HELCOM

BALEX DELTA

KARLSKRONA 2018

HELCOM BALEX DELTA 2018

OIL AND CHEMICAL SPILL RECOVERY EXERCISE

in the Baltic Sea

Karlskrona, Sweden, 27–30 August 2018

PROGRAMME

HELCOM BALEX DELTA KARLSKRONA 2018

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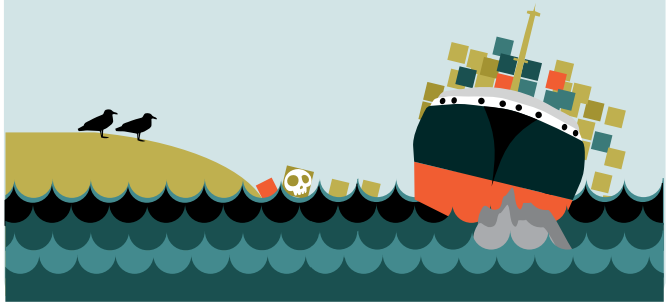
SYKE

CONTENT

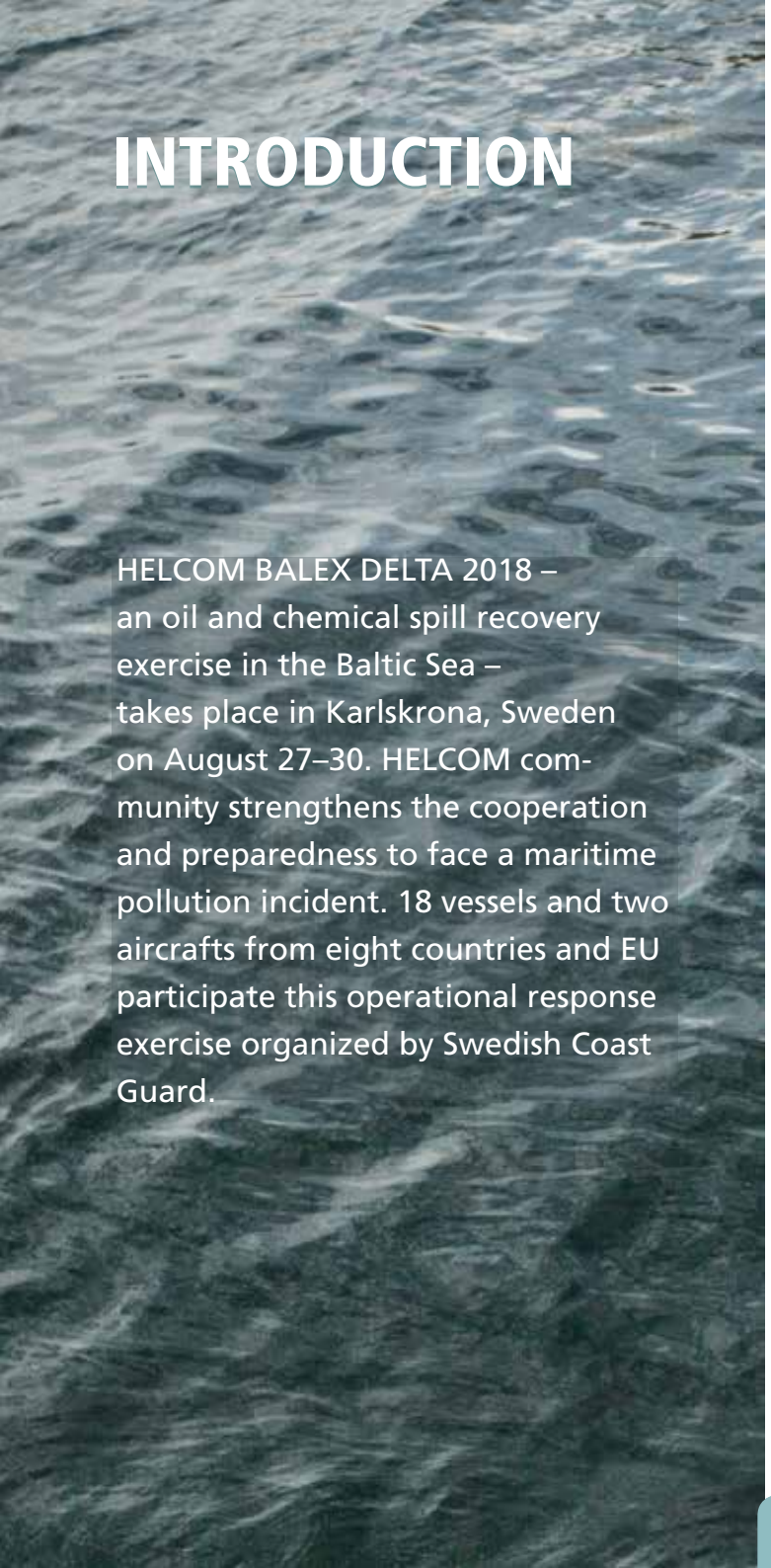
IN ROUGH WEATHER...

In rough weather, a cargo ship loses some containers carrying hazardous chemicals. Soon after that the ship hits the ground. More containers are lost. Some of them start to leak. A breach in the hull causes an oil leakage. Some of the spilled oil reaches the coastline, and so do drifting containers.
A large part of the shore is classified as environmentally important, and is now under threat. The entire region now faces substantial socio-economic loss.

WHAT TO DO?



HELCOM BALEX DELTA KARLSKRONA 2018



INTRODUCTION

HELCOM BALEX DELTA 2018 – an oil and chemical spill recovery exercise in the Baltic Sea – takes place in Karlskrona, Sweden on August 27–30. HELCOM community strengthens the cooperation and preparedness to face a maritime pollution incident. 18 vessels and two aircrafts from eight countries and EU participate this operational response exercise organized by Swedish Coast Guard.

483 days

By Therese Larsson
Swedish Coast Guard, Project Manager

483… 483 days. We started the BALEX DELTA 2018 project 1 May 2017 and from that day we have been planning the exercise. We have been preparing this exercise 483 days and it is finally time to set off! I hope you are as excited as I am!

When you read this you have probably just arrived to my beautiful home town Karlskrona and are looking forward to the upcoming days. I hope you will find the exercise interesting and valuable for your professional work and hopefully also in the planning of similar exercises in the future. There are more than 30 different nationalities present at the exercise. I would like to encourage you all to take the opportunity to learn from one another, to get to know each other's organizations, learn how others have solved problems that you might struggling with and share your best practice.

BALEX DELTA 2018 is co-financed by the European Union and will cover several different elements, such as combating both chemical and oil at sea as well as on shore response. Since both actors at sea and on shore will be trained in this exercise, cooperation across borders, not only country borders but also administrative boarders between different actors within the same country, will be tested. It is extremely important to have an established and well-organised cooperation between all involved actors when the accident happens!

BALEX DELTA exercises have taken place each year since late 1980s and it is the HELCOM Contracting Parties i.e. the Baltic Sea states who´s taking turn in hosting the exercise. The cooperation between the Baltic Sea coastal states within the Helsinki Convention is unique and has been proved many times during the planning of this exercise. I would like to say THANK YOU to all that have contributed to the planning and preparing of the BALEX DELTA 2018.

BALEX DELTA 2018

Readying the Baltic Sea region for an international response to a major maritime accident

The Baltic Sea is one of the busiest waterways worldwide. At any given time, about 2000 vessels are sailing in its waters – mainly tanker and cargo ships. Add to that rapidly changing weather, harsh winters with sea ice, narrow passages, sandbanks and a rugged and rocky shoreline, and the conditions are set for accidents to happen at any time. Due to the geography of the Baltic Sea, an incident is also most likely to affect several coastal nations at once, even more so in the case of larger oil or chemical spills. Consequences for both the very fragile Baltic Sea's marine and coastal ecosystem as well as human and economic activities could be severe.

Thus, to contain and minimize the effects of maritime accidents, the entire region needs to be well prepared for rapid reaction, and be ready for a concerted international response. The BALEX DELTA response exercises do just that.

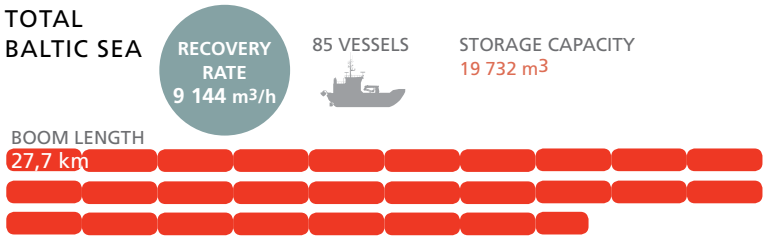
Already in 1977, the Baltic Sea nations signatories to the Convention on the Protection of the Marine Environment of the Baltic Sea – in short, the Helsinki Convention – set the premises for intergovernmental response cooperation and established an intergovernmental working group, today's HELCOM Response Working Group.

Since then, the region's ability to respond to maritime accidents has been continually reinforced. In 1983, the HELCOM Response Manual was first compiled, containing detailed information and procedures on how to handle different maritime accidents at the regional level.

To test the manual in practice, and under the framework of the Helsinki Convention, the Baltic Sea countries decided to carry out regular drills rehearsing different accident scenarios, and ranging from table-top and communication simulations to operational "hands-on" maneuvers.

Under the convention's framework, the BALEX DELTA maritime accident response exercises have been organized every year for nearly 30 years, testing communication and response procedures as well as operational equipment and techniques. During operational exercises, the accident scenario is partly unknown to the participants to include an effect of surprise and be as close as possible to real conditions.

Benefitting from special funding from the EU totaling to EUR 950 000, this year's exercise is much larger than in previous years. The BALEX DELTA 2018 exercise will mobilize about 500 personnel from eight countries plus the EU. 18 maritime vessels, one aircraft, one helicopter and various clean-up tools will be deployed.



Recovery capacity of vessels and available booms in response vessels by HELCOM Contracting Parties all together.
Source: HELCOM Maritime Assessment, As reported to HELCOM in 2016

An exercise first, the BALEX DELTA 2018 includes rehearsing the response to both oil and chemical spills, as well as a table-top exercise on on-shore and oiled wildlife response. In addition, the program for the observers is more extensive than in previous editions, giving the observers the possibility to follow the exercise closer than ever before.

