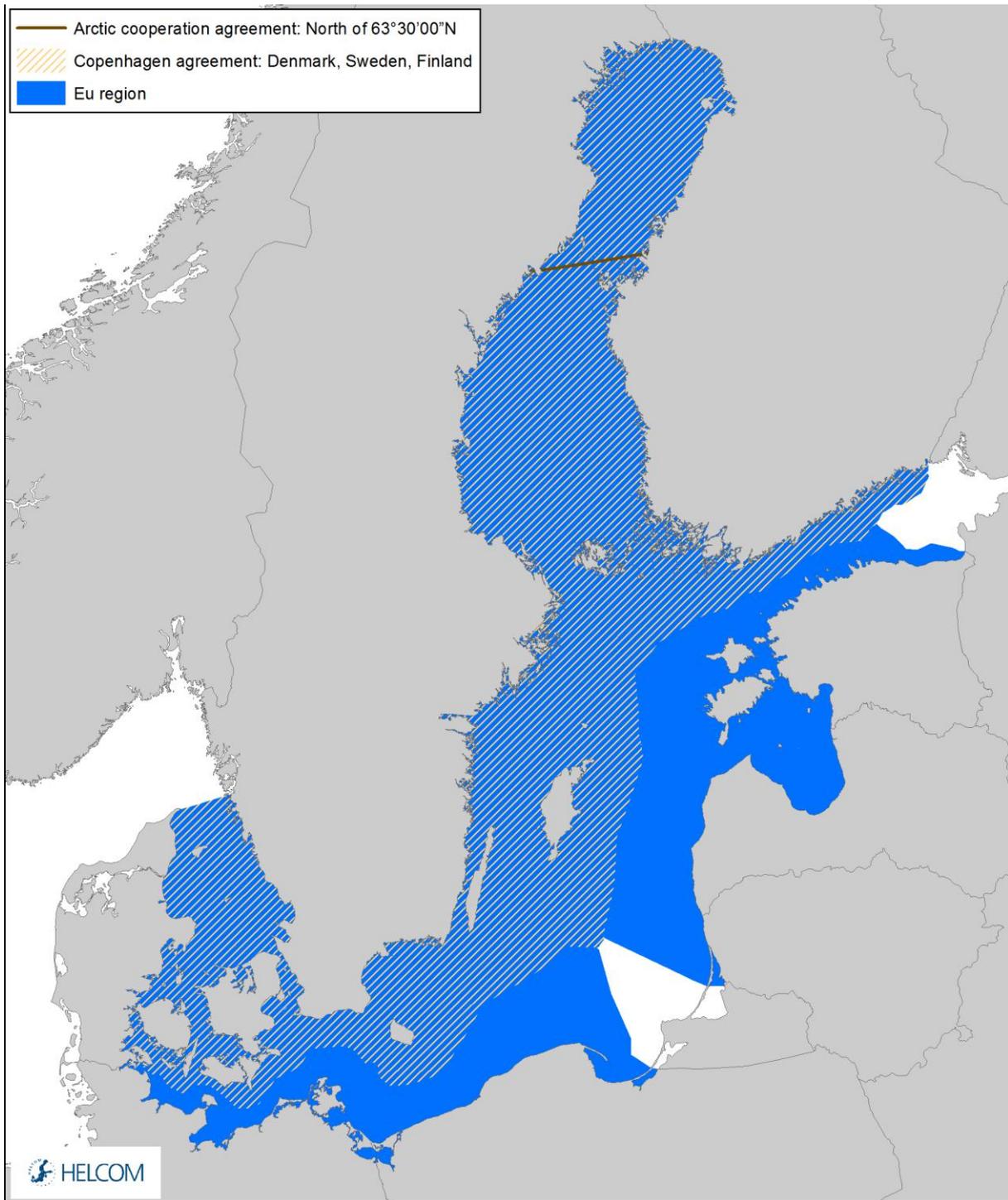
The present situation of sub-regional agreements agreed according to Regulation 4 of the Helsinki Convention is shown in the maps and table below.

It should be noted that in some sub-regions of the Baltic Sea also other agreements than the Helsinki Convention and the sub-regional agreements listed in this chapter are applied. Examples include the Copenhagen Agreement<sup>1</sup> applied in the Baltic within the exclusive economic zones of Denmark, Sweden and Finland, the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic<sup>2</sup> applied in the Bothnian Bay north of 63°30'00"N and EU regulations, applied in those Baltic States which are also EU Members.

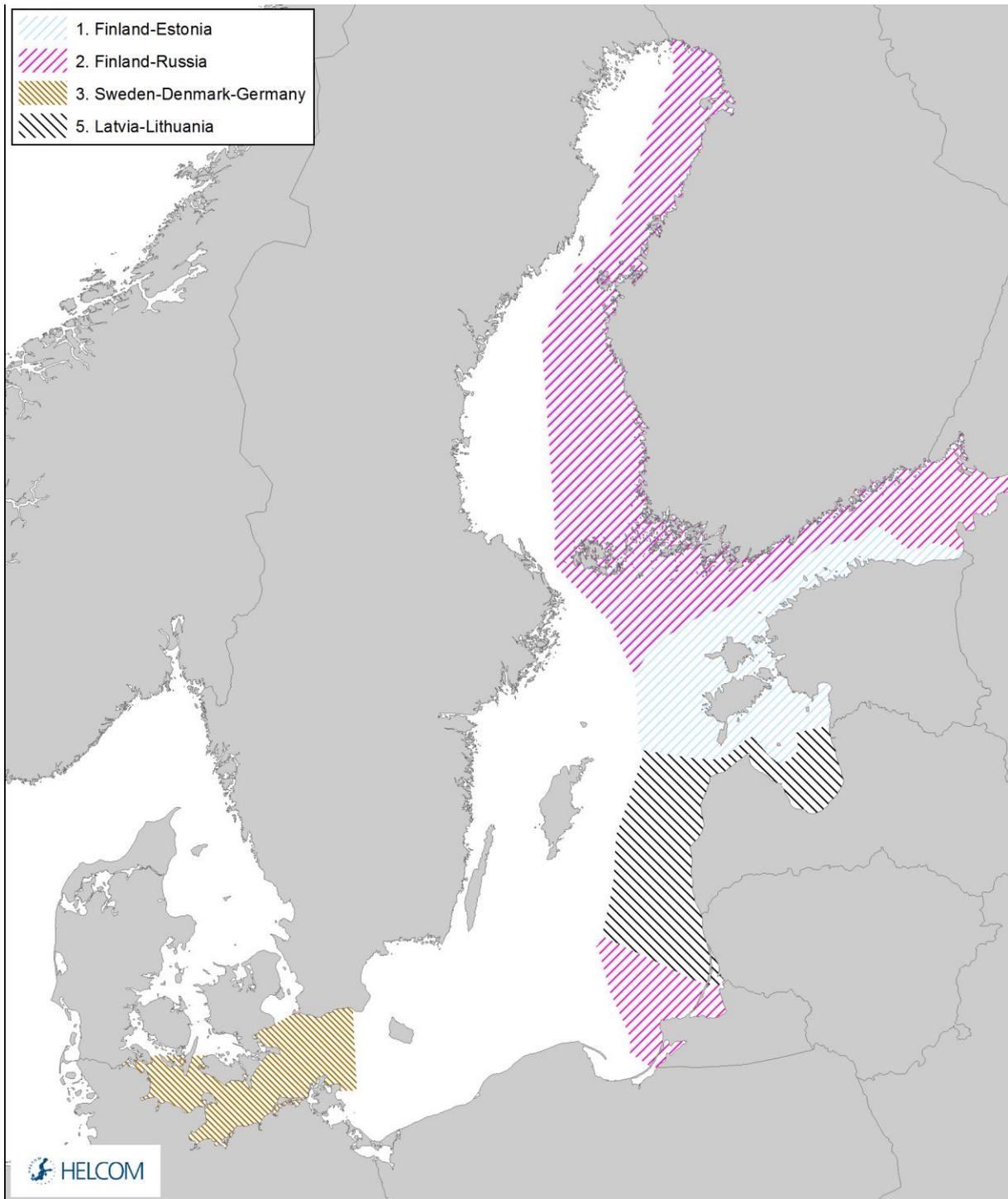
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1 Copenhagen Agreement between Denmark, Finland, Iceland, Norway and Sweden about Cooperation concerning Pollution Control of the Sea after Contamination by Oil or other Harmful Substances.

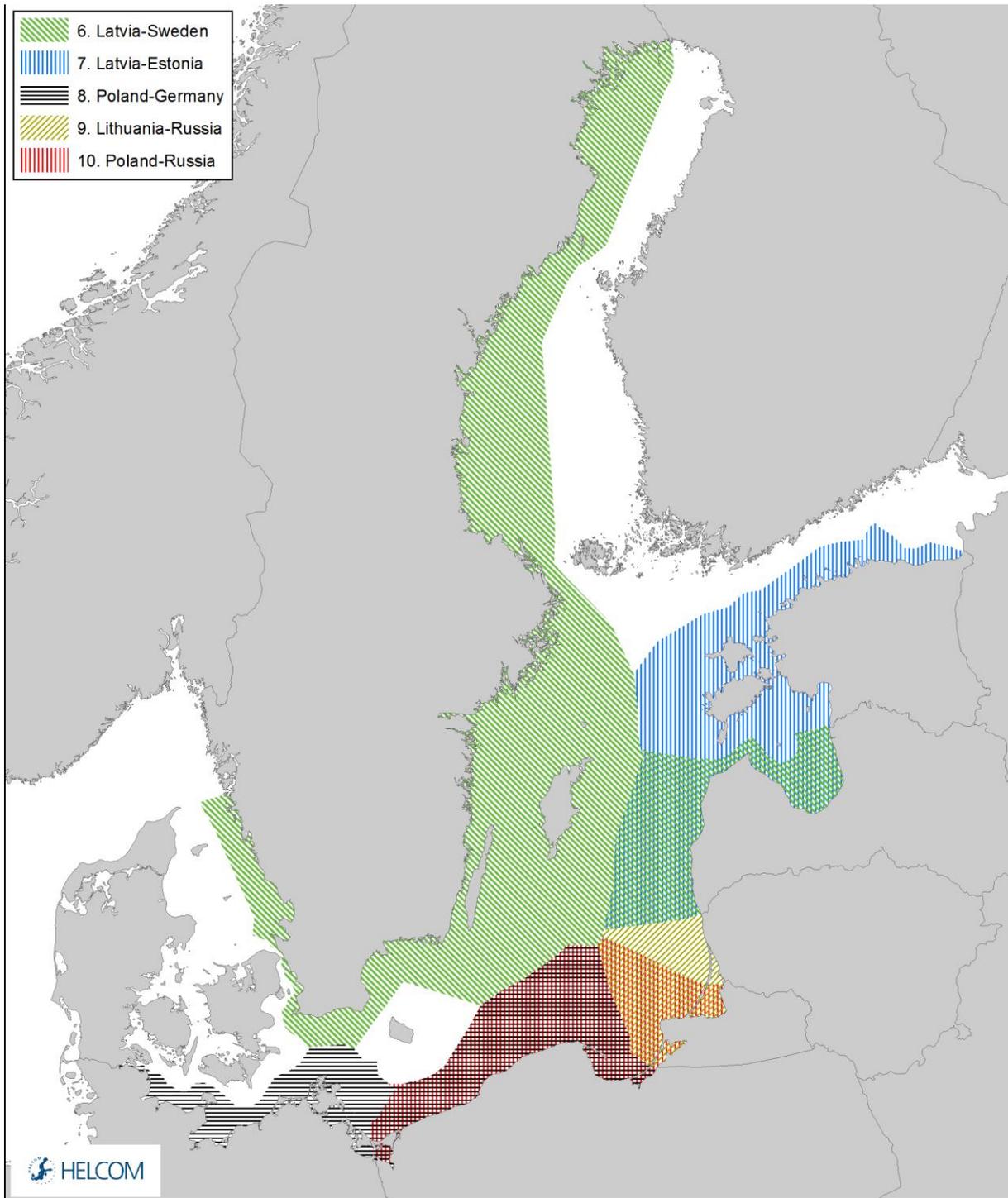
2 Arctic Agreement between Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States



Map 1



Map 2



Map 3

**Existing bi- and multilateral agreements on joint response operations and response plans in response regions**

Countries	Sea area covered	Agreements and annexes Other related documents	Date	Subjects covered	Remarks
1. Estonia - Finland	The marine area under the jurisdiction of a Party, the boundary line of the economic zone or continental shelf (central line) determined on the basis of the international law	Agreement between the Government of the Republic of Estonia and the Government of the Republic of Finland on cooperation in combatting pollution in the marine environment	Signed 8.12.1993	Competent Authorities, Notification of Pollution, Assistance, Management of Operations, Withdrawal of Assistance for Combatting Pollution, Simplification of Access Formalities, Regular Cooperation, Compensation of Costs, Compensation of Damage, Plan of Cooperation to Combat Pollution, Settlement of Disputes, Relations with Other International Agreements	Operational agreement
		Memorandum with Finland concerning the patrol flights coordinated planning and executing; signed by heads of Finnish and Estonian Border Guard	26.8.2009		Operational
2. Finland - Russia	As defined in Agreement of 6 October 1983 between the Government of the Republic of Finland and the Government of the Union of Soviet Socialist Republics. Agreement on the distribution of areas of responsibility according to the Convention on the protection of the marine environment of the Baltic Sea area	Agreement between the Government of the Republic of Finland and the Government of the Union of Soviet Socialist Republics on co-operation in combatting pollution of the Baltic Sea in accidents involving oil and other harmful substances  Finnish Environment Institute and the State Marine Pollution Control and Salvage of the Russian Federation: Joint Finnish - Russian contingency plan for combatting pollution of the Baltic Sea	26.10.1989  2003	Notification of an incident, Request for assistance, Operational command Termination of combatting assistance, Facilitation of access, Exchange of information Scientific technological co-operation, Joint exercises, Reimbursement, Harmful substances in packaged form, Joint contingency plan, Relation to other international agreements  Responsibility, Definitions, Relations to HELCOM response Manual, Notification of an incident, Request for assistance, Main principles and procedures, Command structure, Termination of assistance, Post incident report, Other cooperation	Operational through joint contingency plan

Countries	Sea area covered	Agreements and annexes Other related documents	Date	Subjects covered	Remarks
3. Sweden – Denmark - Germany	Western Baltic Sea area:  1. Trilateral area (SWE-DE-GE) south from Sweden and west from Denmark (Arkona Basin)  2. Bilateral are (DE-GE) north from Germany (Kiel Bight, Mecklenburgh Bight  Map and coordinates in the agreement, Annex II	Joint Swedish-Danish-German Response Plan to maritime incidents involving Oil and other Harmful Substances and Co-operation in Aerial Surveillance (SWEDENGER)  Annexes: I Map of Response Regions in the Baltic Sea  II National Contact Points and Responsible Authorities  Annex III: Scheme of Communication  Annex IV: Special regulations “Aerial Surveillance” + Appendix I “Communication plan for aircraft during surveillance operation  Annex V: Exercises  Annex VI: Ships and aircraft with diplomatic clearance in advance	2002	Information, Activation, Reporting, Coordination, Responsibility and Diplomatic Clearance  Principles for response to pollution  Aerial Surveillance  Financial Matters  Exercises	Operational
4. Sweden – Estonia - Latvia	The eastern Gotland Basin and Gulf of Riga (map and coordinates in the agreement)	Sub-regional plan for Estonia, Latvia and Sweden, common waters in the northern part of the Baltic Sea (SWEESTLAT)	not signed yet	Risk assessment for the sea, Resources, Plan for improving the response capacity, Places of refuge, Future work	Operational
5. Latvia - Lithuania	Territorial waters or economic zones of both Parties	Agreement Between The Government Of The Republic Of Latvia And The Government Of The Republic Of Lithuania On The Mutual Support In The Event Of Natural Disasters And Other Large-Scale Accidents <a href="#">[Link]</a>  Attachment:: Technical Protocol between LV and LT governments on Exchange of Information on Emergency Ecological Situations	Signed 31.5.2001  2001	Authorised Bodies, Forms of Assistance, Border Crossing, Transportation of Equipment and Aid Supplies across the Border, Employment of Aircraft, Joint Leadership and Co-ordination, Reimbursement of Costs, Compensation of damages, Other Co-operation, Communications, Settlement of Disputes and Disagreements, Relationship with the Other International Agreements	Not operational? Covers not only marine pollution; Rules for reimbursement of assistance different from HELCOM rules

Countries	Sea area covered	Agreements and annexes Other related documents	Date	Subjects covered	Remarks
6. Latvia - Sweden	Territorial waters or economic zones of both Parties	Agreement Between The Government Of The Republic Of Latvia And The Government Of The Kingdom Of Sweden On Collaboration Within The Field Of Emergency Prevention, Preparedness And Response <a href="#">[Link]</a>	2002	Mutual assistance, operational responsibility, border crossing, permission to entry, reimbursement of costs, liability, procedures and plans, competent authorities	Not operational
7. Latvia - Estonia	Territorial waters or economic zones of both Parties	Agreement Between the Government of the Republic of Latvia and the Government of the Republic of Estonia on Co-operation in the Combating of the Effects of Marine Pollution Incidents <a href="#">[Link]</a>	Signed 16.1.2014	Competent authorities, notification of an incident, assistance, termination of assistance, reimbursement of costs of assistance, command of combating operations, facilitation of access, maintenance of assisting units and equipment	Operational
8. Poland - Germany	Pomeranian Bay	Operational Agreement (working level) on Co-operation and Response Activities between the Public Services of the Republic of Poland and of the Federal Republic of Germany responsible for those activities concerning marine accidents and combating marine pollution by oil and other harmful substances	20.11.2001	Competent authorities, Reference to HELCOM Manual and procedures, list of available vessels and strike teams, crossing borders, right to begin response action, rules for costs reimbursement	Operational
		"Bilateral agreement on ministry level, the "Joint Polish-German Response Plan to pollution incidents on the Baltic Sea Area involving Oil and other Harmful Substances, POLGER Plan" is developed and is at the final stage of consultations. This agreement will replace the operational agreement.		Competent authorities, Reference to HELCOM Manual and procedures, list of available vessels and strike teams, crossing borders, right to begin response action, rules for costs reimbursement	Operational
9. Lithuania - Russia	Territorial waters or economic zones of both Parties	Bilateral agreement between Lithuania and Russia on joint actions to prevent pollution of the Baltic Sea by oil and hazardous substances	8.10.2009	Under the agreement a joint contingency plan developed	Operational through joint contingency plan
	Territorial waters or economic zones of both Parties	Contingency plan between Lithuania and Russia on cooperation in combating marine pollution of the Baltic Sea by oil and hazardous substances	25.04.2012	Competent authorities, Responsibility, Main principles and procedures, Notification of an incident, Request for assistance, Operational command structure, Exchange of information, Termination of assistance, Facilitation of access, Post incident report, Reimbursement of cost of assistance, Joint exercises and meetings.	Operational

Countries	Sea area covered	Agreements and annexes Other related documents	Date	Subjects covered	Remarks
10. Poland - Russia	Baltic Sea and the Vistula Lagoon, Territorial waters or economic zones of both Parties	Agreement between the Government of the Republic of Poland and the Government of Russian Federation on cooperation in combating marine pollution of the Baltic Sea and the Vistula Lagoon by oil or other harmful substances  The operational plan based in this agreement is developed. The Plan has already been agreed at the expert level, and the arrangements for its signature are consulted within the countries.	6.12.2010	Competent authorities, Reference to HELCOM Manual and procedures, list of available vessels and strike teams, crossing borders, right to begin response action, rules for costs reimbursement	Operational
11. Estonia - Russia		Estonian-Russian cooperation agreement on accident response is under development and will be discussed during the meeting at the end of February 2014.			

### 2.3. RESPONSE COOPERATION ZONES

The Response Working Group identified the need to define response cooperation zones in the Baltic Sea to be used i.e. in interpreting and revising HELCOM Recommendations 28E/12 and 31/1. The indicative response cooperation zones, Western Baltic, Baltic Proper, Gulf of Finland and Gulf of Bothnia, are included in Map 4.



Map 4. Indicative HELCOM response cooperation zones and EEZs.

### 2.3.1. Definitions of the response cooperation zones

#### *Border between zone 1 and the North Sea*

The line separating zone 1 from the North Sea is the Baltic Sea bounded by the parallel of the Skaw in the Skagerrak at 57° 44.43'N (Skaw-Gothenburg).

#### *Border between zones 1 and 2*

The line connecting the following points:

1	56° 16' 59,187''' N	15° 35' 4,844''' E
2	56° 8' 17,654''' N	15° 32' 37,481''' E
3	55° 36' 24,708''' N	15° 23' 47,190''' E
4	55° 21' 0,191''' N	16° 30' 18,029''' E
5	55° 13' 18,006''' N	16° 22' 12,003''' E
6	54° 42' 14,999''' N	15° 43' 2,999''' E
7	54° 37' 30,001''' N	15° 30' 0,000''' E
8	54° 35' 17,999''' N	15° 20' 0,000''' E
9	54° 32' 26,997''' N	14° 55' 5,999''' E
10	54° 32' 33,609''' N	14° 37' 22,422''' E
11	54° 32' 8,401''' N	14° 38' 8,171''' E
12	54° 31' 55,503''' N	14° 37' 37,949''' E
13	54° 29' 54,203''' N	14° 44' 52,665''' E
14	54° 9' 58,145''' N	14° 20' 50,735''' E
15	54° 7' 32,937''' N	14° 14' 14,868''' E
16	54° 7' 34,138''' N	14° 12' 5,044''' E
17	53° 59' 15,762''' N	14° 14' 31,521''' E
18	53° 51' 28,904''' N	14° 11' 49,254''' E
19	53° 36' 48,899''' N	14° 6' 46,308''' E

#### *Borders between zones 2, 3 and 4*

The line from the Northern Baltic trilateral EEZ junction point, estimated as 58° 51,51', 020° 29,42', to the coasts as follows:

Estonia: a straight line from trijunction to Hiiumaa (Ristna light) (58° 56' 24" N, 022° 03' 19" E) and continuing to Estonian mainland (59°0'7,053", 23°38'0,034").

Finland: 60° 01,83', 022° 47,00'  
59° 52,51', 022° 49,62'  
59° 24,19', 022° 31,37'  
59° 23,16', 022° 09,30'  
59° 11,37', 021° 11,27'  
58° 51,51', 020° 29,42'

Sweden: a line westbound to Landsort light house to latitude. N 58 44,2 and longitude E 0 17

### 3. REPORTING PROCEDURES

#### 3.1 POLLUTION REPORT BALTIC (POLREP BALTIC)

##### Description of the System

The Pollution Reporting System is for use between combatting authorities to exchange information when pollution of the sea has occurred or when threat of such is present.

The POLREP BALTIC is divided into 3 parts:

Part I or POLWARN (figures 1-5)	<u>POLL</u> ution <u>WARN</u> ing	gives information or warning of pollution or threat of pollution
Part II or POLINF (figures 40-60)	<u>POLL</u> ution <u>IN</u> formation	gives detailed supplementary information
Part III or POLFAC (figures 80-99)	<u>POLL</u> ution <u>FAC</u> ilities	deals with matters related to assistance

The division into three parts is only for identification purposes. For this reason consecutive figures are not used. This enables the addressee or addressees to recognize merely by looking at the figures whether dealing with Part I (1-5), Part II (40-60) or Part III (80-99). This method of division shall in no way exclude the use of all figures in a full report or the separate use of single figures from each part or the use of single figures from different parts mixed in one report.

When Part I is used as a warning it should be transmitted to the combatting authority or authorities which may be affected and to the Secretariat of the Helsinki Commission, and it shall always be transmitted with the traffic priority URGENT. Such a message should always be followed up by a supplementary POLREP or be cancelled.

Part II is used to give detailed information about the incident.

Part III is used for matters related to assistance and a POLREP BALTIC including numbers from Part III can, if deemed necessary, be transmitted with the traffic priority URGENT.

The report should be in English. Each single report should be identifiable. The receiving combatting authority should be in a position to check if all reports of the incident in question have been received. This is done by using a serial number preceded by a national identification, e.g. "DK 1/1".

---

The national identifiers are the following:

Denmark	DK
Estonia	EE
European Commission	EC / EMSA
Finland	FI
Germany	DE
Latvia	LV
Lithuania	LT
Poland	PL
Russia	RU
Sweden	SE

The number before the stroke indicates the incident to which the report refers, and the number following the stroke indicates the actual number of reports which have been originated on the incident in question.

"DK 1/1" thus indicates the first report of the incident in question.

"DK 1/2" will in accordance with the described system then indicate the second report of the same incident.

The last and final POLREP will show as follows: "DK 1/5 FINAL" which means that this is the fifth and final report concerning the first pollution.

If the pollution caused by the incident splits up in clearly separate patches - in this example two - the wording "DK 1/2 now splitting in DK 2 and 3" should be indicated in the last report from the incident identified by figure 1 preceding the stroke.

The first reports from the two patches originating from the incident first reported will then be numbered DK 2/1 and DK 3/1, and forth running numbering after the stroke could then be used.

In order to keep the receivers of POLREP informed of all the transmitted reports, the combatting authority sending the POLREP must after the serial number include information on the recipients of the earlier transmitted POLREPs, e.g.

DK 2/5 -      DK 2/1 for DE and SE  
                  DK 2/2 for DE  
                  DK 2/3 for SE  
                  DK 2/4 for DE and SE

Concerning the figures 5, 60 and 99, it is emphasised that ACKNOWLEDGE made by the combatting authority addressed should be with reference to the serial number in question, e.g. "your DK 2/1".

By answering a POLREP the serial number used by the transmitting combatting authority is to be used as reference in the answer (cf. above).

If the POLREP is used in exercises the text is to be introduced with the word EXERCISE and finished with this word three times. The same procedure should also be used for the following reports which deal with the exercise.

Detailed explanations of the different figures in Part I, II and III of the POLREP BALTIC as well as examples of POLREP BALTIC are given in Chapter 5.2.

### **3.2 POLLUTION REPORT BALTIC (POLREP BALTIC)**

#### **Detailed Information on the System**

Chapter 3.1 gives a description of the POLREP BALTIC system in general terms.

This Chapter gives a summarized list on POLREP BALTIC and detailed explanations of the report heading (address, priority, DTG, identification, and serial number). This Chapter further contains POLREP BALTIC sample messages illustrating how the system could be used for different purposes.

#### Summarized list on POLREP BALTIC

Address      from.....  
                  to.....

URGENT      (only when POLREP BALTIC is used as POLWARN or POLFAC)

Date            Time            Group

Identification

Serial Number

#### PART I (POLWARN)

1. Date and time
2. Position
3. Incident
4. Outflow
5. Acknowledge

---

-----

PART II (POLINF)

40. Date and time
41. Position
42. Characteristics of pollution
43. Source and cause of pollution
44. Wind direction and speed
45. Current or tide
46. Sea state and visibility
47. Drift of pollution
48. Forecast
49. Identity of observer and ships on scene
50. Action taken
51. Photographs or samples
52. Names of other states informed
53. Report on oiled wildlife
54. Action taken on oiled wildlife
55. Forecast oiling of wildlife
56. Evidence taken from oiled wildlife
57. -
59. Spare
60. Acknowledge

---

-----

PART III (POLFAC)

80. Date and time
81. Request for assistance
82. Cost
83. Pre-arrangements for the delivery
84. Assistance to where and how
85. Other states requested
86. Change of command

- 87. Exchange of information
- 88. Request for wildlife response assistance
- 89. Pre-arrangement for wildlife response assistance
- 90. To where wildlife assistance should be rendered
- 91. -
- 98. Spare
- 99. Acknowledge

**HEADING**

**REMARKS**

URGENT

Traffic Priority to be used when POLREP BALTIC is used as POLWARN or POLFAC.

DTG (date time group)

Day and time for drafting of the telex (DTG). Always 6 figures. Can be followed by month indication. The time should be given in UTC (Universal Time Coordinator).

POLREP BALTIC

This is the identification of the report. "POL..." indicates that the report might deal with all aspects of pollution (oil and other harmful substances).

"...REP" indicates that this is a report on a pollution incident. It can contain up to 3 main parts:

PART I (POLWARN)

is an initial notice giving information or warning of pollution or threat of pollution.

This part of the report is numbered from 1-5.

PART II (POLINF)

is a detailed supplementary report to Part I.

This part of the report is numbered from 40-60.

PART III (POLFAC)

is related to assistance.

This part of the report is numbered from 80-99.

"BALTIC" is to identify that the reporting is within the context of the Helsinki Convention.

Part I, II and III can be transmitted in one report or in separate reports. Furthermore, single figures from each part can be transmitted separately or combined with figures from the two other parts. Figures without additional text must not be used.

POLREPs containing "ACKNOWLEDGE" figures (5, 60 or 99) should be acknowledged as soon as possible by the combatting authority addressed.

The reporting combatting authority shall indicate by telefax when no more operational communication on that particular incident can be expected.

---

NATIONAL  
IDENTIFIER AND  
SERIAL NUMBER

Each single report should be possible to identify and the receiving agency should be in a position to check whether all reports of the incidents in question have been received. This is done by using a national identifier (cf. Chapter 5.1) followed by a stroke system where the figure before the stroke indicates the incident to which the report refers, and the figure following the stroke indicates the actual number of reports which have been originated on the incident in question.

"DK 1/1" thus indicates the first report from Denmark of the incident in question within the Helsinki Convention context.

"DK 1/2" will in accordance with the described system then indicate the second report from the same incident.

If the pollution caused by the incident splits up in clearly defined patches - in this example two - the wording "DK 1 now splitting into DK 2 and 3" should be indicated in the last report on the incident identified by figure 1 preceding the stroke.

The first reports on the two patches originating from the incident first reported will then be numbered "DK 2/1" and "DK 3/1" and consecutive numbers after the stroke could then be used.

---

**ITEM NUMBERS**

- 1. **DATE AND TIME**                      The day of the month as well as the time of the day when the incident took place or if the cause of the pollution is not known, the time of the observation should be stated with 6 figures. Time should be stated in UTC, for example 091900 (i.e. the 9th of the relevant month at 1900 UTC)

---

- 2. **POSITION**                              The main position of the incident in latitude and longitude in degrees and minutes or by bearing and distance from a location known to the addressee.

---

- 3. **INCIDENT**                              The nature of the incident should be stated here, such as BLOWOUT, TANKER GROUNDING, TANKER COLLISION, OIL SLICK, etc.

---

- 4. **OUTFLOW**                              The nature of the pollution such as CRUDE OIL, CHLORINE, DINITROL, PHENOL, etc. as well as the total quantity in tonnes of the outflow or/and the flow rate as well as a risk for further outflow. If there is no pollution, but a pollution threat, the words NOT YET followed by the substance, e.g. "NOT YET FUEL OIL" should be stated.

---

- 5. **ACKNOWLEDGE**                      When this figure is used the POLREP BALTIC should be acknowledged as soon as possible by the combatting authority addressed e.g. "YOUR RU 1/3 ACKNOWLEDGED".

---

**ITEM NUMBERS**

**REMARKS**

- 40. **DATE AND TIME**                      No. 40 relates to the situation described in figures 41 to 60 if it varies from figure 1.

---

- 41. **POSITION AND/OR EXTENT OF POLLUTION ON/ ABOVE/IN THE SEA**                      The main position of the pollution in latitude and longitude in degrees and minutes or by bearing and distance from a location known to the receiver if other than indicated in figure 2.  
  
Estimated amount of pollution (e.g. size of polluted areas, number of tonnes of oil spilled, number of containers, drums etc. lost, if other than indicated in figure 4).

- 
- Indicates length and width of slick given in nautical miles and in tenth of nautical miles if not indicated in figure 2.
- 
42. **CHARACTERISTICS OF POLLUTION** Gives type of pollution, e.g. type of oil with viscosity and pour point, packaged or bulk chemicals, sewage. For chemicals give proper name or UN-number, if known. For all, give also appearance, e.g. liquid, floating solid, liquid oil, semi-liquid sludge, tarry lumps, weathered oil, discolouration of sea, visible vapour. Any markings on drums, containers, etc. should be given.
- 
43. **SOURCE AND CAUSE OF POLLUTION** E.g. from vessel or other undertaking. If from vessel, say whether as a result of deliberate discharge or casualty. If the latter, give brief description. Where possible, give name, type, size, call sign, nationality and port of registration of polluting vessel. If vessel is proceeding on its way, give course, speed and destination.
- 
44. **WIND DIRECTION AND SPEED** Indicates wind direction and speed in degrees and m/sec. The direction always indicates from where the wind is blowing.
- 
45. **CURRENT DIRECTION AND SPEED** Indicates current direction and speed in degrees and knots and tenths of knots. The direction always indicates the direction in which the current is flowing.
- 
46. **SEA STATE AND VISIBILITY** Sea state indicated as wave height in meters. Visibility in nautical miles.
- 
47. **DRIFT OF POLLUTION** Indicates drift course and speed of pollution in degrees and knots and tenths of knots. In case of air pollution (gas cloud) drift speed is indicated in m/sec.
- 
48. **FORECAST OF LIKELY EFFECT OF POLLUTION AND ZONES AFFECTED** The forecast could be given as e.g. estimated time for the pollution to hit beaches or results of mathematical drift models.
- 
49. **IDENTITY OF OBSERVER/REPORTER** Indicates who has reported the incident. If a ship, name, home port, flag and call sign must be given.
-

IDENTITY OF SHIPS ON SCENE	Ships on scene can also be indicated under this item by name, home port, flag and call sign, especially if the polluter cannot be identified and the spill is considered to be of recent origin.
-----	
50. ACTION TAKEN	Any action taken for the disposal of the pollution .
-----	
51. PHOTOGRAPHS TAKEN	Indicates if photographs or samples from the pollution have been taken. Telefax number of the sampling authority should be given.
-----	
52. NAMES OF OTHER STATES & ORGANIZATIONS INFORMED	
-----	
53. REPORT ON OILED WILDLIFE	Indicates: - date and time of report - amount and state of oiled wildlife - oiled species - position of observation and if at sea and/or on shore - the source of the pollution (if possible)
-----	
54. ACTION TAKEN ON OILED WILDLIFE	Any action taken for collection and/or treatment of the oiled wildlife
-----	
55. FORECAST OILING OF WILDLIFE	Forecast should be given of estimated time of the pollution arriving in wildlife sensitive area(s)
-----	
56. EVIDENCE TAKEN FROM OILED WILDLIFE	Have samples of e.g. oiled feathers been taken?
-----	
57-59	SPARE FOR ANY OTHER RELEVANT INFORMATION (e.g. results of sample photographic analysis, results of inspections by surveyors, statements of ship's personnel, etc).
-----	
60. ACKNOWLEDGE	When this figure is used, the telefax should be acknowledged as soon as possible by the competent national authority.
-----	

ITEM NUMBERS	REMARKS
80. DATE AND TIME	Number 80 is related to the situation described below if it varies from figures 1 and/or 40.
81. REQUEST FOR ASSISTANCE	Type and amount of assistance required in form of: - specified equipment - specified equipmen with trained personnel - complete strike teams - personnel with special expertise with indication of requested country
82. COST	Requirements for cost information of requested assistance to requesting country.
83. PRE-ARRANGEMENTS FOR THE DELIVERY OF ASSISTANCE	Information concerning customs clearance, access to territorial waters, etc. in the requesting country.
84. TO WHERE ASSISTANCE SHOULD BE RENDERED AND HOW	Information concerning the delivery of the assistance, e.g. rendezvous at sea with information of frequencies to be used, call sign and name of Supreme On Scene Commander of the requesting country or land-based authorities with telephone numbers, telefax numbers and contact persons.
85. NAMES OF OTHER STATES AND ORGANISATIONS	Only to be filled in if not covered by figure 81, e.g. if further assistance is later needed by other States.
86. CHANGE OF COMMAND	When a substantial part of an oil pollution or serious threat of an oil pollution moves or has moved into the zone of another Contracting Party, the country which has exercised the supreme command of the operation may request the other country to take over the supreme command.
87. EXCHANGE OF INFORMATION	When a mutual agreement has been reached between two parties on a change of supreme command, the country transferring the supreme command should give a report on all relevant information pertaining to the operation to the country taking over the command.

- |  |   |
|--|---|
| 88. REQUEST FOR WILDLIFE RESPONSE ASSISTANCE         | Type and amount of assistance required <ul style="list-style-type: none"> <li>- Specified equipment</li> <li>- Trained personnel</li> <li>- Complete strike teams</li> <li>- Use of a rehabilitation centre abroad</li> <li>- Cost related to the assistance</li> </ul> |
| -----  |   |
| 89. PRE-ARRANGEMENT FOR WILDLIFE RESPONSE ASSISTANCE | <ul style="list-style-type: none"> <li>- Custom clearance if animals need to be transported abroad</li> <li>- Custom clearance of mobilised equipment and units</li> </ul>  |
| -----  |   |
| 90. TO WHERE WILDLIFE ASSISTANCE SHOULD BE RENDERED  | <ul style="list-style-type: none"> <li>- Information concerning the delivery of the assistance, e.g. delivery address</li> <li>- Contact details of the wildlife response coordination unit</li> </ul>  |
| -----  |   |
| 91 - 98  | SPARE FOR ANY OTHER RELEVANT REQUIREMENTS OR INSTRUCTIONS   |
| -----  |   |
| 99. ACKNOWLEDGE                                      | When this figure is used the telefax should be acknowledged as soon as possible by the competent national authority.  |
| -----  |   |

**POLREP BALTIC Telefax Sample Message**

Part 1 Used as a Warning of Pollution

<u>Heading and Item Numbers</u>	<u>POLREP BALTIC Telefax Message</u>
Address	FROM DENMARK TO SWEDEN HELSINKI COMMISSION
Traffic priority	URGENT
Date time group (UTC)	030730

Message identification	POLREP BALTIC
National identification and serial number	DK 1/1
1. Date and time (UTC)	1. 030700
2. Position	2. 5538N1243E
3. Incident	3. TANKER GROUNDING
4. Outflow	4. NOT YET CRUDE OIL
5. Acknowledge	5. ACKNOWLEDGE

### **POLREP BALTIC Telefax Sample Message**

#### Full Report Using Part 1, 2 and 3

<u>Heading and Item Numbers</u>	<u>POLREP BALTIC Telefax Message</u>
Address	FROM DENMARK TO SWEDEN GERMANY
Traffic priority	URGENT
Date time group (UTC)	030915
Message identification	POLREP BALTIC
National identification and serial number	DK 1/2 - DK 1/1 FOR SE
1. Date and time (UTC)	1. 030900
2. Position	2. 5538N1243E
3. Incident	3. TANKER GROUNDING
4. Outflow	4. CRUDE OIL, 800 TONS ESCAPED
41. Position and/or extent of pollution on/above/in the sea	41. OIL SLICK EXTENDING 1 MILE TO THE SOUTH, WIDTH 0.3 MILES

- 
- |   |   |
|---|---|
| 42. Characteristics of pollution                                  | 42. VENEZUELA CRUDE.<br>VISCOSITY 2983 CST AT 38C.<br>HIGHLY VISCOUS                                  |
| 43. Source and cause of pollution                                 | 43. DK TANKER ESSO BALTICA OF<br>COPENHAGEN, 5000 GRT, CALL<br>SIGN OVQZ. THREE WING<br>TANKS DAMAGED |
| 44. Wind direction and speed                                      | 44. 000 - 10  |
| 45. Current direction and speed                                   | 45. 180 - 0.2   |
| 46. Sea state and visibility                                      | 46. 0.5 - 10  |
| 47. Drift of pollution  | 47. 180 - 0.5   |
| 48. Forecast of likely effect of pollution<br>on/above/in the sea | 48. COULD REACH FALSTERBO<br>WITHIN HOURS   |
| 49. Identity of observer/reporter<br>Identity of ships on scene   | 49. RE. 43 ABOVE  |
| 50. Action taken  | 50. TWO DK STRIKE TEAMS WITH<br>HIGH OIL RECOVERY<br>CAPABILITY EN ROUTE.<br>ETA SPILL SITE 031000.   |
| 51. Photographs taken   | 51. OIL SAMPLES TAKEN.<br>TELEX 64471 SOK DK  |
| 52. Names of other states &<br>organizations informed             | 52. SE AND HELCOM   |
| 53. Spare   | 53. NAVIGATIONAL WARNING<br>ISSUED AS LYNGBY RADIO<br>NAV. WARN. NO 57                                |
| 81. Request for assistance  | 81. FOR SWEDEN:<br>REQUEST ONE A-CLASS (M1<br>SYSTEM) AND ONE B-CLASS<br>VESSEL (M3 SYSTEM)           |
-

		FOR DE: REQUEST ONE STRIKE TEAM WITH 500 M HIGH SEA BOOM AND HIGH CAPACITY SKIMMER
82. Cost	82.	REQUEST INFORMATION ON COST RATE FOR ASSISTANCE UNDER ITEM 81
83. Pre-arrangements for the delivery of assistance	83.	FORMALITIES REGARDING BORDER PASSAGE WILL BE CLEARED WHEN ITEM 81/3 CONFIRMED
84. To where assistance should be rendered and how	84.	SITE OF GROUNDING. CONTACT GUNNAR THORSON OF VHF CHANNEL 16. CALL SIGN OWPB. SOSK KNUD HANSEN ON BOARD GUNNAR THORSON
99. Acknowledge	99.	ACKNOWLEDGE

### **POLREP BALTIC Telefax Sample Message**

#### Part 3 Used as Reply to a Request for Assistance

##### Heading and Item Numbers

Address	FROM SWEDEN TO DENMARK
Traffic priority	URGENT
Date time group (UTC)	031115
Message identification	POLREP BALTIC
National identification and serial number	YOUR DK 1/2 REFERS
80. Date and time (UTC)	80. 031100

81. Request for assistance	81. TV 02 AND TV 048 WITH OIL BOOMS AND SKIMMERS ARE AVAILABLE
82. Cost	82. TOTAL COST FOR TV 02 AND TV 048 WILL BE APPROXIMATELY 6600 SEK PR. HOUR ON SITE
84. To where assistance should be rendered and how	84. TV 048 ETA SPILL AREA 031200 TV 02 ETA SPILL AREA 031400
99. Acknowledge	99. ACKNOWLEDGE

### **POLREP BALTIC Telefax Sample Message**

#### Part 1 Used as Exercise Message

<u>Heading and Item Numbers</u>	<u>POLREP BALTIC Telefax Message</u>
Address	FROM FINLAND TO RUSSIA SWEDEN HELSINKI COMMISSION
Traffic priority	URGENT
Date time group (UTC)	060300
Exercise identification	EXERCISE
Message identification	POLREP BALTIC
National identification and serial number	FI 1/1
1. Date and time (UTC)	1. 060235
2. Position	2. 5959N2533E
3. Incident	3. CARGO SHIP COLLISION

- |                         |   |
|-------------------------|---|
| 4. Outflow              | 4. NOT YET HEAVY FUEL OIL.<br>APPROXIMATELY 400 TONS ON<br>BOARD DAMAGED VESSEL |
| 5. Acknowledge          | 5. ACKNOWLEDGE  |
| Exercise identification | EXERCISE EXERCISE EXERCISE  |

**3.3 INTERNATIONAL EARLY WARNING REPORTING SYSTEM  
FOR POLLUTION CAUSED BY ALGAL BLOOMS (ALGPOLREP)**

**ALGPOLREP**

A reporting format to cover "natural" pollution incidents in the form of algal blooms has been developed by the Paris Commission's Working Group on Nutrients and adopted by the Paris Commission. At their eighth meeting (Brussels, September 1996) the Contracting Parties to the Bonn Agreement agreed to inform the Oslo and Paris Commission (OSPAR) that the said reporting format, after having been temporarily adopted, would remain in use and at their disposal. The reporting format is approved for use in the Baltic Sea Area by the 15th meeting of the Combatting Committee.

Summarized List

Address                    from                    to  
 Date time group  
 Identification    ALGPOLREP HELCOM  
 Serial Number

PART I: ALGPOLREP (1-6)

- 1    Date and time of observation
- 2    Position
- 3    Algal bloom
- 4    Type of algae
- 5    Flow direction and rate
- 6    Acknowledge

---

## PART II: ALGPOLINF (40-70)

- 40 Date and time
- 41 Area covered, patchy/homogenous
- 42 Type/colour of algal bloom
  - Colour code: 1 = colourless, 2 = yellow, 3 = orange,  
4 = red, 5 = green, 6 = blue, 7 = brown,  
8 = unknown (observation at night)
- 43 Coastal/open sea area
- 44 Wind direction and speed
- 45 Current (direction and speed); tide
- 46 Sea state and visibility
- 47 Drift of algal bloom and velocity
- 48 Forecast of effects: zones affected, arrival on beaches, fish farms
- 49 Identity of observer (ships, aircraft involved)
- 50 Action taken
- 51 Photographs and/or samples taken
- 52 Detection: remote sensing (IR, SLAR, UV) and/or visual
- 53 Names of other states informed
- 54 Algal concentration
- 55 Salinity
- 56 Temperature
- 57 Species
- 58 Toxicity
- 59 Foaming/labouring
- 60-
- 69 Details of monitoring
- 70 Acknowledge

## PART III: ALGPOLFAC (80-99)

- 80 Date and time
- 81 Request for assistance (equipment, experts)
- 82 Cost
- 83 Pre-arrangements for the delivery
- 84 Assistance to where and how
- 85 Other states requested
- 86 Change of command (when bloom has moved)
- 87 Exchange of information
- 88-
- 98 Spare (any other requirements or instructions)
- 99 Acknowledge

In compliance with HELCOM Recommendation 10/1 ALGPOLREP is forwarded to National Contact Points which transmit the report to the relevant national authorities or institutes. The National Contact Points are not responsible for the entries under the different codings for the "natural" pollution incidents.

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## 4. REQUESTING AND PROVIDING ASSISTANCE

**Requesting and providing assistance for combatting spillages of oil or other harmful substances at sea according to Annex VII, Regulation 8 of the Helsinki Convention**

**Requesting and providing a place of refuge according to HELCOM Recommendation 31E/5 on Mutual Plan for Places of Refuge in the Baltic Sea Area in the Baltic Sea Area**

### 4.1 REQUESTING PARTY

Request for assistance from a Contracting Party (requesting Party) in case of a major spillage of oil or other harmful substance at sea as well as resulting oiled wildlife in order to perform combatting operations and/or oiled wildlife response shall be made by the competent authority of that Party and addressed to the competent authority of another Contracting Party (assisting Party).

A request by telephone shall always be followed by a written confirmation by a competent authority of the requesting Party.

Requested assistance will be subject to the responsibility of the requesting Party. Personnel from the assisting Party is assigned to the competent authority of the requesting Party. Such personnel may only be transferred to other authorities or organizations of the requesting Party with the approval of the assisting Party.

The requesting Party is responsible for the necessary domestic arrangements for the border passage and the housing of the assisting resources as well as the necessary arrangements for collected oil, rescued or dead oiled wildlife, and provision of maintenance facilities.