This year's scenario: the BALEX DELTA 2018 exercise simulates a cargo ship running aground in harsh weather, causing it to loose containers with chemicals and breach its hull. Chemicals to sea from damaged containers and oil from the fuel tanks leak into the sea. Some containers sink and some of them start drifting towards the rocky shore together with oil.

The exercise will take place off the coast in Karlskrona, Skåne County, Sweden. A large part of the shoreline is classified as environmentally important (Natura 2000 areas, sea bird sanctuaries), and is composed of rocky areas and small cliffs, making this are particularly relevant for the BALEX DELTA exercise.

This booklet serves as your guide to the exercise, containing a wealth of background information about the BALEX DELTA 2018. It also encompasses general information about the event and Karlskrona, for you to find your way around the different venues and to ensure your stay is as pleasant as possible.

Enjoy the BALEX DELTA 2018!

Aims and objectives

Under the framework of the Helsinki Convention it is stated that the BALEX DELTA is an operational exercise. 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 cooperation between combatting units (including the combatting equipment) of the Contracting Parties. 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 overall objective with the BALEX DELTA 2018 exercise is to train and improve the response capacity and the mutual understanding of at sea and on the shore actors, in a national and a international three-day exercise. Methods and resources from HELCOM and EU CPM will be employed to combat a complex oil and chemical spill at sea, also polluting the shore.

Further the aims are:

To improve the response capacity by:

- Enhancing and supporting cooperation between maritime response actors, on all levels.
- Implementing and improving common operational procedures and methods.
- Establishing a common approach and coordination when coping with an international incident connected to hazardous and noxious substances.
- Testing new concepts and frameworks.
- Creating new learning opportunities built on lessons learned.
- Implementing learning opportunities to all partners.

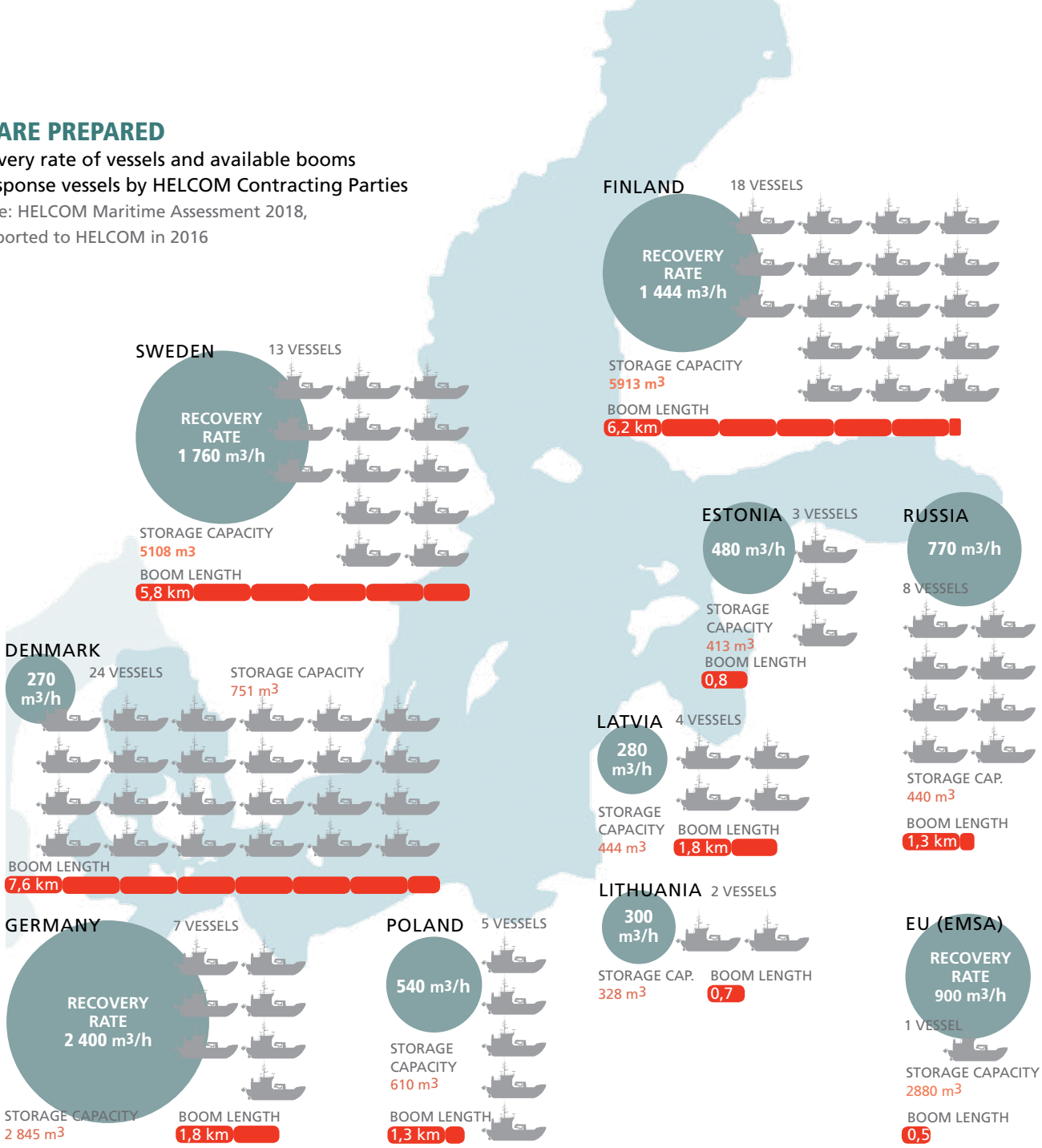
In addition, to improve the HELCOM RESPONSE Framework by:

- Implementing and further test the recently developed procedures and methods in the HELCOM Framework.
- Further developing an overarching exercise concept for at sea, on the shore and combined operations.
- Evaluation the new HELCOM SHORE Exercise framework, and provide recommendations on its further development in conjunction with the at sea framework and national Host Nation Support guidelines.

WE ARE PREPARED

Recovery rate of vessels and available booms in response vessels by HELCOM Contracting Parties

Source: HELCOM Maritime Assessment 2018, As reported to HELCOM in 2016



EXERCISE IN A NUTSHELL

Held every year since the early 90s, the BALEX DELTA exercises test yearly the Baltic Sea region's ability to respond to maritime incidents. The exercises are conducted under the umbrella of the Helsinki Convention that calls for its signatories – all Baltic Sea nations and the EU – to have the necessary operational capacity and skills to respond to any maritime incident at sea and affecting the shore.

The BALEX DELTA 2018 benefits from additional EU funding from DG Echo, allowing for a much larger scale than usual. The response to both an oil and chemical spill – at sea and on shore – will be tested, involving eight countries, 18 vessels, two aircrafts, and 500 exercise participants.

This year's exercise will simulate a cargo ship running aground in harsh weather, causing it to loose chemical containers and breach its hull. Chemicals from damaged containers and oil from the fuel tank leak into the sea. Some containers sink and some of them start drifting towards the rocky shore together with oil. A large part of the shoreline is classified as environmentally important, and is now under threat.

1

Alarm exercise

Testing the international lines of communication and alarm chain

Sweden, as host nation for, will test the international lines of communication and alarm chain. The notification exercise will be based on the scenario for the exercise at sea and the input to the table-top exercise regarding the on shore exercise.

At sea, this alarm chain will be tested with an increased realism compared with previous exercises and the HELCOM contracting parties are supposed to activate the chain handling a request for assistance at the national level.

2

On shore exercise

Response to the chemical and oil spill on shore

Skåne county board is responsible for the on shore exercise. This year the exercise will be in the form of a table top exercise. Together with the nerby municipalities and local and international authorities will be discussed how to organize the resources in the best way possible and minimize the effects on the environment.

Three major aims are to practice cooperation, learn the routines for international support, and implement the HELCOM manual for work on the beach.

3

At sea exercise

Response to the chemical and oil spill at sea

During a spill at sea, Swedish Coast Guard among with other participating authorities works to stop the leakage of oil and other harmful substances. They also try to prevent the spill from spreading and collect as much as possible from the water before it reaches the shore.

Efforts are also made to change the tasks of the participating units during the exercise, in order for personnel from all participating countries to gain as much experience as possible.

The objectives of the BALEX DELTA 2018 are to assess the Baltic Sea region's preparedness to maritime disasters, the technical and operational expertise in handling complex accidents at sea and on shore, and the interregional cooperation and coordination.

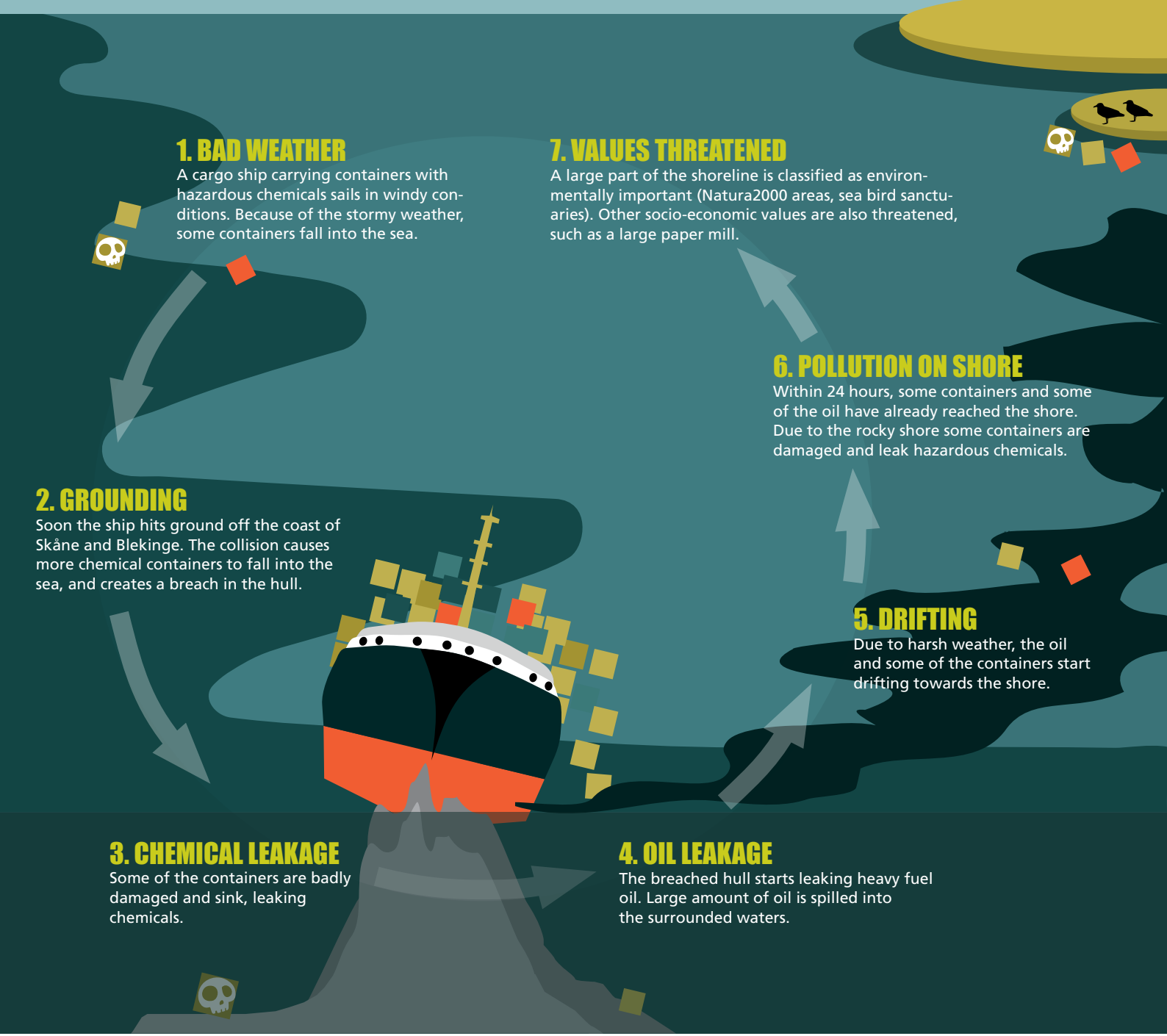
BALEX DELTA 2018: three exercise parts

The BALEX DELTA 2018 exercise is divided in three parts: alarm exercise, on shore exercise, and at sea exercise. The first phase of the alarm exercise, the pre-exercise, was already held in April 2018. The at sea exercise will be conducted as a full-scale exercise, and the on shore exercise as a table top exercise.

The BALEX DELTA includes at sea as well as on shore components. During the alarm exercise, it is therefore necessary to establish a communication between the national authority in charge of the at sea scenario and the one handling the on shore scenario.

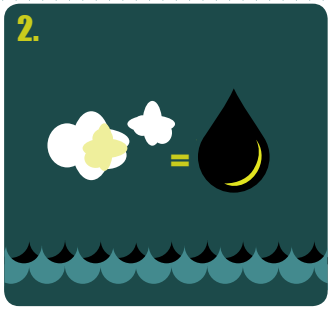
The on shore and the at sea exercise will only be linked at the start, because the on shore exercise has a longer timeline extending until next year, dealing with the long-term environmental consequences of the spill.

Exercise area and environmentally valuable areas close by

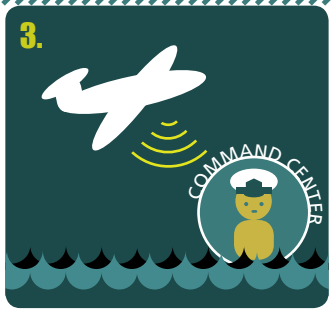


EXERCISE SCENARIO

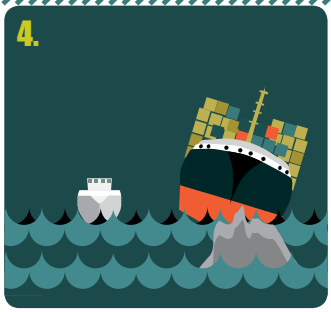
Exercise starts. Belos is anchored playing the vessel in distress. A container will be dropped into the sea close by.



Small amounts of popcorn to simulate the oil will be put into the sea.

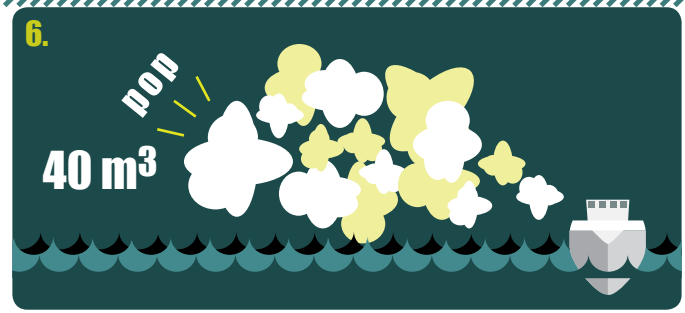


Aircraft KBV 501 is patrolling and reporting the oil spill to the command center.



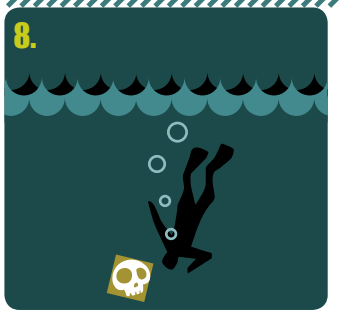
Small boat goes to check Belos. Command center sends vessels to collect the oil.

Helicopter takes off from Ronneby, lands on Turva and drops off two MIRG-teams.

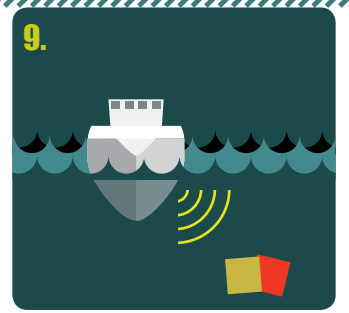


"The popcorn boat" KBV 302 releases first big load of popcorn (4 x 10 m^3 loads, total 40 m^3). Vessels with booms, skimmers and sweeping arms start the oil recovery work.

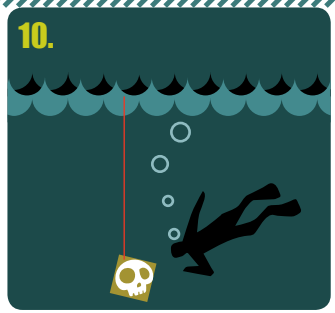
Chemical combatting with leaking container on Belos repeated by different countries.



Chemical response exercise continues with diving to the sunken containers.



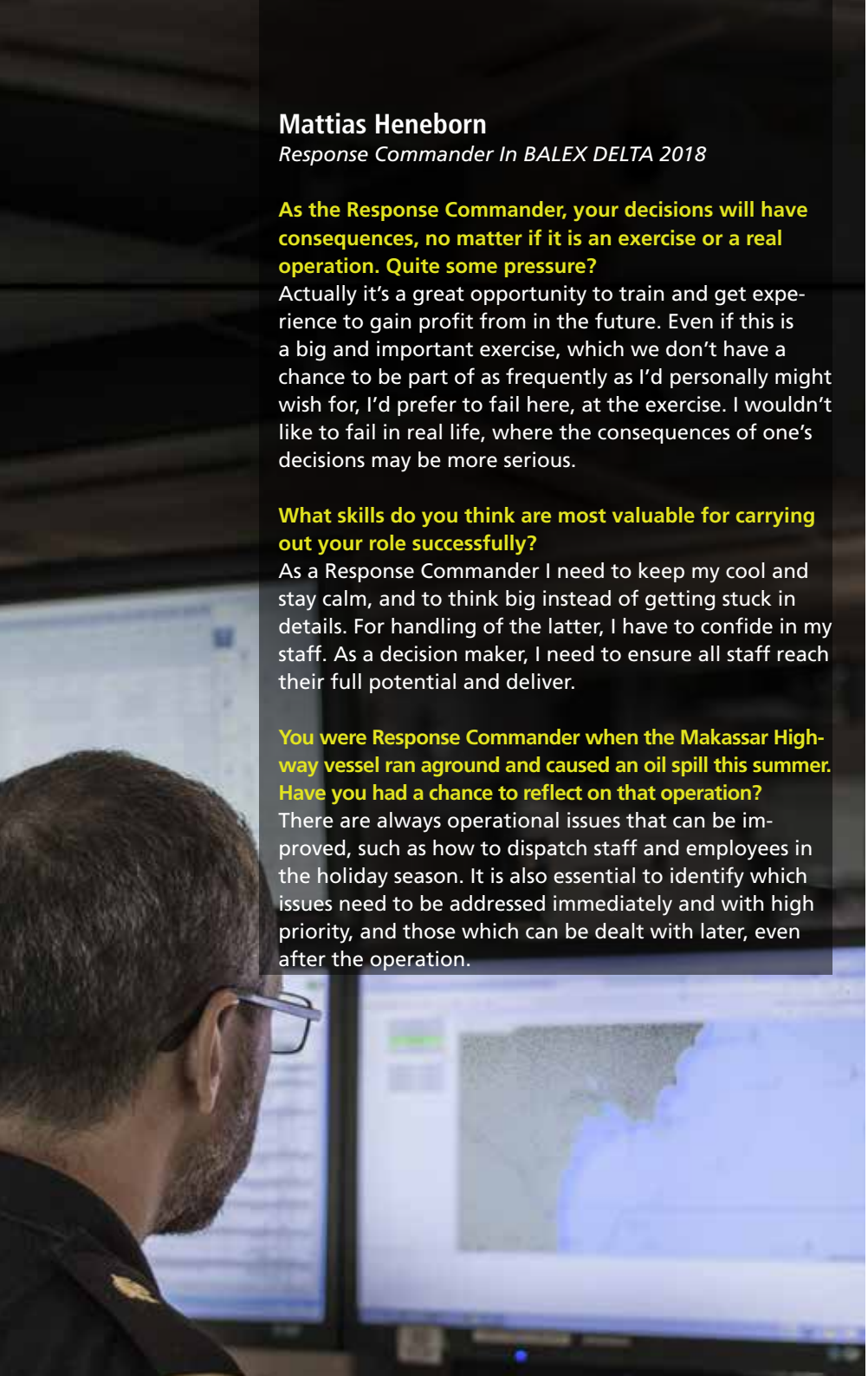
Turva starts sidescanning and searching for the containers dropped along the way.