Request for assistance can consist of:

- specified equipment only;
- specified equipment with trained personnel;
- complete strike teams;
- personnel with special expertise;
- aerial surveillance.

Strike teams referred to above consist of:

- combatting ships and work boats and equipment for
  - communication
  - personal safety (protective suits, breathing apparatus, etc.)
  - combatting marine pollution
  - storage of limited quantities of recovered oil, etc., on board (if tank capacity is available);

- 
- trained crews and personnel for handling the equipment;
  - National On-Scene Commander (NOSC) with necessary staff independently able to conduct the work of the strike teams according to instructions from the appointed Supreme On-Scene Commander (SOSC).

## **4.2 ASSISTING PARTY**

The assisting Party shall be prepared to give information on the financial consequences connected with the requested assistance.

The assisting Party shall use its best endeavours to bring about the requested assistance and to decide to which extent the request can be complied with.

The assisting Party shall be prepared to appoint liaison officers to the staff of the Operational Control of the requesting Party in order to secure necessary knowledge of rendered national resources.

## **4.3 DISPATCHING OF RESOURCES**

Both parties should make a preliminary agreement concerning the proper dispatching of the resources provided as well as concerning a survey and assessment of consumed stocks, including damaged or contaminated equipment (cf. Chapter 6 of Part I).

## **4.4 TERMINATION OF ASSISTANCE**

If the circumstances so demand, the assisting Party can fully or partly terminate its assistance. Information on the termination shall be communicated to the competent authority of the requesting Party.

## **4.5 REQUESTING A PLACE OF REFUGE**

Request for a place of refuge from a Contracting Party (Requesting Party) should only be submitted if national options have been fully explored leading to a conclusion that due to different circumstances there is no suitable place of refuge in its own area and granting a shelter in a neighboring Contracting Party is the only solution to ensure ship, coastal and traffic safety and avoid or limit pollution.

Such a request shall be made by the designated competent authority which has the power to take independent decisions concerning accommodation of ships in need of assistance and addressed to the competent authority of another Contracting Party, as listed in Chapter 1.

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Financial considerations, commercial reasons or lack of response resources should not be regarded as a sufficient reason to request a place of refuge from another Contracting Party.

A request by telephone shall always be followed by a written confirmation by a competent authority of the Requesting Party.

The Requesting Party when contacting the Requested Party should provide all information on their reasons for not accommodating the vessel in their own area, as well as information according to IMO Resolution A.949(23) "Guidelines on places of refuge for ships in need of assistance", including information on:

- ship details,
- seaworthiness of the ship, in particular buoyancy, stability, availability of means of propulsion and power generation, docking ability, etc.,
- nature and condition of cargo, stores, bunkers, in particular hazardous goods, including its quantity,
- pollution caused by ship,
- whether the master is still on board,
- the number of other crew and/or salvors and other persons on board and an assessment of human factors, including fatigue,
- whether the ship is insured and identification of the insurer, and the limits of liability available,
- provisions of the financial security required,
- commercial salvage contracts already concluded by the master or company of the ship,
- information on the intention of the master and/or salvor,
- any measures already taken.

In case the Requested Party is not in a position to offer a place of refuge the underlying reasons for this decision should be communicated to the Requesting Party.

The Contracting Parties should in advance bilaterally discuss ways of fair sharing of the operation costs by state authorities in a place of refuge situation not met by the international compensation regime and without prejudice to Polluter Pays Principle.

The existing format for pollution reporting (POLREP) is to be used when requesting assistance.

---

## **5. OPERATIONAL CO-OPERATION**

### **5.1 GENERAL PRINCIPLES**

- In accordance with Regulation 1 of Annex VII of the Helsinki Convention, the Contracting Parties undertake to maintain ability to respond to pollution incidents threatening the marine environment of the Baltic Sea area. This ability shall include adequate equipment, ships and manpower prepared for operations in coastal waters as well as on the high sea. The Contracting Parties shall, subject to their capabilities and availability of relevant resources, co-operate in responding to pollution incidents when the severity of such incidents so justify.
- According to Regulation 4 of Annex VII of the Helsinki Convention the Contracting Parties shall as soon as possible agree bilaterally or multilaterally on those regions of the Baltic Sea Area in which they shall conduct surveillance activities and take action to respond whenever a significant pollution incident has occurred or is likely to occur.
- In accordance with Regulation 7 of Annex VII of the Helsinki Convention the Contracting Party shall, when a pollution incident occurs in its response region, make the necessary assessments of the situation and take adequate response action in order to avoid or minimize subsequent pollution effects. When such a spillage is likely to drift into a response region of another Contracting Party, that Party shall without delay be informed of the situation and the actions that have been taken.
- A Contracting Party is entitled according to Regulation 8 of Annex VII of the Helsinki Convention to call for assistance by other Contracting Parties when responding to a pollution incident at sea. Contracting Parties shall use their best endeavours to bring such assistance. They shall facilitate transport and movements of ships, aircraft, personnel, cargoes, materials and equipment, which are engaged in responding to a pollution incident, into, through and out of their territories.

### **5.2 OPERATION MANAGEMENT**

Operation management for a marine pollution emergency consists of four elements; control, command, communication and intelligence. The Contracting Party in charge of a joint operation, the Lead Country, has operational control and command of it.

Especially the Contracting Parties involved in a joint operation, shall communicate in all relevant levels of cooperation. The reporting procedures described in previous Chapter 3, the guidelines in Chapter 4 for requesting and providing assistance, and the operational communication detailed later in sub-paragraph 5.4 formulate the ways and means of such communication.

Intelligence includes reconnaissance and forecasting. The aerial surveillance, which is featured in Chapter 7 is a tool for co-operation on reconnaissance of pollution. HELCOM Recommendation 12/6 and the Guidelines on development and use of oil drifting forecasting are applicable also to operational co-operation.

### 5.3 COMMAND STRUCTURE

The general principles for the command structure for joint combatting operations are given in HELCOM Recommendation 2/5 and the diagram showing these principles is contained in Table 1 to this Chapter.

The Contracting Party who has a multinational combatting force operating within its response region shall, unless otherwise agreed, be in charge of the joint operation (**Lead Country**).

A **Competent Authority** of a country is the nationally responsible authority, that is empowered to request and give international assistance (cf. Chapter 1). Competent Authorities of the Assisting Countries provide agreed assistance, such as **Strike Teams** and materials, to the use of the **Operational Control** (normally ashore) of the Lead Country.

The Competent Authority of the Lead Country has the overall control of a joint operation and all pollution response measures for the same incident. Nationally it is assisted by the respective **Co-operative National Authorities**, which deliver necessary resources to the Operational Control.

The Operational Control is the control and command function that is undertaken by the appointed national authority of a Lead Country in charge of a joint combatting operation relating to the disposition and use of personnel and equipment placed at its disposal. The Operational Control plans, orders and co-ordinates all combatting measures at sea and on shore for an incident and takes care of communication, command, control, intelligence, forecasts and other joint arrangements in connection herewith.

Operational Control is an operative body having the responsibility for and supervision over the staff, facilities, communications and equipment provided in the combatting operation (Table 1).

The person in charge of the overall operational control is the **Response Commander (RC)**. He may be aided by the **liaison officers** from assisting countries and the **representatives** of co-operative national and regional authorities acting as an **advisory body** for him.

Under the Operational Control and command of RC the **Tactical Command On-Scene** (normally at sea in a joint operation) is laid upon a designated **Supreme On-Scene Commander (SOSC)** from the Lead Country. The contingents of Strike Teams of assisting countries and of the Lead Country operate under the command of a **National On-Scene**

**Commander (NOSC)** from each country. The NOSC is operating under the command of the SOSC.

Leaders of special joint functions and separate units may be directly under the RC or the SOSC. For instance flight operations for reconnaissance and/or transport can be coordinated by the operational control and there be controlled and commanded by a special **Flight Coordinator**.

With the aim of further facilitating the operational co-operation in joint combatting operations, the following guidelines have been agreed upon:

#### Operational Guidelines

The Lead Country shall, *inter alia*:

- give administrative, operational and logistic support to assisting foreign units;
- give clearly defined tasks to all units; organize the practical co-operation between units from different countries;
- keep all units well-informed of the overall situation; and
- keep a firm contact with the command organizations of the assisting countries in order to secure that assisting foreign units can be transferred to national command, if so necessitated.

Operationally self-contained foreign units should, to the largest extent, be given separate tasks within defined geographical areas. The execution of the task will be carried out under the command of the appropriate NOSC who will be in close radio contact with the SOSC from the Lead Country.

When needed, units from different strike teams can temporarily be put at the disposal and command of another NOSC.

If the assistance is rendered in the form of equipment or units not operationally self-contained, it is the responsibility of the Lead Country's operational control or tactical command to integrate the equipment or units in the combatting operation.

If the main body of the pollution in question passes the border line of a neighbouring country's response region, the operational control and command (Lead Country) will normally be transferred to the country whose response region is thus affected by the main body of the pollution.

The timing of the shift of operational control and command should be negotiated between the two countries in question, taking due regard to the overall picture and any possible trends in its development.

The countries in question will further have to settle the number of units and the amount of equipment that could be placed at the disposal of the new Lead Country and how the combatting operation should be continued.

The contingency organizations in the Contracting Parties shall keep each others informed about the pollution incidents, extent and area together, with information on the actions taken and their efficiency.

In connection with operations in border areas, the neighbouring countries should be consulted with respect to priority and employment of resources.

As the use of chemical agents can influence the interests of neighbouring countries, the employment of such agents should be taken with a due regard to the neighbouring countries' attitude to their use. Due account should also be given to Regulation 7 of Annex VII of the Helsinki Convention stipulating that mechanical means are the preferred response measures and that chemical agents may only be used in exceptional cases, after authorization has been granted in each individual case. Furthermore, HELCOM Recommendation 22/2 concerning Restricted Use of Chemical Agents and Other Non-mechanical Means in Oil Combatting Operations in the Baltic Sea Area should be taken into account.

It is anticipated that the Lead Country will initiate surveillance of the spill within its own response region and communicate the results from this surveillance activity to other Contracting Parties bordering the Lead Country's response region. If a spill spreads into two or more response regions, the contingency organizations of the Contracting Parties, whose response regions are affected by the spillage, should agree on a co-ordinated surveillance of the spill area in order not to duplicate the surveillance efforts.

#### Guidelines for liaison

In combatting situations where two or more Contracting Parties are or could be involved, the Contracting Parties in question shall be entitled to send two liaison officers as a maximum to the respective national centres responsible for combatting operations.

The exchange of the liaison officers is independent of whether the combatting operation is carried out on a purely national basis, by means of rendered equipment or by strike teams from other Contracting Parties.

The liaison officers shall be given access to meetings and conferences relevant to the combatting operation, unless only internal national issues are considered.

The liaison officers shall be given the opportunity to give advice and statements during meetings in matters concerning the actual combatting and the disposal of resources, etc., when the matter in question concerns their own country's territory.

The liaison officers are placed under the same obligations of discretion as imposed on the central's own national staff but are not limited as to the substance to be reported to their own national authorities.

The liaison officers are under no administrative obligations from the host country except those established by the host country for the functioning of the central itself. The liaison officers will thus have to arrange for their own accommodation, meals, etc. The liaison officer should be given access to telephone and telefax to a reasonable extent. The functions of the liaison officers should be two-way so that their home country should be able to canalize its opinions and wishes through the liaison officers. Especially in cases involving joint operations or rendered equipment, this two-way function will be of great importance.

In relation to execution of surveillance activities with fixed wing aircraft and helicopters, the liaison officers should co-ordinate the surveillance activities with their national authorities in order to avoid costly duplication.

If two countries affected by the same pollution should choose not to exchange liaison officers, they should as a rule exchange daily situation reports.

SOSC and NOSC may exchange liaisons in accordance to needs.

## **5.4 COMMUNICATION**

### **5.4.1 General**

The reporting procedures detailed in Chapter 3 apply to normal communication between the competent national authorities responsible for receiving and dispatching pollution reports and for mutual assistance, information and cooperation in joint combatting operations. They apply also to establishing direct contacts between the relevant national combatting authorities.

The outline scheme for radio communications between operative bodies in joint combatting operations in the Baltic Sea Area is given in sub-chapter 5.4.3 and Table 3 to this Chapter. Besides that and formal reporting, a lot of communication is needed to produce information and support, which the situation management requires. In order to optimize communication, a scheme for all of it is useful, too.

It should be noted that the working language between the SOSC and NOSCs from other countries than that of the SOSC should be English, if not otherwise agreed between the on-scene commanders/coordinators. The working language for communications between NOSCs from different countries is established according to the same guidelines.

An example of a scheme for all communications for a joint combatting operation is shown in Table 2 to this Chapter. A scheme of radio communications for joint combatting operations is shown in Table 3 to this Chapter. In the following some additional information is given as to the communication between the different levels in the communication scheme.

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## 5.4.2 External (off-site) Communications

### International communication between Contracting Parties

Formal messages warning and informing on an incident, requesting and rendering assistance and acknowledging such messages shall be signed by an appointed officer on behalf of the Competent National Authority. Such POLREP messages should be done preferably by telefax and sent via the National Operational Contact Point of each Contracting Party.

The authenticity of any official message should be possible to check preliminary on the basis of the call number of a sending device printed on the report and to be found on the list of contact numbers in Chapter 1. When further checking is needed a return call to the official contact number is recommended.

Urgent official or informal contacts may be made in some other convenient way, like by telephone calls, too. Any matter of importance for joint efforts or for one=s interest like requests, decisions, plans, purposes, reasons and available resources and possibilities should be confirmed as soon as possible by formal messages as said above.

### Communication between Competent Authorities of Contracting Parties and the Operational Control

The Competent Authority of the Lead Country and the Competent Authority of a assisting country may communicate with the Operational Control by using all convenient ways of communication available for the purpose. All important matters for assistance shall be confirmed by the Competent Authorities of the respective Contracting Parties as said under the previous heading.

The assisting country=s liaison officer, if any, may take care of communication between his authority and the Operational Control. Otherwise it is the duty of the Operational Control to deliver necessary information at minimum daily.

### Communication between an Assisting Country and its Strike Teams

An Assisting Country may communicate with its NOSC and Strike Teams via its liaison and the Operational Control or directly when not out of the reach of applicable communication devices. Sea-going units may be reached by radio via MF, VHF or HF coast stations or by mobile telephone (NMT or GSM) or by satellite telephone.

Flight units and other land-based teams may be attained by telephone. A plane, when airborne, may be attained directly only within the reach of its communication devices and indirectly through the Operational Control. In case of an emergency an airborne aircraft may be attained through the **Air Traffic Service**, too.

### 5.4.3 Operative Communications (Table 3)

#### **Communication between the Operational Control, the SOSC and Flight Operations (1st Level: ashore to scene)**

The operational control is exercised normally by the country within whose response region the operation takes place (Lead Country) and its physical location will normally be ashore.

It is the responsibility of the Lead Country to establish and maintain the communication between the Operational Control, SOSC and Flight Operations.

Depending on the facilities and internal organization within the Lead Country, the communication could be established either directly from the Operational Control to the SOSC via radio telephone, radio telegraphy, mobile telephone or mobile telecopyprinter, or via a coast radio station using telefax or telephone between the Operational Control and coast radio station and maritex, radio telephone or radio telegraphy between the coast radio station and the SOSC.

The Operational Control (and maybe a special **Flight Coordinator**) communicate with airplanes and helicopters via the aviation frequencies (VHF 118-136 MHz), which the nearest **Flight Information Region** will order to be used for the purposes of the operation. Aviation frequencies may also be used in communication between aircraft and SOSC, who has to have an aviation radio for that.

Maritime patrol planes and rescue helicopters are normally equipped with maritime VHF radios for direct communication between them and vessels, which is beneficial for transport and near reconnaissance services. Remote sensing results gained by a surveillance flight may be transferred from a plane immediately to the Operational Control and to SOSC by radiotelephone or by a possible special image transfer system. Later after a flight reconnaissance, data can be sent by mobile telecopy or from computer to computer by radio or mobile telephone.

#### **Communication between the SOSC and the NOSC (2nd Level: on scene)**

The communication between SOSC and NOSC should be performed on one or if needed, more of the international maritime VHF channels. Their first radio contact should be made on VHF channel 16, unless otherwise agreed. The SOSC will inform NOSC of the communication channels for the combatting operation after check up of the possibilities in the area of operation (in consideration of Manuals, Pilots etc.).

To this end the vessel from which the SOSC operates should, as a rule, have at least two maritime VHF stations on board with a stand-by function on channel 16.

It is the responsibility of the Lead Country to obtain the permission from its national authority for combatting operations at sea, which could be given either as a general authorization to use the frequencies during combatting operations and combatting exercises or as a separate authorization for each combatting operation and combatting exercise. There are no common or special

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VHF channels established for exclusive use in combating operations. If the establishment of such a channel for single combating operation or operating exercise is not possible, the chosen VHF channel shall be not seriously hampered by other traffic not relevant to the ongoing operation.

### **Communication between NOSC's**

Under circumstances where one NOSC and his strike teams operate geographically close to another NOSC and his strike teams, a need may arise for direct communication between the two NOSC's in respect of navigation, manouvering and other operational matters.

In order to restrict the number of VHF channels in use, the communication between NOSC's should be performed on the same VHF channel as used for communication between the NOSC's and the SOSC's.

If more VHF channels are used for communication between the SOSC and the NOSC's, the communication plan should be established in such a way that NOSC's and their strike teams operating geographically close to other NOSC's and their strike teams should be allocated the same VHF channel for communication with the SOSC.

### **Communication between the NOSC's and their Strike Teams (3rd Level: teams)**

The communication between a NOSC and his strike team units should be performed on special domestic (internal) frequencies.

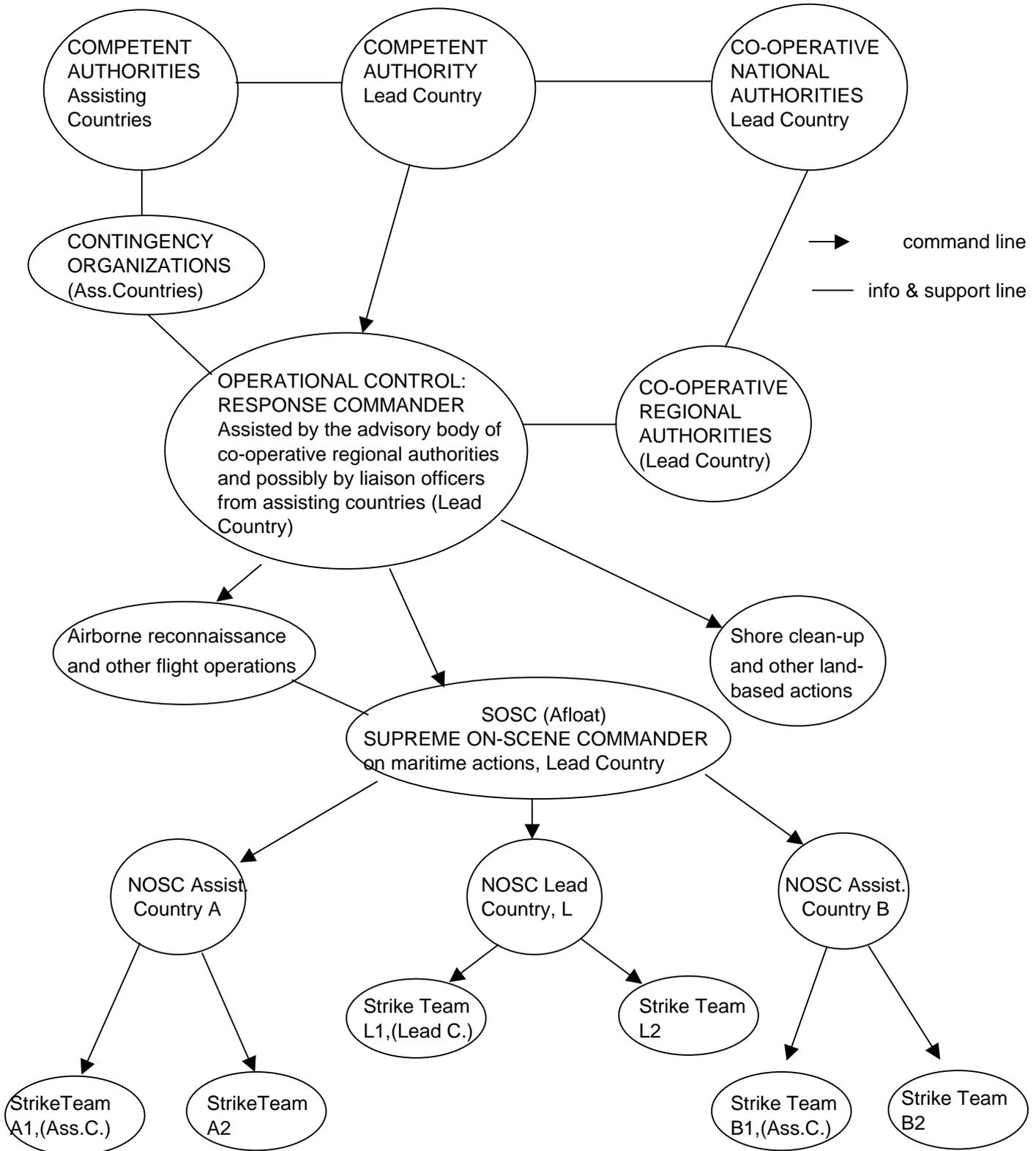
Before deciding on the domestic frequencies a NOSC from another country than the Lead Country should check with the SOSC that the frequencies in question do not interfere with other frequencies used on the scene of action.

### **Communication between Strike Teams**

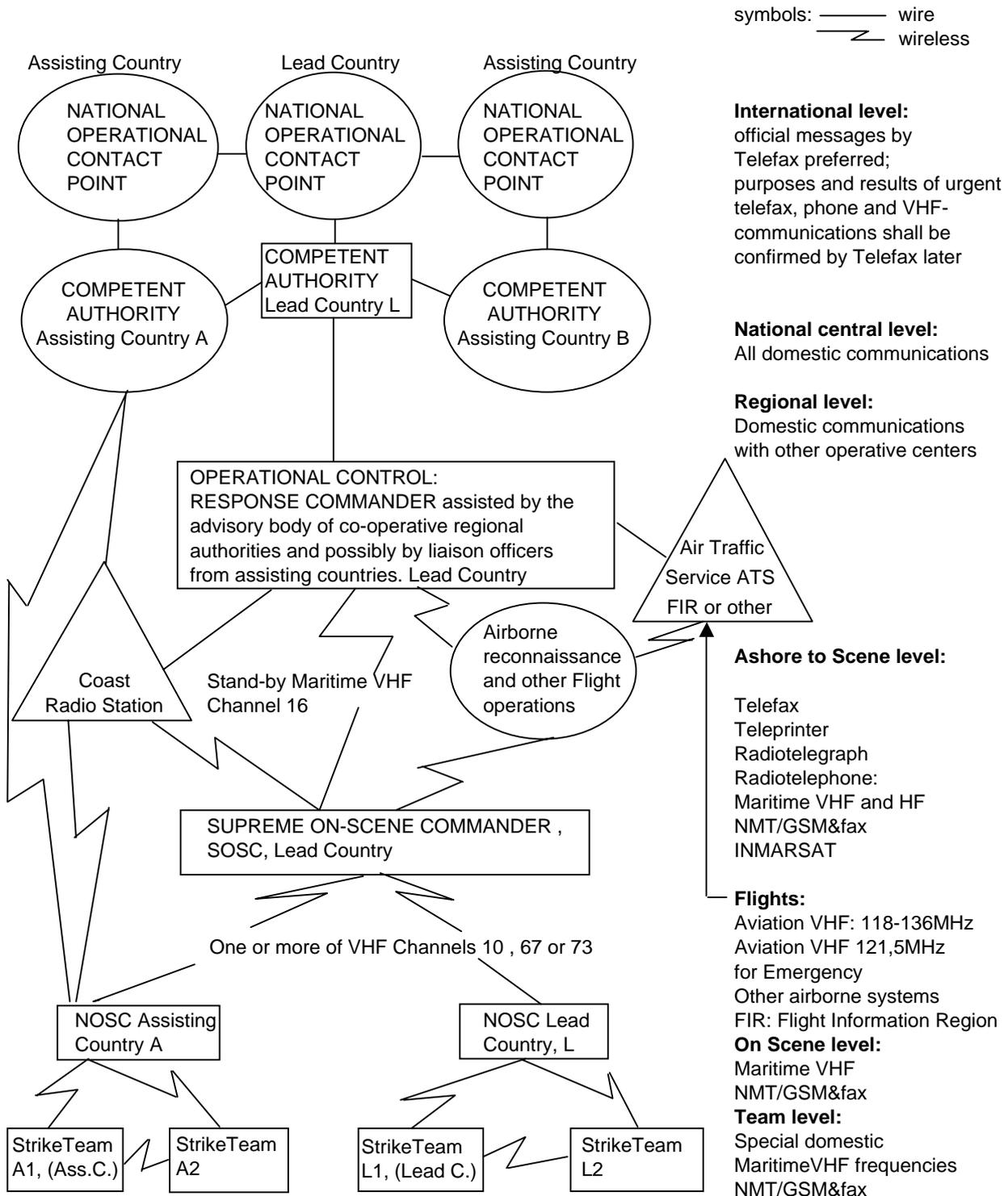
It is anticipated that if a need for communication between strike teams arises under the same NOSC, this communication will be carried out on the same domestic frequencies as used for communication with the NOSC or on a special domestic frequency selected for internal communication between strike teams.

Due to the use of domestic frequencies between the NOSC's and their strike teams, direct communication between strike teams from NOSC's of different nationality cannot normally be expected.

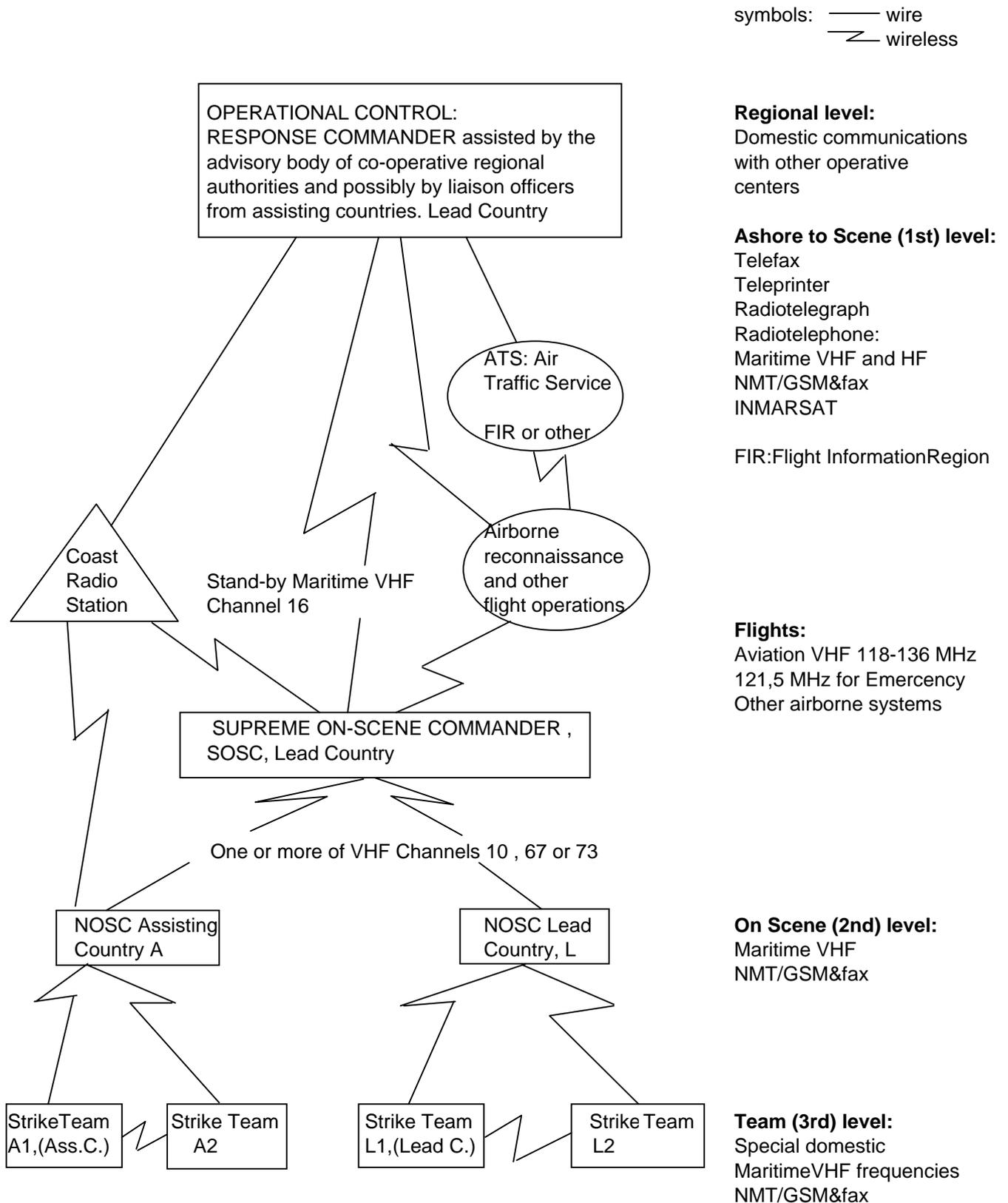
**TABLE 1  
COMMAND STRUCTURE FOR JOINT COMBATTING OPERATIONS**



**TABLE 2**  
**BALTIC OVERALL COMMUNICATION PLAN FOR JOINT COMBATTING OPERATIONS**



**TABLE 3**  
**BALTIC OPERATIVE COMMUNICATION PLAN FOR JOINT COMBATTING OPERATIONS**



## 6. GUIDELINES FOR OIL SAMPLING

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## Oil sampling for the purpose of source identification

### *Introduction*

Forensic investigations may form part of a whole chain of activities undertaken to gather information about a given oil spill. Sampling is the first step in the process of obtaining information about the spill. Information about the physical and chemical properties as well as behaviour will facilitate decision-making during response to the oil spill. The many different purposes of sampling, and how sampling activities can be organised, are described in Annex 3.

The oil sampling activities described in this manual are limited to forensic investigations.

### **1**      *Background*

1.1      This manual is intended to aid the sample taking person in the proper procedures involved in oil sampling for source identification. If the sampling is not done in a proper way the results of the analysis will not be as accurate as they could otherwise be.

1.2      Samples can be taken from the water surface, suspected polluter or the shore line. Oil spill sampling of released oil is described in Section 3. Oil sampling on board vessels is described in Section 4.

1.3      Handling of samples and documentation of samples is described in Section 5. At the end of the document sampling kits are presented, and oil spill sampling is summarized in the form of a sampling checklist.

### **2**      *Training*

2.1      All personnel involved in sampling need to be trained to ensure that the sampling is performed in a correct way. This is also something that will be questioned by lawyers in the legal process following an oil spill. When samples are taken at a suspected polluter it is important that the sampler has been working on board ships. This will ensure that he/she has knowledge and experience of the piping systems in machinery spaces and cargo systems.

2.2      Training should be ongoing to make sure the level of competence is maintained over time.

### **3**      *General remarks*

3.1      **All** spills encountered and **all** potential sources of spills should be sampled. It is important to take samples from both spill and source even when it is clear where the spill originates from. From the outset, the type of sampling equipment and routines described in this document should be used.

3.2      Sampling procedures which are connected to liability investigations must be performed with great care and accuracy concerning spills as well as suspected sources. Every action should be taken to prevent a deterioration in the samples' value as evidence.

3.3      Even if an oil spill has scattered, and only a thin sheen remains, every possible effort should be made to take at least a small sample. No sample volume is too small to be shipped to the laboratory. The laboratory can often analyse very small oil samples – for example, water samples that seemingly consist of pure water or sample pads that do not show any visible traces of oil.

3.4      If any part of the oil spill differs in any respect from other parts, take extra samples to check if more than one spill has occurred in the area.

3.5      If the spill response operation continues for more than one day, samples should be taken every day to make it possible to determine the degree of weathering of the oil as well as possible contamination by other oils.

3.6      If an oil sample is suspected of containing contaminants, take blank samples, if possible, of the contaminant. Surface waters in harbours and estuaries may contain traces of various petroleum products. When spills in such waters are sampled, it is therefore also important to provide the laboratory with blank samples of the water.

3.7 Samples and sampling equipment should be handled and stored so that the samples cannot be manipulated, mixed up, or be contaminated by other substances. Samples should be handled as legal evidence and should be kept in a “chain of custody” until identification and possible legal procedures have been completed. Therefore, always use the sealable and individually numbered safety bags described later in this document.

3.8 A bottle containing a sample should not be placed in the sampling kit containing the clean equipment. Reusable sampling equipment should always be very carefully cleaned, and put into clean plastic bags, before restoring it to the sampling kit case. Used sample bottles must not be used again - not even after careful washing.

3.9 Make notes of all relevant information about samples and sample sites. Use a digital camera or a video camera to record observations which are considered important to the investigation.

3.10 The samples should be sent as soon as possible to the laboratory. Quick handling of samples is important. If the transmission is delayed, the samples should be kept at a temperature of less than +4°C (but not be frozen).

3.11 Used equipment should be replaced as soon as possible so that the sampling kit case is always fit for use, and so that new samples can always be quickly packed and sent away.

#### **4 Oil sampling for the purpose of source identification**

##### **Thick waterborne layers, oil globules and tar balls**

4.1 Focus the sampling on thick parts of the spill. If the spill is large, it is important to take samples in several positions within the spill to get a representative sample selection.

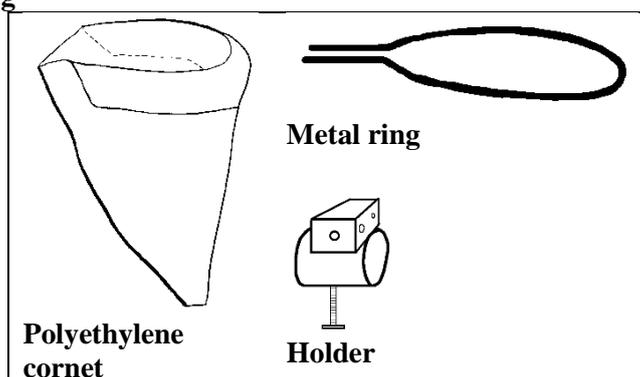
##### **Use of a sample bottle directly**

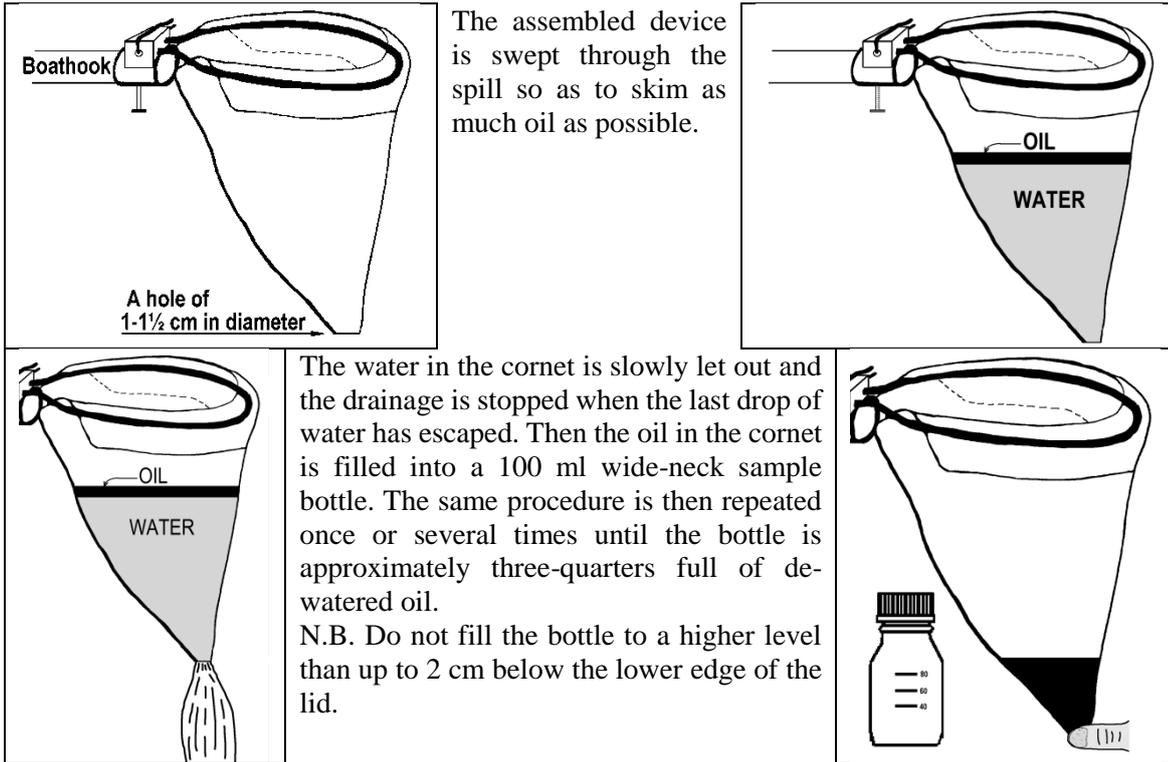
4.2 Globules, balls and thick parts can often be sampled directly with a sample bottle. Fill the bottle with as many balls as possible or skim oil from the surface by repeated sweeps with the bottle. Remove the water which has entered the bottle. One method of doing this is to close the lid and hold the bottle upside down for a minute to let the oil float upwards to the bottom of the bottle so that the water can be drained by careful opening of the lid. Then continue to skim oil and try to get the bottle approximately three-quarters full of de-watered oil (i.e. 50-70 ml). Further techniques to concentrate the oil into the sampling bottle:

##### **Polyethylene cornet or conical Teflon® bag**

Floating brown oil layers or tar balls on the water surface can often be sampled by a polyethylene cornet. The cornet should have a wide hem into which a metal ring can be threaded. First cut off the tip of the cornet as shown in the picture.

A holder is fitted onto the ring and by means of this holder the device can be fastened to a boathook or the like.





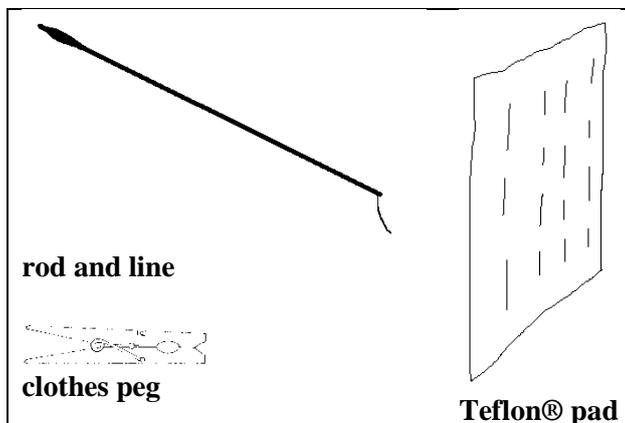
**Clean bucket with small holes**

4.3 One useful refinement of the skimming technique involves the use of a bucket with small holes in the bottom allowing much of the water to drain away from the oil. After drainage of water, the skimming technique may be repeated several times to increase the amount of oil in the bucket. Finally, the oil may be transferred to the sample container by means of a stainless-steel or Teflon® scraper used to scrape the sides of the bucket.

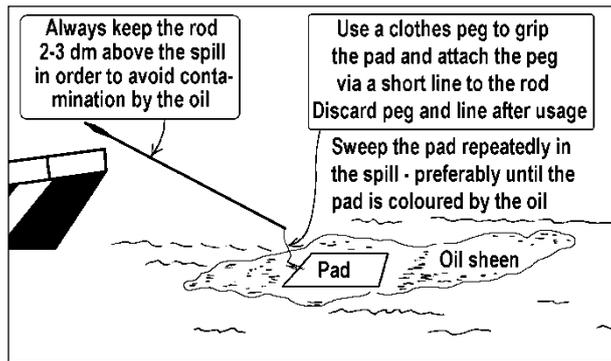
**Sampling of thin oil films (sheens)**

4.4 A special Teflon® pad can be used if the oil film on the water surface is very thin (“rainbow sheen”, “blue sheen”, “silvery sheen”). The use of a Teflon® pad can dramatically increase the amount of oil sampled. The pad material should be Teflon® (or a similar inert polyfluoropolymer) because other materials interfere with the subsequent analytical processes in the chemical laboratory.

A practical arrangement for handling a pad is shown in the figures to the right. Great care must be taken during sampling to avoid contamination of the sheen by traces of oil from the sampling vessel or from other sources. The pad should be swept in the spill preferably until it is coloured by the oil. However, it should be emphasized that the pad may have absorbed a sufficient amount of oil even if the pad has no sign of brown colour.



After a sufficient number of sweeps the Teflon<sup>®</sup> pad is carefully put into a sample bottle. The peg can be used to push the pad into the bottle. Another clean wooden peg of any kind can, if necessary, be used to assist in the procedure. It is important to avoid contact with any item that might contain traces of strange oils.



Teflon<sup>®</sup> pad on watersurface

### Taking oil samples on beaches and from oiled animals

4.5 Take samples in every continuous oil slick. In the case of a spill which is scattered over a long coastline many samples should be taken to enable a mapping of the oil distribution on the shores.

4.6 The oil should be scraped off oiled items and transferred into sample bottles. Avoid, if possible, contamination in the bottles by sand, grass and other debris. In exceptional cases when it is difficult to obtain clean oil samples, it is acceptable to place small oiled items (pebbles, small pieces of wood, etc.) in the bottles.

4.7 Any remaining traces on the shore from earlier oil spills must be carefully avoided during sampling a specific new spill. Take extra samples if there is any suspicion of more than one oil spill in the area (differing colour, consistency, etc.). Always take blank samples in instances of hesitation. This is especially important when oil samples are scraped from creosote-impregnated wood.

4.8 Never take whole animal samples, body tissues, etc. which may become rotten during shipment. Try to cut off small parts of oiled feathers, fur, etc. Put the material directly into a sample bottle.

### Use of sampling buoy from an airplane

4.9 It is possible to drop a sampling buoy into an oil spill from an air craft. Attached to the buoy there is a Teflon<sup>®</sup> pad. Below are instructions on how such a sampling buoy should be handled when recovered from the surface of the sea.



1. Take a record of position, wind and sea currents.
2. Lift the buoy from the water **without touching the sample pad with fingers**.
3. Allow excess water to drain off from the sample pad. Check that the sample does not contain animal tissue which might rot during transport.
4. Insert the sample pad into a sample bottle. Pushing the pad with a clean peg of any kind can facilitate the insertion of a sample pad. Perform this **without touching with fingers** or contact with items that might contain disturbing contaminants.



The samples should be immediately transported to a sampling coordinator. Quick handling of samples is important. The samples should be kept below a temperature of +4°C.

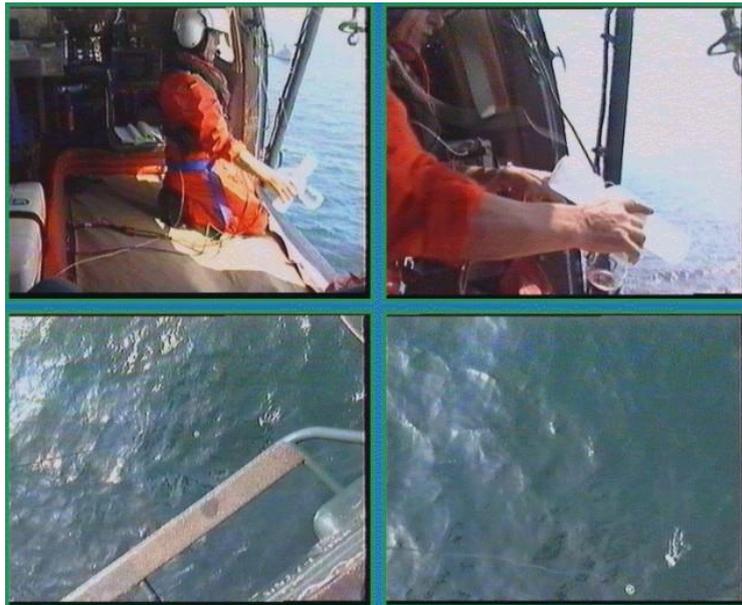
More information concerning the sampling buoy can be provided by the Swedish Coast Guard

### Use of helicopter sampling device

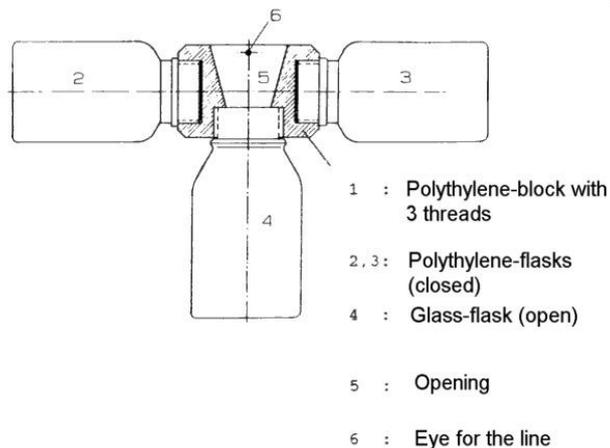
Oil samples can also be taken from a helicopter. In this manual, the procedure used by Admiral Danish Fleet will be shortly described as an example (4.10-4.14). More information concerning the described method can be provided by the Admiral Danish Fleet.

However, please note that there are also other ways of taking a helicopter sample in use in the Baltic Sea countries. For example, in Finland, only a ETFE (ethylenetetrafluoroethylene) pad is used in the sampling. This pad is attached to the winch rope and a sample is taken from the oiled water area.<sup>1</sup>

4.10 Oil samples can be taken with equipment attached to a helicopter.



4.11 The figure below shows the helicopter sampling device.



4.12 Due to the buoyancy of the 3 empty bottles, initially the apparatus floats horizontally on the water surface, so that water and surface layer film can flow into the sampling bottle (4). After filling, this bottle sinks down and thereby directs the opening upwards, so that water can no longer flow into or out of the bottle.

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<sup>1</sup> More detailed information of the Finnish procedures of helicopter oil sampling can be provided by Finnish Border Guard.

4.13 Under adverse conditions (rough seas, thin oil films) a small stripe of a Teflon®-net may be attached to the sampler (kept in place by two plastic screws). When the sampler is lowered to the sea surface, this Teflon® net is thus laid upon the oil film. After sampling, the Teflon® net is put into the glass bottle.



As can be seen in the right-hand picture above, enough oil for the following trace analysis is sampled in this way (right-hand picture, sample on the left: sample taken without Teflon® net, no visible oil ; sample on the right: “clean water” taken beside the oil film).

4.14 This sampling device may also be used from bigger ships or from bridges in harbours.

## 5 *Investigations and oil sampling on board vessels*

### Introduction

5.1 Samples must be taken on board ships observing appropriate caution in accordance with current safety regulations. During sampling on board ships the recommendations below in paragraphs 5.4 – 5.10 “General advice and directions for safety routines” should be followed carefully.