Lifting the nearby container. Lines are attached by divers.

Last popcorn release and oil recovery work before the exercise ends.

ACTION AT SEA



Mattias Heneborn
Response Commander In BALEX DELTA 2018

As the Response Commander, your decisions will have consequences, no matter if it is an exercise or a real operation. Quite some pressure?
Actually it's a great opportunity to train and get experience to gain profit from in the future. Even if this is a big and important exercise, which we don't have a chance to be part of as frequently as I'd personally might wish for, I'd prefer to fail here, at the exercise. I wouldn't like to fail in real life, where the consequences of one's decisions may be more serious.

What skills do you think are most valuable for carrying out your role successfully?
As a Response Commander I need to keep my cool and stay calm, and to think big instead of getting stuck in details. For handling of the latter, I have to confide in my staff. As a decision maker, I need to ensure all staff reach their full potential and deliver.

You were Response Commander when the Makassar Highway vessel ran aground and caused an oil spill this summer. Have you had a chance to reflect on that operation?
There are always operational issues that can be improved, such as how to dispatch staff and employees in the holiday season. It is also essential to identify which issues need to be addressed immediately and with high priority, and those which can be dealt with later, even after the operation.

ALARM EXERCISE
– BALEX BRAVO

Sweden, as host nation for BALEX DELTA 2018, will test the international lines of communication and alarm chain. The notification exercise will be based on the scenario for the exercise at sea and the input to the table-top exercise regarding the on shore exercise. In this, national, HELCOM and EU host nation support routines will be used and tested. The goals are to assure the alarm and response routines, and to confirm the ability to request and prepare for requesting international resources.

At sea, this alarm chain will be tested with an increased realism compared with previous exercises and the HELCOM Contracting Parties are expected to activate the chain handling a request for assistance at the national level. This is to make sure the alarm exercise will be more than only an communication exercise.

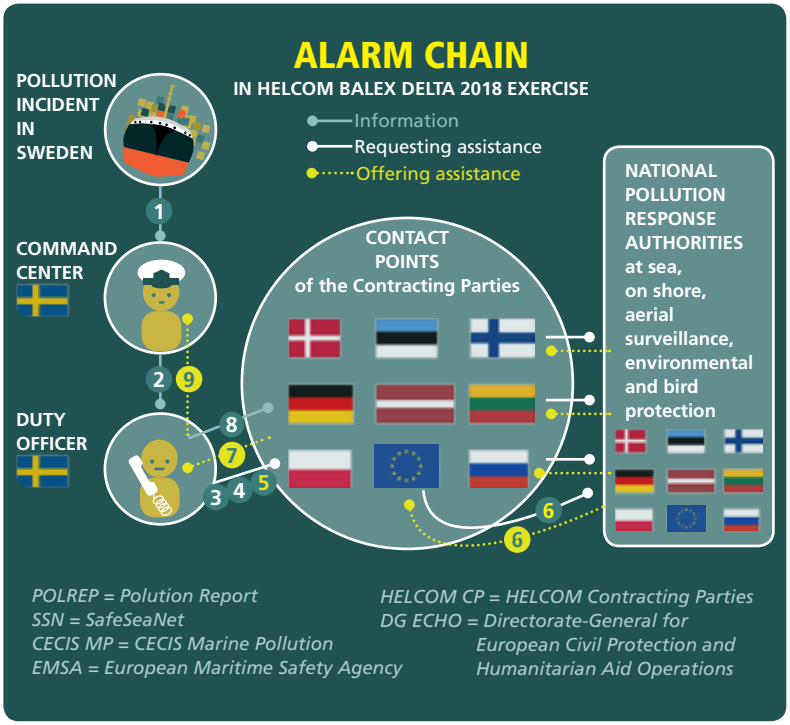
Because BALEX DELTA includes components at sea as well as on shore it is necessary to establish a communication between the national authority in charge of the at sea scenario (Swedish Coast Guard) and the national authority in handling the on shore scenario Swedish Maritime Contingency Agency (MSB).

The international alarm procedure
between Sweden and rest of the HELCOM Contracting Parties

1 Swedish Coast Guard **Command Center** in Gothenburg receives **MAYDAY** message from ship: ship has leakage and is polluting the sea.

2 The alarm goes to the **Duty officer** of Swedish Coast Guard.

3 Duty officer prepares the **first alert** (POLREP form and SSN) to inform other HELCOM Contracting Parties (CPs) (including DG ECHO and EMSA and national organisations such as MSB, County Admin etc.) that incident has happened and that pollutant has leaked or that the risk for leak is big.



4 The **second POLREP** is sent giving further information on what has happened – this comes when the SCG has been able to gather some further information on the incident (by radio contact, aerial surveillance, by governmental vessels on site etc.)

5 Yet **third POLREP** message is sent when the Swedish authorities has assessed the situation and realizes that its own equipment is not enough to respond to the oil / chemical that leaked and polluted sea and shore. Then Sweden sends a **request for assistance** – this can have one or more elements of following: at sea oil response, at sea chemical response, aerial/satellite surveillance, on shore response and oiled wildlife response. The duty officer sends the request of assistance to HELCOM Contracting Parties using CECIS MP as well as the POLREP form.

6 The HELCOM CPs that receive this message will activate the means that they **nationally** have in order to assess what **resources** are **available** to be sent for as assistance, when the assistance can be dispatched, what is the cost per unit. With this information the offer for assistance can be made (process in authority level OR high level political decision depending on the national alarm chain of each HELCOM CP).

7 The **offer for assistance** is sent from Contact Points to the Duty officer of the requesting state using CECIS MP and POLREP form.

8 Swedish authorities either **accept or reject** each offered resource.

9 The duty officer informs the response commander in the command center about the **assistance accepted**.

Per Drysén

Crisis and Preparedness Coordinator, Municipality of Olofsström

What will you be doing in BALEX DELTA?

In a real world operation I'm responsible of presenting how the crisis might evolve and the possible scenarios that we need to take into account. This is a big challenge – to predict how the situation might unfold and change, and plan accordingly for the next steps.

What does it take for a municipality to deal with an oil spill like the one in BALEX DELTA?

A municipality needs to have a general crisis plan with clearly defined channels for intra-agency cooperation. In these kinds of incidents, we normally join the process at a later stage. But to take adequate actions, we need to get things going on early, such as preparations for cleaning up the affected shores. At shore, staffing the cleaning teams is important, together with the neighbouring municipalities. We also need to keep track of all costs in order to claim reimbursement.

What is most important to complete the mission?

Knowledge, awareness and experience. As simple and complex as that.

ON SHORE EXERCISE

An oil or chemical spill reaching the shore can be one of the worst environmental disasters to a country. Its clean-up demands enormous resources in personnel and material, and takes a long time to handle. Oil spills affect the environment for many years, as seen with the Exxon Valdez, Deepwater Horizon and Prestige incidents.

It is therefore crucial that the local, regional and national authorities are prepared to handle this kind of accident in the best way possible through risk assessments, planning and training.

Since the majority of ships entering and leaving the Baltic Sea are passing Skåne and Blekinge County, these areas are at high risk of an oil spill reaching their shore.

This is why the County Administrative Board (CAB) of Skåne, Sweden is taking part in the BALEX DELTA 2018 exercise, to prepare the responsible authorities in the best way possible for such an eventuality.

In the BALEX DELTA 2018 setup, we – at the Skåne county board – are responsible for the on shore exercise. This year, instead of taking place on the actual shoreline as in previous editions, it will be in the form of a table top exercise (TTX).

We will invite the municipalities in Blekinge and East Skåne County, the County Administrative Board of Skåne and Blekinge, the Coast Guard, MSB, Environmental Protection Agency, Agency for Marine and Water Management, Armed Forces and NGOs providing support for oiled wildlife.

Together, we will discuss how we can organize the resources in the best way possible and minimize the effects on the environment.

Much of the work will be to prioritize which areas to protect and which to sacrifice. A large part of the shoreline is protected by Natura 2000 EU directives, but it will be impossible to safeguard the entire coastline.

A tool for this is the Digital Environment Atlas, a GIS system where protected areas are visible.

The TTX scenario will simulate pollution incident of such magnitude unable to be handled by Sweden alone. We therefore will have to ask for international support.

The shore exercise will only be linked to the sea exercise at the start. It will then separate from it because the shore exercise has a longer timeline stretching until next year, dealing with the long-term environmental consequences of the spill.

During the exercise, we will mix discussions with lectures from HELCOM, DG ECHO and MSB to give the participants the chance to learn as much as possible.

Our major aims are to 1) practice cooperation between the municipal and county levels, 2) learn the routines for international support from HELCOM and the EU, and 3) implement the HELCOM manual for international co-operation on the beach.

In addition, the Swedish Coast Guard and the Swedish Civil Contingencies Agency will demonstrate their resources for handling an oil spill on the shore. There will also be a demonstration of equipment for cleaning oiled wildlife.

by Lars Persson
from the County Administrative Board of Skåne,
in charge of the BALEX DELTA 2018 Shore exercise

Jonas Holmstrand

Swedish Coast Guard and
BALEX DELTA 2018 Lead of DISTAFF

How has the BALEX DELTA 2018 planning process been?
This has not been an easy task. New questions and decisions appear continuously, from many different sides. This leads to planning challenges. Many answers and solutions come in late in the process. But all the open questions and reflection around them eventually turn into a great source of knowledge and lessons learned.

The shore exercise – has it been difficult to include?
We took the shore exercise into account from the very beginning. In particular, it guided the choice of the exercise area: the oil and chemical spill needed to trigger a major challenge for the response both at shore and at sea. Otherwise we wouldn't be able to reach the objectives of the exercise.

The Swedish Coast Guard has had two interventions this summer, responding to ships running aground. One even caused an oil spill. How did that affect BALEX DELTA?
On one hand we lost some valuable planning time. On the other, with the accident involving the oil spill, we got a strong confirmation that we do have a realistic training scenario. What we train at BALEX DELTA is actually what we will have to master in real life.