5.2 It is often difficult to obtain relevant oil samples on board suspected sources. Yet, it must be emphasized that it is of the utmost importance for an oil spill investigation that suspected sources of the spill are traced as far as possible and that reference samples are taken. Sometimes during sampling on board a vessel it is necessary to get assistance by the crew under control. However, it is quite wrong to accept unknown samples which are handed over by representatives from the ship or the shipping company.

5.3 Use a digital camera or a video camera to record observations which are judged to be valuable for the investigation.

### General advice and directions for safety routines

5.4 Directions must be obtained from the ship's officers about how sampling should be performed in the light of the safety regulations current on board the ship. Sampling in tanks and spaces within the ship's Hazardous Areas should preferably be carried out by the ship's own crew. Sampling performed by the ship's crew should be strictly supervised by the personnel responsible for the sampling in order to avoid manipulation.

5.5 If the ship has its own sampling equipment, this should be used if possible. If this is not possible, sampling should be performed by means of external equipment only after approval by the ship's officers or by a ship-surveyor.

5.6 When samples are taken in tanks containing volatile petroleum products the following advice should be observed:

- a. Filter masks with a combination filter should be brought and used whenever necessary.
- b. The sampler should stand neither on the windward nor the leeward side of the hatch. A side wind gives the smallest risk of breathing gas.
- c. Only one hatch should be opened at a time.
- d. Avoid breathing petroleum gases, especially if they come from sour crude (smell of rotten eggs).

- e. One person should perform the sampling and another should supervise the sampler (safety guard). The latter should watch the sampler's condition in order to ensure that he/she is removed to a safe place if he/she is affected by petroleum gases (intoxication symptoms).
- f. Only explosion-proof equipment (marked EEx) should be used.
- g. The sampler should not have loose items in his/her pockets that could fall into the tank.

5.7 The following safety directions are based on the “International Safety Guide for Oil Tankers & Terminals“ (ISGOTT):

#### **During loading**

5.8 Equipment made of metal for sampling and ullage-sounding must not be brought into the tank, or be left in the tank, during loading or within 30 minutes after loading has stopped. Examples of such equipment are steel measuring tapes and steel measuring sticks. Non-conducting equipment without metal parts may generally be used at any time. Cords, however, used for lowering equipment into tanks must be made of natural fibres (not synthetic materials).

#### **After loading**

5.9 Equipment made of metal for sampling and ullage-sounding can be used 30 minutes after loading has stopped. However, it is important that the equipment is firmly grounded to the ship's hull before it is brought into the tank. The equipment must remain grounded until after it has been removed from the tank.

#### **Miscellaneous**

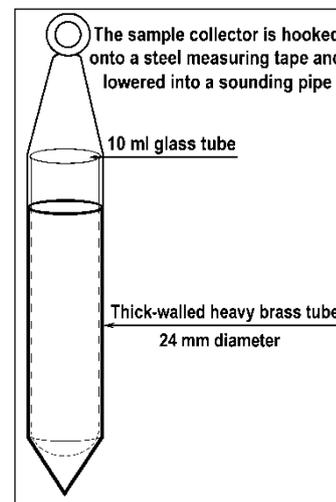
5.10 Taking soundings and samples by means of pipes which are designed for this purpose is allowed at any time.

#### **Sampling techniques**

5.11 The following guidance is given on the taking of samples.

It may be difficult to obtain oil samples from tanks on board ships without opening manhole covers or drawing off pipes or pumps. However, it is often possible to use sounding pipes with a sample collector and glass tubes according to the adjacent figure. It is used with a steel measuring tape equipped with a carbine hook and a ground wire.

A clean, unused 10 ml glass tube is put into the sample collector which is hooked onto a steel measuring tape which must be grounded before starting the sampling. The oil sample is collected through a sounding pipe and transferred to a 100 ml sample bottle. The glass tube is discarded and the sample collector must be thoroughly cleaned!



The bottom of the sample collector has the shape of a cone, which makes it lie down horizontally on the bottom of a tank. This makes it possible to get samples even from very shallow oil layers in a tank.

The sample collector and the steel measuring tape are reused and must therefore be cleaned off properly after usage. This is done by wiping them off with a cloth. Very small amounts of oil which cannot be wiped off will not contaminate the sample as long as the sample is proportionally much larger.



Sample collector with steel measuring tape.



**Left**

The steel measuring tape must always be grounded to the ship's hull when oil samples are collected through a sounding pipe.

**Right**

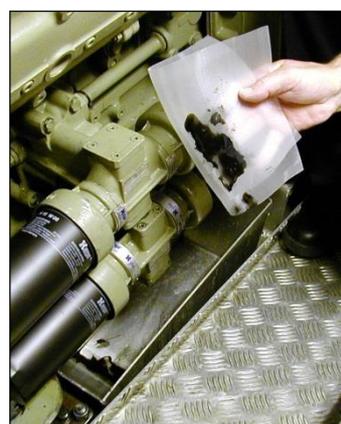
The sample collector can also be used for taking samples from other places with difficult access in the machinery room.



If the oil sample is very small a Teflon® pad can be used. The pad is dipped into the sample and then absorbs a sufficient amount of oil. The whole pad is sent for analysis. The pad is made of Teflon® because other materials might contaminate the sample and disturb the succeeding analysis.

The Teflon® pad is very easy to use. However, the pad is much more sensitive to contaminations than the sample collector as the amount of oil in the pad is usually very small. The pad should therefore be used only when necessary and must be handled carefully so that it is not contaminated by other oils than the sample oil.

The Teflon® pad may well be attached to a cord and lowered down into machinery spaces which are difficult to reach.



Teflon® pad.

## Checklist for sampling in cargo oil systems

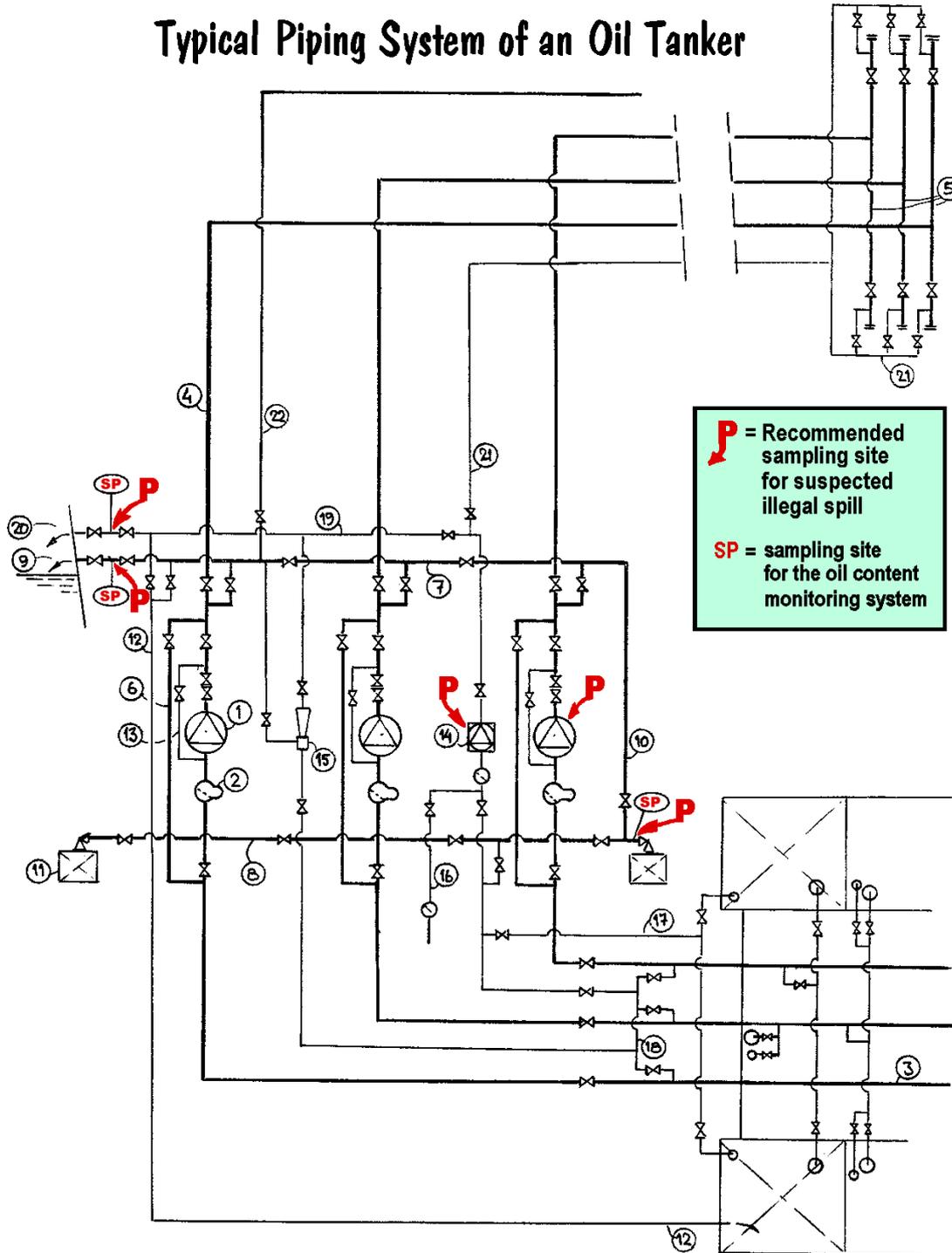
5.12 The following is a checklist for sampling in cargo oil systems:

- a. Find out the ship's category according to the MARPOL convention (COW, SBT, CBT or standard ballasted tanker below 40,000 tdw). Make a copy of the IOPP certificate.
- b. Note the ship's state of loading (cargo/ballast) and make a copy of the Bill of Lading for the current (latest) cargo voyage.
- c. Check the Oil Record Book concerning the whole cycle loading-unloading-ballasting-tank washing. Check that it is signed by the Master. Make a copy of the pages which may be of current interest.
- d. If possible, get hold of a copy of a drawing of the ship's piping system for loading and ballasting.
- e. Check the printouts from the oil-content meter and make a copy of the printout for the current voyage.
- f. Verify current state of ballast (or loading) and check ballasted tanks as well as tanks ballasted during earlier part of voyage.
- g. Check the ship's status in the cargo/ballast cycle, i.e. whether the ship carries departure ballast or arrival ballast, whether tank cleaning has been performed and whether collecting tanks (slop tanks) have been emptied.
- h. Document all oil samples carefully by means of sample bottle labels. Take samples of all oil types which the ship has carried recently and of all oil mixtures which may have been created on board the ship. Take samples of oil residues from all possible sites.

- i. Observe the following:
  - i. The ship's own reference oil samples
  - ii. Slop tanks (also oil-water interface levels, slop volume and water volume)
  - iii. Tanks which contain or have contained oily ballast
  - iv. Pump room keel
  - v. Stripping pumps
  - vi. Overboard piping (both sides)
  - vii. Ballast discharge piping (both sides)
  - viii. Cargo manifolds on deck
- j. Check the records of the Oil Discharge Monitoring System. Oil tankers have a Oil Discharge Monitoring System (ODMS). The ODM is fitted with a recording device to provide a continuous record of the discharge in litres per nautical mile and the total quantity discharged or the oil content and rate of discharge.
- k. Note other observations that may be of value for making a judgement about possible discharges. Take photos of sample sites and other places that may be of value for the investigation.

**Piping system of an oil tanker**

**Typical Piping System of an Oil Tanker**



**Legend for the above figure**

1. Cargo oil pump, usual centrifugal type, 2-4 pcs
2. Pump mudbox, often combined with a vacuum tank for pump evacuation
3. Cargo oil piping in cargo tanks with branchings and connections to the cargo tanks
4. Pump riser to deck and piping on deck
5. Manifold with land connections
6. Pump shunts that allow loading through the piping system (these are sometimes arranged directly from the deck pipes to the bottom pipes, so called “drop lines”)

7. Cross-over at the pumps' pressure side, simultaneous connection overboard (sometimes separate pipes)
8. Pipe at the pumps' suction side with connection to sea valves
9. Discharge overboard from the pumps' connection pipe at the pressure side
10. Ballast pump pipe from the pumps pressure side to sea valve. (This is an earlier alternative to discharge according to 9, and in such case arranged at both sides. The alternative according to 9 is required on new ships. Arrangements according to both 9 and 10 do not exist at the same time.)
11. Sea inlet, usually from both sides
12. Return pipe from overboard connection to slop tank
13. Shunt for drainage of cargo pipes to the suction side of the system
14. Stripping pump, usually plunger type, 1-3 pcs
15. Stripping ejector, 1-3 pcs, sometimes none
16. Suction pipe from the pump room keel
17. Stripping pump's direct suction from slop tanks
18. Stripping suction pipe from the cargo oil piping
19. Stripping system's connection pipe at the pressure side with overboard pipe
20. Stripping system's overboard outlet (may be combined with 9)
21. Stripping pump's pipe for drainage to land
22. Feeding to the tank washing system

### **Sampling in machinery spaces**

5.13 The following is a checklist for sampling in machinery spaces:

- a. Check whether the ship has IOPP certificate, and note whether the ship is certified for 100 ppm or 15 ppm separator standard. Note also whether the ship is exempted from any requirement regarding equipment. Make a copy of the certificate.
- b. Study the Oil Record Book for the engine room and copy the pages for the last 30 days
- c. Figures in the engine log book should be in agreement with the figures in the oil record book.
- d. Check all levels and contents, and take samples of the following:
  - i. Bilge sump
  - ii. Bilge water tank (note down a remark if it does not exist)
  - iii. Waste oil tank (may be more than one)
  - iv. Repletion tank connected to oil fuel tanks
  - v. Separator sludge tanks
  - vi. Empty bunker tanks used for ballast water
- e. Take samples also from:
  - i. Fuel day tanks
  - ii. Bilge water separator outlet
  - iii. Sludge pump outlet

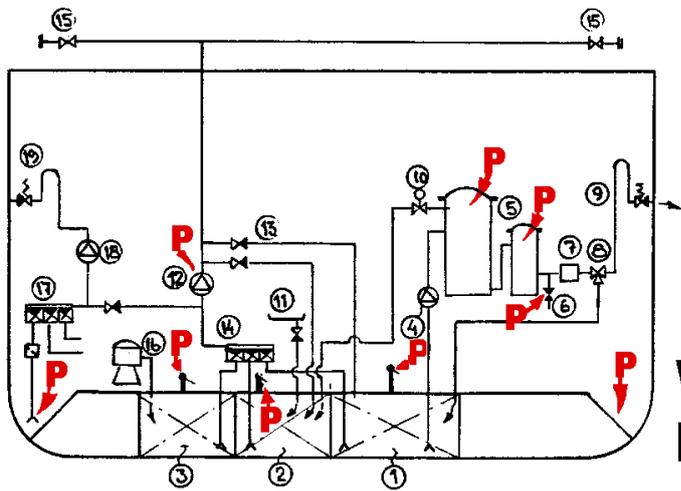
5.14 In addition, the sampler should be aware that oil from the engine room may have been discharged by the emergency bilge pump. This is usually done by an ejector driven by the fire pump or a sea water pump which can also be used as a bilge pump. If there is any suspicion of this:

- a. Examine the bilge water separator. Check the liquid in the plug cock and (if there is any suspicion) insist that the filtering unit is opened.
- b. Examine the tank top for sludge.
- c. Make notes of the types of cleaning agents used in the engine room as well as the stated consumption of them.
- d. If the ship is larger than 10,000 GT and has a 15 ppm separator, the oil content meter and its printout should be examined. Make a copy of the printout for the current time.

- e. Make notes of other observations that are relevant for making a judgement about possible discharges. Take photos of sampling sites and other places which may be relevant for the investigation.

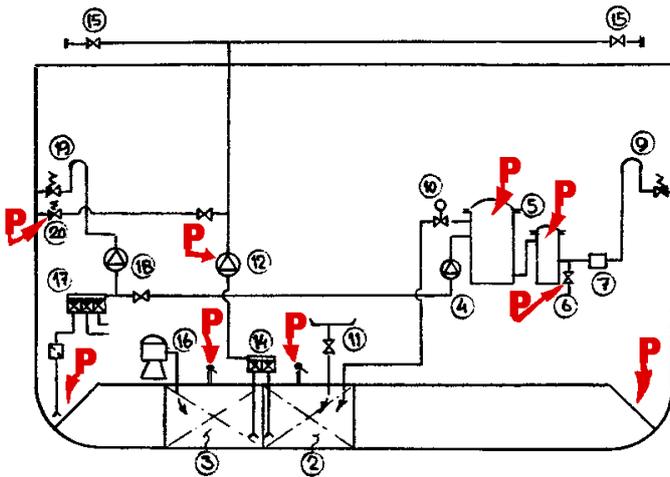
**Basic oil handling systems**

5.15 The following diagram shows the basic oil handling system of a well-equipped modern ship, a common ship and ships smaller than 400 GT:



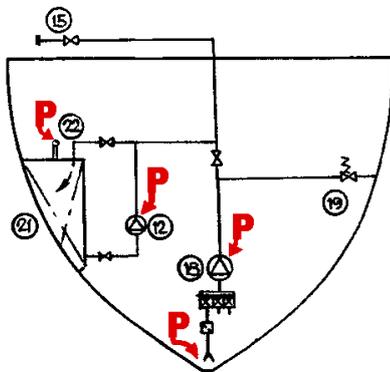
**Machinery Room  
 Systems for  
 Bilge Water and  
 Oil Residues**

**Well-equipped  
 Modern Ship**



**P = Recommended  
 sampling site  
 for suspected  
 illegal spill**

**Common  
 System**



**Small Ship**

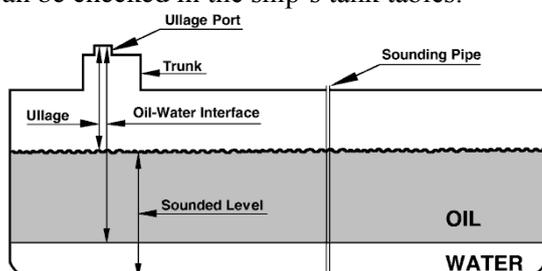
Legend for the above figure

1. Bilge water tank
2. Waste oil tank
3. Sludge tank
4. Bilge water pump/feed water pump to bilge water separator
5. Bilge water separator, 100 ppm or 15 ppm standard
6. Sampling tap in separator outlet
7. Monitoring instrument for high oil content in separator outlet (compulsory on some occasions only)
8. three-way valve for returned cleaned bilge water
9. Overboard pipe from bilge water separator
10. Automatic drainage of oil from bilge water separator
11. Oil sump under drainage sites
12. Transfer pump for sludge and oil residues to deck. This pump can also be used for transferring bilge water from bilge sumps to bilge water tank
13. Transfer pipe for bilge water from bilge sumps to bilge water tank
14. Suction pipes from tanks for transfer to deck
15. International land connection on deck
16. Centrifugal separators for fuel oil and lubrication oil
17. Suction pipe from bilge sumps
18. Main bilge pump which may be used in emergency situations only, and for draining bilge water from the keel to bilge water tank
19. Overboard pipe from main bilge water pump (should be locked in closed position, however not compulsory)
20. Overboard pipe from sludge transfer pump (improper arrangement but not forbidden)
21. Collection tank for all types of dirty water
22. Transfer pipe for dirty water to collection tank

### Taking soundings of ullage and oil-water interface levels

5.16 In some investigations there is a need to calculate the oil volume in a tank where water has penetrated. This can be done by gauging or sounding the tank's ullage and oil-water interface level (see the figure below).

5.17 Ullage and interface gauging is done in cargo and bunker tanks. Taking soundings is the most common method for ballast and fresh water tanks, cofferdams, etc. Whether a given tank gauge figure is an ullage or a sounding value can be checked in the ship's tank tables.



5.18 All gauging must be performed according to the safety advice and directions given in paragraphs 5.4 – 5.10 above.

5.19 Gauging should preferably be carried out by the ship's own crew using the ship's own equipment, under supervision of the personnel responsible for the operation.

5.20 Taking soundings of interface level and ullage is normally done by means of a steel measuring tape equipped with a ground wire. The steel measuring tape must be grounded by way of connecting the grounding wire to the ship's hull. Before a sounding pipe or a manhole is opened, it is important to check that

the cable clamp is safely contacted to the hull, if necessary by scraping off paint, rust, etc. There is no risk of sparks from static electricity if the steel tape is electrically connected to the ship's hull.



5.21 What is called “**water-finding paste**” may well be used on a normal steel measuring tape to sound the oil-water interface level. The tape is coated with this paste which turns red upon contact with water. The interface level can then be read on the tape. Alternatively the steel tape can be chalked with ordinary blackboard chalk. On some occasions the contrast between oil and water on the steel tape will be better with chalk than with water-finding paste.

5.22 The level of the oil-water interface level can also be established by a special **oil-water interface meter** which may consist of a steel measuring tape with a probe in one end and a handle, with an indicator, in the other end. The indicator gives a response for the conductivity of the medium into which the probe is immersed. When the probe is immersed only in the oil, the conductivity is rather low, but when the probe reaches the water interface the conductivity increases considerably. At this point, the probe's (and thus the interface's) distance from the handle can be read on the steel tape.

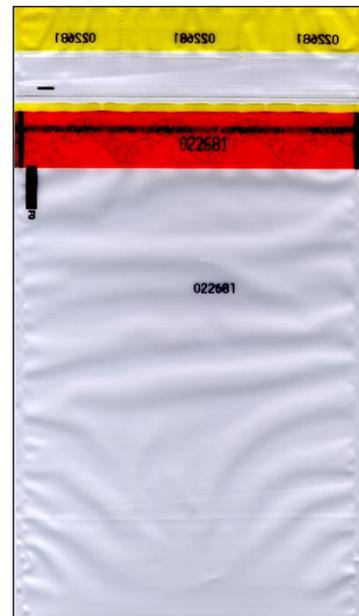
## 6 *Handling samples*

### Sample custody and documentation

Samples and sampling equipment should be handled and stored so that the samples cannot be manipulated, mixed up, or otherwise be contaminated by strange oils. Samples should be handled as legal evidence and should be kept in a “chain of custody” until identification and possible legal procedure has been completed. Therefore, always use approved sealable and individually numbered safety bags with three detachable adhesive number labels with identical number (the same as on the bag).

Each safety bag number is unique for one specific sample. The number is the identification of the sample. One of the detachable number labels shall be affixed onto the glass sample bottle. The next number label shall be placed on the outer plastic jar and the third label on the Letter of Request (described below).

A sample label (see below for an example) shall be affixed to each sample bottle.



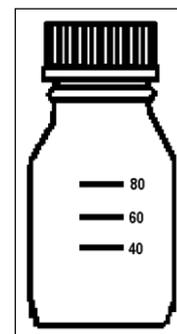
(Space for a number label from an individually numbered safety bag)	<b>Sampling date.</b>
	<b>Judged date for spill:</b>
	<b>Sampling site:</b>
<input type="checkbox"/> Spill <input type="checkbox"/> Ref. sample (e.g. from a ship) <b>Suspected source:</b>	
<b>TEMP. °C</b> <b>Water:</b> <b>Air :</b>	<b>Spill information (volume, extension, judged oil type etc.)</b>
<b>SAMP- Name:</b> <b>Field unit:</b> <b>LER</b>	
<b>Phone:</b> _____ <b>Alt. phone:</b> _____	

### Important documentation for the taking and shipping of oil samples

- ◆ **A Letter of Request** with a specification of the request and information on enclosed samples (Appendix 1). Necessary information in the Letter of Request and/or in the sample bottle label is the following:
  - District, sampler, unit
  - Date and position (or sampling site on board vessel) of sampling
  - Spill's volume/appearance, oil type
  - Suspected source
- ◆ **Sample labels** shall be affixed onto all sample bottles.
- ◆ **Number labels** from individually numbered safety bags shall be affixed onto all sample bottles.

### Filling and labelling of sample bottles

1. As sample containers use 100 - 250 ml thick-walled wide-neck borosilicate glass bottles. A suitable inner neck diameter is 30 mm. The lid tightening should be of high quality. Use a new (unused) sample bottle for each sampling site.
2. If possible, avoid getting water into the bottle. One method to remove water from the bottle is to close the lid and hold bottle upside down for a minute. Then let the oil float upwards to the bottom of the bottle so that the water can be drained by opening the lid carefully.
3. Do not fill the bottle to a higher level than to 2 cm below the lower edge of the lid. If the bottle is completely filled of cold oil it may later leak when the oil volume increases at room temperature.
4. Check that the bottle lid gasket is undamaged and that the lid fits tightly. Carefully wipe excess oil and water from the outside of the bottle.
5. Affix a filled-in sample label onto each bottle.



### Packing of samples

1. An oil sample must be packed appropriately before it can be shipped to a laboratory for analysis. The sample is usually in either of the following forms:
  - ◆ Free oil
  - ◆ Sample pad containing oil
  - ◆ Oiled item (feather, piece of wood, stone, etc)

2. Allow excess water to drain off from the sample. Check that the sample does not contain animal tissue which might rot during transport. Insert the sample into a sample bottle. The insertion of a sample pad can be facilitated by pushing the pad with the used clothes peg or a clean peg of any kind. Perform this without touching with fingers or contact with items that might contain disturbing contaminants.
3. Affix a sample label onto the sample bottle and a number label from an individually numbered safety bag.
4. Insert the bottle into a safety bag and seal the bag according to the bag's instruction.
5. Put the bottle package into a 600 ml plastic jar which is used as an outer container. Affix the second number label onto the outside of this jar (keep the third number label for the Letter of Request).
6. The samples should be immediately sent to the Sample Co-ordinator. A quick handling of samples is important. If the transmittal is delayed the samples should be kept under a temperature of less than +4°C. The Sample Co-ordinator watches the continued shipping of the samples.
7. The plastic jar (with its content of a sample bottle in a sealed safety bag) should be placed in a cardboard box, before shipment, as shown in the figure to the right. If prescribed in local regulations the whole packaging must be approved and the cardboard box must wear an inscription which shows this approval (see the example under the cardboard box).

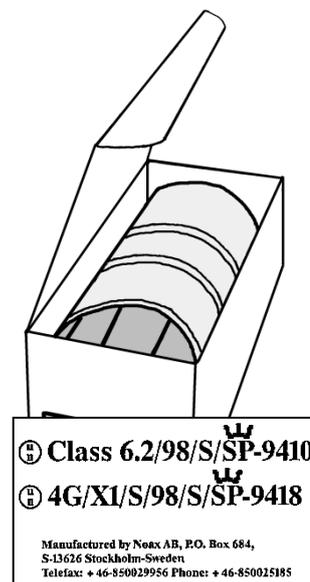


### Shipping of oil samples

The Sample Co-ordinator collects all samples and fills in a Letter of Request which is sent to the laboratory together with the samples.

The Sample Co-ordinator should also call in special personnel if required from an Industrial Laboratory for conducting physical analyses. The purpose is to take samples on board a ship to investigate if an oil is persistent according to the specifications of the International Oil Pollution Compensation Funds. The Sample Co-ordinator judges if it is more appropriate for the local samplers to perform this work. In this case the Sample Co-ordinator acquires special sample containers from the Industrial Laboratory.

Oil samples are to be considered as dangerous goods when they are shipped. However, if contained and packaged as described above, they can normally be shipped as "limited quantities" which means simpler shipping requirements than for normal dangerous goods. **Local regulations should always be followed.**



### Examples of sampling kits

Case with equipment for sampling of oil spills	No.
Metal ring (for polyethylene cornet)	1
Holder for metal ring	1
Polyethylene cornet	20
Teflon <sup>®</sup> pad (20x30 cm) for thin oil films	15

Peg (for Teflon <sup>®</sup> pad)	20
Line (for rod and peg)	coil
Rod (for Teflon <sup>®</sup> pad) (perhaps not enough room in the case for this rod)	1
Sample bottle, 100 ml thick-walled borosilicate glass	10
Sample label	50
Safety bag (20x30 cm), approved, sealable, individually numbered	50
Wiping cloth (or paper)	package
Disposable gloves	package
Sampling peg (for scraping small samples of oil)	50
Plastic bag (for filled sample bottles, garbage etc.)	20
Laminated oil sampling flow diagram (cf. Annex3, Section 5)	1
Laminated instruction "Oil spill sampling" (cf. Appendix 1)	1
Laminated equipment list	1

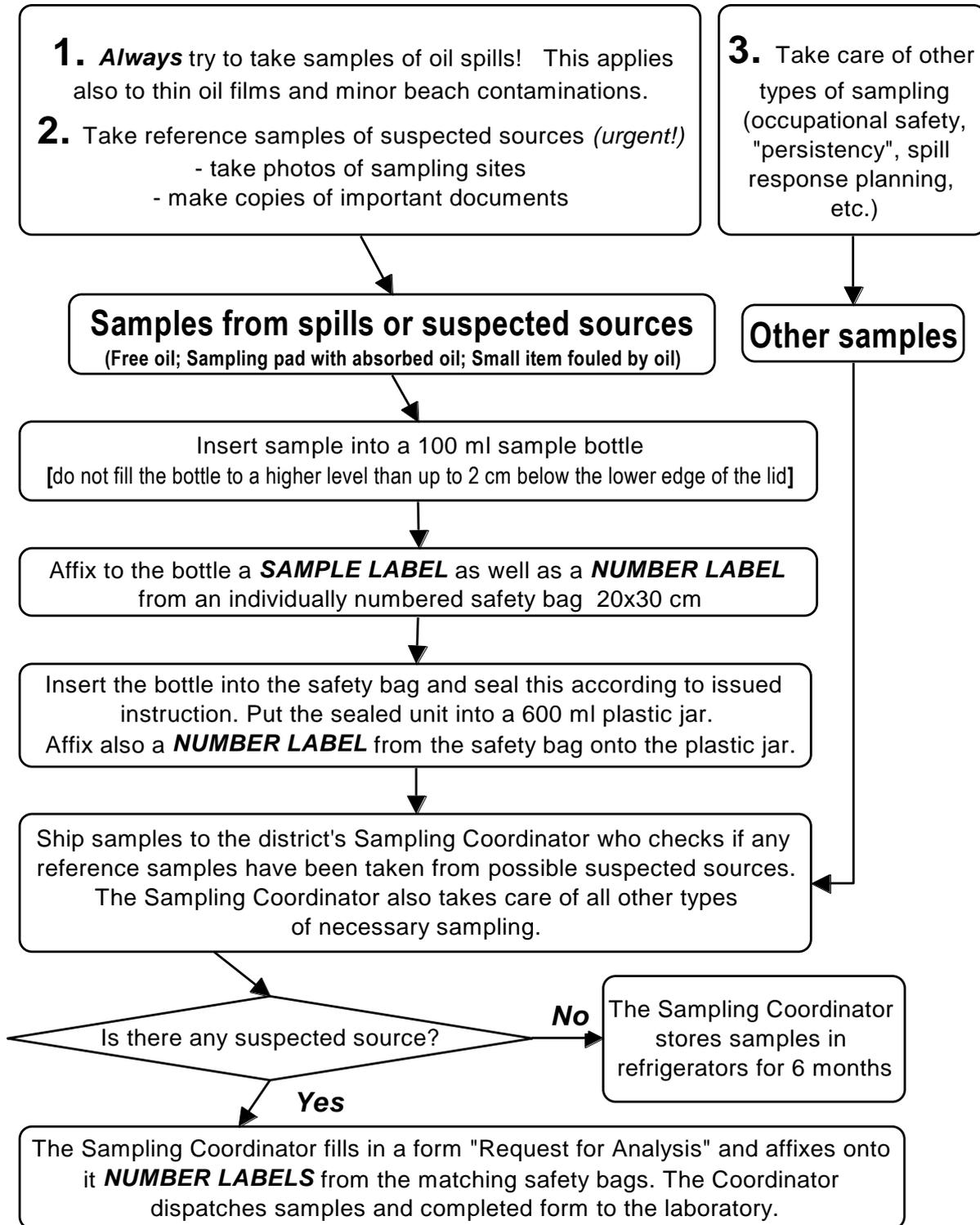


<b>Case with equipment for sampling on board ships</b>	<b>No.</b>
Sample collector of brass for sounding pipes (to be hooked on the steel measuring tape)	1
Steel measuring tape	1
Brass weight (to be hooked on the steel measuring tape)	1
Ground wire (to be hooked on the steel measuring tape)	1
Water finding paste	tube
Blackboard chalks (for chalking steel measuring tapes)	package
Glass tube 10 ml (with lid) for sample collector	10
Teflon <sup>®</sup> pad (20x30 cm) for thin oil films	15
Line	coil
Sample bottle, 100 ml thick-walled borosilicate glass	20
Sample label	50
Safety bag (20x30 cm), approved, sealable, individually numbered	50
Writing-pad (with cover and pen)	1
Wiping cloth (or paper)	package
Disposable gloves	package
Sampling peg (for scraping small samples of oil)	50
Plastic bag (for filled sample bottles, garbage etc.)	20
Earplugs	30x2
Laminated oil sampling flow diagram (cf. Annex3, Section 5)	1
Laminated equipment list	1

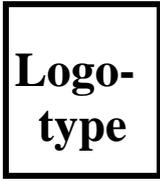


### Oil sampling flow diagram

The sampling flow chart below highlights important observations in the sampling procedure and shows the order of the steps that should be taken.



**ANNEX 1: Request for analysis (example only)**



**Sending Unit**  
 Commanding Officer

Date

To: *Laboratory name and address*

**Request for analysis**

Request analysis of the samples listed below

**Sampling date:**       **No. of samples:**       **No. of pages:**

<u>General information</u> (Occurred incident, weather, spill size, suspected source, judged oil type, etc.)	Number label from safety bag	Information which is not given on the sample bottle *

\*Information: Sampler: Name/field unit  
 Spill : Latitude & longitude, and sampling site's geographical name  
 Ship: Ship name and sample site on board the ship

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Signature

---

Name in block letters

---

Rank

## ***ANNEX 2: Checklists for oil sampling***

### **General**

1. Samples should be taken with sampling devices and containers of glass, Teflon<sup>®</sup> or stainless steel. Use disposable devices if possible and make sure they are used only once.
2. Preferably, at least 1 ml of oil should be sampled but no sample should be considered too small. If possible, a larger sample volume is recommended for additional analyses (100 ml).
3. If contamination of the sample is suspected, take blind samples from the possible contamination.
4. To permit cross-checking, three parallel samples should be taken from some of the localities. In larger spills, one sample per locality should be sufficient.
5. The sampling container should be properly labelled with all relevant information before sealing of the safety bag.
6. A sampling log book with all relevant information from the samples and the sampling environment should be kept.
7. The samples should be taken and handled under the supervision of authorized personnel. A chain of custody should be maintained until the identification process is concluded by the relevant authority.
8. If stored, all oil samples should be kept under lock and key in darkness at a maximum temperature of +4°C (but not be frozen).
9. Oil samples should be taken to an authorized laboratory without unnecessary delay.
10. Packing and transport should be carried out in such a way that damage to the samples is avoided. Sorbent material should be used.
11. National regulations for transport of flammable materials should be followed.
13. Samples should be handled as legal evidence.

### **Collection of samples from the water surface**

1. Try to concentrate the oil fraction in the sample container by skimming the oil from the water. A conical Teflon<sup>®</sup> bag or polyethylene cornet or a clean bucket with small holes can be used to concentrate the oil into the container.
2. Do not fill the container completely. Allow for thermal expansion of the sample.
3. If possible, sample oil from the thickest part of the slick.
4. In highly contaminated waters, e.g. harbours, take blind samples.
5. If a combat action against a waterborne oil spill lasts for several days, take oil samples every day for documentation of weathering and possible additional spills from other sources.
6. If other suspicious slicks occur, i.e. their appearance differs, or if slicks are observed a long distance away from the expected site, also take samples here for identification of other possible sources.

### **Collection of samples from beaches**

1. Take samples from the geographical edges of the polluted area to document the range of the spill.
2. Take samples from different localities within the polluted area to document the spill distribution.
3. Old tar balls, earlier oil spills, creosote from pier logs, etc. can contaminate the sample. Take blind samples if contamination is suspected.
4. Take samples for identification of other possible sources whenever anything unusual or suspicious (colour, texture, etc.) is observed in the polluted area.
5. When seaweed, small pieces of wood or debris are contaminated by oil, the complete specimen can be placed in the sampling container.

### **Obtaining samples from oiled animals**

1. Contaminated feathers and fur may be cut off and placed in the sample container.
2. Dead, oiled birds or other animals may be collected in plastic bags, labelled and frozen before sending to a laboratory.
3. Before sending any animals, make contact with the relevant authority to make proper arrangements for transport and storage.
4. Samples with large amounts of organic materials should be frozen to avoid biological decomposition.

### ***ANNEX 3: Oil sampling organization***

#### **1 Background**

1.1 A whole chain of activities leads to the information to be presented about a certain spill. Sampling is the first step in the process of obtaining information about the spill. If the sampling is not done in a proper way the results of the analysis will not be as accurate as possible.

1.2 Samples can be taken from the water surface, suspected polluter or the shore line. It is important to take samples as often as possible. One reason is that the personnel will keep up their know-how. Another reason is that even if there is no suspected polluter when an oil spill is observed one might be identified at a later stage.

1.3 This document presents the purpose of sampling and how sampling activities can be organised.

#### **2 Training**

2.1 All personnel involved in sampling need to be trained to assure the sampling is performed in a correct way. This is also something that will be questioned by lawyers in the legal process following an oil spill. When samples are taken at a suspected polluter it is important that the sampler has been working on board ships. This will make sure he/she will have the knowledge and experience of the piping systems in machinery spaces and cargo systems.

2.2 Training should be ongoing to ensure that the level of competence is maintained over time.

#### **3 Purpose of sampling**

##### **General**

3.1 Sampling and subsequent analysis shall answer questions regarding the spills' origin as well as their properties and effects. To accomplish this, samples should be taken for several different purposes, which are dealt with in this section.

3.2 Some spills may involve contacts and co-ordination with other countries regarding sampling and analysis. On some occasions, the International Oil Pollution Compensation Funds in London needs supplementary information. Occasionally, foreign agencies should be contacted to exchange samples, analysis results, examination reports, etc.

##### **Occupational safety**

3.3 When necessary, the spill should be examined (analysed) to establish whether there are any health risks for the response personnel. The substance may be flammable and cause fire and/or explosion, or may be toxic and cause danger to health if inhaled or exposed to skin.

##### **Penal liability of the polluter**

3.4 The responsible polluter should, if possible, be identified and be charged for the spill. This can be done by comparing chemical analyses of samples from the spill with samples from suspected sources. If identity is established between the spill and a suspected source, this can help to identify the polluter.

##### **Economic liability of the polluter**

3.5 The results of sampling have often been used as a basis for compensation claims against the polluter. These claims may concern costs associated with response and cleanup measures, or damage to property, fishery, recreational areas, etc. Above all, it is important to tie the suspected polluter to the damage in order to confirm the claims. Supplementary analyses are sometimes needed to show if the oil has such properties ("is persistent") so that compensation can be obtained from the International Oil Pollution Compensation Funds in London.

### **Spill response planning**

3.6 On some occasions, special analyses can give important support information for the planning of response and cleanup work. It is important to study chemical and physical property data of the substance when selecting equipment and methods as well as safety routines for the response operation.

### **Short term environmental protection**

3.7 The substance's acute deleterious effects on the environment may vary considerably depending on its properties. Extremely viscous oils have lower tendency to smear beaches, plants and animals. Medium viscous oils create high risk for smearing. Low viscous oils give low risk for smearing, but dissolve greater amounts of dangerous components into the water body. Besides the substance itself it may also be necessary to sample and analyse the water column, sediment, organisms, etc.

### **Long term environmental protection**

3.8 Certain substances may cause long-term deleterious effects on the environment, and some species may be knocked out, or the environment be polluted for a long time. Assessment should be made to judge how the environment can be restored. It may be necessary to sample and analyse the substance itself, as well as water, sediment, organisms, etc.

### **Information service**

3.9 Many, and sometimes tricky, questions are asked about the substance's properties and effects, especially when facing a large or hazardous spillage. In such cases it is important to give rapid and correct information in order to reduce public concern and the spread of rumours. Sampling and analysis can thereby provide the basis for information to be given and for the choice of information channels. When informing the public, and those who are directly affected by the spill, it is important to account for certain data, for example:

- a. the spill's origin and extension
- b. the substance's properties and spread in the environment
- c. effects on human and environment
- d. consequences for various parties and bodies
- e. ongoing work regarding response, cleanup and disposal.

### **Disposal**

3.10 The selection of techniques for the subsequent disposal is based on the spill's volume and its properties. For instance, certain disposal plants cannot process oils with a water content which is too high. Others cannot process oils which contain too much debris. Certain oils may contain toxic (for example chloroorganic) compounds. Such impurities may put heavy demands on the disposal process technique. On such occasions, a special examination is needed to establish the oil's properties and impurities.

### **Summary of purpose and types of samples**

3.11 The table below summarises the various purposes of sampling, and types of samples that may be necessary to take during major spills of oil and hazardous materials at sea. The table also states by whom the various types of samples should be taken.

<b>PURPOSE</b>	<b>SAMPLES</b> (examples)	<b>SAMPLER</b> (examples)	<b>SAMPLE USER</b> (examples)
<b>1. Occupational safety</b>	Air samples taken with trace gas detection devices	Coastguard Municipality	Response Commander
<b>2. Penal liability of polluter</b>	Several samples (0.1-100 ml), taken with the Coastguard oil sampling kit, both from spills and suspected sources	Coastguard Shipping Administration Police Municipality	Coastguard Police Prosecutor
<b>3. Economic liability of polluter</b>	Samples according to 2; Also extra samples (at least 100 ml) for examination of "persistence"; Biological samples	Coastguard Municipality Local Government	Insurance Company International Oil Pollution Compensation Funds Central Government Rescue Services Agency
<b>4. Spill response planning</b>	Samples according to 2; Also extra samples (at least 100 ml) for examination of viscosity, density, etc.	Coastguard Municipality	Coastguard Municipality Local Government
<b>5. Short-term environmental protection</b>	Samples from spill, water body, sediment, organisms, etc., for chemical-biological analyses	Local Government Municipality	Municipality Local Government Environmental Protection Agency Fisheries Management Agency
<b>6. Long-term environmental protection</b>	Samples according to 5	Municipality Local Government Environmental Protection Agency Fisheries Management Agency	Municipality Local Government Environmental Protection Agency Fisheries Management Agency
<b>7. Information service</b>	Samples according to 2; Also extra samples (at least 100 ml) for special analyses	Coastguard Municipality Local Government Environmental Protection Agency Board of Fisheries	Authorities Mass Media Public Fishermen Scientists
<b>8. Disposal</b>	Sample (1 litre) for examination of water content, debris, etc., that can effect the disposal process	Coastguard Municipality	Local Government Municipality Transport Business Disposal and Recycling Plants

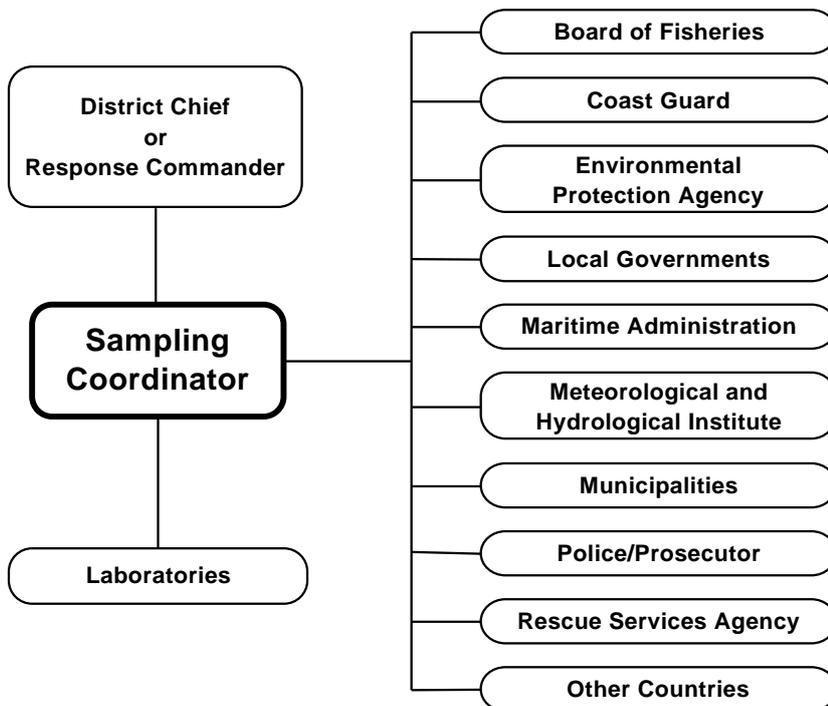
### Responsibilities during sampling

3.12 Spills of oil and hazardous materials occur every day in the marine environment as well as in the inland aquatic environment. Although most of the spills are very small, they still often require sampling to get a chance of linking them to the responsible polluters and assessing the damage to environment. It is therefore important to trace all conceivable polluters as soon as possible. There is a great need for co-ordination as the sampling activities for spills and suspected sources may go on simultaneously at different places. This work may be performed by a **permanent Sampling Co-ordinator** within the environmental response organisation. This Co-ordinator should be subordinated to the District Chief of the Environmental Response Organisation. During the Organisation’s everyday work the Sampling Co-ordinator keeps record of spill samples from various sites and initiates sampling on board suspected sources when overlooked by the field officers.

3.13 The sampling activities may increase considerably during more significant accidents involving spills of oil and hazardous materials. Many different samples are taken for several different purposes. Many authorities and institutions may be involved in the sampling activities and a confusing situation may arise where different bodies work, perhaps without being aware of each other. On such occasions, it is crucial to co-ordinate the activities to avoid duplication of work, as well as to avoid missing chances of important sampling. Such co-ordination could also promote prevention of public concern and the spread of rumours that often occur during major and hazardous spill accidents. In this situation, the Environmental Response Commander should appoint an **ad hoc Sampling Co-ordinator** to be responsible for the overall co-ordination of all sampling work during the course of the response operation.

3.14 Whenever there is co-operation in a major spill accident between two or more different national response services, an agreement should be settled on a joint ad hoc Sampling Co-ordinator. The Sampling Co-ordinator should be responsible for the overall co-ordination of all sampling on land and at sea during the run of the response operation. When the accident response phase is finished, and the long-term cleanup work has started, the responsibility for sampling is normally handed over to the local Municipality. However, it is convenient that the original ad hoc Sampling Co-ordinator maintains the duty for sampling concerning the polluter’s penal and economic liabilities.

3.15 The contact network for the Sampling Co-ordinator and other bodies is shown in the chart below.



### **The duties of the Sampling Co-ordinator**

- 3.16 The sampling coordinator, following the above tables, should:
- a. Establish a plan for documentation of the sampling work.
  - b. Make arrangements for appropriate sampling if health risks are liable to occur.
  - c. Make sure that necessary samples are taken concerning extent and accuracy both of spill, contaminated items and suspected sources.
  - d. Judge whether the oil has such properties (“is persistent”) that compensation can be obtained from the International Oil Pollution Compensation Funds in London. In such a case, provide for appropriate sampling and analysis.
  - e. Judge whether special examinations of the spill are needed to facilitate spill response measures.
  - f. Judge whether short-term and/or long-term environmental impact may be expected. In such a case, contact appropriate agencies according to the table in Section 3.10.
  - g. Judge whether special examinations and analyses are needed when providing for general and specific needs for information.
  - h. Contact responsible bodies for transport and disposal. Check what special information is needed in this context and make arrangements for relevant analyses.

## **4 Handling of spill information**

4.1 A whole chain of activities lead to the information to be presented about the spill. This chain consists of:

- a. Sampling
- b. Sample keeping and transmittal
- c. Identification, labelling, documentation
- d. Chemical, physical and biological analyses
- e. Judgement of the analysis results
- f. Presentation of the analysis results

4.2 Each step must be taken with care and accuracy. This is a prerequisite for compilation of an information report which is as comprehensive, clear and effective as the circumstances allow. Examples of points to be observed during sampling and the subsequent handling of samples are:

- a. Several samples must be taken from spills which cover large areas or which are divided between several locations.
- b. Use as much disposable equipment as possible to minimize the potential of contamination.
- c. Sampling from a source which is suspected of being responsible must be performed very carefully, so that the suspected polluter can be tied to the spill with certainty, or cleared of responsibility.
- d. All samples must be labelled so that they unmistakably refer to the correct sampling points.
- e. Sample containers must be labelled, sealed and kept in such a way that any suspicion of confusion or manipulation can be excluded.
- f. All sampling documentation, as well as other evidence, must be available throughout the investigation, but must also be protected from loss, confusion or manipulation.
- g. Records must be kept continuously and contemporaneously of all transmissions between officials of samples, other evidence and documentation.

4.3 The Sampling Co-ordinator is responsible for transmission of samples to the appointed laboratories.

4.4 It is recommended that laboratories which will be used for the analysis are contacted prior to any oil spill to make sure templates for request for analysis (Appendix 2) are available and to establish channels for contact in case quick analyses are necessary.

4.5 It is important that a complete chain of custody is maintained. The samples should be kept under control from the initial sampling until the legal process is finalized.

## ***HELCOM Response Manual Volume 1 (Oil), Chapter 7***

### **7. CO-OPERATION ON AERIAL SURVEILLANCE OVER THE BALTIC SEA AREA**

#### **7.1 INTRODUCTION**

Co-operation on surveillance within the Helsinki Convention is carried out in accordance with Annex VII (Regulations 1, 3, 4, 10) to the Helsinki Convention and HELCOM Recommendation 34E/4.

The purpose of aerial surveillance is to detect spills of oil and other harmful substances which can threaten the marine environment of the Baltic Sea area. These spills caused by accident or made in contravention of international Conventions will be registered and, if possible, sampled from both the sea surface and on board the suspected offender.

The aerial surveillance is complemented by satellite surveillance to enable bigger area coverage and optimisation of flights effectiveness.

Within the framework of the Helsinki Convention it has been decided to establish close co-operation on airborne surveillance. This will be achieved by

1. regular National Flights
2. setting up special flights such as Coordinated Extended Pollution Control Operation (CEPCO) Flights
3. standardization of reporting formats and exchange of information to Contracting Parties
4. working together in improving existing systems and developing new techniques to enhance the information obtained.

#### **7.2 PARTICIPATING STATES**

All Contracting Parties to the Helsinki Convention have agreed to participate in the collaboration to the best of their ability. Each State operates at least in its own response region during regular national flights. In addition the States organise and participate in specific joint Coordinated Extended Pollution Control Operation (CEPCO) Flights in the Baltic Sea. Closer cooperation with neighbouring countries, within e.g. sub-regional agreements, is appreciated.

#### **7.3 CO-OPERATION**

The HELCOM Informal Working Group on Aerial Surveillance (HELCOM IWGAS) is, under the auspices of the HELCOM Response Group (HELCOM RESPONSE), responsible for the co-operation in the field of joint aerial surveillance as well as for co-ordination of the satellite based oil spill surveillance and evaluation of its results and operational effectiveness. In the regular meetings the Contracting Parties appoint one Contracting Party, following the alphabetic order of the Contracting Parties, to be the Chairing country for the Working Group for the following two years. The tasks to be undertaken are stated in Terms of Reference for the Working Group.

#### **7.4 FLIGHT TYPES**

##### **7.4.1 Regular National Flights**

National flights are defined as flights where the extent and timetable is decided by each of the Contracting Parties individually. National flights are recommended to take place within

and outside the borders of the country in question in order to cover by individual/and joint action the whole of the Baltic Sea Area with regular and efficient airborne surveillance (HELCOM Recommendation 34E/4). The HELCOM Contracting Parties are recommended to co-ordinate surveillance activities which take place outside territorial waters. The results of such regular national surveillance are to be reported yearly to the HELCOM Response Group in accordance with the agreed HELCOM annual reporting format on illegal discharges observed during aerial and satellite surveillance.

#### **7.4.2 CEPCO Flights**

The aim of Coordinated Extended Pollution Control Operation Flights (CEPCO) Flights is a continuous flight activity within the responsibility zones of neighbouring countries. According to a prefixed flight schedule surveillance aircraft of several countries adjoining the chosen CEPCO Flight routines have to maintain for 24 hours or more a continuous surveillance flying along the prefixed flight patterns. The chosen flight routes are where the likelihood of spills is higher than in other areas with sporadic traffic.

In order to shorten the approaching time of participating aircraft the chosen airport/air base should be located close to the respective area. The airport must ensure a day and night service for forthrunning landing, starting, and preferably ground power facility for stand-by.

When planning the route different endurances of aircraft should be taken into account. The route length should be oriented on the lowest endurance time/endurance distance of the relevant aircraft. Route planning must exclude restricted areas for flight operations.

Diplomatic clearance for flights within neighbouring territorial waters must be sought for well in advance of the CEPCO operation. Responsibility for applying diplomatic clearance for flights is the responsibility of the participating country.

A communication scheme between the surveillance aircraft and patrol vessels must be disseminated to all participating parties in order to ensure a close co-operation between aerial observations/-detections and subsequent law enforcement and/or prosecution measures including sampling by patrol vessels.

CEPCO Flights should be supported as far as possible with satellite images covering the operation area in order to provide indication of possible oil slicks.

All the participating countries must ensure a day and night service of their National Reporting Centres (R.C.); the hosting country uses its R.C. during the CEPCO Flight conduction as lead agency also for the coordination of unforeseeable events.

In case of having caught a polluter red-handed an urgent notice shall be sent to the R.C. in whose area the suspected pollution was detected.

#### ***Super CEPCO Flights***

Super CEPCO Flights are biannual CEPCO flights with duration of several days. Super CEPCOs are coordinated with the BONN Agreement in order to ensure that one Super CEPCO is organised every second year year in either the Baltic Sea or the North Sea, i.e. once every four years under HELCOM and once every four years under the BONN Agreement. During years when no Super CEPCOs are organised, the HELCOM Contracting Parties should organize CEPCOs (North/South) or Mini CEPCOs.

### ***CEPCO North and CEPCO South Flights***

Every year, when there is no Super CEPCO in the Baltic Sea, a CEPCO North and a CEPCO South Flight with duration of 24 hours or more are carried out with the participation of interested countries located close to the selected surveillance area.

### ***Mini CEPCO Flights***

Mini CEPCO Flights may be arranged by neighbouring countries, during which a common area is continuously overflown for 12 hours or more.

To reduce the cost of the operation, the participating aircraft will use their normal national airports during the operation.

## **7.5 GUIDELINES FOR NATIONAL AERIAL SURVEILLANCE IN THE BALTIC SEA AREA**

### **7.5.1 Introduction**

The aim of the following provisions for surveillance flight planning is to give guidance for surveillance flights and to implement the first part of HELCOM Recommendation 34E/4, namely to intensify their endeavours to cover by individual or joint action the whole of the Baltic Sea Area with regular and efficient airborne surveillance (cf. also Annex VII to the Helsinki Convention).

National surveillance is to be regarded as regular and efficient only if flights are carried out by duly trained crew and they fulfil the requirements of minimum flight frequency and equipment and share of flights in darkness as specified in sections 7.5.2 and 7.5.3 below.

### **7.5.2 General rules for a minimum of regular surveillance flights**

#### ***Flight frequency***

All coastal States should endeavour to fly - as a minimum - twice per week over regular traffic zones including approaches to major sea ports as well as in regions with regular offshore activities.

Experienced observers/pilots shall hereby contribute reliable detections, classifications and quantification of observed pollution, their frequencies and geographical distributions.

Other regions with sporadic traffic and fishing activities should be covered once per week.

It is recognized that there might be some limitations to carrying out the surveillance flights due to weather conditions and that all flights will be performed according to national flight operational manuals.

Priority at the flight planning must always be given to the detection and identification of polluters.

#### ***Equipment***

The following equipment can be considered as standard for surveillance aircraft operating in the Baltic Sea:

- video/photo cameras

- SLAR
- IR-UV
- EO/IR
- AIS receiver
- Maritime VHF with DSC
- satellite positioning system (GPS or similar)

The following equipment can be considered supplementary:

- Microwave
- laser fluorosensor
- voice recording
- satellite telecommunication
- HF radio with DSC

### ***Flights without remote sensing equipment***

The visual detection range under normal visibility conditions can be assumed with 20 km; only under extremely good horizontal and vertical visibility can a detection range of 40 km be covered. However, a maximum cover range of 15 km on both sides of the flight patterns should be the basis for a minimum of flight hours for national flights in order to ensure reliable and comparable observation conditions. GPS or similar is recommended.

### **7.5.3 Additional remarks concerning flights flown in darkness or poor visibility with remote sensing equipment**

Flights in darkness or poor visibility have a limited possibility to visually identify offenders of MARPOL 73/78 but standard modern equipment (see 7.5.2. above) has overcome this limitation.

Regular surveillance operations in darkness are recommended, but the share of flights flown in darkness (according to the aviation definition) is to be decided by the responsible authorities in the Contracting Parties based on operational assessment.

## **7.6 GUIDELINES FOR SATELLITE SURVEILLANCE IN THE BALTIC SEA AREA**

Satellite surveillance is an important tool supporting aerial surveillance in the Baltic Sea area. It is recommended that satellite detections are checked as soon as possible by aerial surveillance or other means available.

HELCOM IWGAS is responsible for defining the total operational needs for satellite images in the Baltic Sea and agrees on common practices.

## **7.7 REPORTING**

The Contracting Parties will report on their entire annual surveillance activity during flights over their Exclusive Economic Zone (EEZ) in the reporting year. Observations obtained during flights outside a Contracting Party's responsibility zone, including CEPCOs, should be reported to the country and organization responsible for the area. Contacts should be used in accordance with chapter 1 to this manual (or in accordance with special agreements e.g. CEPCOs). The country and organization responsible for the area should be the one that reports the data to HELCOM.

To record the flights the following two formats should be used:

### **7.7.1 HELCOM/BONN Agreement Standard Pollution Reporting Format following the Standard Pollution Observation Log Completion Guide**

- Standard Pollution Observation Format ([Excel](#)), this should always be filled in, even when no spills were observed
- Standard Pollution Observation Format Completion Guide ([link](#))

### 7.7.2 Joint standard annual reporting format for HELCOM and Bonn Agreement on illegal discharges observed during aerial and satellite surveillance

The joint reporting format, including explanations and data standards, described in the Tables 1, 2, 3 & 5 (Table 4 is not applied in the Baltic Sea) of this chapter should be used to complete the reporting to the HELCOM Secretariat:

- Table 1. National flights (should only include those spills that are inside the reporting Contracting Party's own EEZ).
- Table 2. Satellite detections (to be completed by the European Maritime Safety Agency -EMSA).
- Table 3. Coordinated Extended Pollution Control Operations (CEPCO)
- [Table 4. Tour d'horizon flights, programme for aerial surveillance of offshore oil and gas installations (not applied in the Baltic Sea).]
- Table 5. Observed spills. Each Contracting Party will send a compilation of the spills detected in other Contracting Parties' EEZs to the Contracting Party in question **by the end of January** of the following year. The receiving Contracting Party will compare the data with their annual national data, delete any duplicates and complete their national data where needed. By doing so, all Contracting Parties will be able to obtain a full annual national dataset containing all spills inside their EEZ – inclusive of those detected by other Contracting Parties. – and report this dataset as Table 5 to the HELCOM Secretariat **by 15 February**.

Meeting the outlined standards/specifications is of the utmost importance to ensure inclusion of Contracting Parties data in the [HELCOM Data and Map service](#).

Once received by the Secretariat, aerial surveillance data will be quality controlled to ensure the data standards have been met- any queries will be forwarded to agreed contact points for resolution before the data is included in the database.

Where applicable, all values are to be presented using a comma as a decimal separator (“ , “) and a space as a thousand separator (“ “). All coordinates are to be calculated using WGS84 and to be presented as decimal degrees. If data are not recorded, a blank is to be left, zeroes are only to be reported on the occasion that it matches a measured parameter, i.e. wind speed was measured as 0 m/s.

In case of multiple observations/detections of accidental releases of oil or harmful substances from a single incident (accidental marine pollution in form of numerous observations of accidental spills over a period of several days, weeks or months, e.g. with continuous releases from a wreck), only 1 line should be filled in under Table 5. The entry should include the start date of the incident, the position of the incident (or wreck), and an overall estimated volume based on the various aerial surveillance estimates made throughout the incident period (on the condition that the resulting order of magnitude remains reliable, otherwise the initially observed oil spill volumes can be mentioned, or the oil volume column can be left blank). This single 'incident' line should be accompanied with a short explanatory note in the 'Remark' column that gives some more details on the added incident data, in particular on the estimated volume data and how these have been obtained and/or should be interpreted.

**Table 1. National flights**

This data should be completed for flights which were conducted in the EEZ of the reporting Contracting Party

Country	Year	No. of flight hours			Remarks
		Daylight	Darkness	Total	

Column Header	Format Example	Explanation
Country	Netherlands	Full country name the reported data applies to
Year	2013	The year that the reported data applies to
No. of flight hours – Daylight	136:24	The number of flight hours and minutes carried out in daylight - From 30 minutes after Morning Civil Twilight, until 30 minutes before Evening Civil Twilight as given in the Air Almanac – shown as a colon separated value. No decimal values
No. of flight hours – Darkness	86:23	The number of flight hours and minutes carried out in darkness - From 30 minutes before Evening Civil Twilight, until 30 minutes after Morning Civil Twilight as given in the Air Almanac – shown as a colon separated value. No decimal values
No. of flight hours – Total	222:47	= (No. of flight hours - Daylight) + (No. of flight hours – Darkness) – shown as a colon separated value. No decimal values
Remarks		Any additional textual information to inform on particular situations

**Table 2. Satellite detections**

This data should be completed by EMSA for the Baltic Sea

Country	Year	Detected	Confirmed mineral oil	Confirmed other substances	Confirmed unknown spills	Confirmed natural phenomena	Nothing found
<b>Column Header</b>			<b>Format Example</b>				<b>Explanation</b>
Country			Norway				Full country name the reported data applies to
Year			2013				The year that the reported data applies to
Detected			215				The number of satellite detections inside national EEZ
Confirmed mineral oil			7				The number of satellite detections confirmed as mineral oil
Confirmed other substances			3				The number of satellite detections confirmed as other substances
Confirmed unknown spills			2				The number of satellite detections which could not be visually verified
Confirmed natural phenomena			1				The number of satellite detections confirmed as natural phenomena
Nothing found			202				The number of verified satellite detections where nothing could be found

**Table 3. Coordinated Extended Pollution Control Operations (CEPCO)**

Country	Year	No. of flight hours			Remarks
		Daylight	Darkness	Total	

Column Header	Format Example	Explanation
Country	Netherlands	Full country name the reported data applies to
Year	2013	The year that the reported data applies to
No. of flight hours – Daylight	136:24	The number of flight hours and minutes carried out in daylight - From 30 minutes after Morning Civil Twilight, until 30 minutes before Evening Civil Twilight as given in the Air Almanac – shown as a colon separated value. No decimal values
No. of flight hours – Darkness	86:23	The number of flight hours and minutes carried out in darkness - From 30 minutes before Evening Civil Twilight, until 30 minutes after Morning Civil Twilight as given in the Air Almanac – shown as a colon separated value. No decimal values
No. of flight hours – Total	222:47	= (No. of flight hours - Daylight) + (No. of flight hours – Darkness) – shown as a colon separated value. No decimal values
Remarks		Any additional textual information to inform on particular situations

[Table 4. Tour d’horizon flights programme for aerial surveillance of offshore oil and gas installations (not applied in the Baltic Sea).]

**Table 5. Observed spills**

**Multiple slicks obviously originating from a single spill should not be reported separately but should be combined and the centre point reported as the location (for further explanation see §6 in the introduction)**

Country	Year	Spill ID	Flight Type	Day/Night	Date	Time	Wind speed	Wind direction	Latitude	Longitude	Length	Width	Area	Spill category	Estimated volume	Polluter	Category	Casefile	Remarks
<b>Column Header</b>			<b>Format Example</b>			<b>Explanation</b>													
Country			Belgium			Full country name the reported data applies to													
Year			2013			The year that the reported data applies to													
Spill ID			BE-01			An unique code which will enable each individual spill to be individually identified (*) Note: in case of a spill consisting of several slicks (multiple slicks clearly originating from 1 spill), only 1 spill ID should be added (and not x '(partial) slick' IDs). In this case, the centre point should be reported as location.  For spills recorded by other CP's (e.g. Denmark) within a countries waters (e.g. Norway) the spill ID should start with the country where the spill occurs and then be followed by the spill ID from the country that made the observation separated by a backslash "/" i.e. NO/DK-31.													
Flight Type			N			The type of flight the detection was made during: National = "N" CEPCO = "C" Super CEPCO = "S"													
Day/Night			D			Whether the detection was made during the day or night: Day = "D" Night = "N"													
Date			27/03/2013			The date of the individual detection													
Time			08:20			The time of the detection													
Wind speed			2			The wind speed in m/s at the time of the detection													
Wind direction			210			The wind direction in degrees at the time of the detection													

Latitude	51,3683	The latitude of the detection in decimal degrees, using WGS84 - See also Note under 'Spill ID' above for spill consisting of several slicks (*)
Longitude	2,6733	The longitude of the detection in decimal degrees, using WGS84 - See also Note under 'Spill ID' above for spill consisting of several slicks (*)
Length	2,3	The length of the detection in kilometres
Width	0,1	The width of the detection in kilometres
Area	0,092	The area of the detection square kilometres <sup>2</sup>
Spill category	OIL	The category the detection falls into from: Mineral Oil = "OIL" Other Substance = "OS" Unknown = "UNK"
Estimated volume	0,01564	Volume of the detection confirmed/observed as mineral oil as calculated using the Bonn Agreement Oil Appearance Code using the lower figure (BAOAC minimum) in m <sup>3</sup>
Polluter	Other	Type of polluter: Offshore Installation = "RIG" Vessel = "SHIP" Other Polluter (e.g. land based source) = "OTHER" Unknown = "UNK"
Category	1	The category (1, 2, 3, 4 or 5) that the detection falls into: <0,1m <sup>3</sup> = "1" <0,1-1m <sup>3</sup> = "2" 1-10 m <sup>3</sup> = "3" 10-100 m <sup>3</sup> = "4" >100 m <sup>3</sup> = "5"
Casefile	BE-0008	The name of the casefile the detection refers to
Remarks	Case pending	Any additional information to inform on particular situations

**[Table 6. Observed Tour de Horizon Spills & Table 7. TdH Flight Routing (not applied in the Baltic Sea)]**

## 7.8 AVAILABLE AIRCRAFT AND FLIGHT HOURS

The information of all Contracting Parties is available on the HELCOM web page:  
<http://www.helcom.fi/action-areas/response-to-spills/aerial-surveillance/surveillance-aircraft-gallery/>

Please note that the **contact details** of responsible aerial surveillance authorities and contact points of joint aerial surveillance in the Baltic (contained in previous Chapters 7.9 and 7.10 to this Manual) can be found in **Chapter 1**.

## 7.9 LIST OF WAYPOINTS

National indicators are as follows:

Denmark	<b>DK</b>
Estonia	<b>EE</b>
Finland	<b>FI</b>
Germany	<b>DE</b>
Latvia	<b>LV</b>
Lithuania	<b>LT</b>
Poland	<b>PL</b>
Russia	<b>RU</b>
Sweden	<b>SE</b>

The reference points are situated in the Baltic.

<b><u>NUMBER</u></b>	<b><u>NAME</u></b>	<b><u>POSITION</u></b>	
<b>DENMARK</b>			
DK1		57 00' N	010 42' E
DK2		56 22' N	011 24' E
DK3		56 07' N	010 55' E
DK4		54 43' N	010 42' E
DK5		54 30' N	012 00' E
DK6		54 46' N	012 50' E
DK7		54 54' N	014 00' E
DK8	DETNI (SDG-2)	54 55' N	014 20,7' E
DK9		55 00' N	015 53' E
DK10		55 30' N	016 00' E
DK11		55 13' N	014 00' E
DK12	DISGO	55 09' N	012 44' E
DK13	KOPIM	56 08' N	012 30' E
DK14		57 45' N	010 44' E
DK28		58 08' N	010 16' E
DK29		55 47' N	004 17' E
DK30		56 11' N	004 57' E
DK31		55 15' N	004 57' E
DK32		56 30' N	005 55' E
DK33		56 50' N	006 45' E
DK34		55 15' N	007 40' E
DK 52	Läsö Trindel	57 28' N	11 18' E
DK 53	Anholt Ö	56 45' N	11 45' E
DK 54	Anholt V	56 41' N	11 00' E
DK 55	Gilleleje N	56 18' N	12 00' E
DK 56	Sletterhage	56 05' N	10 24' E
DK 57	Kronborg	56 03' N	12 37' E
DK 58	Sj. Odde	56 01' N	11 05' E
DK 59	Hatter Barn	55 53' N	10 49' E
DK 60	Romsö Tue	55 34' N	10 49' E
DK 61	Drogden	55 32' N	12 42' E
DK 62	Köge Bugt	55 26' N	12 35' E
DK 63	Lille Bält	55 25' N	09 41' E

DK 64	Hov	55 12' N	11 00' E
DK 65	Krigers Flak	55 07' N	12 50' E
DK 66	Vejrö	55 04' N	11 16' E
DK 67	Mön	54 03' N	12 38' E
DK 68	Grönsund	54 48' N	12 14' E
DK 69	Keldsnor	54 41' N	10 42' E
DK 70	Gedser	54 34' N	11 58' E
DK 71	Hammeren	55 19' N	14 46' E
DK 72	16 öst	55 25' N	16 00' E
DK 73	Due Odde	54 59' N	15 04' E

## ESTONIA

EE 1	NAISA	59°32.45' N	024°33.85' E
EE 2	1MP1W	59°41.00' N	024°16.00' E
EE 3	1MP2W	59°00.00' N	021°20.00' E
EE 4	1MP3W	58°25.00' N	021°00.00' E
EE 5	1MP4W	57°50.00' N	022°03.00' E
EE 6	1MP5W	58°00.00' N	022°30.00' E
EE 7	1MP6W	57°55.00' N	023°15.00' E
EE 8	Kihnu	58°06.00' N	023°58.00' E
EE 9	PARNU	58°25.00' N	024°27.58' E
EE 10	Keri	59°42.00' N	025°01.00' E
EE 11	Vaindloo	59°49.00' N	026°21.50' E
EE 12	L-Uhtju	59°39.50' N	026°32.50' E
EE 13	Narva-Joesuu	59°28.00' N	028°02.50' E
EE 14	MUUGA	59°31.70' N	024°58.07' E
EE 15	Prangli	59°37.00' N	025°02.00' E
EE 16	Mohni	59°41.00' N	025°48.00' E
EE 17	Kunda	59°31.00' N	026°33.00' E
EE 18	Sillamäe	59°24.50' N	027°46.00' E
EE 19	3MP1W	59°30.00' N	027°46.00' E
EE 20	3MP2W	59°38.00' N	026°38.00' E
EE 21	3MP3W	59°55.00' N	026°22.00' E
EE 22	3MP4W	59°51.00' N	026°00.00' E
EE 23	3MP5W	59°47.00' N	024°37.00' E
EE 24	3MP6W	59°20.00' N	022°45.00' E
EE 25	3MP7W	59°12.00' N	022°45.00' E
EE 26	4MP1Y	59°40.50' N	024°22.00' E
EE 27	4MP2Y	59°20.00' N	022°40.00' E
EE 28	4MP3Y	58°45.50' N	020°32.50' E
EE 29	4MP4Y	58°02.00' N	020°30.00' E
EE 30	4MP5Y	57°50.00' N	022°00.00' E
EE 31	4MP6Y	58°01.00' N	022°34.00' E
EE 32	Ruhnu	57°45.87' N	023°16.50' E
EE 33	4MP7Y	58°17.00' N	023°30.00' E
EE 34	Väinameri	58°45.00' N	023°15.00' E
EE 35	Osmussaar	59°18.60' N	023°21.00' E
EE 36	5WP4	59°49.13' N	024°55.41' E
EE 37	PETOT	59°30.67' N	023°08.52' E
EE 38	5WP6	58°46.00' N	020°00.00' E
EE 39	5WP7 FIR	59°00.00' N	021°00.00' E

## FINLAND

FI 1	Kemi1	65°23,1' N	24°06,0' E
FI 2	Nahkiainen	64°36,7' N	23°54' E
FI 3	Ulkokalla	64°19,8' N	23°26,8' E
FI 4	Valassaaret	63°26,1' N	21°04,5' E
FI 5	Norrskär	63°14,0' N	20°36,4' E
FI 6	Ritgrund	63°25,5' N	21°30,8' E
FI 7	Strömmings-Bådan	62°58,8' N	20°44,6' E
FI 8	Santio	60°27,3' N	27°43,6' E
FI 9	Sälskär	60°24,7' N	19°35,8' E
FI 10	Haapasaari	60°17,2' N	27°11,3' E
FI 11	Enskär	60°13,2' N	19°18,8' E
FI 12	Kotkan majakka	60°10,3' N	26°39,2' E
FI 13	Airisto	60°17,0' N	22°03,0' E
FI 14	Kaunissaari	60°20,8' N	26°46,6' E
FI 15	Tiiskeri	60°09,7' N	26°15,7' E
FI 16	Söderskär	60°06,6' N	25°24,6' E
FI 17	Jungfruskär	60°08' N	21°04' E
FI 18	Helsingin kasuuni	59°56,9' N	24°55,6' E
FI 19	Flötjan	59°48,5' N	19°47,1' E
FI 20		59°40,0' N	23°55,0' E
FI 21	Bogskär	59°30,3' N	20°21,0' E
FI 22		59°00,0' N	21°00,0' E
FI 23	Kalbådgrund	59°59,1' N	25°36,1' E
FI 24	Porkkalan majakka	59°52,1' N	24°18,1' E
FI 25	Utö	59°46,9' N	21°22,3' E
FI 26	Russarö	59°46,0' N	22°57,1' E
FI 27	Jussarö	59°47,4' N	23°33,2' E

## GERMANY

G20		N54°06,80'	E010°59,00'
G21		N54°41,20'	E012°56,60'
G22		N54°12,00'	E013°19,00'
G23		N54°13,00'	E013°50,00'
G24		N54°55,00'	E013°34,00'
G25		N54°50,00'	E012°41,00'
G26		N54°28,00'	E011°39,00'
G27		N54°40,00'	E011°00,00'
G28		N54°50,30'	E009°51,50'
G29		N54°50,20'	E008°23,00'
G31		N54°25,00'	E010°40,00'
SDG1		N54°41,20'	E012°56,60'
SDG2		N54°55,00'	E014°20,70'
SDG3		N55°15,00'	E014°20,00'
SDG4		N55°09,80'	E013°02,20'
SDG5		N54°50,00'	E012°41,00'

## LATVIA

LV		57 54' N	20 15' E
LV		56 00' N	19 14' E
LV		57 54' N	21 30' E
LV		56 00' N	19 52' E

## LITHUANIA

### POLAND

PL 1	54 46' N	19 16' E
PL 2	55 50' N	18 52' E
PL 3	55 50' N	18 24' E
PL 4	55 05' N	15 35' E
PL 5	54 46' N	15 25' E
PL 6	54 46' N	14 53' E
PL 7	54 21' N	14 10' E
PL 8	53 58' N	14 23' E
PL 9	55 29' N	18 11' E
PL 10	55 00' N	18 20' E
PL 11	54 40' N	19 00' E
Rebiechowo	54 22,41 N	18 28,05 E

### RUSSIA

#### Baltic Proper

RU 1	59 15' N	22 00' E
RU 2	59 00' N	21 10' E
RU 3	57 55' N	20 30' E
RU 4	55 40' N	19 00' E
RU 5	54 50' N	19 30' E
RU 6	55 20' N	19 30' E
RU 7	55 40' N	19 40' E
RU 8	56 15' N	20 10' E
RU 9	57 33' N	21 00' E
RU 10	59 00' N	21 20' E

#### Gulf of Finland

RU 11	City of St. Petersburg
RU 12	Island Kotlin
RU 13	Island Seskar
RU 14	Island Moschny
RU 15	Island Tjutersy
RU 16	Ustj-Luga Town
RU 17	Ustj-Narva Town
RU 18	Island Gogland
RU 19	Vyborg Town

### SWEDEN

SE 101	Malören	65 32' N	23 34' E
SE 102		65 21,8 N	23 55' E
SE 103	Farstugrund	65 20' N	22 45' E
SE 104		64 30' N	21 30' E
SE 105		63 40' N	21 30' E
SE 106	Västra Kvarken	63 40' N	20 40' E
SE 107		63 29,1 N	20 41,8 E

SE 108		63 29' N	20 27' E
SE 109		63 20' N	20 24' E
SE 110		62 42,3 N	19 31,5 E
SE 111	Vänta Litets grund	62 30' N	18 17' E
SE 112	Brämön	62 13' N	17 45' E
SE 113	Västra Banken	60 53' N	17 56' E
SE 201		60 36,6 N	19 13' E
SE 202	Understen	60 17' N	18 55' E
SE 203	Svenska Björn	59 33' N	20 01' N
SE 204		58 46,8 N	20 28,7 E
SE 205	Landsort	58 44' N	17 52' E
SE 206		58 20' N	17 50' E
SE 207		58 13,6 N	18 39,5 E
SE 208		58 03,9 N	19 43' E
SE 209		57 54,7 N	20 24,9 E
SE 210		57 40' N	17 30' E
SE 211		56 50' N	18 30' E
SE 212		55 57,3 N	19 04' E
SE 301	Ölandsbroen	56 41' N	16 24' E
SE 302	Ölands Södra grund	56 04' N	16 41' E
SE 303		55 52,9 N	18 54' E
SE 304		55 55,3 N	18 21,8 E
SE 305		55 21,3 N	16 30,5 E
SE 306		55 44,8 N	15 43' E
SE 307		55 41,5 N	15 02,6 E
SE 308	Bornholms Gattet	55 18,7 N	14 27,6 E
SE 309		55 10' N	14 00' E
SE 310		54 57,8 N	13 59,7 E
SE 311		55 01,3 N	13 47,1 E
SE 312		55 00,6 N	13 08,8 E
SE 313		55 20,2 N	12 38,5 E
SE 314		55 40' N	12 56,3 E
SE 315		56 02,7 N	12 40,9 E
SE 316		56 13' N	12 21,8 E
SE 401		56 18,2 N	12 05,3 E
SE 402		56 30' N	12 30' E
SE 403		56 30,5	12 08,9 E
SE 404		57 30' N	11 30' E
SE 405		57 27' N	11 23,9 E
SE 406		57 49' N	11 02,9 E
SE 407		58 08' N	10 32,5 E
SE 408		58 15,7 N	10 01,8 E
SE 409		58 30,7 N	10 08,8 E
SE 410		58 45,7 N	10 35,7 E

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## **8. ADMINISTRATIVE AND ORGANISATIONAL ASPECTS**

### **8.1 TRANSFRONTIER MOVEMENT OF STATE-OWNED AIRCRAFT, SHIPS AND VEHICLES, PERSONNEL AND EQUIPMENT AS WELL AS OF PRIVATELY OWNED RESOURCES UNDER GOVERNMENTAL CONTRACT**

International formalities could cause inconvenient delays in an emergency situation and differ from one State to another. Possible remedies:

- The requesting Party should make all appropriate efforts to facilitate transfrontier movements in an emergency situation and should send a liaison officer able to communicate with the assisting personnel in a language known to them to meet the assisting Party at the border. The rank of the liaison officer is left to the decision of the requesting Party in each case.
- In cases of joint counter-pollution operations and joint exercises, and in joint aerial surveillance flights, the Contracting Parties should undertake to facilitate the granting of all clearances and permissions required for the aircraft of other Contracting Parties to carry out their mission in their airspace and over their territory.

### **8.2 CUSTOMS MATTERS**

There are at least four possible courses of action:

- Instead of taking any specific action, solutions are left to be found on an ad hoc basis at the time of joint operations.
- Bodies which are likely to be involved in joint operations should observe instructions in the Manual outlining the procedures to be followed in the event of joint operations involving the completion of customs formalities.
- The customs authorities should be asked to take part in the preparation of contingency plans for joint operations in order to advice on solutions to problems of formalities in both the despatch and receipt of assistance; where possible, documents should be prepared in advance. As well as customs documents, detailed lists of goods to be transported could be prepared before the operation begins.

- A mutual assistance network should be established so that there is a customs correspondent in each country who can be contacted by his opposite number in another country to facilitate operations.

It is necessary to recall that there is a customs duty to be paid on goods that are used in joint operations; such duty should be relieved by one or other of the following methods:

- if the goods are not to be re-exported (e.g., dispersants), they should enjoy relief from import duties;
- if the goods are to be re-exported (e.g., mechanical recovery means), they should be granted temporary importation arrangements.

### **8.3 SPECIAL TAXES AND TRAFFIC FEES APPLICABLE TO VEHICLES FOR ASSISTANCE PURPOSE**

Possible remedies:

- The imposition of special taxes and traffic fees on assisting vehicles could be lifted on the initiative of the assisted Party. Alternatively the Party concerned should use all its influence to renounce the fees or special taxes arising at border passage; in future such costs could be a component of the later reimbursement by the assisted Party.
- Information about national traffic regulations stipulating conditions for using vehicles to be given when necessary to the assisting Party at the border.

### **8.4 CONDITIONS OF WORK**

There is no problem with the crew of vessels.

As regards assistance on land, there would probably be difficulties in waiving the national laws of the assisted Party, and in requiring the assisting Party to comply with rules other than those applicable to them nationally.

Possible remedies:

It could be the responsibility of the SOSC to ensure that national rules are observed for personnel under his command. It should be the responsibility of the NOSC to ensure that the personnel under his command comply with the national rules of the assisting country. The respective authorities of the assisted Party are responsible for informing the heads of strike teams about relevant labour protection regulations.

## **8.5 INSURANCE OF PERSONNEL**

Possible remedies:

The insurance of Government personnel and employees of private firms under contract to Government should be the responsibility of the assisting Party which may claim reimbursement of costs from the requesting Party. The insurance of personnel of private firms acting independently would not be the responsibility of the Parties involved in the combatting operation.

## **8.6 CIVIL LIABILITY FOR INJURIES OR DAMAGE**

Possible solution:

- Disputes over injuries or damages should be settled according to the rules of civil liability. Responsibility for the payment of costs would rest with the assisted Party except in cases of ill intent, grave fault or gross negligence.
- The requesting Party should always be informed when a dispute with a third party is to be settled before a court of law. Where this is within the territory of the assisted Party, the latter should help the assisting Party or person concerned.

## **8.7 ACCOMMODATION AND MEALS**

Possible solution:

It should be the responsibility of the assisted Party to arrange accommodation and meals for assisting personnel when necessary or wanted.

## **8.8 MEDICAL TREATMENT**

Possible solution:

The requesting Party should always make provision for the medical treatment of personnel of the assisting Party when necessary or wanted.

## **8.9 EQUIPMENT AND REPAIRS**

Possible solution:

The requesting Party should help the assisting Party to the best of its ability with maintenance and repairs of equipment which cannot be carried out by personnel of the assisting Party.

### ***8.10 PASSAGE THROUGH THE TERRITORY OF A THIRD STATE***

Possible solution:

The transit State, a Contracting Party to the Helsinki Convention, shall use its best endeavours to facilitate the passage of equipment through its territory.

### ***8.11 LEADERSHIP AND AUTONOMY OF ASSISTANCE TEAMS***

Possible solution:

- The assistance teams should be lead by a servant able to sufficiently deal with authorities of the requesting Party.
- The assistance teams on land should, like strike teams at sea, be allowed to be as autonomous and self-sufficient as possible.

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## 9. FINANCIAL ASPECTS

### 9.1 REIMBURSEMENT OF COSTS OF ASSISTANCE

#### Financial impact of assistance rendered

According to Paragraphs 1 and 2 of Regulation 9 of Annex VII of the Helsinki Convention the Contracting Parties shall bear the costs of assistance referred to in Regulation 8 of Annex VII of the Helsinki Convention and the costs of joint actions in accordance with the following formula:

- a) If the action was taken by one Contracting Party at the express request of another Contracting Party, the requesting Party shall reimburse to the assisting Party the costs of the action of the assisting Party. If the request is cancelled the requesting Party shall bear the costs already incurred or committed by the assisting Party.
- b) If the action was taken by a Contracting Party on its own initiative, this Party shall bear the costs of its action.
- c) The principles laid down above in subparagraphs a) and b) shall apply unless the Parties concerned otherwise agree in any individual case.

#### Calculation of the total costs, which should be paid by the Requesting Party to the Assisting Party or Parties

According to Paragraph 3 of Regulation 9 of Annex VII of the Helsinki Convention, unless otherwise agreed, the costs of the action taken by a Contracting Party at the request of another Party shall be fairly calculated according to the law and current practice of the assisting Party concerning the reimbursement of such costs.

According to Paragraph 4 of the said Regulation the provisions of this regulation shall not be interpreted as in any way prejudicing the rights of Contracting Parties to recover from third parties the costs of actions taken to deal with pollution incidents under other applicable provisions and rules of international law and national or supra-national regulations.

As far as Regulation 9 of Annex VII of the Helsinki Convention does not already specify and besides that said above, according to HELCOM Recommendation 5/3 (1984) the Governments of the Contracting Parties to the Helsinki Convention should use the following guidelines when deciding the financial implications between the Requesting Party and the Assisting Party or Parties:

- a) a fundamental principle for the *calculation of costs* which should be paid by the requesting party to the assisting country or countries is that the calculation must be based on *cost price*;

- b) an assisting country shall at any time be prepared to give the requesting party a *preliminary estimation of the costs* for the assistance.

## **9.2 INFORMATION ON COMPENSATION FOR POLLUTION DAMAGE**

### **Third party liability**

The costs of action to deal with pollution or the threat of pollution may be recoverable on the basis of the legal third party liabilities of the owner of the ship, from where the pollution emanates/threats to emanate. Such liabilities will be insured by any prudent entity. A major part of all ships has entered *Protection and Indemnity Associations*, commonly called *P&I Clubs*. The word Club is used because the insurance they provide is arranged on a mutual basis. In the text which follows the *liability underwriter* is assumed to be a P&I Club.

The P&I Club covers only shipowner's legal liabilities in the sense of damage or compensation which the owner is legally obliged to pay to others, together with certain other losses, costs and expenses, which are specified in the terms of the insurance given to the shipowner. Shipowners are normally entitled to limit their liability under various international conventions or national law. In practice the insurance cover is mostly restricted to the limitation amount applicable to the ship.

The main job of the liability underwriter in a marine pollution emergency is to handle all claims against their members and to pay the valid ones. The first thing the P&I Club might do is put up financial security to ensure the release of the ship, in case the ship has been arrested. This is commonly done either by the claimant accepting a letter of guarantee or bond with a local bank.

The P&I Club will usually try to get independent technical assistance to advise on the type and extent of the occurred pollution, what effect it is likely to have under different scenarios, what needs to be done to abate or prevent the effects and the most efficient way of doing so. This advice will be available to the coastal State should it ask for it. The P&I Club will also be involved in the decision concerning a possible lightening of the ship to another vessel because of the liabilities the lightening ship may occur as well as in a possible wreck removal, the latter being one of the risks *P&I Clubs* insure. *So far the liability underwriter is for the coastal State one of the most important entities, on the ship owning interest's side, to discuss with in a marine pollution emergency caused by oil or even other harmful substances.*

### **International compensation regimes for oil pollution damage**

*The 1992 Civil Liability Convention and the 1992 Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage*

The Director of the *International Oil Pollution Compensation Fund (1992 Fund)* should be informed immediately about an oil pollution incident which may effect the liability and

compensation for the damage on the basis of the Civil Liability Convention and the Fund Convention.

Damages resulting from oil spills from tankers are covered by an international system of compensation based on the principle of strict (i.e. "no fault") liability. Compensation is governed by two international conventions, the 1992 International Convention on Civil Liability for Oil Pollution Damage (*Civil Liability Convention, CLC*) and the 1992 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (*Fund Convention, FC*). The *International Oil Pollution Fund (1992 Fund)* set up under the Fund Convention is an organisation established to administer the regime of compensation created by the Fund Convention.<sup>1</sup>

The CLC governs the liability of shipowners for oil pollution damage and creates a system of compulsory liability insurance. A shipowner can normally limit his liability to an amount which is linked to the tonnage of his ship. The FC is supplementary to the CLC and establishes a regime for compensating victims when the compensation under the CLC is inadequate.

Only those States which have become Parties to the CLC can become Parties to the FC. By becoming a Party to the Fund Convention, a State becomes a Member of the 1992 Fund.

The CLC applies to *oil pollution damage* resulting from spills of *persistent* oil from *tankers*. Spills of cargo or bunker oil from sea-going vessels constructed or adapted to carry oil in bulk as cargo, whether the tanker is laden or unladen, are covered by the CLC.

The CLC covers pollution damage suffered in the territory, territorial sea or exclusive economic zone (EEZ) or equivalent area of a State party to the Convention. The flag State of the tanker and the nationality of the shipowner are irrelevant for determining the scope of application.

"Pollution damage" is defined as loss or damage caused by contamination. For environmental damage (other than loss of profit from impairment of the environment) compensation is restricted, however, to costs actually incurred or to be incurred for reasonable measures to reinstate the contaminated environment. The notion of pollution damage includes measures, wherever taken, to prevent or minimise pollution damage in the territory, territorial sea or EEZ ("preventive measures"). Expenses incurred for preventive measures are recoverable even when no spill of oil occurs, provided that there was a grave and imminent threat of pollution damage.

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<sup>1</sup> Only one Contracting Party is still party to the 1969 Civil Liability Convention and the 1971 Fund Convention, whereas all other Contracting Parties have already or will by a certain date denounce these two conventions.

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Claims under CLC can be made only against the registered owner of the tanker concerned or directly against his insurer. The insurer will normally be one of the Protection and Indemnity Associations (P&I Clubs) which insure the third party liabilities of the shipowner. If the damage exceeds the owner's liability under the CLC, or the owner is financially incapable and his insurance is insufficient, or he is exempted from liability under the specific exemptions listed in the CLC, the 1992 Fund will pay the share of compensation that is not paid under CLC. To obtain compensation under the FC, claimants should submit their claims directly to the 1992 Fund.

It is in the interest of claimants to submit their claims as soon as possible after the damage has occurred. Claimants will ultimately lose their right to compensation under the FC unless they bring court action against the 1992 Fund within three years from the date on which the *damage* occurred, or make formal notification to the 1992 Fund of a court action against the shipowner or his insurer within that three-year period. Although damage may occur some time after an incident takes place, court action must in any case be brought within six years of the date of the *incident*. The same applies to claimants' right to compensation from the shipowner and his insurer under the CLC.

Compensation can be paid to a claimant only to the extent that his claim is justified and meets the criteria laid down in the FC. A claimant is therefore required to prove his claim by producing explanatory notes, invoices, receipts and other documents to support the claim. According to the 1992 Fund's "Claims Manual" (latest version June 2000 and obtainable on [www.iopcfund.org](http://www.iopcfund.org)) each claim should contain at least the following basic information: name and address of the claimant, identity of the ship involved, the date, place and specific details of the incident, the type of pollution damage sustained and the amount of compensation claimed. The 1992 Fund's "Claims Manual" further gives directions as to how to itemise claims for clean-up operations and preventive measures, claims for the cost of measures to prevent pure economic loss, claims for consequential loss and pure economic loss as well as claims for environmental damage.

The 1992 Fund will cooperate with the insurer of the shipowner's third party liability (normally one of the P&I Clubs) in the settlement of claims. The investigation of an incident and the assessment of the damage will usually be done jointly by the P&I Club and the 1992 Fund.

The 1992 Fund, like P&I Clubs, endeavours to settle claims out of court. If an agreement cannot be reached, the claimant may pursue his claim before the court of the State where the damage occurred, if that State is a Party to the FC. Claimants should bring their claims against the 1992 Fund well before the expiry of the period mentioned above, in order to safeguard the possibility of suing the 1992 Fund for compensation, if the claimant and the 1992 Fund cannot agree on an amicable settlement of the claim.

In order for a claim to be accepted, it has to be proved that the claim is based on a *real expense* actually incurred, that there was a *link* between the expense and the incident and that the expense was made for *reasonable purposes*. Compensation is paid for expenses incurred for

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*clean-up operations at sea or on the shore, for preventive measures, consequential loss and pure economic loss, measures to prevent pure economic loss and environmental damage.*

The costs may relate for instance to the deployment of vessels, salaries of crews and other personnel, use of booms, recovery equipment and other material, sealing of fractures in a grounded vessel to prevent oil from escaping, etc. However, the definition only covers expenses for *reasonable measures*. Expenses for preventive measures are recoverable even if no spill of oil occurs, provided there was a grave and imminent threat of pollution. Losses which do *not result directly* from an incident are not compensated.

Further information about the Conventions and claims is available in the publications by the 1992 Fund, which are obtainable on their web-site: [www.iopcfund.org](http://www.iopcfund.org).

*Other international conventions dealing with liability and compensation resulting from maritime casualties*

- Convention relating to Civil Liability in the Field of Maritime Carriage of Nuclear Material, 1971
- International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances (HNS) by Sea (not yet in force)

The HNS Convention will make it possible to pay out compensation to victims of accidents involving HNS, such as chemicals. The HNS Convention is based on the same two-tier approach as the CLC and FC (see above).

- International Convention on Civil Liability for Bunker Oil Pollution Damage (not yet in force)

The Bunker Convention will provide a liability and compensation regime for pollution damage caused by bunker oil (excluding the damages covered by the CLC and FC regime, see above).