AT SEA EXERCISE

The main purpose of the at sea exercise is to test and train the staff functions and the cooperation between combatting units of the Contracting Parties (including the combatting equipment). 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 overall objective with the BALEX DELTA 2018 exercise is to train and improve the response capacity and the mutual understanding of at sea and on the shore actors, in a national and a multilateral exercise. Methods and resources from HELCOM and EU CPM will be employed to combat a complex oil and chemical spill at sea, also polluting the shore.

Response to spills

Swedish Coast Guard should have the ability to combat oil spills of up to 10 000 tonnes at sea and work towards improving this ability. In particular, the Coast Guard should contribute to reducing spills of oil or other harmful or noxious substances from ships.

During a spill at sea, the Coast Guard works to stop the leakage of oil and other harmful substances. We should also prevent the spill from spreading and collect as much as possible from the water before it reaches the shore.

Chemical response

The role of the Swedish Coast Guard in chemical response is to 1) manage chemical spills from ships to the water, 2) manage dangerous packaged goods, 3) store and transfer bulk chemicals in the vicinity of ship accidents, 4) recover containers with dangerous goods, and 5) recover released chemicals under the water surface or on the seabed.

by Jonas Holmstrand
Swedish Coast Guard,
BALEX DELTA 2018 Lead of DISTAFF

MIRG

Maritime Incident Response Group

Maritime Incident Response Group (MIRG) are used to deal support regular security crew with fires and chemical incidents at sea. MIRG is called when the crew of the vessel no longer can handle the situation. A MIRG team consists of land based firefighters. The members of a MIRG-team are trained to deal with fires and chemical incidents at sea which requires knowledge of how a ship is constructed in addition to the "ordinary" tasks of the firefighters.

The MIRG-team can be transported by helicopter or by another ship (i.e coast guard vessel) to the vessel in distress. The MIRG-team will add knowledge as well as manpower to the crew of the ship in distress which are trained to handle incidents on board the specific ship.

A MIRG-team can consist of 5-6 firefighters with at least one commander. The team can be used for Search and Rescue (SAR) or environmental response to minimize the consequences. Several MIRG-teams can cooperate during the same incident sometimes teams from different countries are involved. The MIRG-teams can also cooperate with first responders from authorities responsible for SAR and/or environmental response.

OIL RESPONSE METHODS AND EQUIPMENT
On shore

Shoreline flushing
This method uses water to remove or refloat stranded oil, which allows it to be more easily recovered as a slick on the water. Old experiences shows that you have to be very careful about water pressure and temperature to avoid causing more harm to the shoreline.

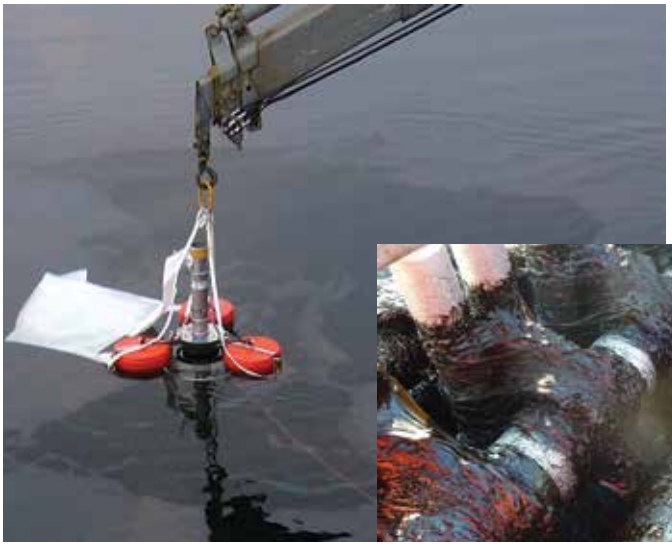
Vacuums
Large industrial vacuums can suction oil off the beach or shoreline vegetation.

Sorbents
These specialized materials, which have different forms such as square pads or long booms, are engineered to absorb oil but not water.

Booms/Beach booms
These long, floating barriers are used to keep spilled oil off the beach, or to collect it after being flushed from the beach into the immediate waters.

Manual recovery
This method involves using good old buckets, shovels, rakes, and other hand tools to remove oil from shorelines. It is very labour-intensive but is often a primary tool for a response when access for larger equipment is impractical, such as on remote beaches or those without road access.

Mechanical remover
When access is possible and won't cause too much damage to the shoreline, responders may bring in heavy machinery, such as back hoes or front-end loaders, to scoop up and haul away oiled materials in bulk.



OIL RESPONSE METHODS AND EQUIPMENT
At sea

Booms
Oil booms are floating barriers used to prevent drifting of the floating oil. With the help of oil booms, the extent of the oil spillage can be reduced effectively. There are principally two types of oil booms, foam filled boom and air inflatable booms.

Sweeping arms
Sweeping arms are floating constructions that are pulled alongside a vessel. When the vessel is moving forward, the oil accumulates in front of the arms and recovered to ships recovery tanks by fixed or removable skimmers. Sweeping arm is an effective technique in recovering large quantities of oil, even in severe weather conditions.

Skimmer
Skimmers represent a variety of mechanical equipment used to physically remove floating spills from the water surface. Many designs use a “conveyor belt”, placed to carry the spilled oil into a reservoir where it is collected for processing and recovery. Other skimmer technologies use suction to remove spilled material, while weir skimmers use gravity to gather skimmed oil into underwater storage tanks. Skimmers are generally effective only in calm water, and suction skimmers are susceptible to clogging by floating debris. The skimmer brushes that are build in the vessel hull are not that weather sensitive.

CHEMICAL RESPONSE METHODS AND EQUIPMENT
At sea

In case of a chemical or hazardous and noxious substance (HNS) incident at sea, the first step is to identify if any persons have been injured and need assistance. Then, a risk assessment procedure is launched, identifying the leaked substances and scope of the incident. If there is no threat for the intervention team, response actions are engaged.

Chemical recovery vessels

Chemical recovery vessels are designed to respond to incidents involving chemicals, such as the Finnish vessel Turva or Swedish vessel KBV 003. They carry detection systems for different substances. Most parts of these ships are gastight, meaning that they can safely sail into and operate in contaminated areas.

Indicator instruments

Indicator instruments can analyse a wide array of HNS. Commonly used are combi-instruments that can detect a variety of gases and determine their levels and danger potential.

Robots and underwater instruments

The chemical recovery vessels usually carry additional equipment to help locate submerged items such as sunken vessels and containers. Some of these instruments are the side scan sonar (SSS) that is used for underwater search activities and the remote underwater vehicle (ROV) that also has a claw arm for lifting items from underwater.

Divers

The divers are a key element in the response process. They have extensive training in both underwater diving, firefighting on vessels and response to chemical incidents including sealing techniques to stop leaks. Part of their equipment are full body suits that are resistant to a variety of chemicals.

VESSELS AND AIRCRAFTS

The thickest part of an oil slick can be detected from the aircraft.

There are altogether 18 vessels and two aircrafts from 8 countries and EU participating this exercise.

Next four pages will introduce the vessels with details of the ship itself, response equipment and amount of crew on board during the exercise.

Aerial surveillance

Aerial surveillance plays an important role in guiding the recovery vessel into the thickest part of the slick so that the oil can be recovered as quickly and efficiently as possible, and its drifting to the shore can thus be prevented. It is impossible to visually estimate from the vessel where the thickest parts of the slick are, but the infrared camera in the aircraft can detect them easily.

Due to inherent characteristics of oil, about 90 % of the oil in a slick is concentrated on an area that is only about 10 % of the total area of the spill.

Aeroplane KBV 501

COUNTRY SWEDEN
ORGANISATION Swedish Coast Guard
ROLE IN THE EXERCISE Aerial surveillance

Helicopter 001 SE-JRH AW139

COUNTRY SWEDEN
ORGANISATION
Swedish Maritime Administration
ROLE IN THE EXERCISE
Transportation of the MIRG-teams

Belos, a Swedish military ship, is playing the vessel in distress in the exercise.

VESSELS PARTICIPATING

And the equipment vessels have with them in

HELCOM BALEX DELTA 2018

GUNNAR SEIDENFADEN

COUNTRY DENMARK
HOME PORT Korsør
IMO NUMBER 7924073
ORGANISATION
Royal Danish Navy
VESSEL TYPE
Oil pollution fighter

LENGTH 56 m
BREADTH 12,3 m
DRAUGHT 4,6 m
CREW 16

EQUIPMENT

BOOM LENGTH
600 m

SKIMMER Belt Skimmer

SWEEPING ARM Terminator, Destroil 250, Ro- Sweep, Grappe

SPECIALITY Able to handle high viscosity oil. Fire fighting capacity.

RECOVERY RATE
60 m^3/h

311 m^3
STORAGE CAPACITY

MHV 802 CARINA

COUNTRY DENMARK
HOME PORT Brøndby
ORGANISATION
Danish Naval Home Guard
VESSEL TYPE
Rescue/Salvage Ship

LENGTH 23,7 m
BREADTH 5,6 m
DRAUGHT 2 m
CREW 12

EQUIPMENT

–

SPECIALITY Boom carrier. Towing capacity 9 tonnes.

MHV 851 SABOTØREN

COUNTRY DENMARK
HOME PORT Randers
ORGANISATION
Danish Naval Home Guard
VESSEL TYPE
Naval Home Guard Cutter

LENGTH 27,2 m
BREADTH 5,6 m
DRAUGHT 2,5 m
CREW 14

EQUIPMENT

BOOM LENGTH
320 m

SPECIALITY Boom carrier. Towing capacity 9 tonnes.

MHV 906 FÆNØ

COUNTRY DENMARK
HOME PORT Helsingør
ORGANISATION
Danish Naval Home Guard
VESSEL TYPE
Naval Home Guard Cutter

LENGTH 27,2 m
BREADTH 5,6 m
DRAUGHT 2,5 m
CREW 11

EQUIPMENT

BOOM LENGTH
320 m

SPECIALITY Boom carrier. Towing capacity 9 tonnes.