- Draft Convention on Wreck Removal (to be considered by a Diplomatic Conference during the 2004-2005 biennium)

The Wreck Removal Convention is intended to provide international rules on the rights and obligations of states and shipowners in dealing with wrecks and drifting or sunken cargo which may pose a hazard to navigation and/or pose a threat to the marine environment. The Convention is intended to clarify rights and obligations regarding the identification, reporting, locating and removal of hazardous wrecks, in particular those found beyond territorial waters.

Awaiting the entry into force of the 1992 HNS Convention, the Bunker and the Wreck Removal Conventions, damage, ensued from pollution by harmful substances, other than oil as well as oil pollution from vessels other than oil tankers, has to be settled otherwise.

## **Compensation for pollution damage not covered by international conventions**

Claims against polluters may be successful on the basis of the coverage of vessels' insurances for damages of third parties (P&I Clubs) and/or on the national law concerned. Whether such ships are insured by P&I Clubs or not, compensation payable can be limited under the relevant law, such as the *Convention on Limitation of Liability for Maritime Claims, 1976 as last amended in 1996* (the 1996 Protocol had as of 1 January 2001 not yet entered into force) (*Limitation Convention*).

### **9.3 CALCULATION FOR REIMBURSEMENT AND CLAIM FOR COMPENSATION**

Especially in cases where a joint operation has been conducted in one country's territory, a claim can be brought against the polluter for all the costs of action, including costs of the assistance of other countries. Before claiming, the Lead Country shall pay the costs of that assistance. Each claimant has to prove that his claim is justified and meets the general criteria. For that he needs all relevant reports and records, explanatory notes, invoices, receipts and other documents to support the claim. Therefore, the documentation for the calculation of costs to be presented by any assisting party to the Lead Country for a reimbursement shall include such documents, too. Assisting parties should be able, even later, to give all further information which the handling of the Lead Country's claim may require. The Lead Country shall present basic particulars, like the statement of the reasons for actions, evidence, events etc.

In cases where actions have taken place in international waters or partly even in response regions of other countries, the countries involved may agree otherwise how to take care of the costs and claiming for them in the most efficient way.

### **9.4 CALCULATION OF COSTS FOR ASSISTANCE RENDERED**

The calculation of costs for assistance rendered is normally based on national regulations. If specific national regulations do not exist, the following formula should be used:

- A. Ship's cost (rent of a ship): Yearly maintenance and capital (write off and capital interest) costs.
- B. Fuel, lubricants and hydraulics. Consumption of oil products.
- C. Labour costs. Salaries and fees concerning ship crews and duty officers.
- D. Other: Lost material, rent of special equipment, repairing, special cleaning, etc.

Re. A: The ship's cost is based on the hours the ship has been used. The hours are calculated from departure base port to arrival base port. For a possible standby in other ports during operation capital costs is charged, but normally no maintenance costs.

The following formula can be used in calculating ship's rate (cost per hour). Because costs of the year of an incident are not known before the end of the year and may include some rare main investments or repairs, the ship's actual fair rate may be the previous year's rate or an average of the ship's rates for the last three years, converted to the concerned year's price index:

$$\text{Cost per hour (ship's rate)} = \frac{a + b + c}{24 \times \text{days}}$$

Explanation:

"a" = Yearly maintenance and service cost. Expenses for running the ship, like year docking, overhauling engines and hull, paintings, renewing worn parts and other normal maintenance and service. That does not include expenses of fuel and other oil products and expenses of the ship's crew.

"b+c" = Capital costs are the sum of the write-off capital annually and the remaining capital's annual interest. Either the write-off in the balance or the write-off remaining values annually methods can be used. Remaining values-method gives higher costs at first and lower later and is more difficult to calculate than the write-off in the balance method. In the following the write-off in the balance - method is presented.

"b" = Write-off in the balance. The lifetime of the vessel depends generally on its size. For boats under 18 meters it is about 15 years, for ships under 30 meters 20 years and for bigger ones 25 years. Therefore "b" is equal to one/lifetime of the day's price of the ship. Today's price of the vessel is calculated from its delivery costs, like building or purchasing costs, and technical investments to the ship after its delivery, all converted to the concerned year's price index. Possible scrap value at the end of the use time (for instance 5% ) may also be considered.

"c" = Interest of capital. The amount of the capital the vessel presents is its remaining value. In the write-off in the balance-method the today-price of the vessel has to be reduced with (100/lifetime) % per year. The result has to be multiplied with the appropriate government's rate of interest (6-9 %).

"24xdays" = Amount of days when the ship will be ready for operations. For getting the cost per hour the result has to be divided with 24.

Re. B: Consumption of oil products is calculated by gauges on board the ships.

Re. C: Only all real labour expenses are charged. Besides normal wages and sea service compensations, also the overtime working compensations, which shall be verified by proper record keeping, are payable. Working on a voluntary basis in very hard tasks may be rewarded and such rewards can be claimed too, if justified and properly recorded.

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To find out the total expenses caused by state employees to the state, one must add some percentages to salaries actually paid. That addition depends on legislation for employment and conditions of work and employment. They may include all other direct costs from employment, like salary during annual leave, extra money paid during annual leave, salary during sick leave, a social insurance fee and costs of retirement allowance. Total percentage for that varies and may be up to 70%. The salaries and fees are without any general overhead.

Labour costs include costs of combatting personnel, such as crews of vessels and other strike teams. To simplify calculations the salary and fee may be estimated on the basis of an average of the entire crew's salaries and fees. Labour costs of administrative personnel in duty for the incident may also be included, when properly recorded and justified. No other administration fee should be included.

Re. D: "Other" includes expenses like:

- lost material: value of redelivery,
- rent of special equipment: wearing of it (for instance rent of oil booms 2% of purchase price per day in real use or 1% for a skimmer) or a rent calculated by another way,
- repairing: full price if not fault by own neglect,
- cleaning costs of equipment and vessels,
- handling costs of recovered oil and oily wastes,
- cost of the use of telecommunication, etc.

## 10. EXERCISES AND RELATED GUIDELINES

### 10.1 TYPES OF EXERCISES

Under the framework of the Helsinki Convention the following types of combatting exercises have been agreed upon:

- Synthetic Exercise (BALEX ALPHA)
- Alarm Exercise (BALEX BRAVO)
- Equipment Exercise (BALEX CHARLIE)
- Operational Exercise (BALEX DELTA)
- State-of-the-art Exercise (BALEX ECHO)

Decisions on the yearly exercise programme including the types of exercises, aims and goals for the exercises, time for the execution and appointment of Lead Countries are taken during the meetings of the Response Group (cf. HELCOM SEA 1/2000, 5/3, Paragraph 4.48).

BALEX BRAVO, CHARLIE, DELTA and ECHO can be executed independently or in combination with each other.

#### **Synthetic Exercise (BALEX ALPHA)**

This exercise type is a "paper exercise", the aim of which is to create a base for discussion on matters relating to organization, communication, logistics, etc. in combatting actions involving two or more Baltic Sea Countries.

The exercise will normally take place during the meetings of the Response Group.

The outline of the exercise is preplanned in such a way that the players will be presented with a scenario of a pollution incident giving such facts of the incident that most probably would be at hand in the initial phase.

The situation in the initial phase will be followed by presentations of the situation as it has developed at certain chosen later stages.

After each presentation the players are given the necessary time to consider their national follow-up action in relation to the incident situation.

The national follow-up actions are then presented and discussed before a presentation of the next following chosen stages of the incident situation will take place.

**Alarm Exercise (BALEX BRAVO)**

The aim of this exercise type is to test the agreed procedures and lines of communication for reporting, requesting and providing assistance, and to get a picture of the current response readiness of the Contracting Parties when called to assist.

The exercise further aims at familiarizing the personnel with the use and national handling of the adopted POLREP reporting form.

It is not the intention with this exercise that combatting equipment and its handling personnel should be activated.

When receiving an exercise POLREP (POLWARN) the participating Contracting Parties should record the time of receipt, time of transmission to the responsible national authority and time of the receipt of POLREP (POLWARN) by the person responsible for initiating further national action.

When receiving an exercise POLREP (POLINF/POLFAC) in addition to the times recorded as for POLREP (POLWARN) the participating Contracting Parties should make a realistic evaluation of the types and the amount of equipment and personnel at their disposal for rendering assistance called for, as well as the time for its arrival at the scene of the accident.

After the termination of each exercise the participating Contracting Parties shall submit a report containing the above mentioned times and evaluations to the Lead Country. The Lead Country should compile this information in a report, for discussion at the following meeting of the Response Group.

The BALEX BRAVO is executed without notice but within a specified period of time.

The BALEX BRAVO can be carried out in turn between two or more Contracting Parties, and the arrangement and the initiation of the exercise are undertaken by representatives of the Parties involved and assisted by the Secretariat, if needed.

**Equipment Exercise (BALEX CHARLIE)**

The purpose of this exercise is to test the co-operation between the combatting units of the Contracting Parties with respect to both communication and equipment. Involvement of personnel - except those needed for running the equipment - should be very restricted.

The BALEX CHARLIE is carried out between two or more Contracting Parties with bordering Response Regions.

Notice as to the time and event is to be given well in advance of the exercise, and the Contracting Parties not taking part in the exercise and the Secretariat shall be invited to send observers to the exercise.

When planning the date for the execution of the exercise a back-up date should be held in reserve. The participating Parties must be informed as soon as possible and at least three days

in advance if the exercise has to be executed on the back-up date or altogether cancelled.

Reports on the exercise should be sent from the Lead Country to the Secretariat for further circulation to other Contracting Parties in order to have the report presented and discussed at the following meeting of the Sea-based Pollution Group.

The BALEX CHARLIE is arranged and executed after direct consultation between the Contracting Parties involved.

### **Operational Exercise (BALEX DELTA)**

The aim of this exercise type is partly to test the alarm procedure, the response capability, and the response time of the Contracting Parties, partly to test and train the staff functions and the co-operation between combatting units (including the combatting equipment) of the Contracting Parties.

The BALEX DELTA is carried out annually, the execution of exercises rotating between the northern and the southern part of the Baltic Sea Area. At the meetings of the Response Group it is decided who should arrange the coming years exercises and what should be the aims of these exercises.

The Lead Country has the overall responsibility to plan and execute the exercise (see further 10.5, section 1).

A report, evaluating the results of the exercise should be sent to the Secretariat for distribution to the Contracting Parties in order to have the report presented and discussed at the following meeting of the Response Group (see further 10.5, section 2).

While participation in the exercise is voluntary, it is recommended that at least the neighbouring countries participate.

### **State-of-the-art Exercise (BALEX ECHO)**

The aim of this exercise is to demonstrate the state-of-the-art of a specific topic, e.g., a type of equipment, a response method, means of communication or scientific tests. Traditional operational combatting activities will not form a part of this type of exercise.

As the aim of BALEX ECHO is to demonstrate the-state-of-the-art, great emphasis should be given to inviting relevant observers from the Contracting Parties.

The exercise should be followed by a "hot wash-up" in order to benefit from the remarks from the observers. The Lead Country should send a report of the exercise to the Secretariat for further distribution to the Contracting Parties in order to have the report presented and discussed at the following meeting of the Response Group.

## **10.2 PROCEDURES FOR THE EXERCISES**

To identify exercise traffic and to avoid conflict with exercises undertaken within other agreements, the text of all messages (both to and from the Lead Country) shall begin with the words:

"EXERCISE HELCOM"

All messages shall end with the words:

"EXERCISE-EXERCISE-EXERCISE"

At the end of each exercise the Lead Country shall send a final "End of exercise" message to all Participants.

## **10.3 EXERCISE REPORT**

After an exercise the Lead Country shall prepare a brief report (for reports from BALEX DELTA Exercises, see 10.5, section 2).

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

- (1) Preparation of the exercise
  - a short description of how the exercise was prepared and relevant references
- (2) Implementation of the exercise
  - date and period of exercise,
  - a brief description of how the exercise was initiated
- (3) Participating Contracting Parties
  - names of participating Parties with a description of participating units and items from each Party
- (4) Running and finalization of exercise
  - Under this heading a brief description of following items should be given:
    - scenario
    - command
    - communications
    - finalization of exercise

## (5) Comments of the Participating Parties

A brief summary of comments received from each participating Party. Only comments on important matters should be mentioned.

## (6) Conclusion

- a general conclusion from the Lead Country's point of view on lessons learned
- suggestions and recommendations on how to improve exercises in the future.

Tables, statistics or figures can be added as necessary under each item as annexes at the end of the heading.

#### **10.4 CHECKLIST OF ADMINISTRATIVE AND ORGANIZATIONAL PROBLEMS WHICH COULD ARISE IN AN OPERATIONAL EXERCISE (BALEX CHARLIE OR DELTA)**

In general it is up to each participating Party to take care of all formalities itself. But it is advisable that the Lead Country undertakes to make precautions in order to facilitate the granting of all clearance and permissions required.

This checklist is to help the Lead Country arranging an operational exercise and the participating Parties not to forget issues of importance:

- diplomatic clearance
- customs questions
- conditions of work
- insurance of personnel
- civil liability for injuries or damage
- accommodation and meals
- medical treatment
- equipment and repairs
- report to the meeting of the Sea-based Pollution Group
- general program well in advance, including:
  - \* exercise condition
  - \* briefing/debriefing
  - \* operational command
  - \* participating units
  - \* timetable
  - \* pilot regulation
  - \* moorage
  - \* transports
  - \* social events
  - \* time zone
  - \* exercise command
  - \* liaison officer
  - \* communication
  - \* recommended charts
  - \* required diplomatic clearance
  - \* hotel reservation
  - \* observers
  - \* information service

## **10.5 PLANNING AND EVALUATION OF BALEX DELTA EXERCISES**

### **(1) PLANNING**

First announcement and invitation to participation should be sent to the Secretariat for distribution to the Contracting Parties six months in advance of the exercise. This first announcement should:

- inform on the aim, the date, including a back-up date, and place of the exercise; and
- call for participation of ships and observers.

Announcements of participation should be made to the Lead Country four months in advance of the exercise.

Having received the announcements of participation the Lead Country should send out practical information about the exercise. Examples of such information is given in section 10.4. This information should not include details of the exercise scenario.

In general it is up to the Lead Country to plan the exercise scenario. An Exercise Evaluation Team (EET) shall, however, be established, to enable beforehand comments on the exercise scenario, and thus ensure the best benefits of the scheduled exercise. The exercise scenario shall be sent in due time to the members of the EET to enable them to comment thereupon.

The EET normally consists of three members, of which one is from the Lead Country, one from the Contracting Party who arranged the previous exercise, and one from the Contracting Party who will arrange the next exercise.

Although the aim of a BALEX DELTA Exercise is to check and train the operational system as a whole, efforts should also be made to change the tasks of the participating units during the exercise, in order for personnel to gain as much experience as possible from the exercise.

The participating Parties must be informed as soon as possible and at least three days in advance if the exercise has to be executed on the back-up date or altogether cancelled.

### **(2) EVALUATION**

The EET shall, in order to strengthen the operational co-operation between the Contracting Parties, do an unbiased evaluation of the exercise.

This evaluation is to be conducted in two steps; as an intermediate evaluation and as a final evaluation.

For the intermediate evaluation the tasks of the EET are:

- to be present during the exercise; and
- to give an oral presentation of the findings and a preliminary evaluation of the exercise to the participants immediately after the exercise (at the debriefing).

For the final evaluation the task of the EET is:

- to submit a written report of the final evaluation including lessons learnt and proposals for future similar activities to the next meeting of the Response Group.

The members of the EET decide between themselves their individual tasks and their geographical location(s) during the execution of the exercise.

### **Terms of Reference of the HELCOM Exercise Evaluation Team (EET)**

#### 1. HELCOM Exercises and the EET

Under the framework of the Helsinki Convention the following types of response exercises have been agreed upon:

- Synthetic Exercise (BALEX ALPHA)
- Alarm Exercise (BALEX BRAVO)
- Equipment Exercise (BALEX CHARLIE)
- Operational Exercise (BALEX DELTA)
- State-of-the-art Exercise (BALEX ECHO)

Decisions on the yearly exercise programme including the types of exercises, aims and goals for the exercises, time for the execution and appointment of Lead Countries are taken during the meetings of the Response Group (cf. HELCOM SEA 1/2000, 5/3, Paragraph 4.48).

In general it is up to the Lead Country of the Exercise (hosting country) to plan the exercise scenario.

However, an Exercise Evaluation Team (EET) shall be established for BALEX DELTA exercises in order to strengthen the cooperation between HELCOM Contracting Parties and to ensure the best benefits and ensure continuous improvement of the scheduled exercises.

The EET will also act as a forum for the exchange of information on possible focus areas for future exercises regarding response to spills.

#### 2. Tasks

The EET will consist of four members, of which one is from the Lead Country, one from the Contracting Party who arranged the previous exercise, and one from each of the Contracting Party who will arrange the two following exercises. The EET will be chaired by the organizer of the previous BALEX DELTA exercise.

The Expert Evaluation Team (EET) has the following tasks:

- To comment the exercise scenario in advance and evaluate it after the completed exercise
- To evaluate exercises and identify areas to be improved;
- To propose updates of the HREP with areas to be improved in mind (lessons learned);
- To report the evaluation of exercises to HELCOM Response;

- To be involved in the future exercises to make sure the areas to be improved are covered by future exercises.

In order to enable the first task, the exercise scenario shall be sent by the host country of the upcoming exercise in due time to the members of the EET to enable them to comment thereupon.

### 3. Working mode

- The group will arrange meetings -online, telephone or physical.
- These meetings shall take place at least during the BALEX DELTA, but can be arranged more often if necessary.
- When necessary, face-to-face meetings shall be organized back-to-back with other HELCOM Response WG related events.
- The group (chair) will report to HELCOM Response on progress made
- after reporting the EET membership and Chairing will change according to the new membership

## **10.6 EXERCISES IN SUPPORT OF STRATEGIC DEVELOPMENT**

All HELCOM exercises – at sea, on the shore or combined – support the strategic development of the HELCOM cooperation on the response to marine pollution. A multiannual HELCOM RESPONSE Exercise Plan (HREP) is developed and revised on a yearly basis. The HREP lists all HELCOM Exercises for the coming three years and specify their dates and venues, the host nation, the overall aim and what strategic development objectives the exercise supports.

The HREP is developed by the HELCOM RESPONSE Group (possibly by a working group) and decided by the HELCOM COMMISSION. The development of the HREP is based on two parallel processes. First of all, an analysis for determining the needs for exercises. This analysis is in turn based on the strategic development plan for the HELCOM cooperation on the response to marine pollution, known capability gaps, identified threats and risks and the evaluation results from preceding exercises. Secondly, a dialogue with the Contracting Parties in which the will and the capabilities for hosting exercises are investigated. It is recommended that the hosting of exercises is rotated between the Contracting Parties, taking into consideration the rotating responsibility for the BALEX DELTA at sea exercises.

**AN ANALYSIS OF THE EXPERIENCE AND POSSIBILITIES TO USE VARIOUS MATERIALS  
FOR SIMULATING THE OIL SPILL DURING THE EXERCISES**

<b>MATERIAL</b>	<b>VISIBILITY</b>	<b>BEHAVIOUR</b>	<b>OTHER ADVANTAGES</b>	<b>OTHER DISADVANTAGES</b>
<b>1) Foam</b> 1. Light (high expansion) 2. Medium (medium expansion) 3. Heavy (low expansion) 4. Training foams	Excellent	Drifts too much with the wind.	Relatively cheap, needs no collection.  b) Easy to deploy. c) Easy to deploy. d) Easy to deploy.	Lighter foams disappear too soon. All foam types except training foams are more or less poisonous.  a) Difficult to deploy especially in windy conditions due to the lightness.
<b>2) Peat</b>	Poor - moderate	Drifts mainly with the wind.	Easy to deploy, relatively cheap, environmentally friendly.	Needs to be collected.
<b>3) Vegetable oils, general</b>  1. Canola oil (from rape seed)	Poor – moderate  No experience	Simulates the drifting of mineral oils well.  Simulates crude oil especially well when used in water-in-oil emulsion form.	More environmentally friendly than mineral oils.  Highly biodegradable, low toxicity.	Needs to be collected. Some vegetable oils are harmful to the nature, stick to the fishing nets, birds, etc. Sometimes a small amount of mineral oil must be added to make the oil visible. Reports about environmental risks of using Canola oil are contradictory.
<b>4) Chemical agents like Rhodamine, etc.</b>	Moderate	Simulates sinking oil and oil that spreads to the whole water column, like orimulsion, well.	The volume of the needed agent is small, needs not to be collected.	Perfect monitoring of the slick needs special equipment. Rhodamine can be used also together with peat, foam, etc. which then simulates the drifting of floating oil.
<b>5) Pop Corn (unsalted)</b>	Excellent	Drifts mainly with the wind.	Largely environmentally friendly.	The use of Pop Corn can be ethically doubtful (food). It is oxygen-consuming material.
<b>6) Paraffin balls</b>	Poor - moderate. In darkness easy to see with searchlight.	Simulates the drifting of mineral oils well.		Needs to be collected and can create mechanical damages in the skimmers. Rather expensive.
<b>7) Paper/carton pieces</b>	Good	Simulates the drifting of mineral oils on water surface perfectly.	Cheap, easy to deploy, environmentally friendly.	Needs to be collected, may sink.
<b>8) Drifters</b>	Excellent	Simulates the drift of the slick well.	Can be used several times. If drifters are equipped with GPS and radio links, the true position of the slick is easily monitored.	Skimmers cannot be tested when using drifters and if real spreading of the oil is simulated, large number of drifters is needed. Modern (GPS + radio link) drifters are expensive.

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# 11. OILED WILDLIFE RESPONSE

## 1. GENERAL PRINCIPLES

General principles of good practice with regards to oiled wildlife response include but are not limited to the following:

- Ensuring health and safety of responders and general public are always first priority of response
- Objectives and strategy are clearly defined at the start of the response by being an organic part of pre-spill planning
- National legislation applies at all times
- Invited foreign response groups can only work under licence and supervision provided by national authorities
- Professional international responders (e.g. EUROWA) should be compensated for their incurred time and expenses if formally invited and deployed as part of an authority led response
- Criteria and procedures for euthanasia and release, that are indicated also in the oiled wildlife response plan, are set by national authorities and can only be applied under their supervision
- Activities always aim at meeting highest standards of animal welfare. Euthanasia is used as a means of minimising animal suffering, in cases where rehabilitation does not apply. In cases where rehabilitation is considered an option it should only be conducted if adequate set up can be provided, with reasonable expectation of minimised suffering and maximised post-release survival of treated animals.
- It is clearly defined how the contributions (if any) of volunteers and volunteer groups will be integrated into the response activity, and how these contributions will be coordinated and controlled.

## 2. HEALTH AND SAFETY STANDARDS

Foreign groups and volunteers will have to comply with the standards for health and safety and environment (HSE) of the Requesting Party. These standards will be made available to invited groups in a communicable format, e.g. translated into English if possible. The adoption of a common set of HSE standards specifically for oiled wildlife response in the HELCOM region would truly facilitate the smooth integration of expertise from the region. The HSE issues connected with an oiled wildlife response are explained in the box below.

**Towards HSE standards for oiled wildlife response in the HELCOM area**

Oiled wildlife responders typically are facing two category of HSE issues while responding to oiled wildlife:

1. HSE issues related to working in an oil polluted environment
2. HSE issues related to working with oiled wildlife both in the field and in facilities

With regards to onshore wildlife response (the collection of live and dead animals), and the specific requirements for dealing with oil pollution, the general HSE standards of oil spill response will apply. This includes protocols and training with regards to

- the cautious behaviour in natural hazardous areas,
- the use of adequate personal protective equipment (ppe) when entering and working in polluted zones,
- minimising polluted waste and secondary pollution

With regards to dealing with live oiled animals, additional health and safety standards must apply. These include protocols and training with regards to 5 basic principles (IPIECA, 2004):

- the maintenance of safe working conditions and procedures
- the understanding of occupational health
- an understanding of potential hazards of working with oiled wildlife
- the wearing of adequate personal protective equipment (ppe)
- the practice of good personal hygiene

**3. Banding and post release monitoring**

An attempt to rehabilitate oiled animals should always be undertaken with the aim to release the cleaned and rehabilitated animals with a high probability that they will survive and reproduce as if they had never been oiled. The use of internationally recommended rehabilitation protocols provides a proper basis for this. Nevertheless, the ultimate evidence of the rehabilitation success must come from scientific observations that are made on the breeding colonies. Although the banding of successfully rehabilitated and released animals is part of international good practice, it is still hard to collect the necessary evidence from field observation programmes that released animals actually have rejoined their natural (breeding) population. Rings that are provided to the rehabilitated birds before their release cannot easily be read at sea or at breeding colonies. Therefore most registered readings come from dead seabirds that have washed ashore some time after their release. This tends to give an unfavourable bias to the perceived success rate of rehabilitation programmes.

The absence of evidence from breeding colonies does not disqualify rehabilitation as a useful approach in oiled wildlife response, but it is clear that more intensive research programmes are needed to allow better scientific assessment of post release survival in relation to rehabilitation methodologies. Possible roads for new research programmes in the field of oiled wildlife response include e.g. the use of colour rings or radiotags for rehabilitated birds, better scientific documentation of the development and use of rehabilitation methodologies and a more structural reporting of ring observations to rehabilitation centres. Especially larger incidents provide interesting opportunities for post-release studies. These should be integrated into the response plan, especially into the release protocols. In this way information on the survival of relatively large numbers of rehabilitated birds can be obtained.

HELCOM strongly recommends the banding or radio tagging of rehabilitated animals according to international standards and encourages research projects and stronger efforts to quantify and document post release survival of rehabilitated animals.

**4. CUSTOMS AND BORDER CROSSING**

With regards to wildlife response there are two main areas in which customs and border crossings need to be considered:

- The entrance of invited responders and/or equipment into a country
- The transport of oil affected animals across borders in order to have them rehabilitated in a neighbouring country

The first area is already covered by Chapter 4 and 8 of the HELCOM Response Manual.

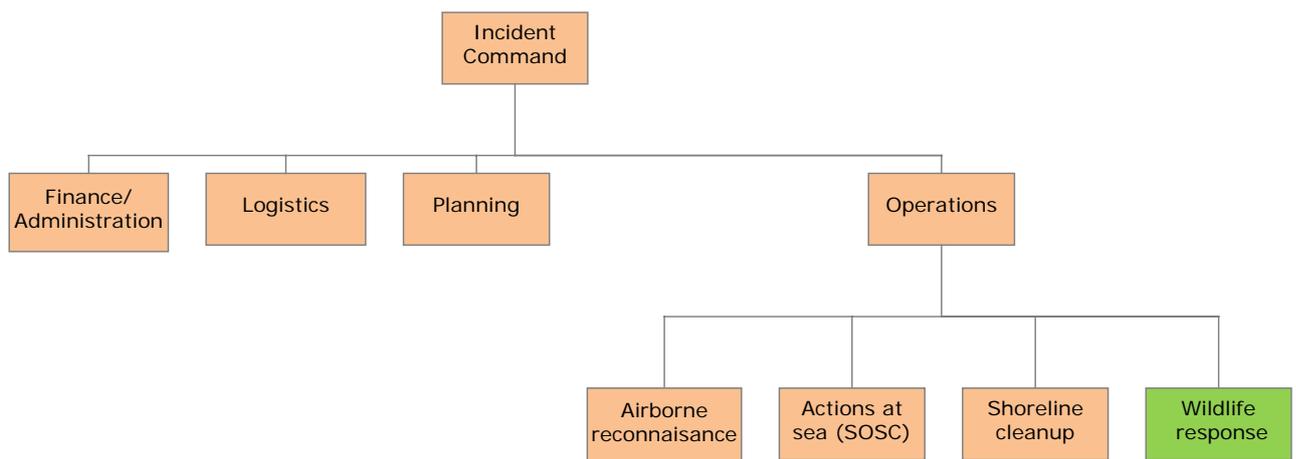
The international transport of oil affected animals could be considered under the following circumstances:

- A relatively large incident has affected two or more neighbouring countries. In the coordinated international response the countries in question share their resources and the optimal use of these facilities may require that animals are transported to a facility abroad.
- A relatively small oil incident has affected a country with only limited facilities. It may be more cost-effective to send a limited number of animals to a permanent facility abroad instead of inviting foreign expertise and equipment into the country in question and set up a temporary facility.

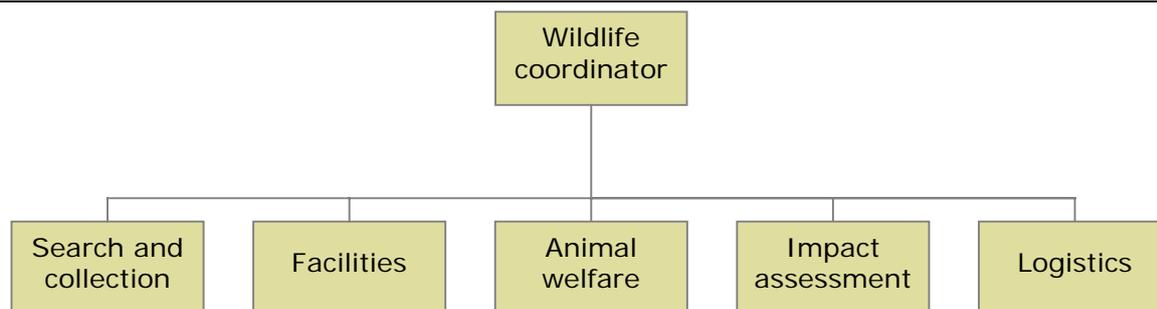
The transport of marine animals normally needs a permit from both the countries in question. Such a permit could be facilitated by an enhanced procedure that can be followed as part of the national response plan and bi- and multilateral agreements between HELCOM countries that have been made in advance.

**5. COMMAND STRUCTURE AND OPERATIONAL MANAGEMENT**

Requesting Party provides a clear command structure for oiled wildlife response as an integrated part of the overall oil spill response command structure (see figures 1 and 2). Assisting Party will be informed about this structure and given a clear role and responsibility as part of that command system.



**Figure 1:** Wildlife response is often integrated into the overall incident command system as part of “Operations”, but the actual organisation structure will differ from country to country.



**Figure 2:** Example of a simple oiled wildlife response organisation chart. The contributions of foreign experts are often including the set up and running of a rehabilitation facility, impact assessment, search and collection, and/or management coaching. Groups or individual experts can be integrated into the organisation chart accordingly.

Assisting Party is expected to have its own command structure, including a mission leader with controlling power over the group. The Assisting Party will be asked to provide the names and the affiliation of the experts in the proposed team, as well as their internal command structure, the expertise they provide and their operational needs if integrated into the national response. The mission leader will liaise directly with the national wildlife response coordinator.

## 6. OPERATIONAL COMMUNICATION WITH ASSISTING PARTY

Assisting Party will be kept informed at all times by a liaison officer who has a direct link into the national command structure and is mandated to deal with the foreign experts. Requesting Party provides all means feasible to maximise the contribution that the foreign experts could bring to the success of the national response. Requesting Party identifies a wildlife response centre (WRC) where all relevant information is brought together. Mission leader of Assisting Party will have access to this wildlife response centre and its information.

## 7. FINANCIAL ASPECTS

The general rules for reimbursement of costs of assistance are included in Chapter 9 of the Manual.

*Note: These rules will be applicable also to oiled wildlife response operations and no changes will be needed in the Manual in this respect if the legal basis of the Convention is extended to deal with oiled wildlife response (see section 3 on requesting and providing assistance).*

The probability of a successful claim can be maximised if the wildlife response is carried out in organised and coordinated manner, following an agreed plan, involving trained expertise and applying proven methodologies and acknowledged protocols. The Contracting Parties are recommended to follow the Oct 2016 IOPC Fund Claims Manual (section 3.1.4, pg 27) with regard to the claims of costs of oiled wildlife response.

## 8. EXERCISES

The oiled wildlife response exercises can be designed in their own right according to the HELCOM categories ALPHA, BRAVO, CHARLIE, DELTA, ECHO. As such, they can be held as stand alone events, or integrated in other HELCOM exercises (see Chapter 10 of the Manual).

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Additionally, each Contracting Party is encouraged to invite observers of the other Contracting Parties to participate in their national exercises.

*Note: For that purpose no additional changes in the Manual are needed. HELCOM RESPONSE 10/2008 already recommended the Contracting Parties to include shoreline and oiled wildlife response in national and international response exercises.*

## 9. INTERNATIONAL GUIDELINES RELATED AND AVAILABLE

HELCOM Contracting Parties jointly recognize and agree on the use of the following guidelines and documents to be applied in preparedness and response in the HELCOM area:

- Guide to Oiled Wildlife Response Planning (IPIECA, 2004)<sup>1</sup>
- Good Practice Guide on Oiled Wildlife Response Preparedness (IPIECA, 2015)<sup>2</sup>
- Key principles for the protection, care and rehabilitation of oiled wildlife (IPIECA, 2017)<sup>3</sup>
- **Handbook Impact Assessment Seabirds** <sup>4</sup>
- IOPC Funds Claim Manual<sup>5</sup>
- **EUROWA documentation and manuals**<sup>6</sup>

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<sup>1</sup> <http://www.oiledwildlife.eu/?q=node/243>

<sup>2</sup> <http://www.ipieca.org/resources/good-practice/wildlife-response-preparedness/>

<sup>3</sup> <http://www.ipieca.org/resources/awareness-briefing/key-principles-for-the-protection-care-and-rehabilitation-of-oiled-wildlife/>

<sup>4</sup> <http://www.oiledwildlife.eu/birds/publications/handbook-oil-impact-assessment-seabirds>

<sup>5</sup> [http://www.iopcfunds.org/uploads/tx\\_iopcpublications/IOPC\\_Funds\\_Claims\\_Manual\\_ENGLISH\\_WEB\\_01.pdf](http://www.iopcfunds.org/uploads/tx_iopcpublications/IOPC_Funds_Claims_Manual_ENGLISH_WEB_01.pdf)

<sup>6</sup> Various manuals have been developed. Visit <http://www.oiledwildlife.eu/euowa/background>

## **12. THE HELSINKI CONVENTION**

### **12.1 CONVENTION ON THE PROTECTION OF THE MARINE ENVIRONMENT OF THE BALTIC SEA AREA, 1992 (EXTRACT)**

#### **Article 2** Definitions

For the purposes of this Convention:

1. "Pollution" means introduction by man, directly or indirectly, of substances or energy into the sea, including estuaries, which are liable to create hazards to human health, to harm living resources and marine ecosystems, to cause hindrance to legitimate uses of the sea including fishing, to impair the quality for use of sea water, and to lead to a reduction of amenities;
6. "Oil" means petroleum in any form including crude oil, fuel oil, sludge, oil refuse and refined products;
7. "Harmful substance" means any substance, which, if introduced into the sea, is liable to cause pollution;
9. "Pollution incident" means an occurrence or series of occurrences having the same origin, which results or may result in a discharge of oil or other harmful substances and which poses or may pose a threat to the marine environment of the Baltic Sea or to the coastline or related interests of one or more Contracting Parties, and which requires emergency actions or other immediate response;

#### **Article 11** Prevention of dumping

1. The Contracting Parties shall, subject to exemptions set forth in paragraphs 2 and 4 of this Article, prohibit dumping in the Baltic Sea Area.
2. Dumping of dredged material shall be subject to a prior special permit issued by the appropriate national authority in accordance with the provisions of Annex V.
3. Each Contracting Party undertakes to ensure compliance with the provisions of this Article by ships and aircraft:
  - a) registered in its territory or flying its flag;

- b) loading, within its territory or territorial sea, matter which is to be dumped; or
- c) believed to be engaged in dumping within its internal waters and territorial sea.

4. The provisions of this Article shall not apply when the safety of human life or of a ship or aircraft at sea is threatened by the complete destruction or total loss of the ship or aircraft, or in any case which constitutes a danger to human life, if dumping appears to be the only way of averting the threat and if there is every probability that the damage consequent upon such dumping will be less than would otherwise occur. Such dumping shall be so conducted as to minimize the likelihood of damage to human or marine life.

5. Dumping made under the provisions of paragraph 4 of this Article shall be reported and dealt with in accordance with Annex VII and shall be reported forthwith to the Commission in accordance with the provisions of Regulation 4 of Annex V.

6. In case of dumping suspected to be in contravention of the provisions of this Article the Contracting Parties shall co-operate in investigating the matter in accordance with Regulation 2 of Annex IV.

### **Article 12**

#### Exploration and exploitation of the seabed and its subsoil

1. Each Contracting Party shall take all measures in order to prevent pollution of the marine environment of the Baltic Sea Area resulting from exploration or exploitation of its part of the seabed and the subsoil thereof or from any associated activities thereon as well as to ensure that adequate preparedness is maintained for immediate response actions against pollution incidents caused by such activities.

2. In order to prevent and eliminate pollution from such activities the Contracting Parties undertake to implement the procedures and measures set out in Annex VI, as far as they are applicable.

### **Article 13**

#### Notification and consultation on pollution incidents

1. Whenever a pollution incident in the territory of a Contracting Party is likely to cause pollution to the marine environment of the Baltic Sea Area outside its territory and adjacent maritime area in which it exercises sovereign rights and jurisdiction according to international law, this Contracting Party shall notify without delay such Contracting Parties whose interests are affected or likely to be affected.

2. Whenever deemed necessary by the Contracting Parties referred to in paragraph 1, consultations should take place with a view to preventing, reducing and controlling such pollution.

3. Paragraphs 1 and 2 shall also apply in cases where a Contracting Party has sustained such pollution from the territory of a third state.

**Article 14**

Co-operation in combatting marine pollution

The Contracting Parties shall individually and jointly take, as set out in Annex VII, all appropriate measures to maintain adequate ability and to respond to pollution incidents in order to eliminate or minimize the consequences of these incidents to the marine environment of the Baltic Sea Area.

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**ANNEX VI**  
**1992 Helsinki Convention**

**PREVENTION OF POLLUTION FROM OFFSHORE ACTIVITIES**

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**Regulation 7; Contingency planning**

Each offshore unit shall have a pollution emergency plan approved in accordance with the procedure established by the appropriate national authority. The plan shall contain information on alarm and communication systems, organization of response measures, a list of prepositioned equipment and a description of the measures to be taken in different types of pollution incidents.

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**ANNEX VII**  
**1992 Helsinki Convention**

**RESPONSE TO POLLUTION INCIDENTS**

**Regulation 1; General Provisions**

1. The Contracting Parties undertake to maintain the ability to respond to pollution incidents threatening the marine environment of the Baltic Sea Area. This ability shall include adequate equipment, ships and manpower prepared for operations in coastal waters as well as on the high sea.
2.
  - a) In addition to the incidents referred to in Article 13 the Contracting Party shall also notify without delay those pollution incidents occurring within its response region, which affect or are likely to affect the interests of other Contracting Parties.
  - b) In the event of a significant pollution incident other Contracting Parties and the Commission shall also be informed as soon as possible.
3. The Contracting Parties agree that subject to their capabilities and the availability of relevant resources, they shall co-operate in responding to pollution incidents when the severity of such incidents so justify.
4. In addition the Contracting Parties shall take other measures to:
  - a) conduct regular surveillance outside their coastlines; and
  - b) otherwise co-operate and exchange information with other Contracting Parties in order to improve the ability to respond to pollution incidents.

**Regulation 2; Contingency Planning**

Each Contracting Party shall draw up a national contingency plan and in co-operation with other Contracting Parties, as appropriate, bilateral or multilateral plans for a joint response to pollution incidents.

**Regulation 3; Surveillance**

1. In order to prevent violations of the existing regulations on prevention of pollution from ships the Contracting Parties shall develop and apply individually or in co-operation, surveillance activities covering the Baltic Sea Area in order to spot and monitor oil and other substances released into the sea.

2. The Contracting Parties shall undertake appropriate measures to conduct the surveillance referred to in Paragraph 1. by using, *inter alia*, airborne surveillance equipped with remote sensing systems.

#### **Regulation 4; Response Regions**

The Contracting Parties shall as soon as possible agree bilaterally or multilaterally on those regions of the Baltic Sea Area in which they shall conduct surveillance activities and take action to respond whenever a significant pollution incident has occurred or is likely to occur. Such agreements shall not prejudice any other agreements concluded between Contracting Parties concerning the same subject. Neighboring States shall ensure the harmonization of different agreements. Contracting Parties shall inform other Contracting Parties and the Commission about such agreements.

#### **Regulation 5; Reporting Procedure**

1. a) Each Contracting Party shall require masters or other persons having charge of ships flying its flag to report without delay any event on their ship involving a discharge or probable discharge of oil or other harmful substances.
  - b) The report shall be made to the nearest coastal state and in accordance with the provisions of Article 8 and Protocol I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 related thereto (MARPOL 73/78).
  - c) The Contracting Parties shall request masters or other persons having charge of ships and pilots of aircraft to report without delay and in accordance with this system on significant spillages of oil or other harmful substances observed at sea. Such reports should as far as possible contain the following data: time, position, wind and sea conditions, and kind, extent and probable source of the spill observed.
2. The provisions of paragraph 1. b) shall also be applied with regard to dumping made under the provisions of Article 11, paragraph 4 of this Convention.

#### **Regulation 6; Emergency Measures on Board Ships**

1. Each Contracting Party shall require that ships entitled to fly its flag have on board a shipboard oil pollution emergency plan as required by and in accordance with the provisions of MARPOL 73/78.
2. Each Contracting Party shall request masters of ships flying its flag or, in case of fixed or floating platforms operating under its jurisdiction, the persons having charge of platforms to provide, in case of a pollution incident and on request by the proper authorities, such detailed information about the ship and its cargo or in case of platform its production which is relevant

to actions for preventing or responding to pollution of the sea, and to co-operate with these authorities.

### **Regulation 7; Response Measures**

1. The Contracting Party shall, when a pollution incident occurs in its response region, make the necessary assessments of the situation and take adequate response action in order to avoid or minimize subsequent pollution effects.
2.
  - a) The Contracting Parties shall, subject to sub-paragraph b), use mechanical means to respond to pollution incidents.
  - b) Chemical agents may be used only in exceptional cases and after authorization, in each individual case, by the appropriate national authority.
3. When such a spillage is drifting or is likely to drift into a response region of another Contracting Party, that Party shall without delay be informed of the situation and the actions that have been taken.

### **Regulation 8; Assistance**

1. According to the provisions of paragraph 3 of Regulation 1:
  - a) a Contracting Party is entitled to call for assistance by other Contracting Parties when responding to a pollution incident at sea; and
  - b) Contracting Parties shall use their best endeavours to bring such assistance.
2. Contracting Parties shall take necessary legal or administrative measures to facilitate:
  - a) the arrival and utilization in and departure from its territory of ships, aircraft and other modes of transport engaged in responding to a pollution incident or transporting personnel, cargoes, materials and equipment required to deal with such an incident; and
  - b) the expeditious movement into, through, and out of its territory of personnel, cargoes, materials and equipment referred to in sub-paragraph a).

### **Regulation 9; Reimbursement of Cost of Assistance**

1. The Contracting Parties shall bear the costs of assistance referred to in Regulation 8 in accordance with this Regulation.
2.
  - a) If the action was taken by one Contracting Party at the express request of another Contracting Party, the requesting Party shall reimburse to the assisting Party the costs

of the action of the assisting Party. If the request is cancelled the requesting Party shall bear the costs already incurred or committed by the assisting Party.

- b) If the action was taken by a Contracting Party on its own initiative, this Party shall bear the costs of its action.
- c) The principles laid down above in sub-paragraphs a) and b) shall apply unless the Parties concerned otherwise agree in any individual case.

3. Unless otherwise agreed, the costs of the action taken by a Contracting Party at the request of another Party shall be fairly calculated according to the law and current practice of the assisting Party concerning the reimbursement of such costs.

4. The provisions of this regulation shall not be interpreted as in any way prejudicing the rights of Contracting Parties to recover from third parties the costs of actions taken to deal with pollution incidents under other applicable provisions and rules of international law and national or supra-national regulations.

#### **Regulation 10; Regular Co-operation**

1. Each Contracting Party shall provide information to the other Contracting Parties and the Commission about:

- a) its organization for dealing with spillages at sea of oil and other harmful substances;
- b) its regulations and other matters which have a direct bearing on preparedness and response to pollution at sea by oil and other harmful substances;
- c) the competent authority responsible for receiving and dispatching reports of pollution at sea by oil and other harmful substances;
- d) the competent authorities for dealing with questions concerning measures for mutual assistance, information and co-operation between the Contracting Parties according to this Annex; and
- e) actions taken in accordance with Regulations 7 and 8 of this Annex.

2. The Contracting Parties shall exchange information on research and development programs, results concerning ways in which pollution by oil and other harmful substances at sea may be dealt with and experiences in surveillance activities and in responding to such pollution.

3. The Contracting Parties shall on a regular basis arrange joint operational combatting exercises as well as alarm exercises.

4. The Contracting Parties shall co-operate within the International Maritime Organization in matters concerning the implementation and further development of the International Convention on Oil Pollution Preparedness, Response and Co-operation.

**Regulation 11; HELCOM Combatting Manual**

The Contracting Parties agree to apply, as far as practicable, the principles and rules included in the Manual on Co-operation in Combatting Marine Pollution, detailing this Annex and adopted by the Commission or by the Committee designated by the Commission for this purpose.

## ***HELCOM Response Manual Volume 1 (Oil), Chapter 13***

### **13. HELCOM RECOMMENDATIONS AND RELATED GUIDELINES ON COMBATTING MATTERS**

#### **13.1 LIST OF VALID HELCOM RECOMMENDATIONS AND RELATED GUIDELINES**

##### **HELCOM Recommendation 12/7**

Recommendation concerning special cooperation in case of a chemical tanker accident in the Baltic Sea

- adopted 20 February 1991, having regard to Article 13, Paragraph b) of the Helsinki Convention

##### **HELCOM Recommendation 12/9**

Recommendation concerning follow-up studies in connection with major oil spills

- adopted 20 February 1991, having regard to Article 13, Paragraph b) of the Helsinki Convention

**Guidelines** for oil spill follow-up studies

(HELCOM 12/18, Paragraph 9.15 referring to HELCOM 12/9, Attachment 5)

##### **HELCOM Recommendation 17/12**

Recommendation concerning measures to abate pollution by oil and other harmful substances in cases of grounding, collision, sinking of a ship or other maritime casualty

- adopted 13 March 1996, having regard to Article 13, Paragraph b) of the Helsinki Convention

##### **HELCOM Recommendation 19/17**

Recommendation concerning measures in order to combat pollution from offshore units

- adopted 24 March 1998, having regard to Article 13, Paragraph b) and Regulation 2 of Annex VI of the Helsinki Convention  
(supersedes HELCOM Recommendation 10/10)

##### **HELCOM Recommendation 20/5**

Recommendation concerning minimum ability to respond to spillages in oil terminals

- adopted 23 March 1999 having regard to Article 13, Paragraph b) of the Helsinki Convention 1974  
(supplements HELCOM Recommendation 11/13)

**Guidelines** for minimum ability to respond to spillages in oil terminals

##### **HELCOM Recommendation 22/2**

Recommendation concerning restricted use of chemical agents and other non-mechanical means in oil combatting operations in the Baltic Sea Area

- adopted 21 March 2001 having regard to Article 20, Paragraph 1 b) of the Helsinki Convention  
(supersedes HELCOM Recommendation 1/8)

**HELCOM Recommendation 24/7**

Recommendation concerning further development and use of drift forecasting for oils and other harmful substances in the Baltic

- adopted 25 June 2003, having regard to Article 20, Paragraph 1 b) of the Helsinki Convention (supersedes HELCOM Recommendation 12/6)

**Guidelines** for the implementation of HELCOM Recommendation 24/7 on further development and use of drift forecasting for oils and other harmful substances in the Baltic (HELCOM RESPONSE 1/2002, 14/1/Rev.1, Annex 4)

**HELCOM Recommendation 24/9**

Recommendation concerning ensuring adequate emergency capacity

- adopted 25 June 2003, having regard to Article 20, Paragraph 1 b) of the Helsinki Convention

**Guidelines** for the implementation of HELCOM Recommendation 24/9 on ensuring adequate emergency capacity (HELCOM RESPONSE 2/2003, 13/1, Annex 3)

**HELCOM Recommendation 28E/12**

Recommendation on strengthening of sub-regional co-operation in response field

- adopted 15 November 2007, having regard to Article 20, Paragraph 1 b) of the Helsinki Convention

**HELCOM Recommendation 31/1**

Recommendation on development of national ability to respond to spillages of oil and other harmful substances

- adopted 4 March 2010 having regard to Article 20, Paragraph 1 b) of the Helsinki Convention (supersedes HELCOM Recommendations 1/7, 4/3 and 11/13)

**Guidelines** for applying HELCOM Recommendation 31/1 on development of national ability to respond to spillages of oil and other harmful substances (HELCOM RESPONSE 11/2009, 16/1/Rev.1, Annex 4)

**HELCOM RECOMMENDATION 31E/5**

Recommendation on mutual plan for places of refuge in the Baltic Sea area

- adopted 20 May 2010 having regard to Article 20, Paragraph 1 b) of the Helsinki Convention (amended 6 March 2014)

**HELCOM RECOMMENDATION 31E/6**

Recommendation on integrated wildlife response planning in the Baltic Sea area

- adopted 20 May 2010 having regard to Article 20, Paragraph 1 b) of the Helsinki Convention

**HELCOM RECOMMENDATION 33/2**

Recommendation on co-operation in response to spillages of oil and other harmful substances on the shore

- adopted 6 March 2012 having regard to Article 20, Paragraph 1 b) of the Helsinki Convention

**HELCOM RECOMMENDATION 33/3**

Recommendation on reporting on incidents involving harmful substances and emergency dumping

- adopted 6 March 2012 having regard to Article 20, Paragraph 1 b) of the Helsinki Convention  
(supersedes HELCOM Recommendations 7/12 and 19/18)

**HELCOM RECOMMENDATION 34E/3**

Recommendation on amendments to Annex VII “Response to pollution incidents” of the 1992 Helsinki Convention, concerning response on the shore

- adopted 3 October 2013 having regard to Article 20, Paragraph 1 c) of the Helsinki Convention

**HELCOM RECOMMENDATION 34E/4**

Recommendation on airborne surveillance with remote sensing equipment in the Baltic Sea area

- adopted 3 October 2013 having regard to Article 20, Paragraph 1 b) of the Helsinki Convention  
(revised 4 March 2015)

**HELCOM RECOMMENDATION 36/3**

Recommendation on marine pollution incident reporting and requests for assistance between Contracting Parties in the Baltic Sea area

- adopted 4 March 2015 and amended 5 March 2018 having regard to Article 20, Paragraph 1 b) of the Helsinki Convention

## 13.2 VALID HELCOM RECOMMENDATIONS AND RELATED GUIDELINES

### HELCOM Recommendation 12/7

Adopted 20 February 1991  
having regard to Article 20 Paragraph 1 b)  
of the Helsinki Convention

### SPECIAL COOPERATION IN CASE OF A CHEMICAL TANKER ACCIDENT IN THE BALTIC SEA

#### THE COMMISSION,

**RECALLING** Article 11 and Annex VI\*) of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1974, (Helsinki Convention), concerning cooperation in combating marine pollution which also covers cooperation in combating chemical spillages,

**RECALLING ALSO** the provision of Regulation 9.1.d of Annex VI\*\*) to the Convention, which establishes an information network between the competent authorities of the Contracting Parties,

**RECALLING FURTHER** that HELCOM Recommendation 11/13 concerning the development of national ability to respond to spillages of oil and other harmful substances establishes common requirements for national ability to combat chemical spillages,

**RECOGNIZING** that in combating chemical spillages, special expertise on several fields is needed, and all necessary experts may not be available in each of the Contracting Parties, especially if the accident occurs off the coast of a Contracting Party where the chemical concerned is not used on a large scale,

**RECOGNIZING ALSO** that disposal of chemical wastes originated from the combatting operation may cause overwhelming difficulties to the third Parties not using that chemical,

**RECOMMENDS** that the Governments of the Contracting Parties to the Helsinki Convention:

- a) nominate a contact point through which competent authorities of other Contracting Parties can, in emergency situations, without delay get information on the chemicals carried by a tanker from or to a harbour of a Party concerned;
- b) by national measures create as soon as possible but not later than by the end of 1992 an information system which would, in case of a chemical spillage, facilitate access by the competent authorities to data concerning the chemicals carried by the tankers;
- c) provide, in accordance with Regulation 8 of Annex VI\*) to the Convention, and within their ability, other Parties with special assistance like experts to respond to chemical spillages, special protective clothing and equipment for combating personnel, and special instruments for chemical analyses,

\*) the relevant reference is to Annex VII of the 1992 Helsinki Convention

\*\*) the relevant reference is to Regulation 10 of the 1992 Helsinki Convention

**RECOMMENDS ALSO** that the Governments of the Contracting Parties inform each other of their national facilities where chemical wastes emanating from combating operations can be treated and disposed of and make all efforts to provide necessary waste treatment possibilities after an accident has occurred off the coast of another Contracting Party,

**AUTHORIZES** the Combatting Committee<sup>\*\*\*</sup>) to develop an appropriate section concerning the implementation of this Recommendation to be included into the Manual on Co-operation in Combatting Marine Pollution<sup>\*\*\*\*</sup>),

**URGES FURTHER** that action taken by the Contracting Parties to implement this Recommendation should be reported to the Commission and its Combatting Committee<sup>\*\*\*</sup>) for the first time before 30 May 1993.

\*\*\*) the relevant reference is to the HELCOM Response Group

\*\*\*\*) note that Volume 2 of HELCOM Response Manual "Response to accidents at sea involving spills of hazardous substances and loss of packages dangerous goods" has already been developed and is available at HELCOM home page

**HELCOM Recommendation 12/9**

Adopted 20 February 1991  
having regard to Article 20, Paragraph 1 b)  
of the Helsinki Convention

**FOLLOW-UP STUDIES IN CONNECTION WITH MAJOR OIL SPILLS****THE COMMISSION,**

**RECALLING** Article 16\*) of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1974, (Helsinki Convention), concerning, inter alia, promotion of studies on the assessment of the nature and extent of pollution in the Baltic Sea Area and the tasks of the Helsinki Commission in this respect,

**BEING MINDFUL** that accidents may form a remarkable part of the oil pollution load on the Baltic Sea and that major oil spills may have enormous adverse ecological and economical consequences in the Baltic Sea,

**BEING ALSO MINDFUL** that the Contracting Parties have conducted follow-up studies in connection with past oil spills,

**RECOGNIZING** the need for commonly adopted principles and guidelines for such studies,

**RECOMMENDS** that the Governments of the Contracting Parties to the Helsinki Convention study the ecological and economical effects of accidental oil pollution in connection with every major oil spillage in the Baltic Sea,

**RECOMMENDS FURTHER** that the Governments of the Contracting Parties should use the Guidelines adopted jointly by the Environment and Combatting Committees of the Helsinki Commission when conducting such follow-up studies.

\*) the relevant reference is to Article 24 of the 1992 Helsinki Convention

## **GUIDELINES FOR OIL SPILL FOLLOW-UP STUDIES**

(relating to HELCOM Recommendation 12/9, adopted in March 1991)

The guidelines consist of the studies and research tasks which are of importance to be implemented in cases of major oil spills. The guidelines are divided into five functional parts, namely **(1) organization of research work, (2) physical and chemical studies, (3) ecological studies, (4) fishery studies and (5) documentation**. It must be recognized that the guidelines do not give exact information or detailed methods for the way the studies must be practically and technically carried out and arranged in the Contracting Parties to the Helsinki Convention because these matters depend on the readiness of the responsible research and combatting organizations of the Countries.

The guidelines will introduce the research work as an essential and useful part of the total response operation involving every large oil spill incident for purpose to assist combatting operations and to provide necessary evidence linking oil pollution damage and an oil spill at hand, and furthermore, to assess impacts of oil on the marine environment and natural resources.

The studies shall be carried out by responsible research institutes. Research actions must be started immediately after a major oil spill simultaneously with the combatting operation. The national Contingency Plan should also cover the plans for follow-up studies. In the research plan an expert group or institute with responsible names of persons is nominated to take care of necessary research tasks.

The cooperation between the research and combatting staffs should be active and kind of mutual exchange of information. The scientific input to the combatting operation is characterized as to make analyses and summaries on cumulated data and to try to translate it in relation to a real situation.

How extensive the research work will be depends on the severity of the oil spill situation. Several extra studies are needed to be carried out if the oil has sunk or been intensively dispersed and disappeared in a margin sea area or a dispersant has been used as a combatting measure.

### **1. ORGANIZATION OF RESEARCH WORK**

It is necessary to make in advance a research plan which contains information on research resources applicable and available for oil spill follow-up studies. In such a plan the responsible person (coordinator) for this purpose should be nominated in advance. The plan shall include procedures on how the research organization can be alerted and activated in the event of an oil spill.

In every severe oil spill situation a senior research scientist or specialist group will coordinate and take care of the necessary research tasks in accordance with the research plan. She/he is responsible:

- (1) **for making** a detailed plan of research actions in regard to severity and development of an actual spill situation;
- (2) **for arranging** cooperation between responsible national research organizations, research and combatting organizations and to take care of administrative and financial matters related to the research work. A cooperative group of members of research and combatting organizations may be established for the purpose to assist in the cooperation between the organizations;
- (3) **for contracting** other responsible research organizations and delegating the necessary research tasks to be carried out;

- (4) **for arranging**, in case the oil has spread into the territorial waters of the neighbouring countries, cooperation between the research organizations of the countries involved;
- (5) **for participating** in a surveyor group which will always be established by the authorities in a severe oil spill incident for the purpose to investigate and gather the claims from those who have suffered pollution damage;
- (6) **for providing** information on the environmental effects of an oil accident;
- (7) **for preparing** a final research report based on the results of the studies carried out during an oil spill incident.

## 2. PHYSICAL AND CHEMICAL STUDIES

Physical and chemical studies to be implemented in every severe oil spill incident concern the following research tasks:

- (1) **To establish** data on the type and quality of a spilled oil immediately after a spill. If data is missing or the oil type is unknown, analyses of physical and chemical properties, such as **density, viscosity, pour point, water and wax content of oil**, must be carried out as soon as possible. **Pure (fresh) oil** from the ruptured tanks or containers must be saved and be available for use as a reference oil for identification purpose and other analyses.
- (2) **To predict** the behaviour and **to estimate** the spreading of oil on the basis of the first-hand data on physical and chemical properties and in regard to prevailing conditions as soon as possible. The use of available computerized spreading models is encouraged to help the combatting operations and as well as the research work on impact assessments as general.
- (3) **To determinate** the degree of alteration and **to estimate** the behaviour of weathered oil in slicks at sea. Oil samples for physical and chemical analyses will be collected following a strict timetable, if the oil is moving uncontrolled within a very wide sea area, e.g. oil drifting with ice.
- (4) **To identify** the origin of the oil in slicks detected at sea, on shores and e.g. in damaged fish traps. Although it would seem clear that the detected oil originates from an actual oil spillage at hand, it must be proven by chemical analyses. Results of these analyses are necessary evidence for the documentation of the oil spill situation and for compensation matters.
- (5) **To provide** evidence on the fate of oil, degree and extent of oil pollution/contamination in the marine environment. **Water and sediment samples will be collected** for chemical analyses of petroleum hydrocarbons, e.g. of total petroleum hydrocarbons (by UV/F) or more qualitatively of aliphatic fractions (by GC) and aromatic hydrocarbons (by GC/MS or HPLC). This should always be done in the oil spill situations when the oil has intensively dispersed, sunk or disappeared or a dispersant has been used as a combatting measure.
- (6) **To summarize and establish** the spreading area of oil according to available data on oil observations, combatting and clean-up operations, reconnaissances of oil on shores, chemical analyses of seawater and sediments etc. It must be noted that a spreading area of oil is probably not the same as an oil-influenced sea area. This can be established only after some of the studies pointed out in chapters 3 and 4 have been performed.

## 3. ECOLOGICAL STUDIES

The ecological studies to be implemented in cases of severe oil spills concern the following research tasks:

- (1) **To verify** the vulnerability of the nature protection areas of archipelagos and coast, important nesting islands of sea birds, breeding zones of seals, fishing zones which are of priority to be protected against oil pollution. There is always a need for up-to-date information on sensitivity of sea bird communities, seal populations and fish stocks which are depending on seasons. This information will assist a combatting organization to concentrate their protection measures on the right targets and areas. To prepare Environmental Atlases over the vulnerable areas is of priority and will promote not only the oil pollution control but also other kinds of research and monitoring programs.
- (2) **To quantify and document** losses of natural resources e.g. kills of sea birds, fish and seal pups, damage on vegetation **as well as** the degree of oil pollution in the oil-affected areas and results of clean-up actions there, damages on fish traps/catches and other damages. Furthermore, expected impacts on affected targets will be estimated.
- (3) **To quantify** the degree and extent of oil-contamination in marine organisms. Indicator organisms should always be collected and studied in the oil spill situations when a dispersant has been used or oil has intensively dispersed or sunk or disappeared in a margin sea area. Some good indicator species are the amphipods, **Gammarus sp. and Pontoporeia sp.**, which are also an important food source for fish. These have been proven to be very sensitive for oil pollution. Oil droplets are visible and the degree of contamination can easily be determined by using microscope technique. Also the gastropod **Lymnaea sp.**, which is common for the whole basin of the Baltic Sea, can be sampled for chemical and histopathological analyses as well as the bivalves, common blue mussel (**Mytilus edulis**) and the Baltic clam (**Macoma balthica**). Analyses of petroleum hydrocarbons as pointed out in chapter 2 (paragraph 5) will give more comprehensive data on the extent of a sea area influenced by oil. Fish species useful for oil spill follow-up studies are listed in chapter 4.

Additional studies on the quantitative effects on the sea-floor fauna and also on zooplankton and phytoplankton should be carried out in relation to the severity of the spill situation and the need for these kind of studies.

The results of the ecological studies are of importance when considering the need for restoration of the nature damaged by oil.

#### 4. FISHERY STUDIES

- (1) **To quantify and document** the damage on fisheries. All the reported damages on fisheries must be confirmed and documented at the place of damage by authorities of a research or combatting organization. Damaged traps will be photographed and an oil sample will be taken for identification. If there is a doubt about the tainting of the catches a sample of the fish can be delivered to a laboratory specialized e.g. in analyses of petroleum hydrocarbons or in odour and flavour tests. Furthermore, collecting and studying statistics on catches will also bring evidence on the possible effects of oil, e.g. diminished catches are always of biological interest but these can have also economical consequences.
- (2) **To study biological effects** on fish. Fish species to be pointed out are flounder (**Platichthys flesus L.**), Baltic herring (**Clupea harengus membras L.**) and Smelt **Osmerus eperlanus L.** and their larvae. Also other fish species common in an oil-affected sea area can be chosen, e.g. perch (**Perca fluviatilis L.**). These fish species can be sampled for different purposes; to study diseases, physiological changes, reproduction disturbances, abnormalities and tainting, and as a whole to bring evidence into which degree the oil has affected fish.

## 5. DOCUMENTATION

- (1) A final report shall be prepared on the basis of different research documents delivered by sub-organizations.
- (2) Research documents (reports) will consist of the results of the follow-up studies and other investigations and all necessary data to be of importance for final consideration and for preparation of strategy for continuing research work, e.g. to study recovery of affected sea areas.
- (3) For instance, a documentation of analytical and circumstantial evidence can be done **with maps** consisting of all information on oil movements and dates, relevant wind and current data, spreading area of oil, oil polluted areas of archipelagos and coastline and degree of pollution and results of clean-up actions of shores. The maps will be designed so that they serve as necessary documents for compensation applications addressed to polluters, insurance companies and the International Oil Pollution Compensation Fund. Furthermore, the maps will serve the planning of further studies in the affected sea area months after an oil spill incident.

- (4) The final report should:

**describe** the geographical distribution of the oil and the degree of oil pollution in the affected sea areas,

**estimate** the fate of the oil,

**provide** evidence linking the actual oil spill and the documented damage of the oil pollution,

**identify** the sensitive and affected targets,

**assess** the ecological effects and the impact on fisheries,

**predict** the long-term effects and

**establish** a strategy for continuing research work with the aim to recover the affected parts of a marine ecosystem.

- (5) The final document should also provide feedback information on the unexpected environmental effects of the oil combatting operations performed during the acute phase of an oil spill situation.

**HELCOM RECOMMENDATION 17/12**

Adopted 13 March 1996  
having regard to Article 20, Paragraph 1 b)  
of the Helsinki Convention

**MEASURES TO ABATE POLLUTION BY OIL AND OTHER HARMFUL SUBSTANCES IN CASES OF GROUNDING, COLLISION, SINKING OF A SHIP OR OTHER MARITIME CASUALTY****THE COMMISSION,**

**RECALLING** paragraphs 6 and 7 of Article 2, Article 11, Annex II and Annex VI of the 1974 Helsinki Convention and paragraphs 7, 8 and 9 of Article 2, paragraphs 1 and 2 of Article 3, Article 5, Article 14, Annex I and Annex VII of the 1992 Helsinki Convention,

**RECALLING ALSO** International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969 and Protocol relating to Intervention on the High Seas in Cases of Pollution by Substances other than Oil, 1973, as amended,

**RECALLING FURTHER** Articles 211 and 221 of the United Nations Convention on the Law of the Sea,

**BEARING IN MIND** the recent incidents which posed a serious threat to the marine environment of the Baltic Sea Area and to the coastlines and related interests of the Contracting Parties to the Helsinki Convention,

**CONSCIOUS** that the introduction of any harmful substance to the marine environment of the Baltic Sea is liable to cause pollution,

**BEING AWARE** of the importance of precautionary measures to avoid pollution caused by maritime casualties,

**TAKING INTO ACCOUNT** the polluter-pays principle stipulated in the 1992 Helsinki Convention,

**REQUESTS** the Governments of the Contracting Parties, which have not yet done so, to ratify the International Convention on Salvage, 1989, in order to establish a modern legal regime concerning efficient and timely salvage operations to maintain the safety of the vessels, to protect other property in danger and the marine environment of the Baltic Sea Area,

**REQUESTS ALSO** the Governments of the Contracting Parties, which have not yet done so, to ratify the Protocol of 1992 to amend the International Convention on Civil Liability for Oil Pollution Damage, 1969 (CLC PROT 1992) and the Protocol of 1992 to amend the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971 (FUND PROT 1992), in order to ensure compensation for responding to oil pollution incidents in the exclusive economic zones or equivalent areas of the Contracting Parties,

**REQUESTS FURTHER** the Governments of the Contracting Parties:

- i) to cooperate within the International Maritime Organization (IMO):
  1. to promote early elaboration of a convention on wreck removal;

2. to study possibilities of amending the list of substances annexed to the 1973 Protocol relating to Intervention on the High Seas in Cases of Pollution by Substances other than Oil (INTERVENTION PROTOCOL, 1973) by inclusion of other harmful substances, such as nutrients, which give coastal states the right to intervene in sea areas particularly sensitive to any kind of pollution;
  3. to study proposals concerning the amendment of MARPOL 73/78 by a new annex related to solid harmful substances;
- ii) to cooperate during the diplomatic conference to be arranged by IMO for the purpose of
1. amending the 1976 Convention on Limitation of Liability for Maritime Claims (CLLMC) by higher limits of liability; and
  2. adopting the convention for liability and compensation for damage caused by hazardous and noxious substances (HNS Convention),

**URGES** the Governments of the Contracting Parties, in cases of grounding, collision, sinking of a ship or other maritime casualty, to take appropriate action on the basis of international law in their exclusive economic zones or equivalent areas, or in response regions in accordance with Regulation 7 of Annex VI\*) to the Convention, to:

1. remove the bunker fuel oil, other oils and any other harmful substance carried as a cargo on board which may cause or are likely to cause immediate or delayed hazards to the marine environment, coastlines of the Contracting Parties or their related interests;
2. carry out salvage of a ship and removal of a wreck whenever she may pose a danger to the safety of navigation and to the marine environment,

**URGES ALSO** the Governments of the Contracting Parties to provide the Combatting and Maritime Committees with reports on the progress related to this Recommendation every year.

\*) the relevant reference is to Annex VII of the 1992 Helsinki Convention

**HELCOM Recommendation 19/17**

(This Recommendation supersedes HELCOM Recommendation 10/10.)

Adopted 24 March 1998

having regard to Article 20, Paragraph 1 b)  
and Regulation 1, Paragraph 1 of Annex VII  
of the Helsinki Convention

**MEASURES IN ORDER TO COMBAT POLLUTION FROM OFFSHORE UNITS****THE COMMISSION,**

**RECALLING** Article 10 of the 1974 Helsinki Convention which stipulates, inter alia, that each Contracting Party shall ensure that adequate equipment is at hand to start an immediate abatement of pollution in the Baltic Sea Area, \*)

**RECALLING ALSO** Article 12 of the 1992 Helsinki Convention which stipulates, inter alia, that each Contracting Party shall ensure that adequate preparedness is maintained for immediate response actions against pollution incidents caused by exploration and exploitation of the seabed and its subsoil,

**RECALLING** further Regulation 7 of Annex VI and Regulation 2 of Annex VII of the 1992 Helsinki Convention concerning contingency planning,

**NOTING** HELCOM Recommendation 1/8 on Minimization of the Use of Dispersants, Sinking Agents and Absorbents in Oil Combatting Operations in the Baltic Sea\*\*) and HELCOM Recommendation 11/13 concerning the development of national ability to respond to spillages of oil and other harmful substances and guidelines for applying this Recommendation,

**BEING AWARE** of other HELCOM activities concerning restriction of discharges and monitoring of exploration and exploitation of the seabed and its subsoil,

**BEING ALSO AWARE** of the IMO Manual on Oil Pollution - Section II, Appendix 2 Oil pollution emergency plans for offshore units, seaports and oil handling facilities, which has been developed within IMO under the umbrella of the International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990,

**RECOMMENDS** the Governments of the Contracting Parties to the 1974 Helsinki Convention\*\*\*) to ensure that each of the offshore units shall be furnished with the Pollution Emergency Plan, developed in accordance with the principles specified below:

- a) Pollution Emergency Plan shall be harmonized with the national contingency plan and approved in accordance with the procedure established by the appropriate national authority, and it shall take into account the risk assessment connected with the operation of the offshore unit;
- b) Pollution Emergency Plans shall be drawn up before the offshore units are taken into use, and also shall be:

\*) the relevant reference is to Article 14 of the 1992 Helsinki Convention requiring the Contracting Parties to maintain adequate ability and to respond to pollution incidents in order to eliminate or minimize the consequences of those incidences

\*\*) the relevant reference is to HELCOM Recommendation 22/2 on restricted use of chemical agents and other non-chemical means in oil combating operations on the Baltic Sea area

\*\*\*) the relevant reference is to the 1992 Helsinki Convention

- (i) appropriate to the type of the offshore unit,
  - (ii) relevant to the conditions of the offshore unit=s operation,
  - (iii) effective, i.e., friendly to users;
- c) Pollution Emergency Plan shall appoint the exact storage place for the combatting equipment, e.g., the emergency stand-by vessel and/or a land base with due regard to location of the offshore unit;
- d) The equipment should be located so that retaining measures can be taken at a sufficiently early stage with due regard to the environmental sensitivity and geological conditions of the area. The response measures should be taken immediately by the operator of the platform. The other supporting measures within the overall contingency plan should be taken not later than in eight hours after the spillage;
- e) The use of dispersants in oil combating operations is limited as far as possible and any such use is subject to authorization, in each individual case, by the competent national authorities;
- f) Total capacity of the equipment should correspond with the spill expectancy rate:
- (i) The quantity of the equipment shall be sufficient to combat spills corresponding to the discharge of oil from a production drilling, a production platform or a pipeline, with due regard to evaporation and emulsification of the oil,
  - (ii) For exploration drilling the quantity of equipment shall be sufficient to combat spills of oil corresponding to the probable discharge with due regard to the geological location of the drilling site, and to evaporation and emulsification of the oil,
- g) The equipment for combating operations must be able to fulfil the following requirements:
- (i) Oil recovery systems, booms and transport material shall be designated to be operational under the conditions of wave height and current prevailing in the waters involved, limited to a significant wave height up to 20 m and/or a current velocity of up to 1 knot.
- Moreover, the equipment shall be able to operate efficiently under prevailing temperature conditions in the actual areas (due to blow-out situations),
- (ii) Combating equipment which is liable to be used under ice conditions must be well tested for this purpose;
- h) The equipment for combating of pollution caused by harmful substances other than oil, if used in significant quantities, must be able to fulfil the following requirements:
- (i) The quantity and type of equipment shall be dimensioned in order to enable the user to measure and report on the extent and location of the pollution, as well as to reduce the discharge of the substances,
  - (ii) Where the pollutants remain floating on the surface of the water and are not easily soluble in water, the user shall be able to encircle, take up and transport the pollutants under the weather conditions specified in Paragraph g) (I),
  - (iii) In such cases the equipment shall be sufficient to allow combating of the substances present at that time;
- i) The equipment shall be stored and maintained so that combating measures can be taken immediately,

**REQUESTS** the Governments of the Contracting Parties to continuously exchange information through the Helsinki Commission on the location and nature of all planned or accomplished offshore activities and on the nature and amounts of discharges as well as on contingency measures that are undertaken, and also to inform:

- a) other Contracting Parties with borders to the sea area where offshore activities take place about the contingency measures taken for combating pollution of the sea, in due time before the offshore activities are started up;
- b) the Combatting Committee\*\*\*\*) about the approved measures on the conditions required for each separate offshore unit according to Paragraph d) above, as well as on other detailed information, which may be essential for a joint response to pollution incidents,

**REQUESTS ALSO** the Governments of the Contracting Parties to provide reports on the implementation of this Recommendation in accordance with a procedure established by the Combatting Committee\*\*\*\*).

\*\*\*\*) the relevant reference is to the HELCOM Response Group

**HELCOM Recommendation 20/5**

(This Recommendation supplements HELCOM Recommendation 11/13.)

Adopted 23 March 1999  
having regard to Article 20, Paragraph 1 b)  
of the Helsinki Convention

**MINIMUM ABILITY TO RESPOND TO OIL SPILLAGES IN OIL TERMINALS****THE COMMISSION,**

**RECALLING** Article 11 of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1974 (Helsinki Convention) and Article 14 of the 1992 Helsinki Convention according to which the Contracting Parties shall individually and jointly take all appropriate measures to maintain adequate ability and to respond to pollution incidents in order to eliminate or minimize the consequences of these incidents to the marine environment of the Baltic Sea Area,

**RECALLING ALSO** Annex VI of the 1974 Helsinki Convention and Annex VII of the 1992 Helsinki Convention which provide basic principles on co-operation of the Contracting Parties in responding to marine pollution incidents,

**RECALLING FURTHER** HELCOM Recommendation 1/8 on minimization of the use of dispersants, sinking agents and absorbents in oil combatting operations in the Baltic Sea Area\*), HELCOM Recommendation 11/13 concerning development of national ability to respond to spillages of oil and other harmful substances and HELCOM Recommendation 17/13\*\*) concerning the use by the Baltic Sea States of the Manual on Co-operation in Combatting Marine Pollution within the framework of the Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki Convention),

**RECALLING FURTHERMORE** Article 7 of the 1992 Helsinki Convention on Environmental impact assessment and HELCOM Recommendation 17/3 concerning information and consultation with regard to construction of new installations affecting the Baltic Sea,

**BEARING IN MIND** the plans of the Contracting Parties to increase the amounts of oils to be transported at sea, the development of the existing and the construction of new oil terminals, and consequently the increased risk of pollution incidents during loading/unloading operations,

**STRESSING** that a pollution incident in a coastal area may cause serious damage to the well-being and the socio-economic development of the peoples, to the coastal ecosystems, to the natural habitats, to the biological diversity and to the ecological processes,

**BEING AWARE** that a pollution emergency plan for an oil terminal should be based on a systematical assessment of risks of oil spills and that the pollution emergency plan should be a part of the overall safety policy and safety planning of that oil terminal,

**TAKING INTO ACCOUNT** Article 3 of the International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990 (OPRC Convention) and the provisions of seaport emergency plans of Section II of the IMO Manual on Oil Pollution - Contingency Planning,

\*) the relevant reference is to HELCOM Recommendation 22/2 "Restricted use of chemical agents and other non-mechanical means in oil combating operations in the Baltic Sea area"

\*\*) the relevant reference is to HELCOM Response Manual

**RECOMMENDS** that the Governments of the Contracting Parties shall, as a supplement to HELCOM Recommendation 11/13 concerning development of national ability to respond to spillages of oil and other harmful substances, ensure that the Guidelines on minimum ability to respond to oil spillages in oil terminals attached to this Recommendation are applied by the oil terminals in their respective countries,

**RECOMMENDS ALSO** the Governments of the Contracting Parties to carry out Environmental Impact Assessment (EIA) studies in accordance with the 1991 Espoo Convention on Environmental Impact Assessment in a Transboundary Context and/or the European Council Directive 85/337/EEC of 27 June 1985 (as later amended) on the assessment of the effects of certain public and private projects on the environment before the plans for enlargement of existing oil terminals or construction of new oil terminals are decided,

**AUTHORIZES** the Combatting Committee\*\*\*) to amend the Guidelines contained in the Attachment,

**REQUESTS** the Governments of the Contracting Parties to apply this Recommendation from the date of its approval to new oil terminals and in 2001 to existing oil terminals,

**REQUESTS ALSO** the Governments of the Contracting Parties to report on the implementation of this Recommendation, in accordance with Article 16, Paragraph 1 of the 1992 Helsinki Convention,

**REQUESTS FURTHER** the Governments of the Contracting Parties to report to:

- the Combatting Committee\*\*\*) on the combating arrangements in oil terminals in accordance with the procedure approved by the Combatting Committee\*\*), and
- the Environment and Technological Committees\*\*\*\*) on the implementation of the concept of EIA studies in relation to oil terminals in their respective countries.

\*\*\*) the relevant reference is to the HELCOM Response Group

\*\*\*\*) the relevant reference is to the HELCOM Monitoring and Assessment Group and HELCOM Land-based Pollution Group

**ATTACHMENT**

## HELCOM Recommendation 20/5

**GUIDELINES ON MINIMUM ABILITY TO RESPOND TO OIL SPILLAGES IN OIL TERMINALS****1. INTRODUCTION**

The purpose of these guidelines is to outline technical and operational means concerning the implementation of HELCOM Recommendation 20/5 concerning minimum ability to respond to oil spillages in oil terminals.

The Guidelines should be implemented in close co-operation between the Port Authority and the operators of the oil terminal, taking into account the situation of the terminal: whether at open sea<sup>1)</sup>, within a semi-enclosed sea area or in an enclosed port area.

A pollution emergency plan for an oil terminal should be part of the safety arrangements of the port, aiming primarily at the prevention of accidents and oil spills. Safety arrangements shall be based on systematical risk assessments and analysis and on reducing the identified risks minimizing the possibility for an oil spill during oil tanker operations in ports and terminals.

In a port area there are normally several private operators in addition to the Port Authority, the operators being responsible for their own activities. It is important that one of the actors, mostly the Port Authority, takes care of the coordination of the safety arrangements of the various private operators. In a similar manner the Port Authority should prepare an overall contingency plan for the port and make sure that the pollution emergency plans of the various operators correspond with the overall contingency plan. The Port Authority and the operators shall exchange information about these plans and organize exercises on a regular basis.

Nevertheless, it must be realized that due to adverse weather conditions and probable local limitations the outlined operational and technical means can not always ensure a successful cleaning operation.

**2. POLLUTION EMERGENCY PLANS**

The Port Authority should ensure that each oil terminal has its own pollution emergency plan, elaborated in accordance with both Chapter 2 of Section II of the IMO Manual on Oil Pollution and with national regulations, and that these plans are a part of the overall port contingency plan in order to establish an organization, communication and other procedures for responding to marine oil spills. Due consideration should be given to all emergency incidents which could occur during ship movements and oil handling on jetties and terminals.

<sup>1)</sup> Oil terminals situated "at open sea" include also offshore terminals.

The pollution emergency plan must take into account:

- the type and quantities of handled oil (crude oil and oil products); special attention has to be paid to persistent oils,
- maximum dimensions of laden tankers and their dwt and dimension of the biggest cargo tank in m<sup>3</sup>,
- maximum discharge rate (m<sup>3</sup> per hour) and description of emergency stopping device,
- location of the terminal or jetty, such as open sea terminals, enclosed or semi-enclosed terminals,
- access from the port approach to the terminal,
- currents, exposition to sea swell,
- weather and ice conditions,
- manoeuvring space for terminal berthing tankers and tug boat regulations,
- description of the fairway from the open sea to the oil terminal.

### 3. POLLUTION RESPONSE EQUIPMENT

The pollution emergency plan should appoint the exact storage place for the combating equipment and its access.

The equipment should be located nearby the oil piers and jetties; in case of an open-sea loading platform or mooring boyos, on stand-by supply vessels. The response measures should be taken immediately by the terminal operator. Other supporting measures within the overall contingency plan should be a part of the pollution emergency plan, inter alia, tug boats and fire fighting vessels.

The total capacity of the equipment should correspond with the spill expectancy and the unloading or loading rate.

The equipment for combating operations should fulfill the following requirements:

- Oil recovery systems and booms shall be designated to be operational under the conditions:
  - of wave heights up to two (2) m and current velocity of up to one (1) knot in open sea terminals, and
  - of wave heights up to one (1) m and current velocity up to one (1) knot in enclosed and/or semi-enclosed ports.

Combating equipment which is liable to be used under ice conditions should be well tested for this purpose.

#### Dispersants

The use of dispersants in an enclosed port area is restricted to very exceptional cases, if no other adequate means can be applied and if the use of dispersants has no impact on the coastal Baltic Sea Area. Any such use is subject to authorization by the competent national authorities.

### 4. BOOM AND SKIMMER CAPACITIES

#### a) Confined port areas

The ability to close the port entrance in case of a serious outflow is recommended, if the width of the channel or entrance is not exceeding 1,000 m. The closing of the port entrance requires at least a **coastal sea boom** for this purpose.

#### b) Semi-enclosed port areas

Within semi-enclosed port areas coastal booms should be stored for easy access and for fast deploying to ensure the surrounding of the maximum tanker size.

In the case of both confined and semi-enclosed port areas, a specialised port cleaning boat is recommended when the wind direction and wind force lead to an oil-concentration in port regions or corners where booming and recovery with skimmers could be difficult. Vacuum trucks could also be useful for land-based clean-up operations.

### c) Open sea terminals

A **high-sea boom** is recommended in open sea terminals and in ports with an entrance to the open sea or with an entrance exposed to the open sea.

Regular training with tugboats or other powerful auxiliary vessels should ensure a fast deployment of the booms.

If the current along the terminal or jetty exceeds 0.7 knots the boom configuration should be adjusted to maximum deployment angles to flow direction at different current strengths for bottom tension booms to prevent the escape of oil.

Technical information paper No. 2 of ITOPF<sup>2)</sup> contains further details on various boom deployments. The two-fold length of the maximum tanker should be the basis orientation when deciding the length of the booms within the port. Thus making it possible to prevent the oil already along the berth from spreading. This requires a high alert time and a trained tugboat crew.

In case of open sea terminals the length of high-sea booms should be at least not less than three (3) times the length of the maximum tanker visiting the terminal.

The skimmer performance should be orientated on the maximum wing tank capacity of the biggest tanker calling at the port or the terminal. The skimming capacity must be part of the standard response set, together with hydraulic generators suitable for operation in explosive atmosphere.

The skimming capacity should be sufficient to recover at least 50% of the tank contents within 24 hours.

The port or the terminal operator should update this calculation in close co-operation with the Port Authority in order to adjust the skimming capacity to changing tanker dimensions.

A permanent readiness for emergency response measures should be ensured during ship movements and/or oil loading/unloading activities for both confined port areas, semi-enclosed port areas and open sea terminals.

During winter and icy conditions special arrangements are recommended in addition to those described above.

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<sup>2)</sup> ITOPF = International Tank Owners= Pollution Federation

**HELCOM Recommendation 22/2**

(This Recommendation supersedes HELCOM Recommendation 1/8.)

Adopted 21 March 2001

having regard to Article 20, Paragraph 1, b)  
of the Helsinki Convention

**RESTRICTED USE OF CHEMICAL AGENTS AND OTHER NON-MECHANICAL MEANS IN OIL  
COMBATting OPERATIONS IN THE BALTIC SEA AREA****THE COMMISSION,**

**RECALLING** Regulation 7 of Annex VII of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1992 stipulating that mechanical means are the preferred response measures, and that chemical agents may only be used in exceptional cases, after authorization has been granted in each individual case,

**RECALLING ALSO** the IMO Guidelines on Oil Spill Dispersant Application and the Technical Information Paper No. 4 of the International Tank Owners= Pollution Federation,

**BEARING IN MIND** that new response means, such as bioremediation, fertilization techniques and biosorbents as well as their effective and regular use in oil spill response, are still at development stage,

**RECOGNIZING** that the in-situ burning of oil could be a response option, especially under ice conditions,

**RECOMMENDS** that when in individual cases authorizing the use of chemical agents the appropriate national authority should ensure the use of chemical agents with optimised efficiency and acceptable affects to the marine environment (net environmental benefit),

**RECOMMENDS ALSO** that when the national authority considers whether to authorize the use of chemical agents at open sea it should make careful use of the IMO Guidelines on Oil Spill Dispersant Application taking into account the following:

- potential damage to the marine environment, sea birds, and other marine resources, if no other response method can be successfully applied;
- quantity, type of oil and its natural dispersibility enhanced by higher sea-state and wind forces;
- new products have a widened range of application, e.g., in heavy fuel oil (HFO) spills or if the viscosity has already increased up to 10.000 centistokes (cst);
- use in shallow waters should be authorized only in exceptional cases, for instance if this is the only option to avoid serious losses of sea birds within endangered breeding colonies, and must be restricted to minor oil spills,

**RECOMMENDS FURTHERMORE** that the Governments of the Contracting Parties ensure that

- sinking agents are not used at all; and
- absorbents are used only when sufficient recovery devices ensure the timely removal of the absorbed oil from the sea surface,

**REQUESTS** the Governments of the Contracting Parties to report on the implementation of this Recommendation, to the Sea-based Pollution Group, in accordance with Article 16, Paragraph 1 of the Helsinki Convention.

**HELCOM RECOMMENDATION 24/7**

(This Recommendation supersedes HELCOM Recommendation 12/6 “Development of a drift forecasting system to respond to spills of oil and other harmful substances”.)

Adopted 25 June 2003

having regard to Article 20, Paragraph 1 b)  
of the Helsinki Convention

**FURTHER DEVELOPMENT AND USE OF DRIFT FORECASTING FOR OILS AND OTHER HARMFUL SUBSTANCES IN THE BALTIC****THE COMMISSION,**

**RECALLING** the need for accurate and swift prediction of the drift of oil and other harmful substances in connection with accidental or illegal spills for the efficiency of response measures, law enforcement and for the protection of the marine environment;

**BEING AWARE** of

- the enhanced threats due to increasing maritime traffic and oil transport in the Baltic Sea
- new big oil terminals requiring efficient forecasting tools
- the need for optimisation due to limited response resources in relation to big accidents
- the need to increase the ability to secure environmentally sensitive areas from accidental contamination
- the need to extend the existing open water drift forecasting system to include local and coastal forecasting requirements;

**BEING AWARE ALSO** of

- improved scientific and technological means to detect oil and to forecast its drift, including the enhanced ability of weather and sea circulation forecasting systems
- new opportunities given by modern development in information technology in presentation and dissemination of results;

**MINDFUL** of the potential to use results from drift modelling systems when hind-casting the drift of an oil slick for use in cases of illegal discharges;

**TAKING INTO CONSIDERATION** that the implementation of improved systems for the support of response operations in the Baltic Sea should be accelerated by co-operation between the Parties. Each user should contribute to the development of the joint drift forecasting system;

**RECOMMENDS** the Governments of the Contracting Parties to the Helsinki Convention:

- a) to further develop existing drift forecasting systems and to co-operate closely in doing so, bearing in mind new requirements;
- b) to, in particular, focus the development on
  - modules for different types of oils, chemicals and also prediction of movements of oils and chemicals in ice;
  - linking the outcome of the drift modelling with GIS system, containing data of environmentally sensitive areas and other protective areas in order to better estimate the real threats and to guide the response operations and minimize the damages; and
  - higher resolution in coastal areas and archipelagos;

c) to use drift modelling as a mean to facilitate prosecution of offenders of oil and chemical discharge regulations,

**RECOMMENDS FURTHER** that the Governments of the Contracting Parties report on the implementation of this Recommendation in accordance with Article 16, Paragraph 1 of the Helsinki Convention;

**AUTHORISES** the HELCOM Response Group to adopt technical guidelines for the implementation of this Recommendation and to supplement Volume I of the HELCOM Manual on Co-operation in Combatting Marine Pollution by a new chapter regarding oil drift forecasting.

## **GUIDELINES FOR THE IMPLEMENTATION OF HELCOM RECOMMENDATION 24/7 “FURTHER DEVELOPMENT AND USE OF DRIFT FORECASTING FOR OILS AND OTHER HARMFUL SUBSTANCES IN THE BALTIC”**

*In order to assess whether a Contracting Party has implemented the Recommendation fully, partly or not at all, many different operational and technical requirements should be taken into consideration. To fully fulfill the Recommendation, the forecasting system should have the following elements and the following features:*

### **General**

- The system must be based on computerized, scientifically transparent, documented and tested models;
- The user interface of the system must be user friendly if the system is operated by response personnel;
- The results of the modeling system should be immediately available by fax, e-mail, etc., if the model is operated and calculated in research institutes, etc., remote from the accident command center;
- The first forecasts should be available instantly from the request;
- The meteorological data must be easily and rapidly available;
- Forecasts shall be available 24 hours/day.

### **Models**

The modeling system must include at least an oil drift and spreading model, which are combined under the same interface. Other modules like chemical module, ice model, etc. can also be parts of the modeling system.

- Drift model
  - 3-D model with vertical resolution sufficient for surface spill simulation;
  - Has the possibility to take into account also wind forecasts (5 days ahead) and history (few days at least) or should be connected to some operational Baltic Sea oceanographic model (HIROMB, etc.);
  - It should be possible to update the drift forecast simulations by slick observations and improved wind forecasts during the calculation process;
  - Methods to assimilate current meter and other measured data into forecast calculation should be included in the modeling system.
- Spreading model
  - Possible to input data of most common oil types;
  - Includes the weathering processes;
  - Calculates continuously the mass balance of the oil slick.

### **Outputs**

- Trajectories of the mass center of the slick in adjustable time steps;
- The oiled area after specified time periods;
- Possible to store the results in adjustable time steps;
- All the information preferably on sea charts;
- Information of the ice covered areas that are taken into account in drift calculation;
- Possibility to calculate also in the reverse mode for evidence to court documentation.

### **Resolution of the model**

- At open sea approximately 1 to 5 km;
- Near shoreline and in archipelago depending on the roughness of the shoreline, type of archipelago, etc.

### **Additional characteristics** (not for the implementation evaluation)

To make more efficient use of the models, following additional features can also be taken into account when developing modeling systems:

- To simulate the effects of oil response measures to the spreading of oil, the impact of booms, the effect of response vessels, etc. could also be incorporated to the modeling system;
- The same modeling system could also be used in connection with SAR operations due to the similarity of the forecast needs and the fact that the drift models often are used by the same personnel.

**HELCOM RECOMMENDATION 24/9**

Adopted 25 June 2003,  
having regard to Article 20, Paragraph 1 b)  
of the Helsinki Convention

**ENSURING ADEQUATE EMERGENCY CAPACITY****THE COMMISSION,**

**RECALLING** the “Declaration on the Safety of Navigation and Emergency Capacity in the Baltic Sea Area (HELCOM Copenhagen Declaration)”, adopted on 10 September 2001 in Copenhagen by the HELCOM Extraordinary Ministerial Meeting,

**RECALLING ESPECIALLY** Paragraph XI of the HELCOM Copenhagen Declaration containing the commitment of the Governments of the Contracting Parties to ensure adequate emergency capacity (fire-fighting, emergency lightering and emergency towing capacities),

**BEING AWARE** that in many incidents satisfactory emergency capacity and the readiness hereof have prevented serious oil spills,

**CONSCIOUS** of the sensitivity of the marine environment of the Baltic Sea area and of the importance it represents to the people living around it, for economic, social, recreational and cultural reasons,

**RECOGNIZING** that if harmful substances are introduced to this vulnerable sea they will remain there for a long time,

**ACKNOWLEDGING** the difficulties the Baltic Sea area presents to navigation due to narrow straits, shallow depths, archipelago areas and ice cover during winter period,

**EXPRESSING** concern as to the growing density of maritime traffic in the Baltic Sea area and the accidents which have taken place,

**BEING CONVINCED** of the need to improve the emergency and response capacities in the Baltic Sea area,

**TAKING INTO ACCOUNT** the findings of the consolidated version of the compilation “Emergency Towing, Fire-fighting and Intermediate Storage Capacity”, according to which only the south-western part of the Baltic Sea and the St. Petersburg area have a satisfactory towing and fire-fighting capacity,

**TAKING INTO ACCOUNT FURTHER** that the conclusions of the above-mentioned compilation are only relating to the availability of the capacity but are not dealing with the readiness of the ships,

**NOTING** that Regulation 2 of Annex VII “Response to pollution incidents” to the Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1992 (the Helsinki Convention) encourages, as appropriate, the development of bilateral or multilateral plans for a joint response to pollution incidents,

**RECOMMENDS** that the Governments of the Contracting Parties keep their national inventories on emergency capacity continuously updated,

**RECOMMENDS FURTHER** that the Governments of the Contracting Parties ascertain a satisfactory readiness of their emergency capacity. This can for example be done by applying one or more of the below-mentioned procedures:

- a) by elaborating a Memorandum of Understanding between the salvors and the responsible authority,
  - i) stating the normal readiness for the resources, and
  - ii) providing for an immediate exchange of information in case of changes in that readiness, as well as
  - iii) possibly outlining the payment by the authority of part of the improvement costs of the salvor;
- b) by investigating the possibility of drawing up bilateral or multilateral plans, under the Helsinki Convention, for certain sea areas, like the Gulf of Finland and the south-western Baltic Sea;
- c) by taking into consideration, when building new ships, the possibility of installing on board satisfactory emergency capacity; or
- d) by other means,

**RECOMMENDS FURTHERMORE** that the Governments of the Contracting Parties establish a national training and exercise programme to ensure the effectiveness of their emergency capacity,

**RECOMMENDS ALSO** that the Governments of the Contracting Parties report on the implementation of this Recommendation in accordance with Article 16, Paragraph 1 of the Helsinki Convention.