MHV 911 BOPA

COUNTRY DENMARK
HOME PORT Dragør
ORGANISATION
Danish Naval Home Guard
VESSEL TYPE
Naval Home Guard Cutter

LENGTH 27,2 m
BREADTH 5,6 m
DRAUGHT 2,5 m
CREW 10

EQUIPMENT

BOOM LENGTH
320 m

SPECIALITY Boom carrier. Towing capacity 9 tonnes.

KINDRAL KURVITS

COUNTRY ESTONIA
HOME PORT Tallinn
IMO NUMBER 9588770
ORGANISATION Estonian Police and Border Guard
VESSEL TYPE Multipurpose vessel with oil recovery capability

LENGTH 63,9 m
BREADTH 10,2 m
DRAUGHT 4,2 m
CREW 16

EQUIPMENT

BOOM LENGTH
600 m

SKIMMER Lamor brush skimmer

SPECIALITY Towing capacity of 40 tonnes. Fire fighting capacity.

RECOVERY RATE
200 m³/h
100 m³
STORAGE CAPACITY

NORDEN

COUNTRY EU
HOME PORT Malmö
IMO NUMBER 9346641
ORGANISATION European Maritime Safety Agency – EMSA
VESSEL TYPE Tanker with oil recovery capability

LENGTH
BREADTH
DRAUGHT
CREW

EQUIPMENT

BOOM LENGTH
500 m

SKIMMER High-capacity skimmer

SWEEPING ARM Two Lamor rigid sweeping arms (12m)

SPECIALITY Slick detector

RECOVERY RATE
900 m³/h
2 880 m³
STORAGE CAPACITY

YOR HYLJE

COUNTRY FINLAND
HOME PORT Kirkkonummi
IMO NUMBER 8006804
ORGANISATION
Finnish Navy
VESSEL TYPE
Oil recovery vessel

LENGTH 64,3 m
BREADTH 12,5 m
DRAUGHT 3 m
CREW 25

EQUIPMENT

BOOM LENGTH
1 600 m

SWEEPING ARM Two sweeping arms (35 m sweeping width)

SPECIALITY Able to handle high viscosity oil. Lightering

RECOVERY RATE
96 m³/h
900 m³
STORAGE CAPACITY

OPV TURVA

COUNTRY FINLAND
HOME PORT Kirkkonummi
IMO NUMBER 9650377
ORGANISATION
Finnish Border Guard
VESSEL TYPE Offshore patrol vessel with oil and chemical response capabilities

LENGTH 95,9 m
BREADTH 17,4 m
DRAUGHT 5,5 m
CREW 20

EQUIPMENT

BOOM LENGTH
800 m

SWEEPING ARM Two sweeping arms (45 m sweeping width)

SPECIALITY Vessel is outfitted for service in a hazardous atmosphere. Able to handle high viscosity oil. Fire fighting capacity. Lightering.

RECOVERY RATE
180 m³/h
1 200 m³
STORAGE CAPACITY

ARKONA

COUNTRY GERMANY
HOME PORT Stralsund
IMO NUMBER 8646379
ORGANISATION Waterways and Shipping administration
VESSEL TYPE Emergency tug with oil and chemical response capabilities

LENGTH 69,2 m
BREADTH 15 m
DRAUGHT 4,5 m
CREW 16

EQUIPMENT

BOOM LENGTH
800 m

SKIMMER Lamor brush skimmer
SWEEPING ARM Two sweeping arms (15m)
SPECIALITY Equipped with detection, recovery and storage devices for hazardous substances. Emergency towing capacity 40 tonnes.

RECOVERY RATE
640 m³/h
400 m³
STORAGE CAPACITY

A90 VARONIS

COUNTRY LATVIA
HOME PORT Riga
ORGANISATION Latvian Naval Forces
VESSEL TYPE LVNS

LENGTH 59,5 m
BREADTH 11,12 m
DRAUGHT 3,69 m
CREW ??

EQUIPMENT

BOOM LENGTH
800 m

SKIMMER Free-floating skimmer
SWEEPING ARM small flexible sweeping arms included in LAMOR advancing system
SPECIALITY Able to handle high viscosity oil. Lightering.

RECOVERY RATE
160 m³/h
30 m³
STORAGE CAPACITY

SAKIAI

COUNTRY LITHUANIA
HOME PORT Klaipeda
IMO NUMBER 8727721
ORGANISATION Lithuanian Navy
VESSEL TYPE SAR/ Oil recovery

LENGTH 56,4 m
BREADTH 10,5 m
DRAUGHT 4,65 m
CREW 17

EQUIPMENT

BOOM LENGTH
400 m

SKIMMER LAMOR Free floaing brush skimmer and DESMI TERMINATOR skimmer

SPECIALITY Able to handle high viscosity oil. Fire fighting capacity. Lightering.

RECOVERY RATE
200 m³/h
228 m³
STORAGE CAPACITY

KAPITAN POINC

COUNTRY POLAND
HOME PORT Gdynia
IMO NUMBER 9072290
ORGANISATION Maritime Search and Rescue Service
VESSEL TYPE Multipurpose rescue vessel with oil response capability

LENGTH 53,37 m
BREADTH 13,6 m
DRAUGHT 4,6 m
CREW 12

EQUIPMENT

BOOM LENGTH
600 m

LAMOR system

SPECIALITY Able to handle high viscosity oil. Fire fighting capacity. Lightering.

RECOVERY RATE
280 m³/h
516 m³
STORAGE CAPACITY

KBV 003 AMFITRITE

COUNTRY SWEDEN
HOME PORT Karlskrona
IMO NUMBER 9380465
ORGANISATION
Swedish Coast Guard
VESSEL TYPE Combination vessel with oil and chemical response capabilities

LENGTH 81,2 m
BREADTH 16 m
DRAUGHT 5,5 m
CREW 14

EQUIPMENT

BOOM LENGTH
600 m

SKIMMER Free-floating skimmers

SPECIALITY Equipped to handle and storage hazardous chemical substances. Decontamination station. Diving platform. Emergency towing capacity 100 tonnes.

RECOVERY RATE
400 m³/h

1 080 m³
STORAGE CAPACITY

KBV 033

COUNTRY SWEDEN
HOME PORT Oskarshamn
IMO NUMBER 9536595
ORGANISATION
Swedish Coast Guard
VESSEL TYPE Environmental protection ship

LENGTH 49,9 m
BREADTH 10,5 m
DRAUGHT 4 m
CREW 7

EQUIPMENT

BOOM LENGTH
400 m

SKIMMER Two built in belt skimmers

SWEEPING ARM Two sweeping arms (28m)

SPECIALITY Divers equipped to handle hazardous chemical substances. Decontamination station. Diving platform. Towing capacity 15 tonnes.

RECOVERY RATE
80 m³/h

260 m³
STORAGE CAPACITY

KBV 302

COUNTRY SWEDEN
HOME PORT Karlskrona
ORGANISATION
Swedish Coast Guard
VESSEL TYPE
Law enforce

LENGTH 20 m
BREADTH 4,7 m
DRAUGHT 1,2 m
CREW 4

EQUIPMENT

BOOM LENGTH
25 m

ROLE IN THE EXERCISE Popcorn delivery boat. Not part of the exercise.

KBV 314

COUNTRY SWEDEN
HOME PORT Malmö
ORGANISATION
Swedish Coast Guard
VESSEL TYPE
Law enforce

LENGTH 26,5 m
BREADTH 6,2 m
DRAUGHT 1,5 m
CREW 4

EQUIPMENT

BOOM LENGTH
25 m

ROLE IN THE EXERCISE Patrol boat

BELOS

COUNTRY SWEDEN
HOME PORT Karlskrona
IMO NUMBER 8308288
ORGANISATION Swedish Navy
VESSEL TYPE Military ship

LENGTH 104,91 m
BREADTH 18,45 m
DRAUGHT 5,2 m
CREW 35

ROLE IN THE EXERCISE
Playing the vessel in distress

EXERCISE

PROJECT

Partner Meeting
10 May 2017
Malmö

Initial Planning Conf.
8–9 Nov 2017
Stockholm

Main Planning Conf.
23–24 Jan 2018
Malmö

Pre-exercise
Mar/Apr
2018

Final Planning Conf.
17–18 Apr 2018
Karlskrona

Alarm Exercise
early Aug
2018

Exercise
27–30 Aug 2018
Karlskrona

Phase 1: Launch | Phase 2: Planning | Phase 3: Pre-exercises | Phase 4: Exercise

After Action Review
13 Nov 2018
Germany

Final Presentation
HELCOM RESPONSE
2019

End of the Project
30 Apr 2019

...Phase 4 | Phase 5: Evaluation and learning

Two year EU project

The BALEX DELTA 2018 is a time-limited EU project. The two year project will run from 1 May 2017 to 30 April 2019.

Budget nearly 1 million euros

The project is run with a total budget of EUR 950 000, of which 85 percent is co-financed by the European Commission via DG ECHO's Civil Protection Mechanism Exercise Programme. Thanks to the contribution from the EU, this exercise can take a broader scope and include chemical and shore response in addition to oil spill response at sea.

Partners and their roles

Swedish Coast Guard: Lead Partner (Management, reporting and exercise planning) and at-sea exercise

County Administrative Board of Skåne: On-shore exercise and logistics

HELCOM: Publicity (and regular BALEX DELTA exercise arrangements)

MSB (Swedish Civil Contingencies Agency): Observers and VIP program

Polish Maritime Search and Rescue Service: Pre-exercise

SYKE (Finnish Environment Institute): Evaluation of the exercise and of the HELCOM exercise framework

SWEDISH COAST GUARD

Länsstyrelsen Skåne

MSB Swedish Civil Contingencies Agency

HELCOM

SAF

SYKE

FLAGSHIP

Co-funded by European Union Civil Protection

Project after the exercise

The Balex Delta 2018 runs for eight more months after the exercise and will thus end 30 April 2019. The results and experience from the exercise will be used and spread to a wider audience both in text as well as in events. Please follow the proceedings and finalization of the project and its results at http://balexdelta2018.helcom.fi

The EU and response to maritime incidents

Maritime incidents such as oil spills can have huge environmental and economic impact. To reinforce cooperation on maritime emergencies, the European Commission's Directorate General for Humanitarian Aid and Civil Protection (ECHO) and the European Maritime Safety Agency (EMSA) have concluded a new working arrangement. The agreement further enhances the coordination on marine pollution preparedness, monitoring and response.