## **GUIDELINES FOR THE IMPLEMENTATION OF HELCOM RECOMMENDATION 24/9 “ENSUREING ADEQUATE EMERGENCY CAPACITY”**

***To be used when drawing up national implementation reports and for assessing the implementation status of HELCOM Recommendation 24/9 “Ensuring adequate emergency capacity”***

### **1. Introduction**

Recent regional and national assessment of emergency towing, fire fighting and intermediate storage capacity has shown that especially emergency towing and fire fighting capacity at sea as first-approach-operations to marine accidents are lacking in some parts of the Baltic Sea which are affected by high traffic frequency involving also a high proportion of transported hazardous cargo.

As a number of international marine accidents have shown, the lack of in-time on-scene emergency towing capacity in marine accidents increases the risk of damage to the marine and coastal environment.

Therefore, in the aftermath of the „Sea Empress“ – grounding and oil pollution accident, the International Maritime Organization has presented guidelines for requirements by Emergency Towing Vessels (ETOW vessels). The same necessity exists for lightering capacity in case of damaged or grounded vessels threatening the coastline by the possible discharge of hazardous material on board, whether it may be cargo, machinery fluids, stores or bunker. In a maritime emergency all such operations including fire fighting at sea are normally executed by assisting units, in most cases SAR-, coastguard- and other response units as well as by private salvors.

During the past decades the necessity of governmental action for the provision of ETOW- capacity was not apparent because private salvage companies kept such capacity around the world at all major marine traffic risk positions in order to be close to their markets. Nowadays larger and therefore costly towage capacity is kept in operation by the owners whether it is at oil production plants, at sea or in other services world-wide. Waiting for salvage operations at a fixed position, however, is a very rare type of business today and therefore states authorities have to think how to maintain the availability of ETOW- and lightering capacity along their area of responsibility as a precautionary measure against ships’ groundings and related coastal pollution.

A number of North Sea littorals and countries in other shipping areas of the world have protected specified coastal areas by ETOW vessels contracted on an annual basis or during the bad weather seasons in different stages of availability.

The aim of these guidelines is to inform on technical and operational questions that have to be taken into account when investigating the national or regional ability to respond to marine accidents by emergency towing and lightering capacity in order to protect the marine and coastal environment.

### **2. Areas where emergency capacity is required**

In line with the findings of the HELCOM compilation on emergency towing, fire fighting and intermediate storage capacity, emergency capacity is found to be necessary especially in areas where large bulk cargo carriers like oil tankers frequently sail to loading and unloading ports and en route along high frequency shipping lanes presenting a number of navigational obstacles.

Access to emergency capacity should be provided along the areas of high risk, such as narrow traffic lanes involving high traffic and difficult navigation risks, often with weather and visibility restrictions. Emergency capacity should be tailored to regional shipping requirements (type and size, draft tank sizes, cargo types etc.). There can be different ways in which emergency capacity is being kept in place. A vessel with emergency capacity can be utilised either as patrolling, escorting or stationed vessels. Possibilities for multi-purpose tasking of such vessels (ice breaker, patrol vessel, hydrographic survey vessel, pollution response vessel etc.) are to be examined. Economical but also reasons of higher preparedness standards of the crew speak for such multi-tasking models.

Where tank cargo is loaded or unloaded, agencies exist which can inform or even charter suitable empty tank space for lightering operations. Less capacity is required for other hazardous substances or packaged goods which perhaps need re-packing. Adequate capacity can be found at chemical production plants, terminals, refineries and specialised fire fighting services. It is advisable to prepare lists of contacts for existing equipment and pre-defined ways of access to it.

### **3. General requirements for ETOW vessels**

For an assessment of the requirements for an ETOW vessel, inter alia, the following criteria should be examined:

- Basis port of the ETOW vessel
- Permanent or limited readiness (i.e. sailing within 1 or 2 hours)
- Speed, draught, bollard pull, manoeuvrability, endurance at sea
- Rough sea capabilities (operations possible in at least Beaufort 9)
- Modern navigation, On Scene Commander-facilities (communication and documentation equipment, etc.)
- Crew experience, training, sufficient personnel for boarding assistance
- Special features for safety (i.e explosion proof deck machinery)
- Multi-purpose tasking features

### **4. How to assess the necessary ETOW capacity**

According to recent Baltic States' investigations the largest vessels operating in the Baltic Sea are tankers and bulk carriers of appr. 150.000 dwt. Other vessels requiring sufficient bollard pull capacity are ferries, car transporters and other RO-RO-vessels being sensitive to wind because of high perimetric side wall surface structures.

After having examined the regional, national or local requirements, decisions on suitable solutions to the above requirements are to be taken into account.

This can be i.e. the chosen status of readiness, range of operation, replacement in cases of repairs, possibility of regional or national co-operation or combination of existing capacity.

When having found the appropriate type of ETOW vessels and agencies offering access to lightering facilities, operative details in line with the identified coverage areas of risk and their varying requirements will then lead to a definition of capacity and action required.

### **5. Final remarks**

Provision of emergency capacity is a project that involves the assessment of a number of scientific, nautical, technical and scientific data, expertise and future development. After having found the necessary capacity and the preferred type of operation, thoughts should be given to the possibility of regional or bilateral co-operation.

This is especially appropriate where countries neighbour in close vicinity to each other because this means that coverage areas of risk are either the same or very close to each other.

Such a situation will give the possibility to jointly cover an area sharing costs and amalgamating operating procedures for both sides giving economical but also operative benefits to both partners.

As transport statistics and the number of dangerous cargoes shipped in the Baltic Sea show a permanent rising tendency the provision of improved emergency capacity presents a task of rising importance for the Contracting Parties to the Helsinki Convention.

**HELCOM RECOMMENDATION 28E/12**

Adopted 15 November 2007  
having regard to Article 20, Paragraph 1 b)  
of the Helsinki Convention

**STRENGTHENING OF SUB-REGIONAL CO-OPERATION IN RESPONSE FIELD****THE COMMISSION,**

**BEING AWARE** that the increasing maritime traffic is causing a potential threat of a pollution incident at sea,

**BEING ALSO AWARE** that spills of oil or other harmful substances can have a long-lasting harmful impact on the sensitive marine environment and the coastal areas of the Baltic Sea,

**RECOGNISING** the efficiency of an operational “three tier” approach for planning and response to pollution incidents in the Baltic, whereby minor oil spills are addressed by one Contracting State, spills of medium size are addressed by well-organised and timely action by several Contracting State located in the vicinity of the accident, and the largest spills are addressed by the co-ordinated efforts of all Contracting Parties and, if necessary, with use of external assistance,

**NOTING** the significance of sub-regional approach to ensure timely and well-organised emergency towing, fire-fighting and lightering and, if needed, response to a pollution incident, including shoreline response, and in that way to minimise environmental damage caused by an accident,

**NOTING FURTHER** that sub-regional co-operation is of crucial importance when effectively using the emergency and response resources,

**RECOMMENDS** that the Contracting Parties take necessary steps to assess the risk of oil and chemical pollution and on that basis review emergency and response resources on a sub-regional basis in order to ensure that:

1. there are sufficient emergency resources in the area to provide adequate emergency towing, fire-fighting and lightering capacity to a ship in need of assistance within a reasonable period of time;
2. there are sufficient response resources/capacity to ensure effective collection of pollutants in case of a “medium-size” pollution incident or to control large-scale pollution incidents until the assisting forces arrive on the scene;
3. there is adequate response capacity to enable effective shoreline response,

**RECOMMENDS ALSO** that the Contracting Parties draw up bilateral or multilateral agreements and/or response plans for major risk areas and/or dangerous objects located in the vicinity of their borders and where co-ordinated efforts are needed to ensure adequate response to pollution incidents,

**RECOMMENDS FURTHER** that the Contracting States cooperate by carrying out joint surveillance operations and/or flights by one Contracting State over the responsibility area of the other Contracting State(s) in order to ensure that the minimum HELCOM requirements on aerial surveillance are fulfilled,

**RECOMMENDS ADDITIONALLY** that the Contracting States endeavour to do their best in order to ensure that a ship in need of assistance would be accommodated in the most appropriate place of refuge without undue delay,

**RECOMMENDS FINALLY** 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.

## **GUIDANCE FOR SUB-REGIONAL PLANS TO QUANTIFY NEEDED EMERGENCY/RESPONSE RESOURCES**

The idea of enhanced sub-regional co-operation, which has been discussed and agreed in HELCOM RESPONSE, rests on a four-step logic:

- Analysis of the likely accident scenarios taking into account sub-regional specifics;
- Identification (both quantitative and spatial) of the emergency and response resources needed sub-regionally to respond to an accident of Tier 1 and 2 and how to deal with a Tier 3 accident until the assistance arrives;
- Comparison of the identified needs to the available resources and development of plans to meet the needs for resources in the sub-region in the most effective way;
- By the above standing steps, achieving adequate emergency and response preparedness in the most cost-efficient way.

Even though the risks and likely accident scenarios certainly vary sub-regionally, it might be beneficial to have a general discussion on certain aspects of the assessments in order to facilitate sub-regional actions:

- Likely maximum accident for which the sub-regions should be prepared;
- Principles for the estimation of the needed emergency and response resources as well as their preparedness and spatial allocation.

### *Emergency towing*

Every sub-region should have adequate emergency towing capacity to be able to handle the largest vessels sailing in the region in rough sea conditions (e.g. Beaufort 10-12 in the Baltic Sea).

Spatial allocation and preparedness should correspond to the time limits for approaching and securing a ship in distress along the major shipping lane(s) in the sub-region before it reaches shallow waters.

### *Emergency lightering*

Emergency lightering capacity (pumping capacity, intermediate storing and possible places of refuge) should be analysed for a lightering operation of the biggest ships sailing in the area (up to 150,000 tonnes).

### *Emergency fire fighting*

Emergency fire fighting capacity should ensure at least availability of Fire Fighters class 1 according to Det Norske Veritas (DNV) or similar (around 20,000 litres/minute).

### *Places of refuge*

Based on risk assessment in a sub-regional context, including evaluation of the environmental factors, adequate response capacities should be available for places of refuge.

### *Shoreline response*

Every sub-region should have adequate equipment and trained personnel to protect the coast, especially vulnerable habitats and areas (Baltic Sea Protected Areas, BSPAs) 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.

The logic described in HELCOM Recommendation 11/13 serves as a basis to analyse and utilise the personnel, amount and type of booms, skimmers, vacuum cleaners, washers and other relevant equipment needed to maintain readiness for actual operations in such accidents.

All priorities related to vulnerable areas (BSPAs) are to be pre-planned within sub-regional action plans; this may include wildlife response as deemed feasible.

#### *Response capacity*

Response capacity should be available for responding to a 1,000- 5,000 tonnes (depending on the likely accident in the area) oil spill at sea in favourable weather within 3 days. Local geographical and other specifics (e.g. archipelago area, shallow water, etc.) should be taken into account.

#### **Action Plan**

When the above standing analysis has been performed, there should be an action plan for how together to improve the capacity. Who buys what and when? How do the others get hold of it in an emergency situation, etc.

#### **Notification**

NB -There is no need for special alarm procedures, etc. Normal HELCOM routines should be applied, but of course it is permitted to call or mail the sub-regional partners as a first notification.

**HELCOM Recommendation 31/1**

(supersedes HELCOM Recommendations 1/7, 4/3 and 11/13)

Adopted 4 March 2010

having regard to Article 20, Paragraph 1 b)  
of the Helsinki Convention

**DEVELOPMENT OF NATIONAL ABILITY TO RESPOND TO SPILLAGES OF OIL AND OTHER HARMFUL SUBSTANCES****THE COMMISSION,**

**RECALLING** the provisions of Regulations 1 and 2 of Annex VII to the Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1992, (Helsinki Convention), concerning the ability of the Contracting Parties to the Convention to combat spillages of oil and other harmful substances at sea,

**RECALLING FURTHER** the International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990, and the Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances, 2000;

**RECOGNIZING** the need for further development of the national ability of the Contracting Parties to the Helsinki Convention to combat spillages of oil and other harmful substances,

**BEING AWARE** of the great value of coordinating national efforts in this respect,

At the same time **BEARING IN MIND** sub-regional approach to building adequate emergency and response capacities as adopted by the Contracting Parties in HELCOM Recommendation 28E/12 as well as HELCOM Recommendation 24/9 on ensuring adequate emergency capacity,

**BEING MINDFUL** that the maximum tonnage of an oil tanker entering fully laden the Baltic Sea is up to 150 000 dwt and that traffic density in the Baltic has increased significantly and is expected to grow in future,

**RECOMMENDS** that Governments of the Contracting Parties to the Helsinki Convention should, in establishing national contingency plans, aim at developing the ability of their combating services,

- a) to deal with spillages of oil and other harmful substances at sea so as to enable them:
  - (i) to keep a readiness permitting the first response unit to start from its base within two hours after having been alerted;
  - (ii) to reach within six hours from start any place of a spillage that may occur in the response region of the respective country;
  - (iii) to ensure well organized adequate and substantial response actions on the site of the spill as soon as possible, normally within a time not exceeding 12 hours,
- b) to respond to major oil spillages
  - (i) within a period of time normally not exceeding two days of combating the pollution with mechanical pick-up devices at sea; if dispersants are used it should be applied in accordance with HELCOM Recommendation 22/2, taking into account a time limit for efficient use of dispersants;
  - (ii) to make available sufficient and suitable storage capacity for disposal of recovered or lightered oil within 24 hours after having received precise information on the outflow quantity,

- c) to respond to spillages of harmful substances other than oil with suitable countermeasures:
  - (i) to consider hereby the provisions in Volume 2 of the HELCOM Manual on Co-operation in Response to Marine Pollution within the framework of the Helsinki Convention;
  - (ii) to make the necessary efforts within national abilities or sub-regional co-operation agreements to recover floating chemicals (floaters) with a reasonable retention time using adequate mechanical pick-up devices at sea normally not exceeding 2 days of combating at sea;
  - (iii) to use their best endeavours in research and development activities to develop suitable techniques or methods to recover such sunken chemicals from the sea bottom if they have a long retention time without dissolving tendencies,
- d) should continue with the development and improvement of the combating services, in accordance to the HELCOM Baltic Sea Action Plan and taking into account:
  - (i) relevant factors such as the length and configuration of the coastline, safe haven harbour approaches, vulnerable ecological areas, probability of adverse weather conditions, ice, etc.;
  - (ii) that this capability should be considered in connection with the national salvage and lightering capacity; and
  - (iii) the targets specified above concerning oil response ability, to be reached as soon as possible;
  - (iv) the targets specified above concerning chemical spill response ability, to be reached as soon as possible.

## **GUIDELINES FOR APPLYING HELCOM RECOMMENDATION 31/1 ON DEVELOPMENT OF NATIONAL ABILITY TO RESPOND TO SPILLAGES OF OIL AND OTHER HARMFUL SUBSTANCES**

### **1. INTRODUCTION**

The purpose of these guidelines is to specify detailed technical and operational demands concerning the implementation of HELCOM Recommendation 11/13 on development of national ability to respond to spillages of oil and other harmful substances.

It must be realized that due to adverse weather conditions and probable local limitations the demanded operational and technical means can not always ensure a successful cleaning operation at sea.

### **2. SPILL SPREADING**

#### **2.1 Oil**

Oil spill spreading is a very fast process calling for immediate reactions with a maximum of recovery vessels in order to use effectively the first spreading phase with appropriate layer thicknesses. Experiences have shown that the key of effective recovery lies in the first 24 hours after a spontaneous outflow. The layer thickness in relation to the elapsed time and the potential surface sweeping performance must be used for the definition of the needed capacity, taking into account weathering of the oil, type and viscosity, sea state and wind influences.

#### **2.2 Liquid substances**

Spreading, dispersion and dissolution of liquid chemicals in almost all cases runs much faster; the tracing of this process is often very difficult as many of the floating substances are colourless and odourless with a very low viscosity.

Response measures in case of chemical spillages often have to be limited to tracing the remnants of the released substance and to alert threatened population or ship crews.

Aerial reconnaissance flights, especially with helicopters, are hereby a very helpful tool to position the combating units in those areas where most of the outflow is concentrated.

### **3. DETECTION AND MONITORING**

The detectability of a discharged hazardous liquid substance includes the localizing, identification and tracing of the substance in the aquatic environment. This precondition for adequate response measures depends mainly on the density, vapour pressure, solubility, viscosity, surface and interfacial tension, colour and odour of the substance. Most of these properties are relevant also for the penetration in the sea bottom sediment. For their own safety and for supporting salvage and recovery actions response units must have a minimum standard of detection tools (detection kits) to ensure a minimum of risk for involved crew members.

For situation and safety analysis in case of response spills, several measurements and observations are needed, such as:

- identification of the polluter
- identification of the pollutant
- measuring the properties of the pollutant
- localizing the polluted area
- determining the dimensions of the polluted area
- hazard identification
- measuring details regarding the atmospheric conditions prevailing on the spill site.

To protect response personnel and the area immediately affected, the chemical spill and its hazards should be assessed prior to undertaking counter-pollution actions.

#### **4. SKIMMER PERFORMANCE**

Based on a certain outflow quantity one might use the skimmer performances per hour in order to quantify the recovery capacity per day or within two days, but the manufacturers' figures are mostly based on extremely favourable circumstances with unrealistic layer thicknesses and assuming also a calm sea surface. Therefore, those figures are neither comparable nor reliable, as the Baltic Sea States operate various skimmer systems.

#### **5. CONTAINMENT BOOMS**

A provision of having a certain length of containment booms available could be an appropriate part of the specified equipment. The length of the boom capacity could be orientated on the fact that e.g. a spill caused by 10,000 m<sup>3</sup> of oil will after 24 hours cover an area of 30-60 km<sup>2</sup>. But the main part of the total outflow is concentrated mostly on an area covering only 10 percent of the whole contaminated surface. Assuming that this slick concentration is drifting within the down-wind side of the moving slick then a total length of 2,000 m is needed to ensure that most of the slick concentration is surrounded.

Additionally, at the sea areas having environmental high importance, as national parks or wildlife reserve areas, certain length of containment booms should be available for their protection.

But those countries which have based their recovery capacity on self-propelled skimmer ships with e.g. sweeping arms/spring-sweep systems or combination of deflecting containment booms with skimmer devices in the apex of the V-shape may prefer a higher sweeping capacity - see 6.2 - which can compensate large lengths of high sea booms in combination with various skimmer types.

Consequently, the following minimum requirements are demanded for:

- containment sea boom lengths, with auxiliary vessels to launch booms and deploy skimmers
- autonomous self driven skimmer ships with the definition of cleaning performance per day in km<sup>2</sup>
- performance per day of adhesion/suction devices like belt-disc skimmer/weir and vortex skimmers.

#### **6. CAPACITIES TO RECOVER VARIOUS PERSISTENT OIL TYPES**

The minimum requirements are as follows:

**6.1** 2,000 m of high sea booms for containment of oil and a sufficient number of sea booms to protect nature or wildlife reserve areas against oil spills (location of booms should be established as permanent sites close to these areas and – where possible – some necessary equipment to deploy booms should be available at such places, such as a boat, tug or other ship, depending on the distance to the nearest port or coastal station).

**6.2** 2.5 km<sup>2</sup> of sweeping performance. The calculated area is hereby based on a working speed of 1-2 knots of the sweeping or skimming vessels. A sweeping area of 4.5 km<sup>2</sup> has to be fulfilled by those countries which mainly use autonomous drive skimmer ships. The total boom length of 2,000 m can be diminished to 1,200 m if the sweeping capacity is considerably greater.

**6.3** Six (6) high performance sea skimmers with full sets of auxiliary equipment.

**6.4** Sufficient storage tank capacity should be available at sea for continuous operations. The land-based disposal arrangements of the recovered mixture close to the potential sea areas must also be ensured.

## **7. REQUIREMENTS TO RECOVERY/RESPONSE VESSELS TO HARMFUL SUBSTANCES OTHER THAN OIL**

### **7.1 Minimum required measuring equipment on board a response vessel:**

**a)** Generally, response ships that could be involved in the release of hazardous materials should be permanently equipped with an adequate supply of protective clothing and breathing apparatus for those crew members likely to become involved in responding to an emergency spill situation. For the detection, the determination of the dimension or the determination of the concentration of a spill, several measuring devices will be needed.

It is recommended to have on board a response vessel the following safety and protection equipment:

- protective clothing (oilskins, gloves, full protective suit, breathing hood, goggles, respirators, canister-type mask, oxygen breathing apparatus, face mask or hood)
- devices for measuring toxic atmosphere (chemical reaction tubes)
- explosive meter
- photo or flame ionisation detector
- sampling devices
- flash point meter
- pH-meter
- electric conductivity meter
- radiation meter
- oxygen meter
- thermometer
- test kit.

**b)** In addition to this basic equipment it is advisable to be equipped with side scanning sonars and echo sounders with high sensitivity and high ground resolution. Bottom sampling devices and visual perception by remote controlled TV-cameras or TV-cameras operated by divers.

**7.2** Each Contracting Party should have precautions made to provide, in case of emergency lightering operations, sufficient tank capacity to ensure the refloating of a grounded vessel or to lighter endangered tank capacity, e.g. by settling a model contract with tankship owners or tankship owners' association.

### **7.3 Salvage and recovery of sunken or lost packaged dangerous goods**

The response unit should have or make arrangements for sufficient space on board to store recovered packages with leaking corrosive or toxic contents in a water-protected and air-tight space; alternatively special containers meeting the aforementioned properties can also be used for provisional storage of harmful packages.

A set of overpacks is needed to transfer leaking drums or cylinders with compressed or radioactive substances in emergency situations.

Each Contracting Party should ensure that in case of responding to a chemical spill including salvage or recovery of packaged goods the response unit and the strike teams on board must be equipped and/or protected to encounter the following hazards:

- combustibility
- corrosivity
- explosiveness
- flammability
- radioactivity
- toxicity in air and in water.

**HELCOM Recommendation 31E/5 \*)**

Adopted 20 May 2010,  
having regard to Article 20, Paragraph 1 b)  
of the Helsinki Convention

\*) amended 6 March 2014

**MUTUAL PLAN FOR PLACES OF REFUGE IN THE BALTIC SEA AREA****THE COMMISSION,**

**NOTING** the increasing maritime traffic and especially transportation of oil products in the Baltic Sea and the expected future significant growth of shipping activities in general, including shipment of hazardous and noxious substances and container traffic,

**BEING AWARE** of the increasing risk of a pollution incident at sea,

**RECALLING** the provisions of Regulation 12 of Annex VI to the Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1992, (Helsinki Convention), concerning the obligation of the Contracting Parties to draw up plans to accommodate ships in distress and to exchange details on such plans,

**RECALLING FURTHER** HELCOM Recommendation 28E/12 recognizing the significance of sub-regional approach to pollution preparedness and response and that adequate response capacities should be available for places of refuge based on risk assessment in a sub-regional context,

**RECALLING ESPECIALLY** the HELCOM Baltic Sea Action Plan, in which the Contracting Parties decided to develop by 2009 and implement by 2010 a mutual plan for places of refuge, which is to ensure that a ship in need of assistance is accommodated in the most appropriate place of refuge without undue delay and irrespective of countries' borders,

**RECALLING ALSO** IMO Resolution A.949(23) "Guidelines on places of refuge for ships in need of assistance" providing a common framework for responding effectively to and assessing the situation of ships in need of assistance as well as EC Directive 2009/17/EC amending Directive 2002/59 establishing a Community Vessel Traffic Monitoring and Information system, and other relevant regulations,

**ACKNOWLEDGING** that there may be specific circumstances under which granting to a ship a place of refuge in a response zone of another country than the one in which a situation of need of assistance originally started would be much safer for both the ship and the environment,

**ACKNOWLEDGING ALSO** that the way the Contracting States implement requirements on places of refuge according to regulations of the Helsinki Convention and for those Contracting States who are members of EU also of the relevant EU Directive<sup>1</sup>, varies,

**BEING AWARE** that there might be damage costs related to a place of refuge situation and that some of those costs might not be covered by the international liability and compensation schemes,

**STRESSING** the Polluter Pays Principle underlining that the polluting party should bear the cost of pollution if such damage costs occur,

**WELCOMING** the entry into force of the Bunkers Convention,

**RECOGNIZING** the urgent need for a sufficient liability and compensation regime for damage in relation to carriage of hazardous and noxious substances by sea, and therefore

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<sup>1</sup> Directive 2002/59/EC of the European Parliament and of the Council of 27 June 2002 establishing a Community vessel traffic monitoring and information system and repealing Council Directive 93/75/EEC

**WELCOMING** the adoption of the Protocol to the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 1996,

**WELCOMING FURTHER** the initiative brought forward to the 96th session of the IMO's Legal Committee with the aim of further amending the limits of the International Convention on Limitation of Liability for Maritime Claims (LLMC Protocol 96),

**BEING AWARE** that this Recommendation can only be fully implemented when a harmonized compensation and liability regime for damage costs in relation to places of refuge in the whole Baltic Sea area is created,

**RECOGNIZING** the need for harmonized approach in the Baltic Sea to the powers coastal states can execute over ships in need of assistance according to the international legislation,

**WITHOUT PREJUDICE** to international agreements and legislation of the European Community,

**RECOMMENDS** the Contracting States to co-operate when providing a place of refuge for a ship in need of assistance in order to avoid unnecessary risk for the ship and the environment,

**RECOMMENDS FURTHER** the Contracting States to designate preferably one and maximum two-competent authorities which have the power to take independent decisions concerning the accommodation of ships in need of assistance in order to facilitate rapid actions within this mutual plan for places of refuge,

**RECOMMENDS FURTHERMORE** to ensure that upon request by one Contracting State (Requesting Party) a neighboring Contracting State (Requested Party) will consider accommodating a ship in need of assistance in its waters even if an incident involving such a ship started outside its response zone.

Such a request should only be submitted by a Contracting State if national options have been fully explored leading to a conclusion that due to different circumstances there is no suitable place of refuge in its own area and granting a shelter in a neighboring Contracting State is the only solution to ensure ship, coastal and traffic safety and avoid or limit pollution.

The non-exclusive list of these circumstances includes:

- lack of an adequate shelter area in the vicinity of an incident (e.g. too small or full port, shallow waters);
- unfavorable weather conditions making it impossible to use a place of refuge in the Requesting Party (e.g. pack ice ridges, storm);
- urgent and case specific environmental concerns, e.g. related to the protection needs of endangered and threatened species and habitats, vicinity of the Baltic Sea Protected Area and/or NATURA 2000;
- difficult navigational and/or traffic conditions creating additional hazards.

Financial considerations, commercial reasons or lack of response resources should not be regarded as a sufficient reason to request a place of refuge from another Contracting State. Lack of response resources should be met within the regular HELCOM co-operation based on the HELCOM Response Manual and HELCOM Recommendations in the field of response to pollution at sea.

The Requesting Party when contacting the Requested Party should provide all information on their reasons for not accommodating the vessel in their own area.

The circumstances listed above equally apply to consideration by the Requested Party whether to receive a ship in its waters, including conditions for the intended journey.

In case the Requested Party is not in a position to offer a place of refuge the underlying reasons for this decision should be communicated to the Requesting Party,

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**RECOMMENDS ALSO** that the information as included in HELCOM Response Manual should be exchanged between the Requesting Party and the Requested Party,

**RECOMMENDS FURTHER** the Contracting States to exchange information on designated places of refuge, including their location, e.g. to be made available within sub-regional co-operation,

**RECOMMENDS FURTHERMORE** the Contracting States to take the necessary steps to make the Mutual Plan for Places of Refuge operational and implemented within/through sub-regional agreements on joint response to pollution at sea,

**RECOMMENDS** the Governments of the Contracting States, who have not yet done so, to ratify as soon as possible:

- the 2003 Protocol establishing the International Oil Pollution Compensation Supplementary Fund (Fund Protocol 2003);
- the International Convention on Civil Liability for Bunker Oil Pollution Damage 2002 (Bunker Oil Convention);
- the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 1996 (HNS Convention) and its Protocol;
- the 1996 Protocol to the Convention on Limitation of Liability for Maritime Claims (LLMC Protocol 96);
- the Nairobi Convention on Removal of Wrecks, 2007;

and to denunciate the International Convention on Limitation of Liability for Maritime Claims 1976 (LLMC 76),

**RECOMMENDS FURTHER** the Contracting States to make a reservation under LLMC Protocol 96 as to the claims in respect of raising, removal and destruction of a sunken, stranded, wrecked or abandoned ship as well as to the claims in respect of removal, destruction and rendering harmless of the cargo of the ship so as higher liability limits than in LLMC Protocol 96 could be imposed on a shipowner in respect of these claims,

**TAKING INTO ACCOUNT** the provisions of the Helsinki Convention stipulating that if the action was taken by one Contracting Party at the express request of another Contracting Party, the Requesting Party shall reimburse to the assisting Party (Requested Party) the costs of action of the assisting Party,

**RECOMMENDS** the Contracting States to in advance bilaterally discuss ways of fair sharing of the operation costs by state authorities in a place of refuge situation not met by the international compensation regime and without prejudice to Polluter Pays Principle,

**AGREES** to reconsider the issue of cost sharing, if needed,

**AGREES ALSO** to follow the guidelines attached to this Recommendation when executing powers of the coastal states with regard to ships in need of assistance,

**REQUESTS** the Contracting Parties to report on implementation of this Recommendation within two years after its adoption.

**Annex****Places of refuge - Towards a common understanding of the rights of the Coastal State to take action with respect to a ship in need of assistance****1. Introduction**

The aim of this document is to outline the rights of a Coastal State to take action with respect to a ship in need of assistance in a place of refuge –situation on the basis of international law<sup>2</sup>. The intention is not to discuss the liability issues that might arise for a Coastal State taking actions.

The UN Convention on the Law of the Sea, 1982 (UNCLOS) is the basic international instrument regulating issues regarding the Coastal State's rights and obligations in respect of ships. The Convention includes provisions regulating on one hand the "freedom of navigation" and on the other hand the rights of a Coastal State to take action with respect to ships, which can pose a danger to the environment – the provisions form a sort of balance between those two interests. Compared to port State jurisdiction the coastal States' jurisdiction over foreign ships is subject to relatively stringent and precise limitations in UNCLOS. In respect of shipping UNCLOS is complemented by rules and regulations agreed in IMO.

**2. UNCLOS - different rights according to the geographical area**

**Article 194** of UNCLOS includes provisions on measures to prevent, reduce and control pollution of the marine environment. States shall take, individually or jointly as appropriate, all measures consistent with the Convention that are necessary to prevent, reduce and control pollution of the marine environment from any source and they shall endeavour to harmonize their policies in this connection. States shall also in so doing ensure that the activities do not cause damage by pollution to other States and their environment and that pollution arising from incidents under their jurisdiction or control does not spread beyond the areas where they exercise sovereign rights in accordance with the Convention. The Article lists as one "source" the pollution from vessels, in particular measures for preventing accidents and dealing with emergencies.

***Territorial Sea***

Every State has the right to establish the breadth of its territorial sea up to a limit not exceeding 12 nautical miles (UNCLOS Article 3). In the outset the Coastal State has a far reaching prescriptive and enforcement jurisdiction with respect to the territorial sea. But this jurisdiction is limited by the doctrine of ships' right of innocent passage through the territorial sea".

**UNCLOS articles 13 to 21** include provisions on innocent passage in the territorial sea. Subject to the Convention, ships of all States have the right of innocent passage through the territorial sea. According to Article 18(2), the passage shall be continuous and expeditious. It can however include stopping and anchoring, but only in so far they are incidental to ordinary navigation or are rendered necessary by *force majeure* or distress.

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<sup>2</sup> The document is based on the following literature in addition to the relevant International Conventions:  
Colin de la Rue & Charles B. Andersson: *Shipping and the environment* (1998)  
Erik Rosaeg&Henrik Ringbom: *Liability and Compensation with Regard to Places of Refuge* (2004)  
Henrik Ringbom: *The EU Maritime Safety Policy and International Law* (2008)

The jurisdiction of coastal States to regulate ships in innocent passage is laid down in **UNCLOS Article 21**. The coastal State may adopt laws and regulations, in conformity with the provisions of UNCLOS and other rules of international law, relating to innocent passage through the territorial sea, in respect of e.g. the preservation of the environment of the coastal State and the prevention, reduction and control of pollution thereof. These laws and regulations shall not apply to design, construction, manning or equipment of foreign ships unless they are giving effect to generally accepted international rules and standards.

UNCLOS **Article 25(1)** includes provisions in respect of enforcement. With respect to ships in innocent passage, UNCLOS makes a distinction between the enforcement of rules relating to pollution and other rules. Enforcement of pollution rules is regulated in considerable detail. The more detailed regime is laid down in **Article 220(2)**. If a coastal State has “clear grounds” for believing that a ship navigating in the territorial sea has violated the national or international rules on the prevention, reduction and control of pollution, the authorities of the coastal State have the right - physically to inspect the ships, which includes the right to stop the vessel and board it. The actions must however be without prejudice to the provisions on innocent passage.

According to **Article 45** the regime of innocent passage shall also apply in straits used for international navigation.

### ***The Exclusive Economic Zone (EEZ)***

**UNCLOS Part V** includes the provisions with respect to the EEZ. This area can extend up to 200 nautical miles from the baseline. According to **Article 56(1)(b)** the coastal State has jurisdiction in accordance with the Convention with regard to the protection and preservation of the marine environment. **Article 56(2)** puts an obligation on the coastal State when exercising its rights and performing its duties to “have due regard to the rights and duties of other States and shall act in a manner compatible with the provisions of this Convention”. **Article 58(1)** confirms on the other hand the freedom of navigation of all States in the EEZ.

The EEZ represents a jurisdictional hybrid whereby all States are given freedom of navigation, while coastal States are given certain jurisdiction to regulate and enforce shipping-related laws in the zone. **Article 211(5)** includes more specific rules on the regulatory powers of a coastal State with respect to preventing, reducing and controlling ships source pollution. Coastal States’ jurisdiction to prescribe environmental rules and standards over foreign ships in the EEZ is limited to such rules and standards which are already adopted and generally accepted at international level.

**Article 211(6)** forms an exception to the main rule and opens up the possibility for coastal States, in the case when already agreed international rules and standards are inadequate to meet special circumstances, to adopt “special protection measures” or other “additional” measures for particular, clearly defined areas of their EEZs under certain given criteria, the most stringent being that the IMO agrees to the adoption of such measures.

With respect to the enforcement regimes under UNCLOS, **Article 220 paragraphs 3 to 6** are decisive in respect of shipping. The provisions give very restricted room for action. The intensity of the enforcement varies with the severity of the damage caused or likely to be caused. In the case of violation of “applicable international rules and standards” in the EEZ, the coastal State may only require the ships to provide certain basic information about its identity and route (**Article 220(3)**).

Where the violation or suspected violation results in a “substantial discharge causing or threatening significant pollution”, the powers of the coastal State extend to undertaking a physical inspection of the ships in respect of matters relating to the violation (**Article 220(5)**).

If there is “clear objective evidence” that the discharge is causing or threatening to cause “major damage to the coastline or related interests of the coastal State” or to the resources in its coastal zones, the State may “if evidence so warrants” institute proceedings including detention of the ship (**Article 220(6)**). The same constraints on enforcement apply in the case of violations of rules adopted for special areas under Article 211(6). The restricted authority given to the coastal State in the EEZ reflects the principle compromise in UNCLOS with respect to maritime transport in the EEZ.

The core provisions in relation to places of refuge are contained in **Article 221** “*measures to avoid pollution arising from maritime casualties*”. The Article is based on the 1969 International Convention Relating to the Intervention on the High Seas in Cases of Oil Pollution Damage (the Intervention Convention). The Intervention Convention has been extended through the Protocol of 1973 to the Convention to other forms of pollution than oil. Although the Intervention Convention refers only to the high seas, it is generally accepted that these instruments also apply to enforcement measures in the EEZ. In this respect it has also been assumed that Article 221 would overrule Article 220(6), which seems to lay down a more restrictive approach to the enforcement measures.

According to **Article 221(1)** “Nothing shall prejudice the right of States, pursuant to international law, both customary and conventional, to take and enforce measures beyond the territorial sea proportionate to the actual or threatened damage to protect their coastline or related interests, including fishing, from pollution or treat of pollution following upon a maritime casualty or acts relating to such a casualty, which may reasonably be expected to result in major harmful consequences. Article 221(2) defines what is meant by “maritime casualty”: “For the purpose of this article, “maritime casualty” means a collision of vessels, stranding or other incident of navigation, or other occurrence on board a vessel or external to it resulting in material damage or imminent threat of material damage to a vessel or cargo”. The definition is very broad and covers also ships in need of assistance in a place of refuge – situation.

**In conclusion:** UNCLOS is very cautious with respect to the powers of a coastal State to take action against a foreign ship in the EEZ before an accident or discharge has already taken place. But in the case when the harmful event has occurred or is likely to occur, the Convention provides both Article 220 and 221 as basis for actions. In a place of refuge – situation **Article 221** would seem to be the most relevant basis for action.

### 3. The Intervention Convention 1969/1973

The Intervention Convention is in addition to the rules in UNCLOS relevant in a place of refuge –situation. The Convention affirms the right of a coastal State to take such measures on the high seas as may be necessary to prevent, mitigate or eliminate danger to its coastline or related interests from pollution by oil and other harmful substances or the threat thereof, following upon a maritime casualty.

The coastal State is, however, empowered to take only such action as is necessary, and after due consultations with appropriate interests including, in particular, the flag State or States of the ship or ships involved, the owners of the ships or cargoes in question and, where circumstances permit, independent experts appointed for this purpose.

The Convention applies to all seagoing vessels except warships or other vessels owned or operated by a State and used on Government non-commercial service.

Since the Convention and the Protocol were agreed prior to the UNCLOS (1982), it is generally accepted that the Convention and the Protocol also cover maritime casualties which occur on the EEZ.

#### **4. The International Convention on Salvage, 1989**

While keeping the traditional philosophy of “no cure no pay”, the 1989 Convention seeks to enhance the protection of the environment by provisions for an enhanced salvage award to take into account the skill and efforts of the salvors in preventing or minimizing damage to the environment. Damage to the environment is defined as “substantial physical damage to human health or to marine life or resources in coastal or inland waters or areas adjacent thereto, caused by pollution, contamination, fire, explosion or similar major incidents.”

The Convention regulates the salvage contract between the salvor and the ship. In view of specifically environmental concerns, the right of public authorities to control the salvage operation and give directions for it, is explicitly confirmed in the Convention. **Article 5** of the Salvage Convention regulates salvage operations controlled by Public authorities. The Convention shall not affect any provisions of national law or any international convention relating to salvage operations by or under the control of public authorities.

**Article 9** of the Convention regulates the rights of coastal States. Nothing in the Convention shall affect the right of the coastal State concerned to take measures in accordance with generally recognized principles of international law to protect its coastline or related interests from pollution or the threat of pollution following upon a maritime casualty which may reasonably be expected to result in major harmful consequences, including the right of a coastal State to give directions in relation to salvage operations.

Article 9 is closely linked to Article 221 of UNCLOS and the Intervention Convention 1969/73.

#### **5. Activities at IMO**

IMO has, at its Assembly Meeting in November 2003, 23 session, 24 November – 5. December, adopted two Assembly Resolutions, including a set of Guidelines, on places of refuge for ships in need of assistance.

These guidelines are intended for use when a ship is in need of assistance but the safety of life is not involved. Where the safety of life is involved, the provisions of the SAR Convention should continue to be followed.

The guidelines recognize that, when a ship has suffered an incident, the best way of preventing damage or pollution from its progressive deterioration is to transfer its cargo and bunkers, and to repair the casualty. Such an operation is best carried out in a place of refuge. However, to bring such a ship into a place of refuge near a coast may endanger the coastal State, both economically and from the environmental point of view, and local authorities and populations may strongly object to the operation.

According to IMO it would be highly desirable if, taking the IMO Guidelines into account, coastal States designated places of refuge for use when confronted with situations involving ships (laden tankers, in particular) in need of assistance off their coasts and, accordingly, drew up relevant emergency plans, instead of being unprepared to face such situations and, because of that, risking the wrong decision being made by improvising or, in the heat of the moment, acting under pressure from groups representing various interests.

#### **6. A common understanding in the Baltic Sea in respect of the rights of a coastal State in a place of refuge- situation**

A common understanding in respect of the measures which can be taken by a coastal State, especially in the EEZ, in relation to a ship in need of assistance in a place of refuge – situation would be of great value with a view to enhance the protection of the Baltic Sea. With a common understanding it would also be possible to avoid “place of refuge shopping” from the side of the ship, which could contain considerably risks for the environment.

A common understanding could be based on the following elements:

- 1) the measures in the EEZ by a Baltic Sea coastal State would be based on Article 221 of UNCLOS and the Intervention Convention 1969/1973;
- 2) a ship in need of assistance in a place of refuge-situation would be covered by the notion “maritime casualty” in Article 221 of UNCLOS; and
- 3) the ship can be detained and ordered to a place of refuge, which is decided in cooperation with the coastal States concerned and taking into account Article 194 of UNCLOS.

**HELCOM RECOMMENDATION 31E/6**

Adopted 20 May 2010,  
having regard to Article 20,  
Paragraph 1 b) of the Helsinki Convention

**INTEGRATED WILDLIFE RESPONSE PLANNING IN THE BALTIC SEA AREA****THE COMMISSION,**

**RECALLING** the HELCOM Baltic Sea Action Plan in which the Contracting States agreed to integrate the subject of oiled wildlife response into oil pollution contingency plans either on a national or sub-national/local level, as deemed appropriate by the relevant Contracting State,

**RECALLING FURTHER** HELCOM Response Manual which provides procedures for mutual wildlife response assistance among the Baltic Sea countries,

**RECALLING ALSO** the *Guide to Oiled Wildlife Response Planning* by the International Petroleum Industry Environmental Conservation Association as well as recent publications from European projects, such as the *Handbook Oil Impact Assessment*, the *Handbook on Good Practice for the Rehabilitation of Oiled Birds in the Aftermath of an Oil Spill Incident*, and *A European Oiled Wildlife Response Plan*.

**BEING AWARE** of the increasing risks of pollution accidents related to the increasing maritime traffic, including transportation of oil products in the Baltic Sea,

**BEING CONCIIOUS** of the consequences that a major oil pollution incident may have to vulnerable marine fauna of the Baltic Sea,

**STRESSING** the need for enhanced international co-operation on wildlife response and planning in the Baltic Sea region, involving governmental agencies, local actors and specialized non-governmental organizations, following the already established and well functioning HELCOM cooperation on response to pollution at sea,

**ACKNOWLEDGING** that the oiling and stranding of marine fauna such as birds and seals need immediate attention from the response authorities in order to deal with aspects of animal welfare and impact assessment,

**RECOGNIZING** that integrated wildlife response plans will facilitate mutual assistance between the Contracting States, and that therefore each Contracting State should benefit from having such an integrated plan in place,

**NOTING** that in some Contracting States wildlife response strategies and related guidelines have already been put in place by the relevant authorities,

**MINDFUL** that operating according to a pre-spill existing integrated wildlife response plan will also provide a useful basis to justify the costs for wildlife response that are included in eventual claims to P&I Clubs, International Oil Pollution Compensations Funds or other compensation mechanisms,

**RECOMMENDS** the Contracting States to apply Guidelines for their wildlife response planning attached to this Recommendation,

**REQUESTS** the Contracting States to develop a wildlife response plan integrated into oil pollution contingency plans either on a national or sub-national/local level and exchange the details about its contents with other Contracting Parties.

## Guidelines on wildlife response planning

The Guideline reflects the recommendations from the Guide to Oiled Wildlife Response Planning (IPIECA, 2004, see References) and the practical experience from planning processes and incident responses in different European countries. Many further backgrounds and details can be found in the IPIECA Guide.

### 1. WILDLIFE RESPONSE PLANNING

The relevance of an integrated wildlife response plan in place is that objectives, preferred strategies and resources are defined and need not to be negotiated during spill response. This guarantees swift mobilization of officers and resources. It also provides the best guarantee for the use of appropriate response, rehabilitation and health and safety protocols, efficient use of resources and likelihood of a successful claim to a P&I Club and/or International Oil Pollution Compensations Funds (IOPC Funds) afterwards.

An agreed and published plan is also of great communication value: the details of the plan can be used to explain ongoing activities to the media and to the general public (e.g. via a website).

In developing a plan it should be considered to include a separate section that explains where, when, why and how a decision would be made to call in assistance from abroad. A published English translation or an executive summary would allow the smooth communication with pre-defined international actors and who could use this information to optimize their contribution to the response.

The smooth integration of wildlife responders from abroad into a national or sub-national/local response is facilitated if the wildlife response plan is based on internationally agreed standards of good practice which are familiar to both the local and international responders.

Therefore, the Contracting States are recommended to make available and exchange relevant details on wildlife response plans that would facilitate the converging of aims, strategies and methodologies in the HELCOM area, including:

- When was the wildlife response plan established? Date of last update.
- Who is the owner of the plan?
- How is this plan integrated to the existing plan(s) for oil spill response?
- Is an English version or executive summary available (+downloadable)?
- What is/are the main objective (s) of wildlife response?
- What is the agreed strategy of wildlife response?
- Who are the participants in the response plan? Is their contribution formalized?
- Is a tiered response designed?
- How are health, safety and environment (HSE) issues addressed?
- Which human resources are available for operations?
- Which technical resources are in place?
- How is the plan maintained, trained, exercised and improved?

### 2. AIMS OF A WILDLIFE RESPONSE

The wildlife response should aim to:

- prevent, minimize and assess impacts on wildlife populations,

- prevent the continued suffering of individual oiled animals, ensure the coordinated involvement of responders from government, private sector, NGO's and/or volunteers from general public with due attention to HSE procedures.

### **3. MINIMUM STANDARDS**

A wildlife response plan should always be based on achieving at least the minimum standards of good practice. There are various issues that require attention in this respect, which are briefly discussed below:

1. Health, safety and environment standards
2. Animal welfare standards
3. Rehabilitation protocols
4. Requirements for equipment
5. Wildlife impact assessment and post release survival monitoring

1. Health, safety and environment standards Wildlife response should be carried out according to the same HSE standards that are applicable for oil spill response. This includes issues such as e.g. requirements for personal protection equipment, risk analysis, waste management. On top of this, health and safety requirements must be put in place for working with wild animals. Various publications provide guidance on this topic (see References).