The EU Civil Protection Mechanism enables a coordinated and coherent EU response by pooling resources that can be deployed when a disaster strikes. The Mechanism can also be activated during marine pollution emergencies, where it operates in close coordination with EMSA. The Agency contributes with emergency response services such as oil spill response vessels, maritime experts and satellite-based detection of oil pollution and vessels.

The new working arrangement paves the way for a more robust and effective European mechanism to respond to and better prepare for maritime disasters. Joining efforts in terms of technical and scientific cooperation and real-time information exchange will optimize the work of both in this area, and most importantly: contribute to better protecting people and environment in case of a maritime incident, accident or pollution.

BALEX DELTA 2018 is a flagship project

EU Strategy for the Baltic Sea Region (EUSBR)

EUSBSR was adopted in 2009. The Strategy is an agreement between eight EU Member States (Germany, Poland, Lithuania, Latvia, Estonia, Finland, Sweden and Denmark) and the European Commission to strengthen cooperation between the countries bordering the Baltic Sea in order to meet the common challenges facing these countries today. Some non-EU countries also participate in projects: Norway and Russia are often involved, Iceland and Belarus participate at times.

Policy Area Secure focus on protection from land-based emergencies, accidents and cross-border crime. Balex Delta 2018 is one of the PA Secure flagship projects and contributes to the PA Secure objectives to strengthen capacity to respond and to recover from major emergencies and accidents as well as to build up resilience and prevention towards emergencies and threats at the local level.

The flagship status enhances to reach a broader target group which is necessary due to the different elements in the exercise but also helps to visualize the essential work that is being done among the Baltic Sea countries in these kinds of exercises.

Key persons of the BALEX DELTA 2018

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Pär Bergman
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Evaluation – HELCOM Manual and the exercise

Evaluation is an important and integral part of BALEX DELTA 2018 and has two main strands: The evaluation of the HELCOM procedures and methods, and the evaluation of the exercise objectives and their fulfillment. The results from the evaluation will help HELCOM and the Contracting Parties to further develop the BALEX DELTA exercise format, including the exercise frameworks in the HELCOM manual, but also to develop the HELCOM procedures and methods regarding co-operation in response to marine pollution.

In order to ensure that the BALEX DELTA 2018 result in processes for learning and improving, there will be several post-exercise meetings where the results from the evaluation will be discussed and turned into recommendations to HELCOM RESPONSE.

There are two dedicated evaluation groups in the BALEX DELTA 2018. The first one is the HELCOM Exercise Evaluation Team (EET), which is stipulated in the HELCOM manual. It consists of marine pollution response experts with a deep understanding of the principles to be followed in operational co-operation on the Baltic Sea as well as of the HELCOM exercise framework. The experts come from the Contracting Party that host the exercise (Sweden) as well as from the Contracting Party hosting last year's exercise (Russia) and the Contracting Parties hosting the two coming exercises (Denmark and Estonia). The second group is the Project Evaluation Team (PET), consisting of evaluation experts. It is led by the project partner SYKE (Finnish Environment Institute) and supported by the Swedish Defence Research Agency (FOI).

The main responsibility of the EET is the evaluation of the operational and technical aspects of the exercise while the PET will focus on the methodological and principal aspects. The EET will e.g. evaluate the realism of the scenario and assess the overall capability and performance of the participants. The PET will focus on the fulfillment of the exercise aims and objectives and on the functionality of the HELCOM procedures, including the HELCOM exercise framework.

There are overlaps between the two evaluation teams and the PET is dependent on the EET for technical and operational assessments. The PET and the EET will work closely together in the exercise.

HELCOM Manual

To be found in www.helcom.fi

The HELCOM Manual on Co-operation in Response to Marine Pollution is applied by the Baltic Sea States in operational co-operation, surveillance activities and combatting exercises since 1983. The Manual consists of three Volumes:

Volume 1 – general oil and co-operation principles
dealing with oil response generally with co-operation in combatting marine pollution

Volume 2 – chemical spills
dealing with response to accidents at sea involving spills of hazardous substances and loss of packaged dangerous goods

Volume 3 – shore
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.

BACKGROUND

In the case of a major oil or harmful chemical spill in the Baltic Sea, international assistance from some or all Baltic coastal countries may be needed. The work for co-ordinated pollution preparedness and response takes place within the regular regional cooperation of HELCOM – Baltic Marine Environment Protection Commission.*

The HELCOM BALEX DELTA exercise has been conducted annually for nearly 30 years. The exercise is organized as a practical exercise of the response capability and alarm procedures of the Baltic Sea countries. The exercises are hosted by the Baltic Sea coastal countries with a rotation schedule.

In addition to the host, other countries regularly participate with their own response ships. Typically, 6–8 countries take part in the exercise, bringing the total number of vessels to 10–20. This makes the Baltic exercise one of the major multilateral spill exercises worldwide.

*The work is based on the 1974/1992 Helsinki Convention. A dedicated intergovernmental group was established in 1977 for this purpose, today called the HELCOM Response Working Group. The agreed-upon preparedness and response procedures are documented in the HELCOM Response Manual.

Monika Stankiewicz

HELCOM – Baltic Marine Environment Protection Commission, Executive Secretary

How do you see the Baltic Sea region's preparedness to maritime incidents?

The Baltic Sea is characterized by dense vessel traffic and high shipping activity. Incidents are therefore bound to happen. Unlike in some other parts of the world, in the Baltic Sea, the responsibility for response to maritime accidents lies within the countries. This means that the region has since long been well prepared for such eventualities. The operational skills are very high at the national level, and so is the interregional cooperation. The Baltic Sea is one of the best monitored seas in the world.

What is HELCOM's role in regards to response to maritime incidents?

HELCOM provides the framework for well-functioning regional cooperation and concerted response to incidents. For example, the HELCOM Response Working Group is an important platform for regional cooperation among countries. In addition, the HELCOM Response Manual regulates response mechanisms at the regional level. It has been thoroughly tested and stood the test of time. The manual is frequently updated, with the addition of an entire volume on response at shore in 2013 and the adoption of updates by the HELCOM members in 2018. Efforts to update the hazardous substances part of the manual are also underway.

In that context, how important are the BALEX DELTA exercises?

The BALEX DELTA exercises provide operational testing of response procedures under real world conditions. They keep the region ready and steady for any potential incidents. The exercises also provide important feedback to improve procedures. Besides, for EU waters, the exercises are a good opportunity to link and strengthen cooperation between other overlapping maritime incident response systems such as the Bonn agreement or the EU Civil Protection Mechanism.

What is special about this year's edition, the BALEX DELTA 2018?

This year is particularly relevant because of the scope of the exercise, simulating a major incident that requires different types of response: to an oil spill, to a chemical spill, both at sea and at shore. We appreciate the additional financial support from the European Union through DG Echo that made this possible.

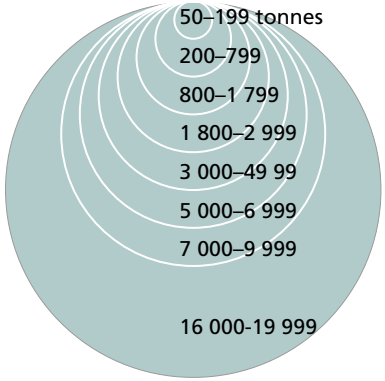
Your personal experience with BALEX DELTA?

Having been personally involved in the BALEX DELTA exercises since my beginnings at HELCOM as Professional Secretary in charge of maritime issues, I value the efforts and skills of the participants very much. I have fond memories of all BALEX DELTA exercises, especially the rowing competition!

LOCATION OF MAJOR OIL SPILLS IN THE BALTIC SEA 1969–2017

Spills over 50 tonnes

Source: HELCOM Maritime Assessment 2018



1970 M/T Pensa
Hailuoto, Oulu

1997 Hälsingland
Kalajoki

1984 M/S Eira
Vaasa, Kvarken

1972 M/T Pronto
Vaasa

1979 M/S Lloud Bage
Harmaja, Helsinki

1987 Thuntank
Gävleborg/Uppsala län

1985 M/S Sotka
Märket, Åland Sea

1987 M/S Antonio Gramsci
Vaarlahti, Porvoo

1975 M/S Altair
Mäntyluoto, Pori

1969 M/T Raphael
Emäsalo, Porvoo

1969 M/T Palva
Utö, Åland

1970 Esso Nordica
Pellinki, Porvoo

1969 S/S Eira
Jussarö, Hanko

1986 Thuntank 5
Gävle

1979
Antonio Gramsci
Åland*

1986 Jan
Aalborg Bight

1987 M/S Tolmiros
Tjörn

1981 José Marti
Dalarö, Stockholm

1980 Eva Oden
Gothenburg

2000 M/T Alambra
Gotlands/Stockholms län

1990 Volgoneft
Kalmar

1990 Västra Götalands /
Hallands län

1981 Sefir
Öland

1980 Furenäs
The Sound

2008 Proevestenen
The Sound

1998 Nunki
Kalundborg
Fjord

1987 Okba Bnou Nafia
Bunkeflostrand, Malmö

1995 Hual Trooper
Malmö

1981
Globe Asimi
Klaipeda

1996 M/S Maersk Euro Quinto
Vellinge

1984 Ibn Roch
The Great Belt

2003 Fu Shan Hai
Bornholm

2001 Baltic Carrier
Between Falsten and Rügen

1993 Jan Heweliusz
West of Rügen

*Antonio Gramsci incident happened in USSR, and the oil was drifted to Åland

INFORMATION

Information centres

Info points for exercise participants are located at two places: Hotel Scandic and the BALEX DELTA tent in Handelshamnen (see the map on page 35).

Contact persons:

- Anna Appelqvist
- Camilla Fälteke
- Annika Magnusson
- Helene Hasselgren
- Renate Rumstajn

Observers secretariat

OIbservers secretariat is located near the reception at Hotel Scandic Karlskrona and will be available from Monday noon throughout the exercise. A contact person will be available at all times.

Contact persons:

- Sonja Dobo, MSB
- Ulf Cervinus, MSB
- Arya Honarmand, MSB
- Mette Lindahl Olsson, MSB

Contact persons for the observer's programme:

- Arya Honarmand, MSB (moderator)
- Johan Genestig, SCG
- Fredrik Tyrén, SCG
- Mette Lindahl Olsson, MSB

Contact persons for the VIP programme:

- Julia Fredriksson, MSB
- Dan Thorell, SCG
- Jan Wisén, MSB

Clothing and identification

Marking vests

During the BALEX DELTA 2018 exercise, some functions will be wearing marking vests. The table beside gives an overview of what functions will be wearing vests, their role and the color of the vest.

FUNCTION	ROLE	VEST COLOR
EXERCISE STAFF	Directing staff provides an overall direction of the exercise including controllers and liaison officers	ORANGE
BALEX DELTA	Guide, EET, photo, video, press	WHITE

All personnel wearing marking vests are No-players.

Clothing

During field operation, suitable clothing should be used in accordance with the Safety Directive.

During the Opening ceremony business attire /daily uniform are suggested, while convenient and comfortable clothes are suggested for the excursion on Tuesday.

During the Barbeque mingle dress code is casual / daily uniform.

Badge

All participants in the Balex Delta 2018 exercise have their own badge for identification and access to exercise areas or restricted areas for some personnel. To avoid unauthorized persons entering the exercise area the participants must wear their badge at all times.

Exercise timetable 27–30 August 2018

SEA / SHORE / OBSERVERS / GUESTS / FOR ALL

Monday 27 August 2018

14.00	Arrival of the ships	5	Handelshamnen
17.00 – 18.00	Captains meeting	6	Naval Museum
17.00 – 18.00	Open ship public	5	Handelshamnen
Afternoon	Observers arriving		
17.00 – 17.45	Briefing and introduction to the exercise	1	Hotel Scandic
18.00–20.00	Opening ceremony (invited guests)	4	BALEX DELTA Tent
20.00–22.00	Open ship (for all)	5	Handelshamnen

Tuesday 28 August 2018

02.00	EXERCISE STARTS		
08.00 –	MIRG operation, container, hull inspection and oil operation		
08.00 – 15.30	Lectures, Oil and chemical response on shore	10	Bryggareberget
16.00–17.00	Equipment demonstration program	8	Stumholmen
07.30–14.00	Excursion by boat ride to exercise area at sea	9	Handelshamnen
14.00–17.00	Equipment demonstration program	8	Stumholmen
19.00	Social dinner for observers	1	Hotel Scandic

Wednesday 29 August 2018

14.00	EXERCISE ENDS		
08.00 – 14.00	Oil response		
16.00	Debriefing with shore particip.	6	Naval Museum
19.00	Barbeque mingle	4	BALEX DELTA Tent
08.00 – 15.00	Lectures	10	Bryggareberget
16.00	Debriefing with sea participants	6	Naval Museum
19.00	Barbeque mingle	4	BALEX DELTA Tent
08.30–12.30	Observers seminar	6	Naval Museum
14.00	End of Official observers program		
13.45 – 14.45	Strategic workshop	6	Naval Museum
19.00	Barbeque mingle	4	BALEX DELTA Tent

Thursday 30 August 2018

09.00 –	Rowing competition for crews, Everyone welcome! (for all)	4	Gathering at the BALEX DELTA Tent

Swedish local time

INFORMATION

Detailed programme for Observers

Monday 27th August 2018

14.00–	Secretariat open for registration of observers	Scandic Hotel
15.00–17.00	Mingle with coffee and snacks	Scandic Hotel
17.00–17.45	Briefing and introduction	Scandic Hotel
17.45	Bus ride to the Opening Ceremony (walk optional)	Scandic Hotel
18.00–20.00	Opening Ceremony	BALEX DELTA Tent
20.00–22.00	Open ship	Handelshamnen
21.30 and 22.00	Bus ride back to Scandic Hotel (walk optional)	Stops at First Statt, Clarion and Scandic hotels

Tuesday 28th August 2018

07.30	Bus transfer from Scandic Hotel to visit the exercise area by boat	Scandic Hotel, Exercise area at sea
14.00	The observers vessel returns to Karlskrona	
14.00–17.00	Equipment demonstration program	Stumholmen
16.30 and 17.00	Bus ride back to Scandic Hotel (walk optional)	Stops at First Statt, Clarion and Scandic hotels
19.00	Social dinner	Scandic Hotel

Wednesday 29th August 2018

08.00	Bus transfer from Scandic Hotel to Naval Museum (walk optional)	
08.30–12.30	Observer's seminar	Naval Museum
	Moderator: Jonas Henriksson, IVL Swedish Environment Research Institute – Session 1 The Exercise – what happened? – Session 2 Exercises as a tool for development – Session 3 Viewpoints from different perspectives and way forward	
12.30–13.30	Lunch	Naval Museum
14.00	End of Official observers program	
14.00	Departure of EU observers	From Naval Museum bus to Copenhagen airport
13.45–15.45	Strategic workshop for oil spill preparedness and response	Naval Museum
15.45	Coffee and ice cream	Naval Museum
19.00	Barbeque mingle	BALEX DELTA Tent

Detailed programme for VIP

Monday 27th August 2018

14.00–	Secretariat open for registration of VIP	Scandic Hotel
17.00–17.45	Informal mingle at Scandic Hotel restaurant. After this, the VIP program is joint with the Observers' program.	Scandic Hotel restaurant
17.45	Bus ride to the Opening Ceremony (walk optional)	Scandic Hotel
18.00–20.00	Opening Ceremony	BALEX DELTA Tent
20.00–22.00	Open ship for all participants	Handelshamnen
21.30 and 22.00	Bus ride back to Scandic Hotel (walk optional)	Stops at First Statt, Clarion and Scandic hotels

Tuesday 28th August 2018

08.35–08.45	Joint walk from Scandic Hotel to Saltå Fiskebrygga (10 min)	
08.45–12.45	Visit to exercise area. Lunch and coffee onboard VIP vessel M/f Tuva	
12.50–13.00	Walk back to Scandic Hotel	
13.00	End of VIP programme	Scandic Hotel

Detailed programme for Sea exercise (Ship captains, crews and visitors observing at vessels)

Monday 27 August 2018

Until 14.00	Arrival of the ships	Handelshamnen
17.00–18.00	Captains meeting	Naval museum (Hörsalen)
17.00–18.00	Open ship, public	Handelshamnen
18.00–20.00	Opening Ceremony (invited guests)	BALEX DELTA Tent
20.00–22.00	Open ship for all participants	Handelshamnen

Tuesday 28 August 2018

08.00–	Response exercise starts with HNS and oil recovery	

Wednesday 29 August 2018

08.00–14.00	Exercise continues with oil recovery and underwater	
14.00	Exercise ends. All units back to harbour	
16.00	Sea and shore debriefing	Naval Museum
19.00	Barbeque mingle for all	BALEX DELTA Tent

Thursday 30 August 2018

09.00–	Rowing competition	Gathering at the BD Tent

Detailed programme for Shore exercise (programme language is Swedish)

Monday 27th August 2018

18.00 – 20.00	Opening Ceremony	BALEX DELTA Tent
20.00 – 22.00	Open ship	Handelshamnen

Tuesday 28th August 2018

08.00	Start of the exercise and presentation of participants	Bryggareberget
08.30 – 09.30	Presenting homework assignment	
09.30 – 10.00	Coffee	
10.00 – 10.30	Lecture on HELCOM (Markus Helavuori)	
10.30 – 12.30	Scenario 1a + 1b Alarm stage + accounting	
12.30 – 13.30	Lunch	
13.30 – 14.00	Lecture on Oil spill advisory unit (Jonas Henriksson)	
14.00 – 15.30	Scenario 2 + presentation	
15.45	Bus transport to demonstration program	Bryggareberget
16.00 – 17.00	Equipment demonstration program: Lecture KFV, display of oil pollution equipment and bird washing	Stumholmen
17.00	Bus transfer back from Stumholmen to Bryggareberget	

Wednesday 29th August 2018

08.00 – 09.45	Scenario 3a + presentation	Bryggareberget
09.45 – 10.15	Coffee	
10.30 – 11.00	Lecture on EU Civil Protection Team (José Almodóvar) and Lecture on MSB Host Nation Support (Kristofer Thelin)	
11.00 – 12.30	Scenario 3b + presentation	
12.30 – 13.30	Lunch	
13.30 – 15.00	Scenario 4a + 4b	
15.00 – 15.30	Scenario 5	
15.30 – 15.50	Lecture by Rescue Service Tanum (Gunnar Ohlén)	Bryggareberget
16.00	Sea and shore debriefing	Naval Museum
19.00	Barbeque mingle	BALEX DELTA Tent

BALEX DELTA 2018 IN NUMBERS

550 people

270 Crew on vessels
140 Observers & visitors
70 Sea & shore exercise participants
30 Command Center in Gothenburg
40 Staff (rough numbers)

32 nationalities

8 international organisations

80 kg of BALEX DELTA T-shirts

20 vessels and aircrafts

40 m^3 of popcorn

Released into the sea during the exercise to simulate floating oil and it's movements.

9 km of boom

BOOM LENGTH
9 km

BALEX DELTA

Baltic *Exercise*

**ALPHA - Synthetic Exercise*
BRAVO - Alarm Exercise
CHARLIE - Equipment Exercise
DELTA - Operational Exercise
ECHO - State-of-the-art Exercise

** These five types of combatting exercises have been agreed upon under the framework of the Helsinki Convention.*

HELCOM BALEX DELTA 2018
– an oil and chemical response exercise in the Baltic Sea –
takes place in Karlskrona, Sweden on 27–30 August.
This operational response exercise is organized by Swedish Coast Guard.

https://balexdelta2018.helcom.fi/

WWW.HELCOM.FI
Baltic Marine Environment Protection Commission

HELCOM was established to protect the marine environment of the Baltic Sea from all sources of pollution through intergovernmental cooperation. The Contracting Parties are Denmark, Estonia, the European Union, Finland, Germany, Latvia, Lithuania, Poland, Russia and Sweden.

HELCOM's vision for the future is a healthy Baltic Sea environment with diverse biological components functioning in balance, resulting in a good ecological status and supporting a wide range of sustainable economic and social activities.