#### 2. Animal welfare standards

Animal welfare standards may differ between countries and different legal requirements for dealing with wild and injured animals may apply. A response plan should refer to national or sub-national/local legislation as appropriate and provide clear guidance as how wildlife responders should deal with animals and their welfare.

#### 3. Rehabilitation protocols

If the rehabilitation of oiled animals is attempted protocols should be used that are known to be successful. A wide range of protocols have been developed by organizations that deal with oiled animals on a regular basis. Organizations that have a record of responding to oiled wildlife incidents internationally and often together, have developed a joint methodology which reflects the crucial elements of the most successful protocols. This methodology must be used as it represents the minimum standards mentioned above as well as the present best practice.

Although rehabilitation protocols are kept by individual organizations and not easily available, increasingly training courses are being provided. A recent European initiative (EMPOWER – European Management Programme for Oiled Wildlife and other marine wildlife Emergency Responses, see [www.oiledwildlife.eu](http://www.oiledwildlife.eu)) aims to enhance the use and development of best practices and supports the development of expertise in the European coastal countries.

#### 4. Requirements for equipment

A set of basic equipment needs to be readily available as part of the response planning and preparedness. If equipment is not available from permanent response centers, the development of mobile equipment or mobile units should be considered. Alternatively such units may exist in neighboring countries and could be made available in case of an emergency.

#### 5. Wildlife impact assessment and post release survival monitoring

Systematic scientific data gathering during and after a wildlife response is necessary to allow a reliable assessment of impact. Applying internationally agreed guidelines for wildlife impact assessment (Handbook Oil Spill Impact Assessment) will maximize the value of these scientific efforts in an international context, where it is important to monitor the status of vulnerable populations and to explain significant changes in their development and survival.

Also of scientific importance is the systematic study of the survival of cleaned and rehabilitated animals after their release. This requires an intensified and concerted international effort to report on the presence, behaviour and breeding success of these animals on the breeding colonies. Such studies should be laid down in the wildlife response plan as an inextricable element of oiled wildlife rehabilitation and be designed and coordinated at an international level.

#### 4. RESPONSE OPTIONS

A number of response activities may be considered in order to achieve the aims of a wildlife response (see table).

Aim	Actions that can be considered	What is “best practice”?	Handbooks and Guidelines that provide guidance
Prevent and minimize impacts on wildlife populations	Oil combat at sea	Oil spill response plan Availability of vulnerability maps that include (seasonal) distribution of vulnerable wildlife at sea Pre-identified biologists who could assist in aerial surveillance and the interpretation of real-time field data	Handbook Wildlife Impact Assessment <sup>1</sup> ; Guide to Oiled Wildlife Response Planning, IPIECA 2004 <sup>2</sup>
	Protect sensitive areas (booming off)	Availability of vulnerability maps that include (seasonal) distribution of vulnerable wildlife in coastal areas	Handbook Wildlife Impact Assessment
	Deterrence and hazing	Have predefined plans in place with reference to effective methods per species	North American handbooks
	Pre-emptive capture	Having predefined plans in place, which include directions for the treatment and fate of captured animals	Case studies in literature
Prevent the continued suffering of individual oiled animals	(Live animals) capture, clean, rehabilitate and release	Systematically search beaches Operate rehabilitation facilities Operate internationally approved methodologies/protocols Apply agreed triage criteria Banding of animals that are ready to be released Apply post release monitoring research	Handbook on good practice oiled wildlife rehabilitation <sup>3</sup> ; Guide to oiled wildlife response planning
	(Live animals) capture, euthanize humanely	Systematically search beaches Operate euthanasia facilities Have agreed euthanasia techniques	Handbook on good practice oiled wildlife rehabilitation Guide to oiled wildlife response planning
Assess impacts on wildlife populations	(Dead animals) collect, administrate mortality per species	Systematically search beaches	Handbook Wildlife Impact Assessment
Coordinated involvement of multiple stakeholders, including NGO's and volunteers	Operate a pre-spill defined plan Have formal agreements in place Provide for a clear, integrated command structure	Develop and agree an OWR plan before the incident, involving all responders Have the plan trained and exercised regularly	Guide to oiled wildlife response planning Examples from various countries in Europe, incl. in HELCOM area
Health, Safety and Environment	Health and safety of responders at all times as a matter of highest priority Minimize polluted waste and avoid secondary pollution	No wildlife response if health and safety of the responders cannot be guaranteed Require a minimum level of training from all accredited responders Volunteers being instructed and supervised Provide protective clothing	Guide to oiled wildlife response planning Examples from various countries in Europe, incl. in HELCOM area

<sup>1</sup> [www.oiledwildlife.eu](http://www.oiledwildlife.eu)

<sup>2</sup> [www.ipieca.org](http://www.ipieca.org)

<sup>3</sup> [www.oiledwildlife.eu](http://www.oiledwildlife.eu)



## 5. STRATEGY

The strategy of a plan specifies how the described aims will be achieved under various scenarios.

In certain cases the agreed aims and principles of a wildlife response plan may require a strategic area-specific and/or season-specific elaboration, in order to deal with the variable conditions and circumstances in different parts of the country, such as the delegated responsibilities of sub-national administrations, relative remoteness (lack of resources) of some parts of the country, area complexity, season-dependent distribution patterns of vulnerable wildlife or seasonal variations in sea and weather conditions.

## 6. INTEGRATED PLANNING AND COMMAND STRUCTURE

A wildlife response plan should be integrated with an existing appropriate oil spill response plan. The structure and contents of existing contingency plans may differ strongly from country to country or even within a single country and it needs to be considered how this integration is best structured. For example, in a standard oil industry set up, wildlife response comes in under “Operations” (see figure 1).

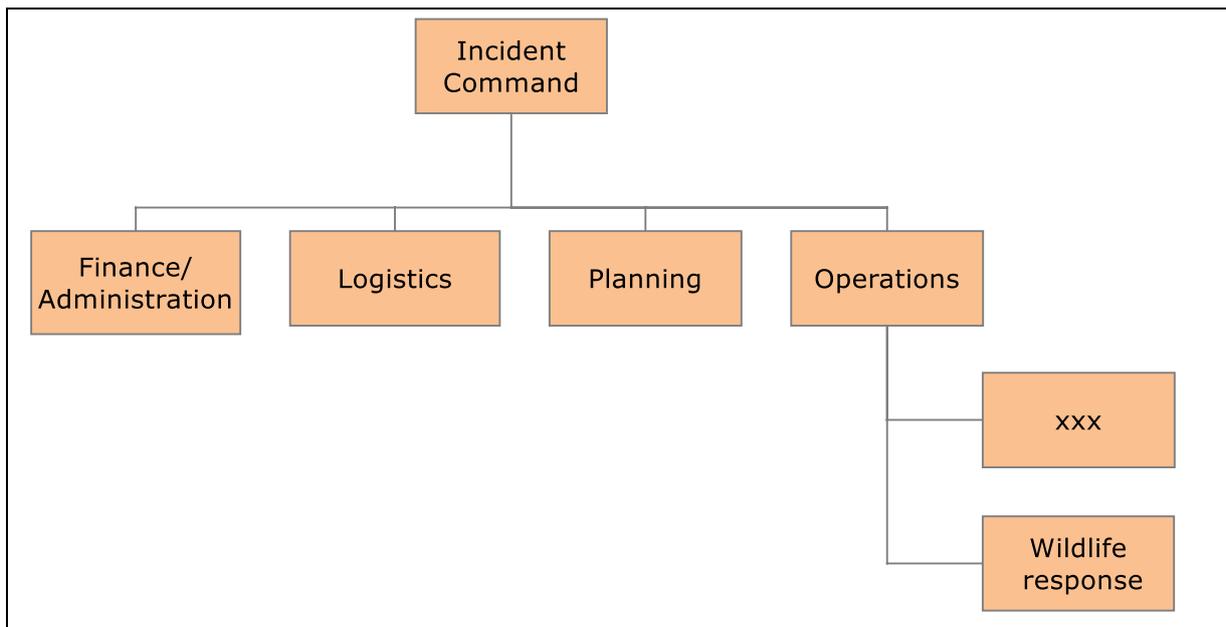


Figure 1: Wildlife response is often integrated into the overall incident command system as part of “Operations”, but the actual organization structure will differ from country to country.

Also the wildlife response command chain can be structured in different ways. A useful approach that could be considered is to identify a wildlife coordinator who oversees all different aspects of the wildlife response, each of which could be coordinated by a separate officer (see figure 2) in case of a larger incident. In such a case, the wildlife coordinator and his team are best based in a Wildlife Response Centre, where all real time information comes together and from where decisions are taken.

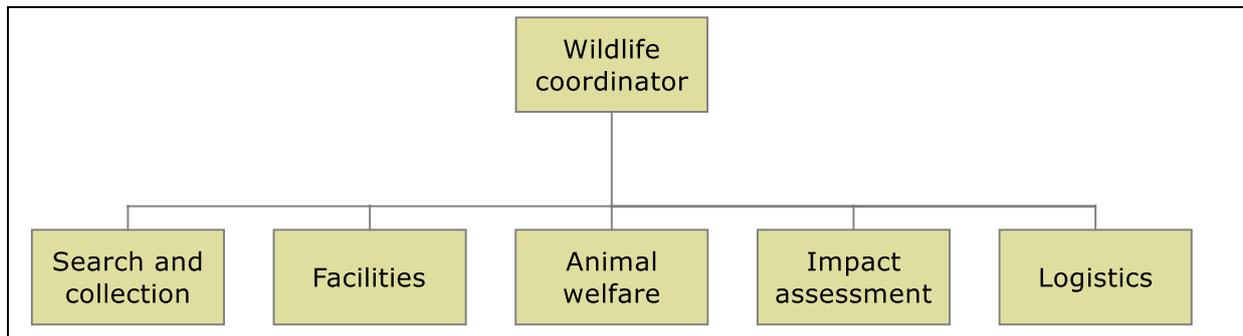


Figure 2: Example of a simple oiled wildlife response organization chart. The contributions of foreign experts are often including the set up and running of a rehabilitation facility, impact assessment, search and collection, and/or overall coaching. Groups or individual experts can be integrated into the organization chart accordingly.

Although the function of the wildlife coordinator is best taken by an authority official, the roles of other coordinators could be taken by officers from groups and organizations that are formally part of the wildlife response plan. The roles and tasks of each coordinator are described in the operational section of the plan. The roles and responsibilities of organizations (governmental institutions, NGOs, industry bodies, private organizations and others) are best described in the strategy section of the plan, eventually following separate bilateral agreements.

One of the most important and difficult aspects of managing a wildlife response successfully is keeping oversight of day to day developments in relation to the set objectives of the response plan and plan and manage the activities accordingly. The individuals with key responsibilities should be trained to their job. Such training is available via international resources. In case of a worst case scenario developing, experienced individuals from international organizations can provide onsite management assistance.

### **7. TIERED RESPONSE**

Relatively small incidents are easier to deal with at a national level than large and complicated incidents. Contracting States should make an assessment of the limits of national capacity in relation to different incident scenarios. The Tiered Response concept is suitable for this, where Tier 1 is local response, Tier 2 a national response eventually involving ad-hoc assistance from neighboring countries and Tier 3 an international response requiring involvement of resources that are available from abroad (see figure 3).

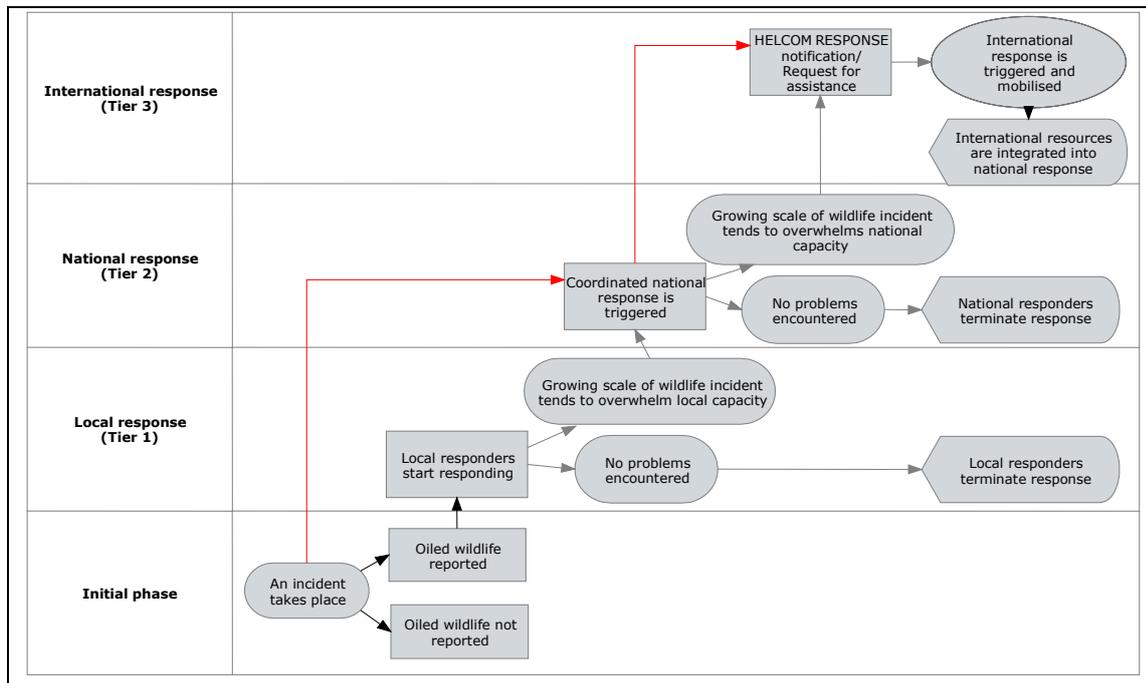


Figure 3: An illustration of the tiered response. In the response plan the capacity limits of each response tier should be clearly described, as well as the decision making process that facilitates the escalation into a next tier. The red arrows indicate that short-cuts should allow an immediate mobilization of a Tier-2 or Tier-3 response, on the basis of a developing worst case scenario.

It is important for countries to evaluate at which incident scale the national capacity would be overwhelmed, e.g. by the number of involved wildlife or the complexity of incident. As soon as these capacity limits are being approached in a real-time scenario, the response should escalate from a Tier-2 into Tier-3 scenario. Furthermore, Contracting States should list in advance which resources would be required from abroad in a Tier-3 response, and from where these resources can be invited. This would include e.g. response management assistance, animal care assistance, mobile response units and/or specialized equipment. They should be prepared to cover the costs of mobilized resources from abroad, according to the HELCOM arrangements for international assistance. It should be born in mind that international compensation regimes include wildlife response as one of the issues that can be included in a claim (see the Claims Manual published by the IOPC Fund in 2008<sup>6</sup>). Having operated according to a pre-spill defined plan strongly supports the justification of such a claim.

## 8. THE INVOLVEMENT OF VOLUNTEERS

The involvement of volunteers has been important in past wildlife responses, reducing the costs of the relatively labor intensive work that is involved. A volunteer can be defined as an individual who desires to assist with the response out of free will and therefore is involved as an unpaid work force and not as an employee.

Health, safety and liability issues must be considered very carefully before involving volunteers in wildlife response activities. The deployment of volunteers in national or state oil pollution response will not always be possible or desirable. If volunteers are to be used their activities must be well planned, coordinated, supervised and fully integrated into the overall

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[www.iopcfund.org](http://www.iopcfund.org)



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oil pollution response. The person or authority responsible for the overall oil pollution response must determine if, where and when volunteers can be deployed and who will be responsible for their planning, coordination and supervision.



Different types of volunteers can be defined:

1. (Employees of) an NGO that offers its assistance as a voluntary body, ready to get involved and taking responsibilities without necessarily a formal contract or a demand for payment,
2. An individual who is affiliated with an NGO such as described under type 1 but having the status of an internal “volunteer”. This type of volunteer is often well trained. Although perhaps not full time available, this type of volunteer will be well coordinated by the NGO in question and make an effective contribution to the response,
3. A member of the general public who offers his labour free of charge to the response organization but is untrained and not affiliated to any organization.

In the case of types 1 and 2, a considerable workforce can be mobilized if the right NGO's are identified and invited to play a role in the response plan by means of a formalized agreement. As part of this agreement the accredited NGO could be invited to participate in specific training programmes with regards to HSE and management aspects of an oil spill response. Also as part of the agreement, financial compensation may be addressed. In case a claim can be submitted to a compensation mechanism (P&I Club or IOPC Funds), the NGO could submit its own claim or make it part of the national claim. In the latter case the responsible authority may consider to compensate the NGO's expenses in advance.

In case of a volunteer of type 3 (member of the general public), the health safety and liability issues are considerable and the involvement of these kinds of volunteers should therefore be considered very carefully. This type of volunteer must not be charged with key responsibilities, but if deployed given simple tasks under supervision after having received a basic on-the-spot training. Health and safety risks should be avoided to the widest possible extent and appropriate insurances must be in place. There are examples of NGO's working in close relationship with the authorities using a professional infrastructure for the recruitment, training and supervision of this type of volunteers.

### **9. FINANCES**

Most countries have in place an emergency budget for (marine pollution) emergencies. In the framework of the elaboration of an integrated wildlife response plan it should be considered whether also the costs of a wildlife response and all its possible aspects (see section 4) could be covered by this budget. Especially in large scale spills, these costs tend to be only a small fraction in relation to the total costs of the incident response.

International mechanisms are available that have been set up to compensate for the costs of oil spill response and oil spill damage (e.g. International Convention on Civil Liability for Oil Pollution Damage, IOPS Funds Conventions, Bunker Convention). Wildlife response is recognized by these mechanisms, and the main requirements for a justifiable claim in this respect are described in the 2008 edition of the Claims Manual of the IOPC Funds.

There are also other situations in which it is still unclear or unlikely that one or more of these international compensation mechanism are applicable to the case and in the end will be ready to receive claims. A wildlife response cannot be postponed until the issues around “who pays the bills?” have been resolved. It is recommended that the possibilities of financing of large scale wildlife response during oil pollution events should be examined foreseeing future spills so that even in the more obscure pollution events, a smooth and coordinated wildlife response will be possible.

### **10. REFERENCES**



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The following publications are worth consulting in the preparation of a wildlife response plan:

- Guide to oiled wildlife response planning. IPIECA (2004). Downloadable from [www.ipieca.org](http://www.ipieca.org)
- Handbook Oil Impact Assessment. Downloadable from [www.oiledwildlife.eu](http://www.oiledwildlife.eu)
- Handbook on good practice for the rehabilitation of oiled birds in the aftermath of an oil spill incident. Downloadable from [www.oiledwildlife.eu](http://www.oiledwildlife.eu).
- A European Oiled Wildlife Response Plan. Downloadable from [www.oiledwildlife.eu](http://www.oiledwildlife.eu).
- Claims Manual (IOPC Funds, 2008). Downloadable from [www.iopcfund.org](http://www.iopcfund.org)

Most of these documents are available via [www.oiledwildlife.eu](http://www.oiledwildlife.eu). This website also provides a myriad of relevant information with regards to wildlife response and preparedness. It also provides access to the activities of EMPOWER.



### HELCOM Recommendation 33/2

Adopted 6 March 2012  
having regard to Article 20, Paragraph 1 b)  
of the Helsinki Convention

## CO-OPERATION IN RESPONSE TO SPILLAGES OF OIL AND OTHER HARMFUL SUBSTANCES ON THE SHORE

### THE COMMISSION,

**RECALLING** Article 14 and Annex VII of the 1992 Helsinki Convention on response to pollution incidents at sea, as well as HELCOM Response Manual, defining, *inter alia*, procedures and principles for requesting and providing assistance in case of a major spillage of oil or other hazardous substance at sea;

**RECALLING FURTHER** the HELCOM Baltic Sea Action Plan, requiring the Contracting Parties to identify the need for and finalize the quantification of countermeasures for shoreline response, and to prepare concrete plans/programmes for fulfilling them by 2013;

**RECALLING ALSO** HELCOM Recommendation 28E/13 “Strengthening of sub-regional co-operation in response field”, requiring the Contracting Parties to integrate shoreline response into national contingency plans, and cooperate by conducting trainings and organizing exchange programmes to ensure swift and adequate response capacity and to develop best practices, as well as HELCOM Recommendation 31E/6 “Integrated wildlife response planning in the Baltic Sea area”;

**APPRECIATING** the work of the International Maritime Organization (IMO) regarding oil spill preparedness and response, including shoreline response, and **WELCOMING** the IMO Manual on Assessment of Oil Spill Risks and Preparedness, providing good strategic guidance for developing oil spill response capacity, and addressing, among others, shoreline protection and clean-up;

**TAKING INTO ACCOUNT** Council Decision 2007/779/EC of 8 November 2007 establishing a Community Civil Protection Mechanism and Council Conclusions adopted on 27 November 2008 calling for civil protection capabilities to be enhanced by a European mutual assistance system building on the civil protection modular approach;

**While RECOGNIZING** the substantial and continuous efforts by the Contracting Parties to develop and maintain adequate resources to efficiently respond to pollution accidents at sea, **REMAINING CONSCIOUS** that there are factors, such as confined character of the Baltic Sea waters or weather conditions, which may make it impossible to prevent the pollution reaching the shore;

**BEING AWARE** of possible devastating consequences connected to the polluted shoreline, including destruction of vulnerable ecosystems and putting at risk socio-economic well-being of people living in the coastal areas;

**RECOGNIZING** that experience in responding to a major pollution incident requiring resources outside a country has clearly demonstrated the critical importance of administrative procedures to facilitate rapid provision of assistance and deployment of human resources and equipment;



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In this respect **RECALLING** IMO Resolution A.983(24) "Guidelines for facilitation of response to a pollution incident" addressing co-operation to facilitate the prompt provision of mutual assistance in the event of pollution incident;

**APPRECIATING** that there are already some resources available in the Baltic Sea countries to deal with pollution at the shore, including sensitivity maps and integrated decision support tools incorporating all relevant information needed during the pollution accident;

**DESIRING** that, similarly to the well-functioning regional system to respond to pollution accidents at sea, permanent cooperation in responding to shoreline pollution in the Baltic Sea is established and promoted, including constantly working on building adequate shoreline response capabilities;

**RECOGNIZING** that for such cooperation in shoreline response to become region-wide, effective and operational, the scope of the Helsinki Convention as well as of HELCOM Response Manual needs to be extended to enable requesting and providing international shoreline clean-up assistance and dealing with practicalities of such assistance;

**AGREES** to extend in 2013 the scope of the Helsinki Convention to cooperation on shoreline response with the aim to ensure that:

- adequate equipment and expertise in the Baltic Sea countries to respond to pollution at the shore is put in place,
- response to pollution at shore is integrated with overall contingency planning,
- a Baltic Sea State can ask for assistance from another Baltic Sea State when dealing with pollution at the shore,
- Contracting Parties exchange information regarding their systems for shoreline pollution;

**RECOMMENDS** the Contracting Parties to undertake the necessary measures to develop and put in place by 2013 a shoreline response plan integrated with existing contingency plan(s), taking into account the following best practices in the planning process:

- a) areas of high environmental, economic and cultural significance are prioritized in advance based on the mapping of the sensitivity to accidental oil pollution, with the understanding that further prioritization may take place in a real time situation;
- b) baseline data on those priority areas are collected and collated;
- c) a plan for assessment of environmental damage and reinstatement of the environment following spills is developed in advance and form part of the integrated shoreline response plan; the plan indicates immediate and longer term assessment actions, data collection protocols, sampling methodologies, standard operating procedures, laboratory analysis, etc.; IMO/UNEP Guidance Manual on the Assessment and Restoration of Environmental Damage following Marine Oil Spills provides generic advice to assist the development of such a plan;
- d) waste management plan is put in place;
- e) all institutions and entities involved in response, assessment and restoration activities are identified and clear responsibilities are assigned.

**RECOMMENDS FURTHER** the Contracting Parties to constantly work on increasing and maintaining their capabilities for shoreline response, including technical resources and expertise with the aim to sufficiently protect environmental resources sensitive to oil in prioritized areas against pollution, and to ensure that:



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- a) designated authorities are alarmed without any delay in case of a threat of shoreline pollution so that the resources can be mobilized at an early stage;
- b) response action on the site of the spill is well organized, adequate and substantial and taken as soon as possible;
- c) response action, including cleanup method and the resources are adequate;
- d) common basic standards on health and safety and decontamination are defined.

**RECOMMENDS FURTHERMORE** that the need for assistance from volunteers in shoreline clean-up is analysed in advance by relevant authorities, and if such assistance is decided, necessary measures are undertaken to set up in advance a well-organized and trained national volunteers' structure;

**RECOMMENDS ALSO** the Contracting Parties to exchange information and develop knowledge on shoreline clean-up and treatment techniques appropriate for the shoreline types and coastal environmental settings in the Baltic Sea region, including through conducting international shoreline response exercises;

**REQUESTS** the HELCOM Response Group to map existing shoreline response resources available for international assistance in the Baltic Sea by 2013, and in doing so consider and develop the most suitable ways to define the resources that can be requested, for instance to consist of modules whereby for each module tasks, capacities, components, and degree of self-efficiency and interoperability are defined;

**REQUESTS FURTHER** the Response Group to include information on shoreline response resources available in the Contracting Parties in the HELCOM Response Manual and in addition to make use of the common HELCOM map and data GIS service to facilitate the exchange of information, including for mapping of shoreline response resources in the Baltic Sea.



**HELCOM RECOMMENDATION 33/3\*)**

Adopted 6 March 2012  
having regard to Article 20, Paragraph 1 b)  
of the Helsinki Convention

**REPORTING ON INCIDENTS INVOLVING HARMFUL SUBSTANCES AND EMERGENCY DUMPING**

**THE COMMISSION,**

**RECALLING** Regulation 5 of Annex VII concerning reporting procedure and Article 13 on notification and consultation on pollution incidents as well as Regulation 1, Paragraph 2. a) of Annex VII concerning pollution incidents which affect or are likely to affect interests of other Contracting Parties and [Article 11](#), Paragraph 4 concerning emergency dumping of the 1992 Helsinki Convention,

**RECALLING FURTHER** Article 8 and Protocol I (Resolution MEPC. 21(22)) of the International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 relating thereto ([MARPOL](#)),

**TAKING INTO ACCOUNT** HELCOM [Recommendation 19/16](#) concerning co-operation in investigating violations or suspected violations of discharge and related regulations for ships, dumping and incineration regulations,

**TAKING ALSO INTO ACCOUNT** 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) which contains, *inter alia*, a chapter (Volume I, Chapter 3) on the reporting procedures describing the POLREP BALTIC and ALGPOLREP systems,

**NOTING** with deep concern the number oil pollution incidents in the Baltic Sea Area,

**CONSCIOUS** that efficient and effective reporting on incidents involving harmful substances is an essential tool in taking appropriate and timely measures to combat pollution and to investigate the matter,

**RECOMMENDS** that the Governments of the Contracting Parties shall instruct ships flying the flag of the Contracting Parties to apply IMO Resolution A.851(20) concerning General Principles for Ship Reporting Systems and Ship Reporting Requirements, Including Guidelines for Reporting Incidents Involving Dangerous Goods, Harmful Substances and/or Marine Pollutants,

**RECOMMENDS ALSO** that IMO Resolution A.851(20) shall be applied as far as practicable in cases of emergency dumping,

**RECOMMENDS FURTHER** that for the purpose of notification and consultation on incidents referred to in [Article 13](#) and Regulation 1, Paragraph 2. a) of Annex VII of the 1992 Helsinki Convention, the Governments of the Contracting Parties shall apply the POLREP BALTIC system in case of a need of preventing, reducing and controlling pollution,

**REQUESTS** the Governments of the Contracting Parties to report on implementation of this Recommendation in accordance with [Article 16](#), Paragraph 1 of the 1992 Helsinki Convention.



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*\*) This Recommendation supersedes HELCOM Recommendations 7/12 and 19/18*



**HELCOM RECOMMENDATION 34E/3**

Adopted 3 October 2013,  
having regard to Article 20, Paragraph 1 c)  
of the Helsinki Convention

**AMENDMENTS TO ANNEX VII “RESPONSE TO POLLUTION INCIDENTS” OF THE 1992 HELSINKI CONVENTION, CONCERNING RESPONSE ON THE SHORE**

**THE COMMISSION,**

**TAKING INTO CONSIDERATION** the amendment procedure for the Annexes of the 1992 Helsinki Convention, as contained in Article 32 of that Convention,

**RESOLVES:**

- a) to amend Annex VII “Response to pollution incidents” of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1992, in accordance with the Attachment to this Recommendation;
- b) to ask the Depositary Government to communicate these amendments to the Contracting Parties with the Commission's Recommendation for acceptance;
- c) to determine that the amendments shall be deemed to have been accepted unless prior to 1 December 2013 any of the Contracting Parties has objected to the amendments;  
and
- d) to determine that the accepted amendments shall enter into force on 1 July 2014,

**REQUESTS** the Governments of the Contracting Parties to report on the progress of implementation of the amendments to Annex VII in accordance with the agreed deadlines and Article 16, Paragraph 1 of the 1992 Helsinki Convention.



### ATTACHMENT

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### **Revised Annex VII “Response to pollution incidents”**

#### **REGULATION 1: GENERAL PROVISIONS**

1. The Contracting Parties undertake to maintain the ability to respond to pollution incidents threatening the marine environment of the Baltic Sea Area. This ability shall include adequate equipment, ships and manpower prepared for operations at sea or on the shore.
2.
  - a) In addition to the incidents referred to in Article 13 the Contracting Party shall also notify without delay those pollution incidents occurring within its response region, which affect or are likely to affect the interests of other Contracting Parties.
  - b) In the event of a significant pollution incident other Contracting Parties and the Commission shall also be informed as soon as possible.
3. The Contracting Parties agree that subject to their capabilities and the availability of relevant resources, they shall co-operate in responding to pollution incidents when the severity of such incidents so justify.
4. In addition the Contracting Parties shall take other measures to:
  - a) conduct regular surveillance outside their coastlines; and
  - b) otherwise co-operate and exchange information with other Contracting Parties in order to improve the ability to respond to pollution incidents.

#### **REGULATION 2: CONTINGENCY PLANNING**

Each Contracting Party shall have a national contingency plan for response to pollution incidents at sea. Each Contracting Party shall also, as appropriate, have contingency plans for response on the shore. Such plans may be combined.

The Contracting Parties shall, as appropriate, have bilateral or multilateral plans for joint response to pollution incidents.

#### **REGULATION 3: SURVEILLANCE**

1. In order to prevent violations of the existing regulations on prevention of pollution from ships the Contracting Parties shall develop and apply individually or in co-operation, surveillance activities covering the Baltic Sea Area in order to spot and monitor oil and other substances released into the sea.
2. The Contracting Parties shall undertake appropriate measures to conduct the surveillance referred to in Paragraph 1 by using, inter alia, airborne surveillance equipped with remote sensing systems.



### **REGULATION 4: RESPONSE REGIONS**

The Contracting Parties shall as soon as possible agree bilaterally or multilaterally on those regions of the Baltic Sea Area in which they shall conduct surveillance activities and take action to respond whenever a significant pollution incident has occurred or is likely to occur. Such agreements shall not prejudice any other agreements concluded between Contracting Parties concerning the same subject. Neighboring States shall ensure the harmonization of different agreements. Contracting Parties shall inform other Contracting Parties and the Commission about such agreements.

### **REGULATION 5: REPORTING PROCEDURE**

1.
  - a) Each Contracting Party shall require masters or other persons having charge of ships flying its flag to report without delay any event on their ship involving a discharge or probable discharge of oil or other harmful substances.
  - b) The report shall be made to the nearest coastal state and in accordance with the provisions of Article 8 and Protocol I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 related thereto (MARPOL 73/78).
  - c) The Contracting Parties shall request masters or other persons having charge of ships and pilots of aircraft to report without delay and in accordance with this system on significant spillages of oil or other harmful substances observed at sea. Such reports should as far as possible contain the following data: time, position, wind and sea conditions, and kind, extent and probable source of the spill observed.
2. The provisions of paragraph 1. b) shall also be applied with regard to dumping made under the provisions of Article 11, paragraph 4 of this Convention.

### **REGULATION 6: EMERGENCY MEASURES ON BOARD SHIPS**

1. Each Contracting Party shall require that ships entitled to fly its flag have on board a shipboard oil pollution emergency plan as required by and in accordance with the provisions of MARPOL 73/78.
2. Each Contracting Party shall request masters of ships flying its flag or, in case of fixed or floating platforms operating under its jurisdiction, the persons having charge of platforms to provide, in case of a pollution incident and on request by the proper authorities, such detailed information about the ship and its cargo or in case of platform its production which is relevant to actions for preventing or responding to pollution of the sea, and to co-operate with these authorities.

### **REGULATION 7: RESPONSE MEASURES**

1. The Contracting Party shall, when a pollution incident occurs in its response region, make the necessary assessments of the situation and take adequate response action in order to avoid or minimize subsequent pollution effects.
2.
  - a) The Contracting Parties shall, subject to sub-paragraph b), use mechanical means to respond to pollution incidents.



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- b) Chemical agents may be used only in exceptional cases and after authorization, in each individual case, by the appropriate national authority.
3. When such a spillage is drifting or is likely to drift into a response region of another Contracting Party, that Party shall without delay be informed of the situation and the actions that have been taken.

### **REGULATION 8: ASSISTANCE**

1. According to the provisions of paragraph 3 of Regulation 1:
  - a) a Contracting Party is entitled to call for assistance from other Contracting Parties when responding to a pollution incident at sea or on the shore; and
  - b) Contracting Parties shall use their best endeavours to bring such assistance
2. Contracting Parties shall take necessary legal or administrative measures to facilitate:
  - a) the arrival and utilization in and departure from its territory of ships, aircraft and other modes of transport engaged in responding to a pollution incident or transporting personnel, cargoes, materials and equipment required to deal with such an incident; and
  - b) the expeditious movement into, through, and out of its territory of personnel, cargoes, materials and equipment referred to in sub-paragraph a).

### **REGULATION 9: REIMBURSEMENT OF COST OF ASSISTANCE**

1. The Contracting Parties shall bear the costs of assistance referred to in Regulation 8 in accordance with this Regulation.
2.
  - a) If the action was taken by one Contracting Party at the express request of another Contracting Party, the requesting Party shall reimburse to the assisting Party the costs of the action of the assisting Party. If the request is cancelled the requesting Party shall bear the costs already incurred or committed by the assisting Party.
  - b) If the action was taken by a Contracting Party on its own initiative, this Party shall bear the costs of its action.
  - c) The principles laid down above in sub-paragraphs a) and b) shall apply unless the Parties concerned otherwise agree in any individual case.
3. Unless otherwise agreed, the costs of the action taken by a Contracting Party at the request of another Party shall be fairly calculated according to the law and current practice of the assisting Party concerning the reimbursement of such costs.
4. The provisions of this regulation shall not be interpreted as in any way prejudicing the rights of Contracting Parties to recover from third parties the costs of actions taken to deal with pollution incidents under other applicable provisions and rules of international law and national or supra-national regulations.



### **REGULATION 10: REGULAR CO-OPERATION**

1. Each Contracting Party shall provide information to the other Contracting Parties and the Commission about:
  - a) its organization for dealing with spillages at sea and on the shore of oil and other harmful substances;
  - b) its regulations and other matters which have a direct bearing on preparedness and response to pollution at sea or on the shore by oil and other harmful substances;
  - c) the competent authority responsible for receiving and dispatching reports of pollution at sea and on the shore by oil and other harmful substances;
  - d) the competent authorities for dealing with questions concerning measures for mutual assistance, information and co-operation between the Contracting Parties according to this Annex; and
  - e) actions taken in accordance with Regulations 7 and 8 of this Annex.
2. The Contracting Parties shall exchange information on research and development programs, results concerning ways in which pollution by oil and other harmful substances at sea or on the shore may be dealt with and experiences in surveillance activities and in responding to such pollution.
3. The Contracting Parties shall on a regular basis arrange joint operational combatting exercises as well as alarm exercises. The Contracting Parties shall also on a regular basis arrange exercises on the shore.
4. The Contracting Parties shall co-operate within the International Maritime Organization in matters concerning the implementation and further development of the International Convention on Oil Pollution Preparedness, Response and Co-operation.

### **REGULATION 11: HELCOM RESPONSE MANUAL**

The Contracting Parties agree to apply, as far as practicable, the principles and rules included in the HELCOM Manual on Co-operation in Response to Marine Pollution, detailing this Annex and adopted by the Commission or by the Group designated by the Commission for this purpose.



**HELCOM RECOMMENDATION 34E/4**

*This Recommendation supersedes HELCOM Recommendations 7/11 and 12/8.*

Adopted 3 October 2013,  
having regard to Article 20, Paragraph b)  
of the Helsinki Convention

Revised 4 March 2015,  
having regard to Article 20, Paragraph b)  
of the Helsinki Convention

**AIRBORNE SURVEILLANCE WITH REMOTE SENSING EQUIPMENT IN THE BALTIC SEA AREA**

**THE COMMISSION,**

**RECALLING** Regulation 3 of Annex VII of the Helsinki Convention according to which the Contracting Parties shall develop and apply, individually or in co-operation, surveillance activities covering the Baltic Sea Area, in order to spot and monitor oil and other harmful substances released into the sea,

**BEING CONVINCED** that airborne surveillance with remote sensing capabilities provides a greatly enhanced capability for improving the response to major oil releases of the shipping casualty type,

**ALSO BEING CONVINCED** that airborne surveillance with remote sensing capabilities provides a potential improvement in the ability to collect evidence for prosecution purposes in cases of illegal operational discharges from ships,

**FURTHER BEING CONVINCED** that regular airborne surveillance has a deterrent effect on potential offenders of the discharge regulations of the relevant conventions,

**CONSCIOUS** that the surveillance can only be efficient if remote sensing equipment, that can function also at night and in bad weather, is used,

**RECALLING** that the Ministerial Declaration of the ninth meeting of the Helsinki Commission in 1988 called for the development and establishment of airborne surveillance with adequate sensor systems,

**RECALLING FURTHER** that the Baltic Sea Declaration by Heads of Governments and Ministers assembled in Ronneby, Sweden, in September 1990, stressed the need to encourage considerably intensified cooperation regarding airborne surveillance between the respective competent authorities,

**RECALLING ALSO** the HELCOM Baltic Sea Action Plan and the decision to establish harmonised satellite and aerial surveillance covering the whole Baltic Sea area to improve detection of illegal oil spills in the Baltic,



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**NOTING WITH SATISFACTION** that joint HELCOM action by the Contracting Parties on aerial surveillance of the Baltic Sea Area with remote sensing equipment has been in place since late 1980s and provided the region with valuable results, including experience in joint operations,

**RECOMMENDS** that the Governments of the Contracting Parties to the Helsinki Convention take further action to

- a) intensify their endeavour to cover by individual/and joint action the whole of the Baltic Sea Area with regular and efficient airborne surveillance;
- b) allow the environmental surveillance flights to be conducted in the manner described in HELCOM Response Manual within their sea areas;
- c) allow other nationality surveillance aircraft, on request by the national contact point defined in HELCOM Response Manual or within the terms of an annual clearance, to conduct environmental surveillance flights and use the instruments needed for observing and documenting discharges;
- d) develop and improve the existing remote sensing systems so that they can function efficiently also at night and in bad weather conditions; and
- e) improve the possibility to use the information given by the surveillance as evidence to court for the prosecution of offenders of oil discharge regulations,

**RECOMMENDS ALSO** that the Governments of the Contracting Parties to the Helsinki Convention, bilaterally or multilaterally, undertake to co-ordinate such surveillance activities which take place outside territorial waters, in accordance with Helsinki Convention Annex VII and the HELCOM Response Manual,

**RECOMMENDS FURTHER** that the Governments of the Contracting Parties to the Helsinki Convention ensure the Baltic Sea wide collaboration in environmental surveillance flights by granting an annual diplomatic clearance for the foreign environmental surveillance aircraft listed in HELCOM Response Manual and, as specified by the terms of such clearance, permitting the following actions in the permit-giving country's Exclusive Economic Zone (EEZ) and territorial waters:

- a) carry out routine environmental surveillance flights with a minimum possible or no prior notification;
- b) use the instruments needed for observing and documenting discharges according to HELCOM Response Manual;
- c) document discharges in a manner defined in HELCOM Response Manual;
- d) on the request of the permit-giving country's national contact point, defined in HELCOM Response manual: allow environmental surveillance aircraft already airborne to enter the airspace of the permit-giving country for the purpose of collecting evidence of a suspected red-handed polluter or to support response operations;
- e) land in the permit-giving country's territory;
- f) if especially mentioned in the clearance: dropping an oil sampling buoy from the aircraft or interviewing master of a ship suspected of discharging.



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**RECOMMENDS** to have the Appendix of this Recommendation attached to the annual diplomatic clearance applications in order to inform the applicant and the granter of the permit of the recommended features.



#### **ANNUAL DIPLOMATIC CLEARANCE FOR HELCOM SURVEILLANCE AIRCRAFT**

The coastal countries of the Baltic Sea (Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia and Sweden) as well as the European Union have signed and ratified the 1992 Helsinki Convention which includes a commitments regarding enhancing aerial surveillance of pollution from ships in the Baltic Sea Area.

Operational procedures related to pollution preparedness and response in the Baltic Sea region, including aerial surveillance, are specified in the HELCOM Response Manual which constitutes an extension of the Annex VII of the Helsinki Convention.

In order to fulfill the international legal obligations from the Helsinki Convention and its Annexes related to aerial surveillance of the Baltic Sea Area the coastal countries are recommended to grant annual diplomatic clearance for aircraft or helicopters used for environmental surveillance in the Baltic Sea region according to HELCOM Recommendation 34E/4 adopted in 2013.

In addition to the general principles of the Convention and its Annex, the HELCOM Recommendation 34E/4 as well as the procedures in the HELCOM Response Manual the coastal countries are recommended to consider the following concrete points when applying, granting and using such annual diplomatic clearance for aircraft or helicopters used for environmental surveillance in the Baltic Sea region:

- *A specific number for the diplomatic clearance for environmental flights should be given.*
- *After receiving the valid annual diplomatic clearance, the normal flight plan should be the only document to be sent when planning the flights. There should be no additional prior notice requirements.*
- *The number of the annual diplomatic clearance should be mentioned in the flight plan as a reference.*

Additionally, it would be strongly advisable to apply for the following permissions specific to environmental surveillance flights. The permission giving country should answer to each of the points asked in the application and, if the permission cannot be given, justify the decision in the response:

- *On the request of the permit-giving country's national contact point, defined in HELCOM Response Manual: environmental surveillance aircraft already airborne should be allowed to enter the airspace of the permit-giving country for the purpose of collecting evidence of a suspected red-handed polluter or to support response operations.*
- *The annual diplomatic clearance for aircraft and helicopters used for environmental monitoring flights should allow flying, landing and the use of remote sensing equipment needed for environmental surveillance. These include at least recording devices, cameras, radars, IR/UV scanners and laser.*



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- *The annual diplomatic clearance should allow the use of surveillance equipment at least above all the sea areas of permission giving country. This would include territorial waters.*
- *The minimum flight altitude should preferably be 200 ft in order to ensure the proper documentation of a potential red-handed polluter.*
- *Interviewing a master of a ship suspected of discharging should be allowed.*
- *Dropping an oil sampling buoy from the aircraft should be preferably allowed.*

It should be kept in mind that the same aircraft can typically be used also for Search and Rescue operations, as well as humanitarian flights.



### HELCOM RECOMMENDATION 36/3

Adopted 4 March 2015 and amended 5 March 2018,  
having regard to Article 20, Paragraph 1 b)  
of the Helsinki Convention

### **MARINE POLLUTION INCIDENT REPORTING AND REQUESTS FOR ASSISTANCE BETWEEN CONTRACTING PARTIES IN THE BALTIC SEA AREA**

#### **THE COMMISSION,**

**RECALLING** the 1992 Helsinki Convention ratified by the coastal countries of the Baltic Sea and the European Union, Article 13 of the concerning notification and consultation on pollution incidents and Article 14 on co-operation in combatting marine pollution,

**RECALLING** Annex VII of the Helsinki Convention including Regulation 1 §2, concerning pollution incidents which affect or are likely to affect interests of other Contracting Parties, Regulation 5, concerning reporting procedure and Regulation 11 on HELCOM Response Manual,

**RECALLING FURTHER** the HELCOM Response manual Volume I Chapter 3 on reporting procedures and the HELCOM POLREP BALTIC standard message, Chapter 4 on Requesting and providing assistance and Chapter 5, on operational co-operation, especially 5.4.2 on External (off-site) Communications,

**RECALLING ALSO** the International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC) 1990, and its Protocol on HNS, as well as Article 8 and Protocol I (Resolution MEPC. 21(22)) of the International Convention for the Prevention of Pollution from Ships (MARPOL),

**RECALLING** that according to IMO Resolution A.851(20) as amended by Resolution MEPC.138(53) the Baltic State Governments are urged to ensure that ship reporting systems and reporting requirements comply as closely as possible with the general principles specified in its Annex,

**RECALLING** Directive 2002/59/EC, establishing a Community vessel traffic monitoring and information system,

**CONSCIOUS** that efficient and effective reporting on incidents is an essential tool in taking appropriate and timely measures to combat pollution and to investigate the matter,

**NOTING** that while the HELCOM POLREP BALTIC messages, including requests for assistance, have been traditionally sent via telefax new electronic means of communication have developed during the last decades and that the current trend in emergency communication is towards integrated solutions where the operator can access several communication systems via one or few access points,

**NOTING FURTHER** that the Contracting Parties which are also EU member states such electronic means of incident reporting is enabled by the national nodes of the EU SafeSeaNet network, as well as the marine pollution CECIS,

**EMPHASIZING** that ensuring efficient response in the Baltic Sea region and the full implementation of marine pollution incident provisions of the Helsinki Convention calls for efficient and operational communication channels connecting all Contracting Parties on an equal basis,

**RECOMMENDS** that formal POLREP BALTIC messages warning (POLWARN) and informing (POLINF) on an incident, requesting and rendering assistance (POLFAC), as well as acknowledging the receipt of such messages, shall be handled by the National Contact Point as defined in the HELCOM Response Manual Volume I,

**RECOMMENDS** that such POLREP BALTIC messages, containing the information defined in the HELCOM Response manual Volume I Chapter 3, should be submitted using SafeSeaNet and Marine Pollution CECIS, respectively, or other available communication means to ensure communication between all Contracting Parties on an equal basis,

**RECOMMENDS FURTHER** that urgent official or informal contacts may be made through any available communication means. Any matter of importance for joint efforts should be confirmed as soon as possible by formal POLREP BALTIC messages,

**RECOMMENDS** that the relevant sections of the HELCOM Response Manual are amended by the HELCOM Response group accordingly.